Enclosure A
L-17-359

Davis-Besse Nuclear Power Station Emergency Plan Revision 31,
Effective December 21, 2016

(181 pages follow)

DAVIS-BESSE

NUCLEAR POWER STATION

EMERGENCY PLAN

FOREWORD

In accordance with the conditions of the Nuclear Regulatory Commission operating license for the Davis-Besse Nuclear Power Station, the management of the Company recognizes its responsibility and authority to operate and maintain the Davis-Besse Nuclear Power Station in such a manner as to provide for the safety of the public. The importance of Emergency Preparedness and Response in contributing to this safety as well as contributing to Station reliability is also recognized.

In accordance with this philosophy, this Emergency Plan has been prepared. It establishes the procedures and practices for management control over unplanned or emergency events that may occur at the Davis-Besse Nuclear Power Station.

Revision 30 of the Emergency Plan meets the requirements of 10 CFR 50.54(q). Changes made in Revision 30 of the Emergency Plan do not decrease its effectiveness.

The issuance and control of this Emergency Plan and activities associated with Emergency Response at the Davis-Besse Nuclear Power Station are the responsibility of the Site Vice President, DB Nuclear. Additions, deletions, or modifications to the Emergency Plan shall be approved by the Emergency Response Manager, the Director, Site Performance Improvement, and the Director, DB Site Operations. It is intended that this Emergency Plan and the Emergency Plan Procedures be fully compatible with the applicable requirements for quality assurance set forth in the FENOC Nuclear Assurance Program Manual.

The Emergency Response Manager is hereby assigned the responsibility for emergency preparedness operations with authority as established in this Emergency Plan and outlined above. Day-to-day maintenance and implementation of the Emergency Response Program is the responsibility of the Emergency Response Manager and the Emergency Response Section.

James M. Vitt — Emergency Response Manager — 12-13-16 — Date

Director, Site Performance Improvement — 12/13/16 — Date

CGLaird for Dave Imlay — Director, Site Operations — 12/15/16 — Date

Site Vice President – DB Nuclear — 12/16/16 — Date

Davis-Besse Nuclear Power Station
Emergency Plan
Revision 31

Summary of Plan Changes

The change in Revision 31 was to change section 8.1.1.a to delete the reference to PAT and RWT, but keep the requirement tied to completion prior to granting of unescorted access, with annual completion to maintain unescorted access.

a. All DBNPS staff personnel requiring unescorted access will receive training related to Emergency Response. This training will be completed initially, prior to being granted unescorted access, and annually to maintain unescorted access.

   With regard to Emergency Response, the following objectives have been established:

   1. State the purpose of the Emergency Plan, and associated procedures.
   2. State the classifications of station emergencies.
   3. Recognize the emergency alarms and state the proper response for each.
   4. State the actions required during Emergency Plan implementation.
   5. State the purpose and importance of accountability.
   6. Identify the location of emergency facilities and assembly areas inside the Protected Area and Owner Controlled Area.
   7. Discuss evacuation plans, including identification of evacuation routes.
   8. State the company's policy concerning the release of information to the public and news media regarding an emergency.
   9. State the function of the Prompt Notification System.
   10. Identify the appropriate communication system to be used for reporting emergencies, locating an individual in the Plant, and conducting lengthy discussions.
   11. Identify and discuss operation of the radiation exposure control criteria for personnel during an emergency for the persons who have access to Radiation Restricted Areas.

TABLE OF CONTENTS

TABLE OF CONTENTS

TABLE OF CONTENTS

TABLE OF CONTENTS

TABLE OF CONTENTS

TABLE OF CONTENTS

APPENDICES

Appendix	Title
A	Emergency Plan Procedure and Related Document Index and Cross-Reference
B	Department of Energy Radiological Assistance Program (DOE O 153.1) for FirstEnergy Corporation - Davis-Besse Nuclear Power Station
C	Sample Letters of Agreement
D	Supporting Documents (Under Separate Cover)
E	DBRM-EMER-1500 A, Davis-Besse Nuclear Power Station Emergency Action Level Basis Document
F.	Davis-Besse Nuclear Power Station (DBNPS) ERO On-Shift Staffing Analysis Report

LIST OF TABLES

LIST OF FIGURES

1.0 DEFINITIONS

Listed below are terms and their definitions as used in the Emergency Plan. Defined terms associated with the Emergency Action Levels in Appendix E are shown in ALL UPPER CASE LETTERS.

1.1 Affected Person
Individual who has been physically injured and/or Radiologically exposed to a degree requiring special attention, as a result of an accident (e.g., first aid, or decontamination).

1.2 AFFECTING SAFE SHUTDOWN
Event in progress has adversely affected functions that are necessary to bring the plant to and maintain it in the applicable Hot or Cold Shutdown condition. Plant condition applicability is determined by Technical Specification LCOs in effect.

Example 1: Event causes damage that results in entry into an LCO that requires the plant to be placed in hot shutdown. Hot Shutdown is achievable, but Cold Shutdown is not. This event is not "AFFECTING SAFE SHUTDOWN."

Example 2: Event causes damage that results in entry into an LCO that requires the plant to be placed in cold shutdown. Hot Shutdown is achievable, but Cold Shutdown is not. This event is "AFFECTING SAFE SHUTDOWN."

1.3 ALERT
Events are in progress or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant or a security event that involves probable life threatening risk to site personnel or damage to site equipment because of HOSTILE ACTION. Any releases are expected to be limited to small fractions of the EPA Protective Action Guideline exposure levels.

1.4 Alternate Technical Support Center (ATSC) - An area within the Lindsey Emergency Response Facility, which has the capability to display and transmit plant status information to individuals who are knowledgeable of, and responsible for engineering and management support of reactor operations in the event of an emergency situation.

1.5 Assembly
A process during which personnel report to predetermined locations for the purposes of communication and crowd control. Assembly can occur within the protected area, the OWNER CONTROLLED AREA, or at an offsite location.

1.6 Assessment Actions
Those actions taken during or after the accident to obtain and process information necessary to make decisions to implement specific emergency measures.

1.7 Assessment Facility
A facility utilized for evaluation of instrumentation data, and other information, to assess the scope and severity of an emergency condition.

1.8 Available Personnel
Personnel who have not been assigned specific responsibilities or duties during an emergency situation.

1.9 BOMB
An explosive device suspected of having sufficient force to damage plant systems or structures.

1.10 CIVIL DISTURBANCE
A group of persons violently protesting station operations or activities at the site.

1.11 Company
Licensee as described in the Davis-Besse Nuclear Power Station NRC Operating License No. NPF-3.

1.12 COMPENSATORY INDICATIONS
Plant Process Computer, SPDS, and PI Data (Process Book).

1.13 CONFINEMENT BOUNDARY
The barrier(s) between areas containing radioactive substances and the environment.

1.14 CONTAINMENT CLOSURE
The procedurally defined actions taken to secure primary containment and its associated structures, systems, and components as a functional barrier to fission product release under existing plant conditions.

1.15 Contaminated Area
An area where removable contamination exists at levels in excess of 1000 dpm/100cm^2 beta gamma or 20 dpm/100cm^2 alpha.

1.16 Control Room
The Davis-Besse Nuclear Power Station Control Room, located in the Auxiliary Building on elevation 623', is the area from which the reactor and its auxiliary systems are controlled.

1.17 Controlled Release
Any release of radioactive material from Davis-Besse Nuclear Power Station to the environment, which is planned, deliberate, monitored and regulated.

1.18 Design Basis Accident
The maximum credible accident values that can be anticipated given specific physical parameters and which provides the basis for the design of a component or system.

1.19 Dose Projection
The calculated estimate of a radiation dose to individuals at a given distance from a potential or actual release (usually offsite), determined from the quantity and type of radioactive material released, and the meteorological transport and dispersion parameters.

1.20 Drill
A supervised instruction period aimed at testing, developing, and maintaining skills in a particular operation.

1.21 EMERGENCY ACTION LEVEL (EAL)
A predetermined, site specific, observable threshold for a plant INITIATING CONDITION that places the plant in a given emergency classification level. An EAL can be: an instrument reading; an equipment status indicator; a measurable parameter (onsite or offsite); a discrete, observable event; results of analyses; entry into specific emergency operating procedures; or another phenomenon which, if it occurs, indicates entry into a particular emergency classification level.

1.22 Emergency Operations Facility (EOF)
An area located at 1240 South Main Street, Lindsey, Ohio, which is equipped to facilitate the control and coordination of emergency activities and assessments.

1.23 Emergency Core Cooling System
Engineered safety features system comprised of the Low Pressure Injection, High Pressure Injection, and Core Flood Systems.

1.24 Emergency Operations Center
An offsite location used by State, County and other government agencies and organizations to perform radiological assessment and to coordinate offsite activities.

1.25 Emergency Plan
The document, which describes the Company philosophy and organization for implementing of regulations dealing with a response to a radiological accident at the Davis-Besse Nuclear Power Station.

1.26 Emergency Plan Procedures
Those procedures which implement the Emergency Plan and are maintained by the Emergency Response Section. They include the Emergency Plan Implementing, Off-Normal Occurrence, and Administrative Procedures.

1.27 Emergency Planning Zones
Two zones established around a nuclear power station in which predetermined protective action plans are needed. One zone, with a radius of 10 miles for a Plume Exposure Pathway; and the other, with a radius of 50 miles for an Ingestion Exposure Pathway. In these zones, predetermined Protective Action plans are needed.

1.28 Essential Personnel
Those assigned specific emergency response duties as identified in the Emergency Plan.

1.29 Exclusion Area
The area surrounding the plant in which the licensee has the authority to determine all activities including the exclusion or removal of persons and property. At the Davis-Besse Nuclear Power Station this area corresponds to the site boundary, a distance varying from 720 meters (approximately 1/2 mile) to approximately 1 mile.

1.30 Exercise
An event that tests the integrated capability and a major portion of the basic elements within the Emergency Plan.

1.31 EXPLOSION
A rapid, violent, unconfined combustion or catastrophic failure of pressurized/energized equipment that imparts energy of sufficient force to potentially damage permanent structures, systems, or components.

1.32 EXTORTION
An attempt to cause an action at the station by threat of force.

1.33 FAULTED
In a steam generator, the existence of secondary side leakage that results in an uncontrolled drop in steam generator pressure or the steam generator being completely depressurized.

1.34 FIRE
Combustion characterized by heat and light. Sources of smoke such as slipping drive belts or overheated electrical equipment do not constitute FIRES. Observation of flame is preferred, but is not required if large quantities of smoke and heat are observed.

1.35 Full Participation
When used in conjunction with emergency preparedness exercises for a particular site means appropriate offsite local and State authorities and licensee personnel physically and actively take part in testing their integrated capability to adequately assess and respond to an accident at a commercial nuclear power plant. "Full Participation" includes testing major observable portions of the onsite and offsite emergency plans and mobilization of State, local and licensee personnel and other resources in sufficient numbers to verify the capability to respond to the accident scenario. (10CFR50, Appendix E, IV.F.2.a)

1.36 Functional
A system, subsystem, train, component or device, though degraded in condition or configuration is Functional if it is capable of maintaining respective system parameters within acceptable design limits.

1.37 GENERAL EMERGENCY
Events are in progress or have occurred which involve actual or IMMINENT substantial core degradation or melting with potential for loss of containment integrity or HOSTILE ACTION that result in an actual loss of physical control of the facility. Releases can be reasonably expected to exceed EPA Protective Action Guideline exposure levels offsite for more than the immediate site area.

1.38 High Radiation Area
Any area, accessible to individuals, in which radiation levels could result in an individual receiving in excess of 0.1 rem in one hour at 30 cm from the radiation source or from any surface the radiation penetrates.

1.39 HOSTAGE
A person(s) held as leverage against the station to ensure that demands will be met by the station.

1.40 HOSTILE ACTION
An act toward a nuclear power plant or its personnel that includes the use of violent force to destroy equipment, take HOSTAGES, and/or intimidates the licensee to achieve an end. This includes attack by air, land, or water using guns, explosives, PROJECTILES, vehicles, or other devices used to deliver destructive force. Other acts that satisfy the overall intent may be included. HOSTILE ACTION should not be construed to include acts of civil disobedience or felonious acts that are not part of a concerted attack on the nuclear power plant. Non-terrorism-based EALs should be used to address such activities (i.e., this may include violent acts between individuals in the OWNER CONTROLLED AREA).

1.41 HOSTILE FORCE
One or more individuals who are engaged in a determined assault, overtly or by stealth and deception, equipped with suitable weapons capable of killing, maiming, or causing destruction.

1.42 IMMINENT
Mitigation actions have been ineffective, additional actions are not expected to be successful, and trended information indicates that the event or condition will occur. Where IMMINENT timeframes are specified, they shall apply.

1.43 INDEPENDENT FUEL STORAGE INSTALLATION (ISFSI)
A complex that is designed and constructed for the interim storage of spent nuclear fuel and other radioactive materials associated with spent fuel storage.

1.44 Ingestion Exposure Pathway
The means by which contaminated water or foodstuffs can expose the Population At Risk to radiation. The time of potential exposure could range from hours to months. The principal exposure sources from this pathway are:
- Ingestion of contaminated drinking supplies, such as water or milk,
- Ingestion of contaminated food, such as fresh vegetables or aquatic foodstuffs.

1.45 INITIATING CONDITION (IC)
One of a predetermined subset of nuclear power plant conditions where either the potential exists for a radiological emergency, or such an emergency has occurred.

1.46 International Great Lakes Datum
A place of reference datum set up for use on the Great Lakes. This datum refers to the mean water level at Father Point, Quebec as established in 1955. In 1985, the reference datum was revised upward by 0.57 feet.

1.47 INTRUSION / INTRUDER
A person(s) present in a specified area without authorization. Discovery of a bomb in a specified area is indication of intrusion into that area by a HOSTILE FORCE.

1.48 Joint Information Center
A location for coordinating news statements and providing joint briefings to the news media during an emergency. It provides a central point for information to be disseminated to the public by the utility, and federal, state and local officials.

1.49 Loss
A state of inoperability in which Functional and Operable status cannot be maintained.

1.50 Low Population Zone
The unrestricted area outside the OWNER CONTROLLED AREA, encompassed within a radius of 2 miles (approximately 3200 meters) from the site.

1.51 Mitigative Actions
Emergency measures taken to mitigate or terminate a potential or uncontrolled release of radioactive material or to minimize the consequences of such a release (e.g., shutting down equipment, fighting fire, repair, or damage control).

1.52 Modes of Discharge
Discharge of radioactivity to the ground surface, surface water, atmosphere, or any combination thereof.

1.53 News Statement
A detailed statement in printed format intended for public knowledge containing an announcement, supporting information, and usually some background information.

1.54 Non-essential Personnel
Personnel who are not pre-assigned specific emergency response duties.

1.55 NORMAL LEVELS
The highest reading in the past twenty-four hours excluding the current peak value.

1.56 NORMAL PLANT OPERATIONS
Activities at the plant site associated with routine testing, maintenance, or equipment operations, in accordance with normal operating or administrative procedures. Entry into abnormal or emergency operating procedures, or deviation from normal security or radiological controls posture, is a departure from NORMAL PLANT OPERATIONS.

1.57 Nuclear Group
The functional area of the Company which operates and maintains all nuclear generating facilities owned by or licensed to the Company.

1.58 Offsite
Any area outside the OWNER CONTROLLED AREA.

1.59 Onsite
The area within the OWNER CONTROLLED AREA.

1.60 Operable/Operability
A system, subsystem, train, component or device shall be Operable or have Operability when it is capable of performing its specified function(s). Implicit in this definition shall be the assumption that all necessary attendant instrumentation, controls, normal and emergency electric power sources, cooling or seal water, lubrication or other auxiliary equipment that are required for the system, subsystem, train, component or device to perform its function(s), are also capable of performing their related support function(s).

1.61 Operations Support Center
A location within the PROTECTED AREA where emergency response teams are assembled, briefed and coordinated during an emergency.

1.62 OWNER CONTROLLED AREA (OCA)
The property associated with the station and owned by the company. Access is normally limited to persons entering for official business.

1.63 Partial Participation
When used in conjunction with emergency preparedness exercises for a particular site means appropriate offsite authorities shall actively take part in the exercise sufficient to test direction and control functions, i.e., a) protective action decision making related to emergency action levels, and b) communication capabilities among affected State and local authorities and the licensee. (10CFR50, Appendix E, IV.F.2.c)

1.64 Personnel Dosimetry
Devices designed to be worn or carried by an individual for the purpose of measuring the radiation dose received [e.g., pocket dosimeters, electronic alarming dosimeters (EADs), thermoluminescent dosimeters (TLDs), etc.].

1.65 Plume Exposure Pathway
The means by which a radioactive cloud (plume) can expose the Population At Risk to radiation. The time of potential exposure could range from hours to days. The principal exposure sources for this pathway are:

- Whole body external exposure to gamma radiation from the radioactive plume and from deposited material,
- Inhalation exposure from the passing radioactive plume.

1.66 Population At Risk
Those persons for whom Protective Actions are being or would be taken.

1.67 Projected Exposure Time
The estimated period of time that the population in the area surrounding Davis-Besse Nuclear Power Station may be exposed to radiation as a result of an uncontrolled airborne release. Projected Exposure Time starts when the airborne release is estimated to cross the OWNER CONTROLLED AREA, and ends when the radiation levels offsite are expected to return to normal.

1.68 PROJECTILE
An object directed toward a nuclear power plant that could cause concern for its continued operability, reliability, or personnel safety.

1.69 PROTECTED AREA
An area that normally encompasses all controlled areas within the security protected area fence.

1.70 Protective Actions
Those emergency measures taken after an uncontrolled release has occurred, for the

purpose of preventing or minimizing radiological dose to persons that would likely be exposed if the actions were not taken.

1.71 Protective Action Guide
A projected radiological dose or dose commitment value to individuals in the general population that warrants protective action.

1.72 Public Information Hotline
A telephone number provided to the public which is available to answer specific questions regarding an emergency. Public Information Hotlines are maintained by the Davis-Besse Nuclear Power Station, the State of Ohio, and both Ottawa and Lucas Counties.

1.73 Radiation Area (RA)
Any area accessible to individuals in which radiation levels could result in an individual receiving a dose equivalent in excess of 0.005 rem in 1 hour at 30 cm from the radiation source or from any surface the radiation penetrates.

1.74 Radiation Work Permit
A document which gives radiation protection requirements, authorization to enter the radiologically controlled area, and permission to receive radiation dose.

1.75 Radiologically Controlled Area (RCA)
Any area to which access is limited by the licensee for the purpose of protecting individuals against undue risks from exposure to radiation and radioactive materials.

1.76 Radiological Testing Laboratory
A facility near the Technical Support Center in the Davis-Besse Administration Building which serves as a staging location for Radiation Monitoring Teams, and where a limited amount of radiological counting and analysis of low-level environmental samples may be performed.

1.77 Recovery Actions
Those actions taken after an emergency to restore the station as nearly as possible to pre-emergency conditions.

1.78 Release
A radiological release (airborne or liquid) to the outside environment attributable to the emergency event.

1.79 RUPTURED
In a steam generator, existence of primary-to-secondary leakage of a magnitude sufficient to require or cause a reactor trip and safety injection.

1.80 SABOTAGE
Deliberate damage, mis-alignment, or mis-operation of plant equipment with the intent to render the equipment inoperable. Equipment found tampered with or damaged due to malicious mischief may not meet the definition of SABOTAGE until this determination is made by security supervision.

1.81 Safety Parameter Display System (SPDS) – A computer system that acquires and displays plant data. This system provides data to Operator Aids and the Emergency Response Data System (ERDS).

1.82 SECURITY CONDITION
Any Security Event as listed in the approved security contingency plan that constitutes a threat/compromise to site security, threat/risk to site personnel, or a potential degradation to the level of safety of the plant. A SECURITY CONDITION does not involve a HOSTILE ACTION.

1.83 Shift Manager's Office
A facility that is located within the Control Room envelope and is used by the Emergency Assistant Plant Manager during emergency conditions to observe and provide guidance to the Shift Manager for direction and control of in-plant activities.

1.84 SIGNIFICANT TRANSIENT
An unplanned event involving one or more of the following: 1) automatic runback greater than 25% thermal reactor power, 2) electrical load rejection greater than 25% full electrical load, 3) Reactor Trip, 4) Safety Injection Actuation, or 5) thermal power oscillations greater than 10%.

1.85 SITE AREA EMERGENCY
Events are in progress or have occurred which involve actual or likely major failures of plant functions needed for protection of the public or HOSTILE ACTION that result in intentional damage or malicious acts: 1) toward site personnel or equipment that could lead to the likely failure of or; 2) that prevent effective access to equipment needed for the protection of the public. Any releases are not expected to result in exposure levels which exceed EPA Protective Action Guideline exposure levels beyond the site boundary.

1.86 State
The State of Ohio.

1.87 STRIKE ACTION
A work stoppage within the PROTECTED AREA by a body of workers to enforce compliance with demands made on management. The STRIKE ACTION must threaten to interrupt NORMAL PLANT OPERATIONS.

1.88 Technical Support Center (TSC)
An area within the OWNER CONTROLLED AREA, which has the capability to display and transmit plant status information to individuals who are knowledgeable of, and responsible for engineering and management support of reactor operations in the event of an emergency situation.

1.89 Uncontrolled Release
Any release of radioactivity from Davis-Besse Nuclear Power Station to the surrounding environment which can be described by any one or combination of the following terms: unplanned, unintentional, and unregulated.

1.90 UNISOLABLE
A breach or leak that cannot be promptly isolated.

1.91 UNPLANNED
A parameter change or an event, the reasons for which may be known or unknown, that is not the result of an intended evolution and requires corrective or mitigating actions.

1.92 UNUSUAL EVENT
Events are in progress or have occurred which indicate a potential degradation of the level of safety of the plant or indicate a security threat to facility protection has been initiated. No releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety systems occurs.

1.93 VALID
An indication, report, or condition, is considered to be VALID when it is verified by: 1) an instrument channel check, 2) indications on related or redundant indicators, or 3) by direct observation by plant personnel, such that doubt related to the indicator's operability, the condition's existence, or the report's accuracy is removed. Implicit in this definition is the need for timely assessment.

1.94 VISIBLE DAMAGE
Damage to equipment or structure that is readily observable without measurements, testing, or analysis AND is sufficient to cause concern regarding the continued availability or reliability of the affected structure, system, or component. Example damage includes: deformation due to heat or impact, denting, penetration, rupture, cracking and paint blistering. Surface blemishes (e.g., paint chipping, scratches) should not be included.

1.95 VITAL AREAS
Any areas within the PROTECTED AREA that contain equipment, systems, components, or material, the failure, destruction, or release of which could directly or indirectly endanger the public health and safety by exposure to radiation.

1.96 Vital Equipment
Any equipment, system, device and material, the failure, destruction or release of which could directly or indirectly endanger the public health and safety by exposure to radiation. Equipment or systems which would be required to function to protect the public health and safety following such failure, destruction or release are also considered to be vital.

TABLE 1-1
ACRONYMS

AC	Alternating Current
AFW	Auxiliary Feed Water
ATSC	Alternate Technical Support Center
ALARA	As Low As is Reasonably Achievable
APRM	Average Power Range Meter
ARM	Area Radiation Monitor
ATWS	Anticipated Transient Without Scram
B&W	Babcock and Wilcox
BWR	Boiling Water Reactor
BWST	Borated Water Storage Tank
CA	Controls Area (in control room)
CAC	Corporate Assistance Center
CAM	Continuous Air Monitor
CANS	Computerized Automated Notification System
CAS	Central Alarm Station
CCW	Component Cooling Water
CDE	Committed Dose Equivalent
CE	Combustion Engineering
CFR	Code of Federal Regulations
CNRB	Company Nuclear Review Board
CRA	Control Rod Assembly
CRM	Containment Radiation Monitor
CSF	Critical Safety Function
CSFST	Critical Safety Function Status Tree
CTMT/CNMT	Containment
CTRM	Control Room
cpm	counts per minute
DADS	Data Acquisition and Display System
DBAB	Davis-Besse Administration Building
DBABA	Davis-Besse Administration Building Annex
DBNPS	Davis-Besse Nuclear Power Station
DBTC	Davis-Besse Training Center
DC	Direct Current
DFSF	Dry Fuel Storage Facility
DHR	Decay Heat Removal
DOE	Department of Energy
DOT	Department of Transportation
DPM	Decades Per Minute
dpm	disintegration's per minute
E&C	Electrical and Controls
EAL	Emergency Action Level
EAS	Emergency Alert System
ECCS	Emergency Core Cooling System
ECL	Emergency Classification Level
ED	Emergency Director

TABLE 1-1
ACRONYMS

EEC	Energy Education Center
EMA	Emergency Management Agency
ENS	Emergency Notification System (NRC "red phone")
EOC	Emergency Operations Center
EOF	Emergency Operations Facility
EOP	Emergency Operating Procedure
EPA	Environmental Protection Agency
EPG	Emergency Procedure Guideline
EPIP	Emergency Plan Implementing Procedure
EPRI	Electric Power Research Institute
EPZ	Emergency Planning Zone
ERG	Emergency Response Guideline
ERO	Emergency Response Organization
ESF	Engineered Safety Feature
ESW	Emergency Service Water
FAA	Federal Aviation Administration
FBI	Federal Bureau of Investigation
FE	FirstEnergy Corporation
FEMA	Federal Emergency Management Agency
FENOC	FirstEnergy Nuclear Operating Company
FSAR	Final Safety Analysis Report
GE	General Emergency
HPI	High Pressure Injection
HPCI	High Pressure Coolant Injection
HPSI	High Pressure Safety Injection
HPN	Health Physics Network
IC	Initiating Condition
I&C	Instrument and Control
IGLD	International Great Lakes Datum
IPEEE	Individual Plant Examination of External Events (Generic Letter 88-20)
ISFSI	Independent Spent Fuel Storage Installation
ITS	Improved Technical Specifications
JIC	Joint Information Center
Keff	Effective Neutron Multiplication Factor
LCEMA	Lucas County Emergency Management Agency
LCO	Limiting Conditions for Operation
LDE	Lens Dose Equivalent
LER	Licensee Event Report
LOCA	Loss of Coolant Accident
LPI	Low Pressure Injection
LPSI	Low Pressure Safety Injection
LPZ	Low Population Zone
LWR	Light Water Reactor
MFW	Main Feed Water (pump)
mR	milliRoentgen
MSIV	Main Steam Isolation Valve

TABLE 1-1
ACRONYMS

MSL	Main Steam Line
MSSV	Main Steam Safety Valve
MU	Makeup
MU-HPI	Makeup High Pressure Injection
MW	Megawatt
MWe	Megawatt electric
MWt	Megawatt thermal
NEI	Nuclear Energy Institute
NESP	National Environmental Studies Project
NOAA	National Oceanographic and Atmospheric Administration
NORAD	North American Aerospace Defense Command
NOUE	Notification Of Unusual Event
NPP	Nuclear Power Plant
NRC	Nuclear Regulatory Commission
NSSS	Nuclear Steam Supply System
NUMARC	Nuclear Management and Resources Council
OBE	Operating Basis Earthquake
OCA	Owner Controlled Area
OCEMA	Ottawa County Emergency Management Agency
ODCM/ODAM	Offsite Dose Calculation (Assessment) Manual
OEMA	Ohio Emergency Management Agency
ORO	Offsite Response Organization
OSHP	Ohio State Highway Patrol
OSC	Operations Support Center
OTSG/SG	Steam Generator
PA	Protected Area
PAF	Primary Access Facility
PAG	Protective Action Guide
PASS	Post Accident Sampling System (see ARCSS)
PNS	Prompt Notification System (siren system)
POAH	Point of Adding Heat
PORV	Power Operated Relief Valve
PRA/PSA	Probabilistic Risk Assessment / Probabilistic Safety Assessment
PWR	Pressurized Water Reactor
PSIG	Pounds per Square Inch Gauge
R	Roentgen
RCA	Radiologically Controlled Area
RCC	Reactor Control Console
RCDT	Reactor Coolant Drain Tank
RCIC	Reactor Core Isolation Cooling
RCS	Reactor Coolant System
REM	Roentgen Equivalent Man
REMP	Radiological Environmental Monitoring Program
RETS	Radiological Effluent Technical Specifications
RMT	Radiation Monitoring Team
RP	Radiation Protection

TABLE 1-1
ACRONYMS

RPS	Reactor Protection System
RPV	Reactor Pressure Vessel
RO	Reactor Operator
RTL	Radiological Testing Lab
RVLIS	Reactor Vessel Level Indicating System
RWCU	Reactor Water Cleanup
RWP	Radiation Work Permit
SAM	Severe Accident Management
SAS	Secondary Alarm Station
SBGTS	Stand-By Gas Treatment System
SBO	Station Blackout
SCBA	Self-Contained Breathing Apparatus
SDE	Shallow Dose Equivalent
SG	Steam Generator
SI	Safety Injection
SPDS	Safety Parameter Display System
SRO	Senior Reactor Operator
SSE	Safe Shutdown Earthquake
STA	Shift Technical Advisor
TEDE	Total Effective Dose Equivalent
TOAF	Top of Active Fuel
TRM	Technical Requirements Manual
TSC	Technical Support Center
VPF	Visitor Processing Facility
UE	Unusual Event
USAR	Updated Safety Analysis Report
VDC	Volts DC
WE	Westinghouse Electric
WOG	Westinghouse Owners Group

TABLE 1-2

COMMUNICATIONS TEST FREQUENCIES

Monthly - At least once per calendar month

Quarterly – At least once per 92 days

Semi-annual – At least once per 6 months

Annual – At least once per 12 months

2.0 SCOPE AND APPLICABILITY

The Davis-Besse Nuclear Power Station Emergency Plan has been developed to provide a description of the station's response during emergencies. The description includes organizational control, equipment, supplies, facilities, and protective actions that may be used in mitigating the consequences of an emergency. Emergency Preparedness exists to provide direction for emergencies varying in severity from relatively minor ones with no health and safety implications to events presenting an actual or potential offsite radiological hazard.

This Emergency Plan is a detailed expansion of the Updated Safety Analysis Report, Section 13.3. It is intended to satisfy the requirements of Title 10 Code of Federal Regulations, Section 50, Appendix E, Emergency Planning and Preparedness for Production and Utilization Facilities.

Furthermore, this document satisfies the requirements of NUREG 0654/FEMA REP. 1, Rev. 1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants.

This Emergency Plan is not the primary working document to be used during an emergency. The purpose of the Emergency Plan is to describe the program established at DBNPS to satisfy regulatory requirements and to safeguard the public and plant personnel in the event of an emergency.

2.1 Site Description

The DBNPS is located on the southwestern shore of Lake Erie in Ottawa County, Ohio, approximately six (6) miles northeast of Oak Harbor, Ohio.

DBNPS employs a pressurized light water reactor steam supply system furnished by the Babcock & Wilcox Co. (now AREVA NP) to generate approximately 930 MWe. The reactor design core power is 2817 MWt.

The Station encompasses 954 acres, of which more than 700 acres is marsh land. A portion of the marsh land is leased to the U.S. Government as a natural wildlife refuge. The land area surrounding the site is generally agricultural, with no major industry in the vicinity of the site. The topography in the vicinity of DBNPS is flat, with marsh areas bordering the lake and the upland area rising to only 10-15 feet above the lake low water datum level. The site itself varies in elevation from marsh bottom, below Lake Level, to approximately six feet above the lake low water datum level.

The site has been built up from 6 to 14 feet above the existing grade elevation to an elevation of 584 feet International Great Lakes Datum (IGLD). This provides flood protection from the maximum credible water level conditions of Lake Erie. The three sides of the station with exposure to the lake are provided with a dike to an elevation of 591 feet IGLD to protect the facility from wave effects during maximum credible water level conditions.

The Station structures are located approximately in the center of the site, 3000 feet from the shoreline. This provides a minimum exclusion distance of 2400 feet from any point of the site boundary.

Ohio Route 2 approaches the site from the city of Port Clinton, Ohio, to the southeast, and forms the west boundary of the site. At the north boundary of the site, Ohio Route 2 turns west and proceeds towards Oregon and Toledo, Ohio. Four (4) all-weather roads provide access to the site from Ohio Route 2. Figure 2-1 shows the general site location.

Site meteorological data for 2007 indicates that the prevailing winds at 10 meters above ground level are from the south/southwest. The average wind velocity at this level is 9.42 miles per hour (4.21 meters per second). Figure 2-2 shows the average wind distribution.

The primary source of potable water in the area is Lake Erie. The nearest offsite public potable water intake serves Camp Perry, the Erie Industrial Park, and surrounding residences; and is located approximately 2.8 miles from the site. Another potable water intake, which serves residents of Carroll Township, including Davis-Besse, is located approximately four miles west-northwest of the site. The Ottawa County Regional Water System's potable water intake is eight miles east of the site. This system serves Port Clinton, Oak Harbor and the eastern end of Ottawa County. The Toledo and Oregon intakes are 13 miles west of the site. Most of the residents in the vicinity of the site not serviced by the municipal water suppliers, either have their water trucked in, or utilize well water which is periodically tested for potability by local authorities. DBNPS personnel periodically test local water sources for radioactivity.

2.2 Population Distribution

NOTE: The following information regarding population distribution is for historical purposes only. For current population estimates refer to Davis-Besse Nuclear Power Station Development of Evacuation Time Estimates, Final Report Revision 2, which has been prepared in accordance with NUREG 0654/FEMA Rev.-1, Appendix 4.

The near-site population is distributed from the southeast to the west northwest. The total permanent population in the 10-mile area surrounding DBNPS, based on 2010 Census information is 20,403 people. Approximately 89% of these people live 5 to 10 miles from the site. The population varies seasonally due to tourism in the area and the summer home residents. Figures indicating the permanent and seasonal population distribution projections in the 0 to 2 mile, 2 to 10 mile, and 10 to 50 mile radii are included in Davis-Besse Nuclear Power Station Development of Evacuation Time Estimates, Final Report Revision 2, which has been prepared in accordance with NUREG 0654/FEMA Rev.-1, Appendix 4.

The EPZ permanent resident population is reviewed annually. If at any time during the decennial period the EPZ permanent resident population increases such that it causes the longest ETE value for the 2-mile zone or 5- mile zone, including all affected Emergency Response Planning Areas, or for the entire 10-mile EPZ to increase by 25 percent or 30 minutes, whichever is less, from the currently NRC approved or updated ETE, FENOC updates the ETE analysis to reflect the impact of that population increase. The updated ETE analysis is submitted to the NRC under 10 CFR 50.4 no later than 365 days after

FENOC determines the criteria for updating the ETE have been met and at least 180 days before using it to form protective action recommendations and providing it to state and local governmental authorities for use in developing offsite protective action strategies.

The nearest population center of 25,000 or more is Toledo, Ohio, 20 miles west-northwest of the site. Other population centers within a 50-mile radius in excess of 25,000 include Bowling Green (33 miles), Findlay (45 miles), Lorain (46 miles), and Sandusky (20 miles) in Ohio; Allen Park (40 miles), Dearborn (40 miles), Detroit (40 miles), Inkster (40 miles), Lincoln Park (40 miles), Monroe (26 miles), Southgate (40 miles), Westland (40 miles), and Wyandotte (41 miles), in Michigan; and Windsor (50 miles) in Ontario, Canada.

2.3 Emergency Planning Zones

In defining the Emergency Planning Zones (EPZs) for the DBNPS, factors such as organizational capabilities, method of implementing the emergency plan, and the availability of onsite and offsite emergency facilities and equipment have been taken into consideration.

Two primary zones have been identified for development of emergency planning and implementation of the Plan. One zone has a 10-mile radius. This EPZ is referred to as the Plume Exposure Planning Zone. Within this zone, evacuation or sheltering may be recommended for the general public. The principal concern in the 10-mile EPZ is direct exposure from a passing plume and/or inhalation of radionuclides from the plume. This 10-mile EPZ is comprised of part of Ottawa County and part of Lucas County.

The second zone, the Ingestion Exposure Planning Zone, extends to a 50-mile radius. The principal concern in the 50-mile EPZ, or Ingestion Pathway EPZ, is long-term exposure from ingested material. Within the Ingestion Pathway EPZ, close monitoring of water, crops, dairy cows and farm animals may be necessary. It may also be necessary to segregate and/or remove contaminated items from the food chain (e.g., milk, fresh vegetables, etc.). This 50-mile EPZ is comprised of all of Ottawa, Lucas, Wood, Sandusky, Erie, Seneca, Huron, Lorain, Fulton, Henry, Crawford, Hancock, and Wyandot Counties in Ohio; and all of Monroe, Lenawee, Washtenaw and Wayne Counties in Michigan. Essex County and part of Kent County within the province of Ontario, Canada are also contained within this 50-mile Emergency Planning Zone.

Figures 2-3 and 2-4 show the 10-mile and 50-mile EPZs.

2.4 Regulatory Requirements

2.4.1 The Code of Federal Regulations contains requirements for emergency planning in the following sections:

a. 10 CFR 50.34 Contents of applications; technical information.
b. 10 CFR 50.33 Contents of applications; general information.
c. 10 CFR 50.47 Emergency Plans.
d. 10 CFR 50.54 Conditions of Licensee.
e. 10 CFR 50 Appendix E, Emergency Planning and Preparedness for Production and Utilization Facilities.

2.4.2 Supplemental guidance has been provided by the Nuclear Regulatory Commission (NRC) and the Federal Emergency Management Agency (FEMA) in NUREG-0654/FEMA-REP-1, REV. 1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants and in NEI 99-01, Methodology for Development of Emergency Action Levels, Revision 5.

These documents describe methods acceptable for compliance with regulations regarding nuclear power plant emergency plans.

2.5 Objectives of Emergency Response

2.5.1 The objective of the Emergency Response Section is to provide for public protection in the event of an emergency at DBNPS by establishing a well-trained and technically competent emergency organization, and to provide that organization with the necessary facilities, equipment, supplies and communication links.

2.5.2 Objectives of the Emergency Plan

a. To outline the most effective course of action required to safeguard the public and station personnel in an emergency.
b. To establish an emergency organization.
c. To assign responsibilities for directing the response to an emergency condition or radiological incident.
d. To provide for procedures that will limit the consequences of the incident.
e. To provide for procedures that will terminate or mitigate the radiological consequences of an emergency, both onsite and offsite.
f. To control onsite and offsite surveillance activities.
g. To establish procedures to identify and classify the emergency condition.
h. To stipulate the necessity for public protection actions.
i. To establish procedures to implement any protective actions deemed appropriate.
j. To provide for the training of all emergency response personnel.
k. To describe emergency facilities and their use.
l. To describe emergency communication systems and their use.

2.6 Emergency Plan Interrelationships

Interrelationships of this plan with procedures, other plans, and emergency arrangements are summarized as follows:

2.6.1 Detailed actions to be taken by individuals in response to onsite emergency conditions are described in the Emergency Plan Implementing Procedures. These procedures provide the mechanisms for response as outlined in this plan.

2.6.2 The DBNPS Physical Security Plan and Procedures and this plan are coordinated to ensure that appropriate emergency actions can be taken. For example, the Physical Security Plan and Procedures contain provisions for emergency response personnel and vehicle access when required by the Emergency Plan Procedures.

2.6.3 Davis-Besse site contractors/vendors that develop emergency procedures for their personnel are tasked with coordinating their procedures and this plan.

2.6.4 The DBNPS Radiation Protection Administrative Procedures and Radiation Protection Nuclear Operating Procedures define administrative controls and procedures such as radiological control limits and precautions, use of personnel monitoring devices, use of protective clothing and equipment, personnel decontamination, etc. Additionally, Chemistry Procedures and Radiation Protection Procedures provide instructions for conducting surveys, analyzing samples, operating health physics/radiation protection equipment, etc. Information and details provided in these documents have either been incorporated into the Plan and/or Emergency Plan Procedures, or have been appropriately referenced.

2.6.5 The DBNPS has established Off Normal Occurrence Procedures, which discuss generic emergencies such as floods, icing, and severe weather conditions. The methods and equipment developed for such emergencies are available for use in responding to emergencies covered by this plan.

2.6.6 Formal agreements have been negotiated to define the coordination and interface with offsite organizations and agencies having related radiological emergency planning responsibilities. Continuing liaison with the offsite organizations ensures compatibility and proper interfacing with this plan. Refer to Table 2-1, "Functional Interrelationships of Response Organizations", for functional interrelationships of emergency response organizations.

2.6.7 Other offsite organizations, not within the immediate area, may also be requested to offer technical assistance (i.e., Institute of Nuclear Power Operations, AREVA NP, Bechtel, etc.).

2.7 Emergency Plan Procedures, Station Procedures and Fleet Business Practice

Detailed Emergency Plan Procedures direct the implementation of this Emergency Plan. Detailed Station procedures prescribe appropriate courses of action necessary to place the plant in a safe condition and limit the consequences for each classification of incident and/or emergency. Other Emergency Plan Procedures and a Fleet business practice detail maintenance of the Emergency Preparedness Program, Off Normal Occurrence Procedures (i.e. floods, tornadoes, etc.), Fleet emergency response support, and Public Relations. An index of these procedures and Fleet business practices are attached as Appendix A to this plan.

2.8 Participating Governmental Agencies

Participating governmental agencies whose emergency plans are interrelated with this plan for action include the following:

2.8.1 State of Ohio, The Ohio Radiological Emergency Preparedness Plan, which includes the Ohio Radiological Emergency Preparedness (REP) Operations Manual and Ohio Emergency Operations Plan, Emergency Support Function #10, Hazardous Materials, Tab B – REP Incident Response Plan.

2.8.2 Ottawa County, The Ottawa County Radiological Emergency Response Plan

2.8.3 Lucas County, The Lucas County Radiological Emergency Response Plan

2.8.4 Erie County, Radiological Emergency Response Procedures Document

2.8.5 Sandusky County, Radiological Emergency Response Procedures Document

2.8.6 U.S. Department of Energy, Chicago Operations Office, Argonne, IL., Emergency Planning and Preparedness and Response Program

2.8.7 U.S. Nuclear Regulatory Commission, Region III, Lisle, IL

2.8.8 State of Michigan, Michigan Emergency Preparedness Plan

2.8.9 Federal Emergency Management Agency (FEMA) Plan, Region V.

The development of the State and County Plans and the DBNPS Emergency Plan have been closely coordinated. In addition, specific State requirements for reporting of emergencies, providing information and data, recommending protective actions, etc., have been integrated directly into the Emergency Plan Procedures.

Table 2-1
FUNCTIONAL INTERRELATIONSHIPS OF RESPONSE ORGANIZATIONS

RESPONSE FUNCTION	OTHER SUPPORT	LOCAL SUPPORT	STATE SUPPORT	FEDERAL SUPPORT	ENGINEERING SUPPORT	DAVIS-BESSE RESPONSE ORGANIZATION(S)
Plant Operation Control					R	Control Room / Technical Support Center
Engineering Assessment					R	Technical Support Center
Meteorological Data				A		Emergency Operations Facility
Protective Response		A	R	A		Emergency Operations Facility
Command & Control of Emergency Response		R	A			Emergency Operations Facility
Warning		R	A	A		Control Room
Notification & Communication	A	R	A	A		Control Room/EOF
Public Information		R	A	A		Joint Information Center
Accident Assessment				A	R	Technical Support Center
Public Health & Sanitation		A	R	A		Emergency Operations Facility
Social Services		R	A	A		Emergency Operations Facility
Fire & Rescue		R				Control Room
Emergency Medical Services	A	R				Control Room
Traffic Control		R	A			Nuclear Security
Law Enforcement		R	A	A		Nuclear Security
Transportation			R			Emergency Operations Facility
Radiological Exposure Control		A	R	A		Emergency Operations Facility

LEGEND: R=Task Responsibility
A=Task Assistance

LOCAL
Ottawa County EMA
Ottawa County Sheriff
Ottawa County Health Department
Ottawa County Engineer
Carroll Township Fire & EMS
Lucas County EMA
Lucas County Sheriff
Lucas County Health Department
Lucas County Engineer
H.B.Magruder Hospital
Memorial Hospital
Mercy St.Charles Hospital

STATE
Ohio EMA
Ohio Department of Transportation
Ohio EPA
Ohio State Highway Patrol
Ohio National Guard
Ohio Department of Health
Ohio Department of Natural Resources

FEDERAL
US NRC Region III
US DOE
US EPA
FEMA
US Coast Guard
National Weather Service
Federal Radiological Monitoring and Assessment Center

ENGINEERING SUPPORT
Areva, NP
Bechtel Power Corp.

OTHER SUPPORT
American Nuclear Insurers
Nuclear Mutual Limited

Figure 2-1

DBNPS General Site Location

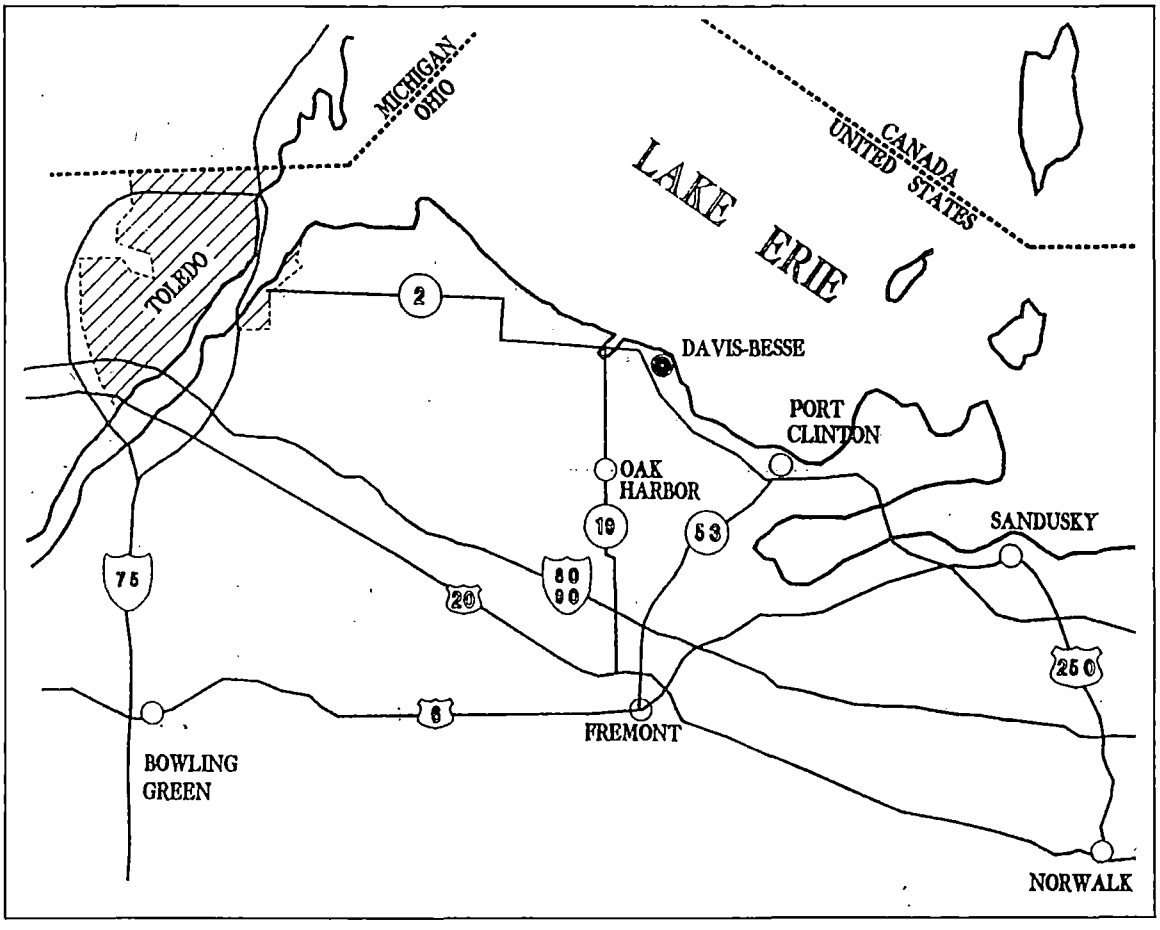


Figure 2-2

DBNPS Site
Annual Wind Distributions
At the 10 Meter Level

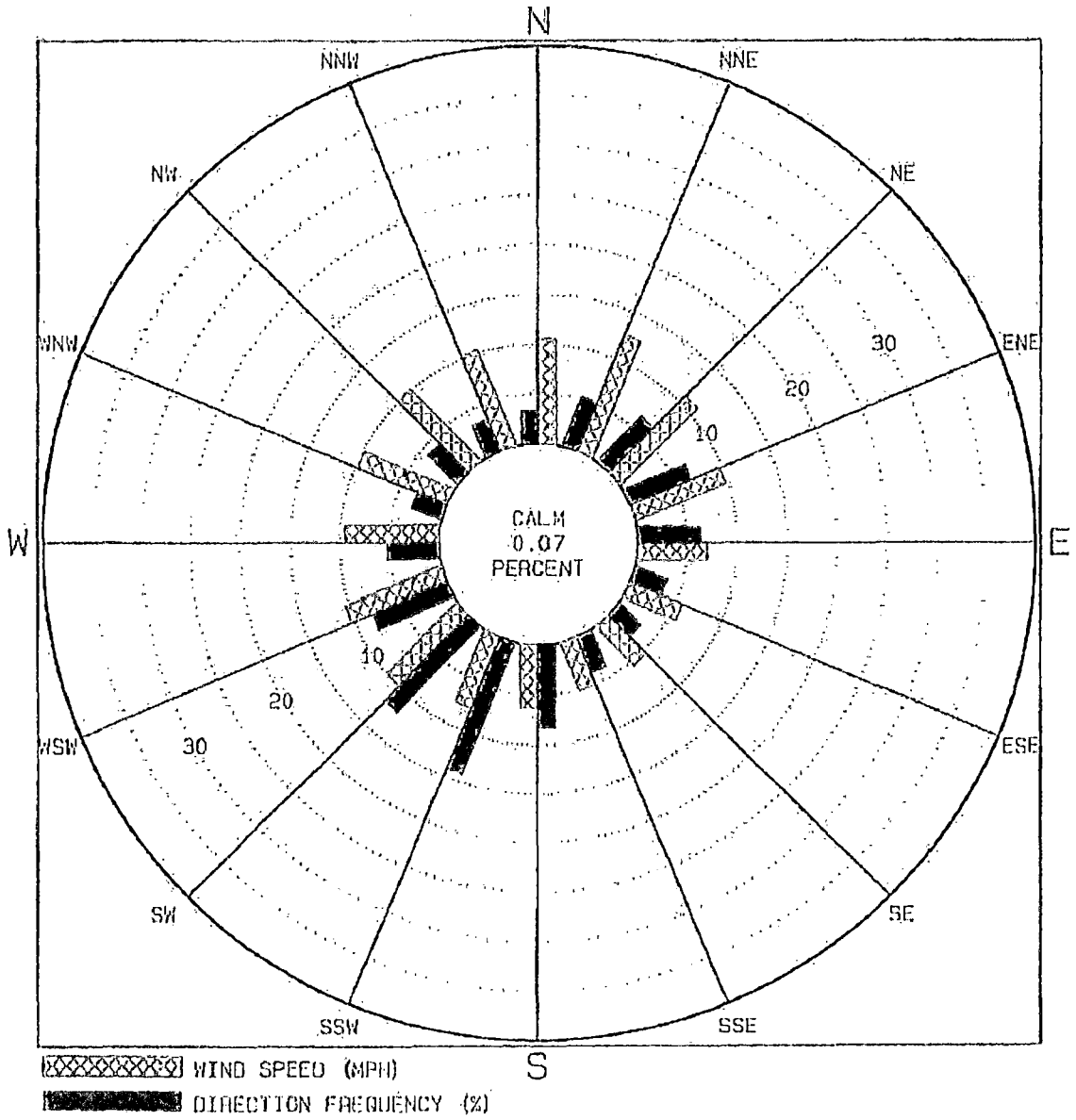


Figure 2-3

DBNPS 10-Mile Emergency Planning Zone

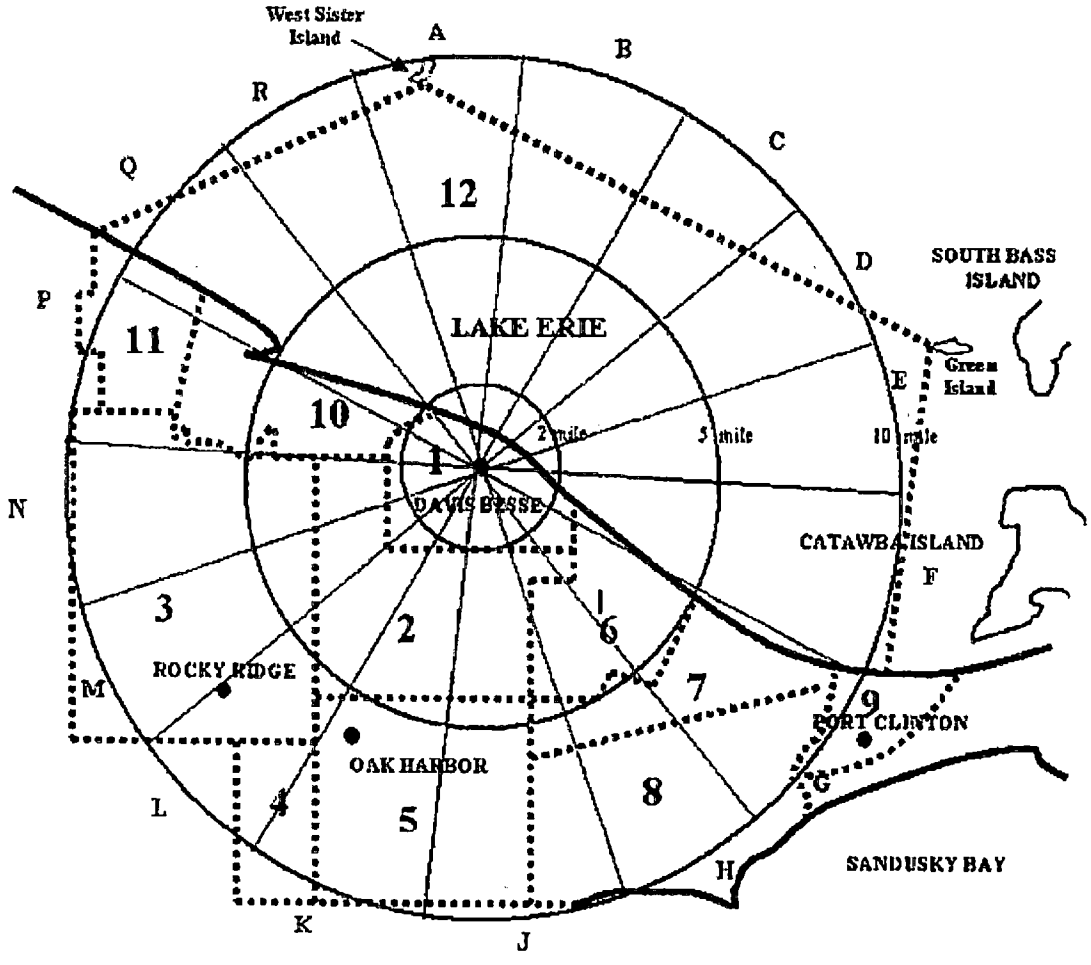
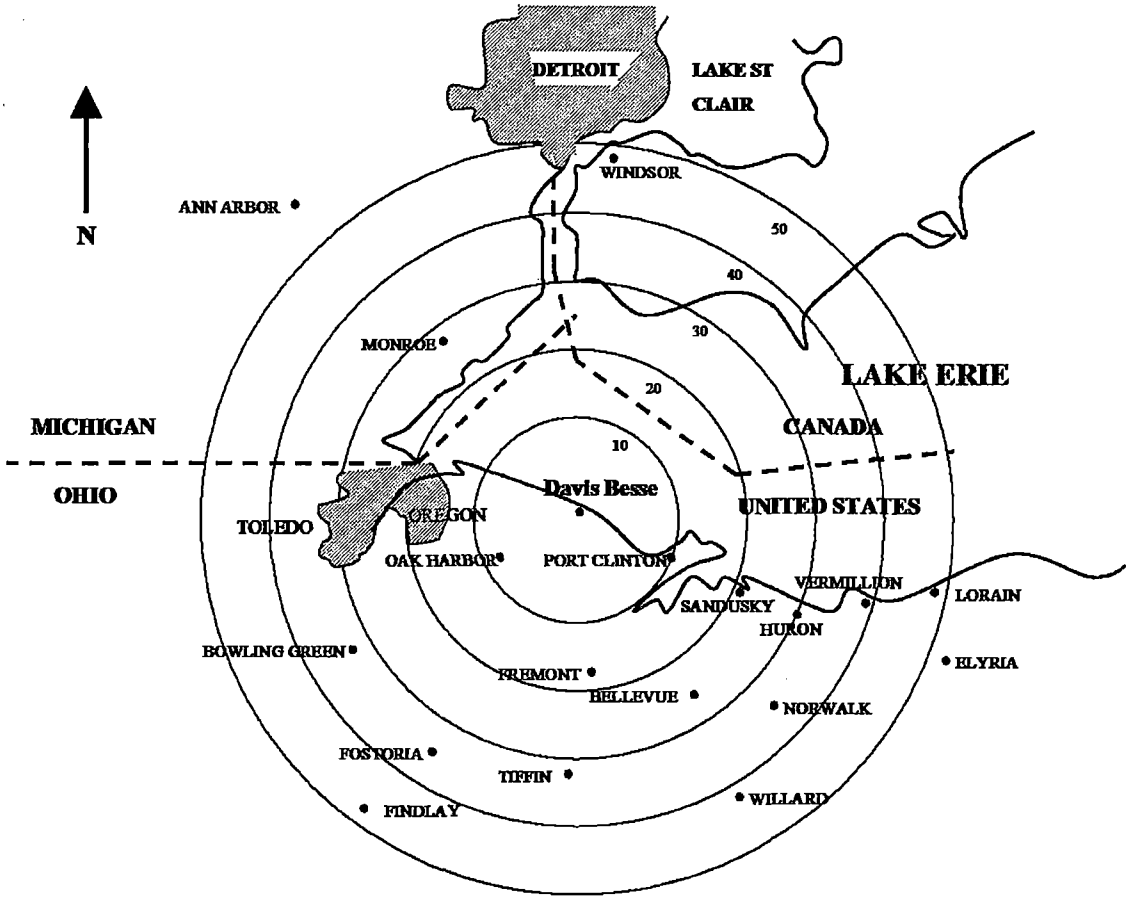


Figure 2-4

DBNPS 50-Mile Emergency Planning Zone



3.0 SUMMARY OF THE EMERGENCY PLAN

The DBNPS Emergency Plan has been established in accordance with the requirements of 10 CFR 50.47 and Appendix E to 10 CFR 50, supplemented by the guidance issued by the Nuclear Regulatory Commission in NUREG-0654/ FEMA-REP-1 and other documents.

The Emergency Plan will be put into effect whenever a radiological emergency or other potentially hazardous situation is identified. The details of the Emergency Plan Procedures are not included herein, but a description of the scope of the procedures demonstrates that appropriate actions can be taken by DBNPS and other support agencies to protect station personnel and the general public during emergencies.

The Emergency Plan establishes the concepts, evaluation and assessment criteria, and protective actions that are necessary in order to mitigate the consequences of radiological emergencies. The plan provides for the necessary prearrangements, directions, and organization needed to safeguard station personnel, and the property and safety of the general public.

3.1 Emergency Plan Steps

In general, the Emergency Plan encompasses the following basic steps:

a) Recognition of the emergency
b) Classification of the emergency
c) Required notifications and activation of the responding organization(s)
d) Ongoing assessment of the situation
e) Periodic dissemination of updated information
f) Determination and initiation of protective actions
g) Determination and initiation of mitigative actions
h) Aid to affected persons
i) Reentry and Recovery

During response to an emergency, several of the steps may be performed concurrently.

3.2 Emergency Organizations

This document establishes an organization capable of responding to the complete range of incidents covered herein.

Provisions are made for rapid mobilization of the response organization and for expanding the response organization if the situation dictates.

An individual with the authority and responsibility to initiate any emergency actions under the provisions of this Emergency Plan, including the release of information to the public/media, is onsite at all times. The Shift Manager assumes this authority by becoming the Emergency Director upon initial classification of an emergency. If the Shift Manager cannot assume these duties, authority is delegated to the Unit Supervisor or Shift Engineer (Shift Technical Advisor) in that order. The Emergency Plant Manager or Emergency Assistant Plant Manager may assume the Emergency Director position upon arrival in the Control Room. The Emergency Plant Manager may also assume the Emergency Director

duties from the Technical Support Center. The designated Emergency Director, upon arrival in the Emergency Operations Facility (EOF) or Technical Support Center (TSC), will assume this authority.

The operating shift crew is responsible for implementing emergency procedures in accordance with assigned response functions. Emergency response functions are also assigned to off-shift plant staff personnel who can be rapidly alerted and mobilized, to augment or relieve the operating shift personnel of emergency duties.

If required, additional support is provided by the Fleet Emergency Response Organization. Fleet emergency response management and their staff may provide technical, administrative, and logistical support to the onsite Emergency Organization. They may authorize emergency expenditures, coordinate the efforts of offsite support organizations, and maintain the flow of information to the public.

In addition, this plan includes the use of offsite agencies and organizations that have signed letters of agreement with the DBNPS. Their designated response functions include implementation of offsite protective actions, transportation and treatment of personnel, control of access to the station, fire fighting support, radiological sampling and assessment, technical consultation, and testing. These offsite agencies and organizations include the following:

3.2.1 State of Ohio

The Ohio Emergency Management Agency (OEMA), Department of Public Safety, State of Ohio, is the lead planning agency for developing state nuclear incident plans for licensed nuclear facilities contiguous to and within the State.

The specific tasks and responsibilities assigned to several departments and agencies of the State of Ohio are specified in the Ohio Radiological Emergency Preparedness Plan and the Ohio Emergency Operations Plan.

The OEMA is notified at the declaration of an emergency via dedicated telephone from the Control Room or EOF. Once notified, the OEMA will implement its Nuclear Incident Accident Call List as specified in the State of Ohio plan.

3.2.2 Ottawa County, Ohio

The lead agency for county-wide emergency planning is the Ottawa County Emergency Management Agency. Responsibilities for various county agencies and organizations are described in Section II, The Ottawa County Radiological Emergency Response Plan.

The Ottawa County EMA is notified at the declaration of an emergency via dedicated telephone in the Control Room or EOF. Once notified, Ottawa County will implement its emergency plan as appropriate.

3.2.3 Lucas County, Ohio

The lead agency for county-wide emergency planning is the Lucas County Emergency Management Agency. Responsibilities for various municipal and county agencies and organizations are delineated in The Lucas County Radiological Emergency Response Plan.

The Lucas County EMA is notified at the declaration of an emergency via dedicated telephone in the Control Room or EOF. Once notified, Lucas County will implement its emergency plan as appropriate.

3.2.4 Erie County, Ohio

The Erie County Emergency Management Agency acts as the lead agency within Erie County for evacuees from Ottawa County. Responsibilities for the individual agencies are contained in the Erie County Radiological Emergency Response Procedures Document.

The Erie County EMA is notified of an emergency by the Ottawa County EMA, and/or the Ottawa County Sheriff. Once notified, Erie County will implement its Standard Operating Procedures as appropriate.

3.2.5 Sandusky County, Ohio

The Sandusky County Emergency Management Agency acts as the lead agency within Sandusky County for evacuees from Ottawa County. Responsibilities for the individual agencies are contained in the Sandusky County Radiological Emergency Response Procedures Document.

The Sandusky County EMA is notified of an emergency by the Ottawa County EMA, and/or the Ottawa County Sheriff. Once notified, Sandusky County will implement its Standard Operating Procedures as appropriate.

3.2.6 State of Michigan

In Michigan, the Emergency Services Branch of the Department of State Police is the lead agency for the preparation, coordination, and implementation of the Michigan Emergency Preparedness Plan. As such, they are prepared to mitigate the effects of an incident at Davis-Besse, which may extend to the State of Michigan through the ingestion exposure pathway (50-mile EPZ).

The Ohio EMA will notify the State of Michigan should the need arise. Michigan, under conditions specified in a letter of agreement with the State of Ohio, will provide necessary emergency response within the State of Michigan.

3.2.7 Federal Agencies

a. U.S. Nuclear Regulatory Commission (NRC), Region III, Lisle, Illinois.
b. U.S. Department of Energy, Chicago Operations Office, Argonne, Illinois.
c. Federal Emergency Management Agency (FEMA), Region V, Main Office - Chicago, Illinois.

3.3 Emergency Categories

Emergencies are grouped into four categories. From least to most severe they are:

3.3.1 UNUSUAL EVENT
3.3.2 ALERT
3.3.3 SITE AREA EMERGENCY
3.3.4 GENERAL EMERGENCY

Section 4.0, Emergency Conditions, contains a more detailed discussion of the categories of emergencies. Table 3-1, depicts participation by onsite and offsite organizations for each category of emergency.

TABLE 3-1

EMERGENCY CATEGORIES AND THE DEGREE OF PARTICIPATION BY VARIOUS GROUPS

Emergency Category	Protective Actions		Necessity for Mitigative Actions[1]	Participation By Various Organizations		
				DBNPS		Offsite Agencies
	Onsite	Offsite		Onsite	Fleet Support	
Unusual Event	Possible	None	Possible	Notification Status[2]	Notification Status	Notification Status
Alert	Possible	Possible	Possible	Action	Standby Status[3]	Standby Status[3]
Site Area Emergency	Required	Possible	Probable	Action	Action	Action
General Emergency	Required	Required	Required	Action	Action	Action

[1]Action might include local fire support, ambulance service, medical assistance, or radiological assessment.

[2]Notification Status: Organization informed of situation onsite.

[3]Standby Status: Organization staffs preplanned centers, establishes communications, and assembles emergency teams, as required.

4.0 EMERGENCY CONDITIONS

4.1 Emergency Classification Levels (ECLs)

The Davis-Besse Nuclear Power Station Emergency Plan emergencies are divided into four Emergency Classification Levels (ECLs): GENERAL EMERGENCY, SITE AREA EMERGENCY, ALERT, and UNUSUAL EVENT.

The ECLs are arranged from most severe to least severe according to relative threat to the health and safety of the public and emergency workers. An ECL is determined to be met by identifying abnormal conditions and then comparing them to INITIATING CONDITIONS (ICs) through EMERGENCY ACTION LEVELS (EAL) and Fission Product Barrier (FPB) threshold values as discussed below. When multiple EALs are met, event declaration is based in the highest ECL reached. Emergency Plan, Section 6.0, Emergency Measures, summarizes the emergency measures to be taken by both the Onsite and corporate emergency response organizations.

4.1.1 GENERAL EMERGENCY

Events are in progress or have occurred which involve actual or IMMINENT substantial core degradation or melting with potential for loss of containment integrity or HOSTILE ACTION that results in an actual loss of physical control of the facility. Releases can be reasonably expected to exceed EPA Protective Action Guideline exposure levels offsite for more than the immediate site area.

4.1.2 SITE AREA EMERGENCY

Events are in progress or have occurred which involve an actual or likely major failures of plant functions needed for protection of the public or HOSTILE ACTION that results in intentional damage or malicious acts: 1) toward site personnel or equipment that could lead to the likely failure of or, 2) that prevent effective access to equipment needed for the protection of the public. Any releases are not expected to result in exposure levels which exceed EPA Protective Action Guideline exposure levels beyond the site boundary.

4.1.3 ALERT

Events are in progress or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant or a security event that involves probable life threatening risk to site personnel or damage to site equipment because of HOSTILE ACTION. Any releases are expected to be limited to small fractions of the EPA Protective Action Guideline exposure levels.

4.1.4 UNUSUAL EVENT

Events are in progress or have occurred which indicate a potential degradation of the level of safety of the plant or indicate a security threat to facility protection has been initiated. No releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety systems occurs.

4.1.5 RECOVERY

Recovery may be entered prior to returning to a normal organization and operation. Recovery provides dedicated resources and organizational structure in support of restoration and communication activities following the termination of the emergency event. Recovery phase is discussed in Section 9.0 of the Emergency Plan.

4.2 EMERGENCY CLASSIFICATION

The Davis-Besse Nuclear Power Station maintains the capability to assess, classify, and declare an emergency condition within 15 minutes of the availability of indications that an EAL has been exceeded. The 15-minute criterion commences when plant instrumentation, plant alarms, computer displays, or incoming verbal reports that correspond to an EAL first become available to any plant operator.

4.3 INITIATING CONDITION (ICs)

The INITIATING CONDITION (IC), EMERGENCY ACTION LEVELS (EALs) and the Fission Product Barrier (FPB) matrix with their related basis information are located in Appendix E of the Emergency Plan. The ICs provide a general description of emergency conditions that are organized beneath the broader categories of the ECLs. The IC can be a continuous, measurable function that is outside Technical Specifications, or encompass events such as FIRES or system/equipment failures.

Each IC is given a unique identification code consisting of two letters and one number. The first letter identifies the recognition category, the second letter identifies the ECL, and the number identifies the sequence of the IC within the recognition category.

4.3.1 Recognition Category Codes

- F designates FISSION PRODUCT BARRIER DEGRADATION
- R designates ABNORMAL RADIOLOGICAL CONDITIONS
- H designates HAZARDS AND OTHER CONDITIONS
- S designates SYSTEM MALFUNCTIONS - HOT
- C designates SYSTEM MALFUNCTIONS - COLD

4.3.2 Emergency Classification Level (ECL) Codes

- G designates GENERAL EMERGENCY
- S designates SITE AREA EMERGENCY
- A designates ALERT
- U designates UNUSUAL EVENT

The specific details on Initiating Conditions and their use are found in RA-EP-01500, Emergency Classification. The basis for the Emergency Action Levels is contained in Appendix E, DBRM-EMER-1500 A, Davis-Besse Emergency Action Levels Basis Document.

4.4 EMERGENCY ACTION LEVELS (EALs) and Fission Product Barriers (FPBs)

EMERGENCY ACTION LEVELS (EALs) are predetermined, site specific, observable conditions within the ICs that place the state of the plant in a given ECL (Reference Emergency Plan, Appendix E).

EALs are individually identified by the IC identification code followed by the EAL number, such as RG1.1 for major effluent release or HA3.2 for high winds.

Fission Product Barriers (FPBs) are given unique character identification codes and are further subdivided into loss and potential loss categories. Since meeting or exceeding one or more FPB can result in various ECLs, the first two letters simply identify the particular barrier by abbreviation. The number in the FPB identification code associates it with a particular FPB recognition category. The FPB identification codes are developed as follows:

4.4.1 Barrier Abbreviation Codes

- FC designates FUEL CLAD
- RC designates REACTOR COOLANT
- CT designates CONTAINMENT

4.4.2 Fission Product Barriers (FPBs) Recognition Categories Codes

- 1 designates CRITICAL SAFETY FUNCTION STATUS
- 2 designates CONTAINMENT RADIATION MONITORING
- 3 designates CORE TEMPERATURE
- 4 designates RPV LEVEL
- 5 designates RCS LEAK RATE
- 6 designates SG TUBE LEAKAGE / RUPTURE
- 7 designates RCS ACTIVITY
- 8 designates CONTAINMENT CONDITIONS
- 9 designates CONTAINMENT ISOLATION
- 10 designates ED JUDGMENT

FPBs are treated the same as EALs in that they exist only as long as the condition(s) for loss or potential loss exist, as opposed to ECLs which once declared, remain in place until termination or recovery.

For EALs that contain time imbedded criterion, the Emergency Director should not wait until the applicable time period has elapsed, but should declare the event as soon as it is determined that the condition will likely exceed the applicable time.

4.4.3 Operating Mode Applicability

For purposes of event classification, the following operating mode applicability definitions establish the conditions when the EAL or FPB thresholds represent a threat:

TABLE 4-1
Operating Mode Applicability

Mode	Reactivity Condition, Keff	% Rated Thermal Power*	Average Coolant Temperature
1) Power Operation	≥ 0.99	> 5%	N/A
2) Startup	≥ 0.99	≤ 5%	N/A
3) Hot Standby	< 0.99	N/A	≥ 280° F
4) Hot Shutdown	< 0.99	N/A	280° F > Tavg > 200° F
5) Cold Shutdown	< 0.99	N/A	≤ 200° F
6) Refueling	One or more vessel head closure bolts less than fully tensioned.		
D) Defueled	All reactor fuel removed from reactor pressure vessel (full core off load during refueling or extended outage).		

* Excluding decay heat.

The Operating Mode Applicability table is based on the Technical Specifications definition of Operational Mode. ICs are based on the operating mode that exists at the time the event occurred, prior to any protective system or operator action initiated in response.

For events that occur in Cold Shutdown or Refueling, escalation is via EALs that have Cold Shutdown or Refueling for mode applicability, even if Hot Shutdown (or a higher mode) is entered during any subsequent heat-up. In particular, the FPB threshold values are applicable only to events that initiate in Hot Shutdown or higher. If there is a change in operating mode following an event declaration, any subsequent events involving EALs outside of the current declaration escalation path will be evaluated on the mode of the plant at the time the subsequent events occur.

4.4.4 Treatment of Multiple Events and Classification Level Upgrading

When multiple simultaneous events occur, the emergency classification level is based on the highest EAL reached. For example, two ALERTS remain in the ALERT category; or, an ALERT and a SITE AREA EMERGENCY is a SITE AREA EMERGENCY.

Although the majority of the EALs provide very specific thresholds, the Emergency Director must remain alert to events or conditions that lead to the conclusion that exceeding the EAL is IMMINENT. If, in the judgment of the Emergency Director, an IMMINENT situation is at hand, the classification should be made as if the threshold has been exceeded. While this is particularly prudent at the higher emergency classification levels (as the early classification may provide for more effective implementation of protective measures), it is nonetheless applicable to all emergency classification levels. Figure 6-1 illustrates the scheme for upgrading emergency classification based on current conditions.

4.4.5 Emergency Classification Level Downgrading

Another important aspect of usable EAL guidance is the consideration of what to do when the risk posed by an emergency is clearly decreasing. A combination approach involving recovery from a GENERAL EMERGENCY and some SITE AREA EMERGENCIES and termination from UNUSUAL EVENTS, ALERTS, and certain SITE AREA EMERGENCIES causing no long term plant damage appears to be the best choice. Downgrading to lower emergency classification levels adds notifications but may have merit under certain circumstances. Figure 6-1 illustrates the options for downgrading or termination of events based on current plant conditions. Recovery phase is discussed in Section 9.2.

4.4.6 Classifying Transient Events

For some events, the condition may be corrected before a declaration has been made. The key consideration in this situation is to determine whether or not further plant damage occurred while the mitigative actions were being taken. In some situations, this can be readily determined, in other situations, further analyses (e.g., coolant radiochemistry sampling) may be necessary. Classify the event as indicated and terminate the emergency once assessment shows that there were no consequences from the event and other termination criteria are met.

Existing guidance for classifying transient events addresses the period of time of event recognition and classification (15 minutes). However, in cases when EAL declaration criteria may be met momentarily during the normal expected response of the plant, declaration requirements should not be considered to be met when the conditions are a part of the designed plant response, or result from appropriate operator actions.

There may be cases in which a plant condition that exceeded an EAL was not recognized at the time of occurrence but is identified well after the condition has occurred (e.g., as a result of routine log or record review), and the condition no longer exists. In these cases, an emergency should not be declared.

Reporting requirements of 10 CFR 50.72 are applicable and the guidance of NUREG-1022, Event Reporting Guidelines, 10 CFR 50.72 and 50.73, should be applied.

5.0 ORGANIZATIONAL CONTROL OF EMERGENCIES

In planning for emergencies the availability of the normally present operating staff, augmented by support from other utility personnel and offsite support agencies, is considered. The initial phase of an emergency at DBNPS will involve a relatively small number of individuals. These individuals will be capable of: (1) determining that an emergency exists, (2) providing initial classification and assessment, (3) promptly notifying other groups and individuals in the emergency organization, and (4) performing actions immediately necessary to protect site personnel and the public. The follow-on phases of an emergency situation may require an increasing augmentation of the emergency organization. In the case of a SITE AREA EMERGENCY or a GENERAL EMERGENCY, this will result in the mobilization of all personnel resources of the Company, under the direction of a Senior Company Officer.

This section of the Emergency Plan addresses the assignment of personnel and the establishment of responsibilities and authority for the:

5.1 DBNPS Organization
5.2 DBNPS Emergency Management
5.3 Onshift Emergency Response Organization
5.4 Onsite Emergency Response Organization
5.5 Near Site Emergency Response Organization
5.6 Joint Information Center (JIC)
5.7 Corporate Assistance Center (CAC)
5.8 Supporting Emergency Organizations

5.1 DBNPS Organization

Daily operating and engineering activities at DBNPS are under the control of the Vice President - Nuclear.

DBNPS has engineering service contracts with the Nuclear Steam Supply System (NSSS) supplier and the Architect-Engineer. Organizational structure and communication arrangements exist to assure that these services are available and can be obtained in a timely manner.

5.1.1 Plant Management and Administrative Organization

The Director, Site Operations directs and supervises all operating, administrative, technical and maintenance activities in connection with the continuous, efficient and safe operation of the DBNPS.

To support the Director, Site Operations, an administrative organization has been established. Responsibilities have been assigned for the various aspects of station operation.

5.1.2 Onshift Operations Group

The Normal Onshift Operations Group at the Davis-Besse Nuclear Power Station maintains the capability at all times to perform the emergency detection, classification, and notification functions required in the early phases of an incident. These capabilities are augmented, as required, by the Onsite Emergency Response Organization and the Fleet Emergency Response Organization.

The Onshift Operations Group conforms with ANSI N18.1, and includes both management and operating personnel. Figure 5-1, Onshift Emergency Organization, shows the functional levels. The Onshift Maintenance Support Organization maintains a 24-hour shift rotation. The shift includes persons from the Mechanical, Electrical, and Instrument and Control Maintenance Sections. These personnel form the initial nucleus staff of the OSC. Other continuous duty, 24 hours-per-day organizations include Plant Operations, Chemistry, Radiation Protection and Security. Additional Maintenance personnel and the various Engineering organizations are onsite during normal work hours, Monday through Friday, excluding holidays.

5.1.3 Normal Plant Shift Staffing

The plant's operating staff meets or exceeds the requirements of Technical Specification 5.2.2 and Technical Requirements Manual 10.2.1. Table 5-1 MANPOWER, LOCATION, AND RESPONSE CONSIDERATIONS FOR EMERGENCIES, A. ONSHIFT MINIMUM STAFFING REQUIREMENTS describes the minimum on shift staffing utilized to support the emergency plan.

In addition, the plant is continuously manned with a minimum shift complement consisting of the following:

1	Chemistry Tester
1	Radiation Protection Technician
5	Fire Brigade Members (may have other assignments)
*	Nuclear Security Force
	*safeguards information

An established duty roster system provides access to plant management 24 hours a day.

Table 5-1 specifies minimum shift requirements as prescribed by NUREG-0654, Table B-1.

The Shift Manager directs the onshift personnel operating the station and verifies that their work is performed according to approved procedures. Ultimate authority for directing all phases of plant operations always lies with the Shift Manager. The Shift Manager becomes the Emergency Director upon classification of an emergency at DBNPS.

A Unit Supervisor, who is assigned to each shift during power modes, assists the Shift Manager by following his directives in supervising employees engaged in controlling the operations of the Nuclear Steam Supply System, Turbine Generator, and other station equipment. During an emergency, the Unit Supervisor

may also direct employees to function as emergency maintenance personnel or to assist fire brigade team members. The Unit Supervisor assumes the role of Shift Manager, including Emergency Director duties, should the Shift Manager become incapacitated.

A Shift Engineer (Shift Technical Advisor) is normally assigned to the shift to relieve the Shift Manager of administrative responsibilities, such as coordination of maintenance schedules, establishment of short term objectives for plant operation and review of documentation. In addition, the Shift Engineer (Shift Technical Advisor) also provides the additional technical and analytical capability needed in the Control Room, during all operating modes except refueling and cold shutdown, to support the diagnosis of off-normal events. If available, the Shift Engineer (Shift Technical Advisor) serves as the technical assistant to the Shift Manager in analyzing and mitigating such events, and may perform dose assessment calculations during emergencies. The Shift Engineer (Shift Technical Advisor) may serve as the Emergency Director if both the Shift Manager and the Unit Supervisor are incapacitated. Under certain circumstances, the Shift Engineer (Shift Technical Advisor) position may be filled by an onshift Senior Reactor Operator assigned another function, such as Shift Manager.

The Security Shift Supervisor is responsible for coordinating the functions of the station security forces, and the operation and testing of security-related equipment. A Security Shift Supervisor will be onsite at all times.

5.2 DBNPS Emergency Management

In the event of a declared ALERT or higher level emergency, the Onsite and Near Site Emergency Response Organization (ERO) shall be activated. The individuals responsible for managing the emergency are the Emergency Director, Emergency Offsite Manager, Emergency Plant Manager and the Company Spokesperson.

5.2.1 Emergency Director

a. The Emergency Director is the senior individual in the onsite ERO responsible for the coordination of the overall response to any emergency at the DBNPS. During such an emergency, the Emergency Director will coordinate and direct the emergency response from the Control Room, or the Emergency Operations Facility (EOF).

The following are non-delegable responsibilities of the Emergency Director:

1. Emergency Classification
2. Offsite Protective Action Recommendation
3. Compliance with station procedures
4. Safety and well being of station personnel
5. Ordering a station general evacuation

Responsibilities that the Emergency Director may delegate to the Emergency Plant Manager only are:

1. Emergency dose authorizations in excess of 10 CFR 20 limits, and
2. Onsite administration of Potassium Iodide (KI).

b. Reporting directly to the Emergency Director are:

1. Emergency Offsite Manager
2. Emergency Plant Manager
3. Company Spokesperson
4. Emergency Director Advisor

c. In the absence of the Emergency Director, one of the following positions will assume the duties and responsibilities of the Emergency Director:

1. Emergency Plant Manager
2. Emergency Assistant Plant Manager
3. Shift Manager
4. Unit Supervisor
5. Shift Engineer (Shift Technical Advisor)

During the initial phase of the emergency, the Shift Manager will be the Emergency Director until relieved by the designated Emergency Director or the Emergency Plant Manager. The Emergency Plant Manager may assume the Emergency Director duties from the TSC, in the absence of the designated Emergency

Director. In the absence of the Emergency Plant Manager and the Emergency Director, the Shift Manager may be relieved by the Emergency Assistant Plant Manager upon arrival in the Control Room. However, to relieve the Shift Manager of the Emergency Director's duties, the Emergency Assistant Plant Manager must be in the Control Room.

5.2.2 Emergency Offsite Manager

The Emergency Offsite Manager reports directly to the Emergency Director. The Emergency Offsite Manager's primary responsibility is the overall operation of the EOF including:

a. Coordination of radiological dose assessment activities and protective action recommendations.

b. Control and coordination of communication and interface with corporate, offsite and regulatory agencies.

c. Tracking parameters associated with EALs for radiological releases.

d. Making recommendations to the Emergency Director concerning appropriate offsite protective actions, and/or changes to the emergency classification level.

e. Interfacing with the Emergency Plant Manager, Company Spokesperson, and regulatory and governmental officials.

5.2.3 Emergency Plant Manager

The Emergency Plant Manager is the senior individual responsible for the coordination and conduct of all activities associated with plant operations, plant assessment, emergency classification associated with plant parameters, and onsite actions taken to mitigate the emergency situation. The Emergency Plant Manager reports to and advises the Emergency Director on plant status and provides recommendations for emergency reclassification based upon technical information and indications recorded in the TSC. The Emergency Director may delegate the responsibilities of authorizing the use of Potassium Iodide onsite, and emergency doses in excess of 10 CFR 20 dose limits, to the Emergency Plant Manager. Once tasked with these responsibilities, the Emergency Plant Manager cannot delegate them.

The Emergency Plant Manager reports directly to the Emergency Director and interfaces with the Emergency Offsite Manager.

5.2.4 Company Spokesperson

The Company Spokesperson is responsible for the overall operation of the Joint Information Center (JIC), conferring with the Emergency Director concerning plant status, reviewing news statements with the Emergency Director, conferring with the JIC Manager concerning media response status, and acting as company spokesperson during media briefings.

The Company Spokesperson is normally located at the JIC during an emergency.

5.2.5 Emergency Director Advisor

The Emergency Director Advisor is responsible for accompanying the Emergency Director during performance of emergency duties; and maintaining an awareness of the present emergency situation, while anticipating possible changes. Personal knowledge of the Emergency Plan and associated procedures enable the Emergency Director Advisor to respond to specific questions, as well as brief the Emergency Director on possible courses of action and required procedural responses.

5.3 Onshift Emergency Response Organization

Onshift Emergency Response Organization personnel are adequately trained to recognize, classify, notify, and take appropriate action to terminate or mitigate any emergency situation at the Davis-Besse Station, and shall do so until relieved by the Onsite Emergency Response Organization. The Onshift Emergency Response Organization is depicted in Figure 5-1. Key positions within the Onshift Emergency Response Organization are briefly outlined below.

5.3.1 Shift Manager

The Shift Manager is responsible for assuming the role of the Emergency Director. The Shift Manager supervises the following activities:

a. The timely assessment of plant status.
b. Recognition and appropriate classification of the given situation.
c. Augmentation of the Onshift Emergency Response Organization, as appropriate.
d. Initial notification of offsite agencies.
e. Termination or mitigation of the emergency situation.
f. Protective action recommendations for the general public and Station personnel.
g. Authorization of emergency radiation doses.

5.3.2 Unit Supervisor

During power operations, the Unit Supervisor is responsible for assisting the Shift Manager in the supervision of Operations personnel.

The Unit Supervisor will immediately assume the duties and authorities of the Shift Manager, including Emergency Director duties, if the Shift Manager becomes incapacitated.

5.3.3 Shift Engineer (Shift Technical Advisor)

During an emergency, the Shift Engineer (Shift Technical Advisor), if available, is primarily responsible for the assessment of reactor thermal dynamics. The Shift Engineer (Shift Technical Advisor) is trained to advise the Shift Manager as to level of emergency classification, and actions necessary to terminate or mitigate the consequences of the given situation.

The Shift Engineer (Shift Technical Advisor) will assume the role of Emergency Director if the Shift Manager and the Unit Supervisor become incapacitated. The Shift Engineer (Shift Technical Advisor) is normally assigned to the onshift operating crew during operational modes 1, 2, 3, and 4. Under certain circumstances, this position may be filled by an onshift SRO assigned another function.

5.3.4 Security Shift Supervisor

The Security Shift Supervisor is responsible for the activities of the Nuclear Security Force in controlling access to the Protected Area, assisting during medical emergencies and conducting accountability, if necessary.

The Security Shift Supervisor reports directly to the Emergency Security Manager and interfaces with the OSC Manager and the OSC RP Coordinator.

5.3.5 Onshift Maintenance Support

During normal power operations, the Onshift Maintenance personnel report to the Shift Engineer. Upon declaration of an emergency, the Onshift Maintenance personnel report directly to the Shift Manager and implement the functions of the OSC until the facility is fully activated by the Onsite Emergency Response Organization. During the initial stages of an emergency, the Onshift Maintenance personnel are responsible for performing Mechanical Maintenance, Electrical Maintenance, and Instrument and Controls Maintenance support functions.

5.4 Onsite Emergency Response Organization

5.4.1 Overview

During an emergency, an Onsite Emergency Response Organization will be activated. The assignment of responsibilities in the Onsite Emergency Response Organization is ultimately the responsibility of the Vice President, Nuclear. However, the Emergency Response Manager is responsible for establishing and maintaining a predefined Onsite Emergency Response Organization. Alternate assignments to various positions are specified to provide for timely, automatic, and unambiguous manning to satisfy emergency response requirements.

In general, the Onsite Emergency Response Organization will be housed in three onsite facilities. These facilities are briefly described below:

a. Control Room

Control Room staff will control the operation of the power plant during both normal and emergency operations.

b. Technical Support Center (TSC)

TSC staff will assess plant conditions, and provide management and technical assistance to the Control Room, as required, to mitigate the effects of the emergency event. The TSC staff will analyze and track parameters relating to the technical EALs, and will advise the Emergency Director of the need to reclassify the emergency.

In the event that the onsite TSC is not accessible TSC personnel will utilize the Alternate TSC at the Lindsey Emergency Response Facility.

c. Operations Support Center (OSC)

OSC staff will provide emergency maintenance and radiation monitoring support, as requested by the Control Room; and provide emergency support, as required, for onsite material acquisition, fire fighting, and first aid.

5.4.2 Direction and Coordination

Procedurally, the Onsite and Near Site Emergency Response Organization is activated when an emergency is classified at the ALERT level or higher. The response times for the various emergency positions within the organization are specified in Table 5-1. The primary function of the Onsite and Near Site Emergency Response Organization is to relieve the Control Room staff of those duties and responsibilities not directly related to the operation of the primary and secondary plant systems.

5.4.3 Control Room

In the Control Room, the Onsite Emergency Response Organization is the same as the Onshift Emergency Response Organization. At the ALERT level or greater, additional operators will be assigned to assist in the OSC, under the direction of the OSC Manager.

5.4.4 Technical Support Center (TSC) Organization

The TSC Organization is composed of individuals housed in two separate and distinct facilities: the Technical Support Center, in the Davis-Besse Administration Building; or Shift Manager's office, which is in the Control Room envelope. Personnel and activities in these facilities are directed by the Emergency Plant Manager.

The following individuals report directly to the Emergency Plant Manager:

a. Emergency Assistant Plant Manager

The Emergency Assistant Plant Manager is the senior Company representative within the Control Room. The Emergency Assistant Plant Manager is responsible for coordination and interface between the TSC emergency organization and the plant. The Emergency Assistant Plant Manager advises the Emergency Plant Manager on plant status and trends, and their potential impact on protective action recommendations and emergency classification.

The Emergency Assistant Plant Manager interfaces with the Emergency Plant Manager, TSC Engineering Manager, Emergency Radiation Protection Manager, and the OSC Manager.

Reporting to the Emergency Assistant Plant Manager is the Shift Manager and the Operations staff, in the Control Room.

b. Emergency Radiation Protection Manager

The Emergency Radiation Protection Manager is located in the TSC and is responsible for ensuring radiological assessment and surveys are conducted within the Protected Area. The Emergency Radiation Protection Manager coordinates plant protective action and health physics support for emergency activities, and interprets data to provide health physics and chemistry input to engineering assessments. The Emergency Radiation Protection Manager interfaces with the Dose Assessment Coordinator to provide data on plant radiological status and trends. In addition, the Emergency Radiation Protection Manager provides recommendations to the Emergency Plant Manager for emergency personnel doses, and the issuance of Potassium Iodide to plant personnel.

The Emergency Radiation Protection Manager interfaces with the TSC Engineering Manager, the Emergency Security Manager, the OSC Manager, the OSC RP Coordinator, the Dose Assessment Coordinator and staff.

c. Technical Support Center (TSC) Engineering Manager

The TSC Engineering Manager is responsible for the coordination and supervision of TSC engineering activities associated with development of emergency procedures to terminate or mitigate the emergency situation. The TSC Engineering Manager ensures that the Technical Support Center is operated with attention to such detail as timely updating, accurate record-keeping, and complete documentation of the event for historical purposes. The TSC Engineering Manager advises the Emergency Plant Manager on information pertinent to emergency classification, from the technical standpoint.

The TSC Engineering Manager interfaces with the Emergency Assistant Plant Manager, OSC Manager and the Emergency Radiation Protection Manager.

Reporting to the TSC Engineering Manager are the TSC Engineering Lead, and the TSC Operations Lead.

d. TSC Engineering Lead

The TSC Engineering Lead is staffed as appropriate, and is responsible for coordinating the TSC Engineers.

The TSC Engineering Lead reports to the TSC Engineering Manager and interfaces with the TSC Operations Lead, and the Emergency Radiation Protection Manager.

Reporting to the TSC Engineering Lead are engineers with expertise in the following disciplines:

1. Core/Thermal Hydraulics
2. Electrical
3. Mechanical
4. Instrument and Control

e. TSC Operations Lead

The TSC Operations Lead is staffed as appropriate, and is responsible for coordinating and supervising the TSC Operations Engineering group. The TSC Operations Lead coordinates engineering tasks assigned to the TSC and Operations Engineering staff.

The TSC Operations Lead reports to the TSC Engineering Manager, and interfaces with the TSC Engineering Lead and the Emergency Radiation Protection Manager.

Reporting to the TSC Operations Lead are personnel with expertise in various aspects of plant operations and computer technology.

f. Emergency Security Manager

The Emergency Security Manager is responsible for the overall direction of the Emergency Security Organization in controlling access to the site, assisting in medical emergencies, and assembly and accountability.

The Emergency Security Manager reports to the Emergency Plant Manager and interfaces with the Emergency Radiation Protection Manager, and the OSC Manager.

g. Emergency Facilities Services Manager

1. The Emergency Facilities Services Manager reports to the Emergency Offsite Manager in the Emergency Operations Facility and is responsible for coordinating with emergency response facility management to ensure the sufficient availability of personnel to support the operations of the DBAB and EOF. This personnel pool includes:

   a) Communicators
   b) Logkeepers
   c) Status Board Keepers
   d) Clerical
   e) Maintenance
   f) Laborers

2. The Emergency Facilities Services Manager is also responsible for the procurement of the following equipment in support of DBAB and EOF operations during an emergency:

   a) Food and sleeping supplies.
   b) Road maintenance, (e.g., snow removal).
   c) Phone service.
   d) Onsite transportation.
   e) Support as requested by the TSC Engineering Manager.

3. The Emergency Facilities Services Manager is also responsible for the operation of DBAB systems such as the emergency ventilation system, the potable water system and the emergency power systems. during emergencies.

h. Owner Controlled Area Security Supervisor

The Owner Controlled Area Security Supervisor is responsible for controlling access to the emergency facilities, and ensuring that all ERO personnel in the DBAB have received emergency dosimetry. The Owner Controlled Area Security Supervisor also directs the action of the security force when controlling access to the Owner Controlled Area (OCA).

The Owner Controlled Area Security Supervisor reports to the Emergency Security Manager.

5.4.5 Operations Support Center (OSC) Organization

a. OSC Manager

The OSC Manager is responsible for the supervision of OSC personnel and their associated activities. The OSC Manager will assess the manpower requirements and technical skill level required by the given emergency situation, and provide for augmentation as appropriate. At a minimum, the OSC Manager will provide personnel to staff the following OSC teams:

1. Emergency Repair
2. Search and Rescue
3. First Aid
4. Fire Brigade

The OSC Manager reports to and interfaces directly with the Emergency Plant Manager and interfaces with the Emergency Assistant Plant Manager and the Emergency Radiation Protection Manager. Reporting to the OSC Manager are the Assistant OSC Manager, the OSC Materials Manager, and the OSC Radiation Protection Coordinator.

b. Assistant OSC Manager

The Assistant OSC Manager reports to and assists the OSC Manager as directed. He is responsible for the OSC personnel pool, and assumes the duties and responsibilities of the OSC Manager in his absence.

c. The OSC Radiation Protection Coordinator

The OSC Radiation Protection Coordinator dispatches RP and Chemistry technicians within the protected area to survey, sample, and analyze various systems and/or areas to determine the emergency radiological conditions. The OSC Radiation Protection Coordinator also provides radiological support for emergency repair teams, the fire brigade, and first aid teams.

The OSC Radiation Protection Coordinator reports to the OSC Manager, and informs and is advised by the Emergency RP Manager.

Reporting to the OSC Radiation Protection Coordinator are all RP and Chemistry testers not specifically assigned other responsibilities within the emergency organization.

d. Rad Data Technician

The Rad Data Technician is an RP technician who obtains area radiation data from the Control Room back panels and transmits it by fax, or verbally by telephone, to the OSC RP Coordinator and Emergency RP Manager.

e. OSC Materials Manager

The OSC Materials Manager is responsible for supervision and coordination of onsite procurement of spare parts and equipment. The OSC Materials Manager is responsible for ensuring the warehouse is staffed to support the given situation.

The OSC Materials Manager reports to the OSC Manager, and interfaces with those components of the emergency organization seeking onsite spare parts or equipment.

Reporting to the OSC Materials Manager are personnel retained from the warehouse staff(s) to support the emergency situation.

f. OSC Pool Personnel

The OSC Pool Personnel will be comprised of Maintenance, RP, Chemistry, and Operations personnel who are not assigned other roles and responsibilities within the emergency response organization. OSC personnel will be trained to staff one or more of the following OSC emergency teams:

1. Emergency Repair
2. Search and Rescue
3. First Aid
4. Fire Brigade

Members of the OSC Personnel Pool report to the Assistant OSC Manager.

g. OSC Systems Engineers

A minimum of three OSC Systems Engineers will be called out to support OSC activities. The disciplines represented will include primary systems, secondary systems, and electrical and controls.

The OSC Systems Engineers will report to the OSC Manager, and interface with the various emergency repair teams, and the TSC engineers.

5.5 Near Site Emergency Response Organization

5.5.1 Overview

During an emergency, a Near Site Emergency Response Organization will be activated at an Alert or higher emergency classification. The assignment of responsibilities in the Near Site Emergency Response Organization is ultimately the responsibility of the Vice President, Nuclear. However, the Emergency Response Manager is responsible for establishing and maintaining a predefined Near Site Emergency Response Organization. Alternate assignments to various positions are specified to provide for timely, automatic, and unambiguous manning to satisfy emergency response requirements.

In general, the Near Site Emergency Response Organization will be housed at the Lindsey Emergency Response Facility. The Lindsey Emergency Response Facility houses the following three facilities:

a. Emergency Operations Facility (EOF)

EOF staff will assess conditions in the Owner Controlled Area and the Plume Exposure Pathway Emergency Planning Zone and provide protective action recommendation to the Emergency Director. The EOF will provided communications between Davis-Besse to external organizations/agencies.

1. Dose Assessment Center

The Dose Assessment Center is located at Lindsey Emergency Response Facility and is responsible for evaluation of conditions in the Owner Controlled Area and the Plume Exposure Pathway Emergency Planning Zone, and making recommendations to the EOF.

2. Radiological Testing Lab (RTL)

The RTL is located onsite in the DBAB and is the primary assembly point for Radiation Monitor Team personnel who evaluate habitability conditions in the Owner Controlled Area and perform radiological surveys in the Plume Exposure Pathway Emergency Planning Zone. Collected field survey information is communicated to the Dose Assessment Center.

b. Alternate Technical Support Center (TSC)

In the event that the onsite TSC is not accessible TSC personnel will utilize the Lindsey Emergency Response Facility and perform those tasks as described in Section 5.4.4.

c. Mustering Point for the Operations Support Center (OSC)

In the event that the station is not accessible, OSC personnel will muster at the Lindsey Emergency Response Facility and standby to support the plant mitigation strategy.

5.5.2 Emergency Operations Facility (EOF) Organization

Under the direction of the Emergency Offsite Manager, the following positions staff the EOF.

a. NRC Liaison

The NRC Liaison is responsible for establishing and maintaining communications with the Nuclear Regulatory Commission (NRC): The NRC Liaison will be present at meetings between the Emergency Response Organization and the NRC.

The NRC Liaison Communicator reports directly to the NRC Liaison.

b. EOF Operations Advisor

The EOF Operations Advisor is responsible for gathering, interpreting, and advising the Emergency Offsite Manager with respect to current or potential plant situations; and for providing key plant parameters to the dose assessment group to support their evaluation efforts.

c. Dose Assessment Coordinator

The Dose Assessment Coordinator has the overall responsibility for evaluation and computation of projected dose rates and doses, for areas outside of the Protected Area.

The Dose Assessment Coordinator interfaces with the EOF Operations Advisor and the Emergency RP Manager.

The following individuals report directly to the Dose Assessment Coordinator:

1. Dose Assessment Staff

The Dose Assessment Staff is responsible for evaluating plant and meteorological parameters associated with a potential or ongoing radiological release. A quantitative evaluation of the collected data is performed by the Dose Assessment Staff and the results are provided to the Dose Assessment Coordinator for review. The Dose Assessment Staff interfaces with the RMT Coordinator and Rad Data Technician.

2. Radiation Monitoring Team (RMT) Coordinator

The RMT Coordinator is responsible for coordinating the activities of the RMTs while they are in the field. Under the direction of the Dose Assessment Coordinator, the RMT Coordinator assesses current and projected meteorological conditions and positions the RMTs to track the radiological release. Data gathered in the field by the RMTs is provided to the Dose Assessment Staff for evaluation. The RMT Coordinator coordinates radiological surveys of the owner-controlled area, contiguous to the DBAB, but outside of the Protected Area.

The RMT Coordinator interfaces with the RTL Coordinator and the Dose Assessment Staff.

Reporting to the RMT Coordinator are the Radiation Monitoring Teams.

3. Radiation Testing Lab (RTL) Coordinator

The RTL Coordinator is located in the RTL and is responsible for:

a) Set up of contamination survey equipment at points of entry and exit to the DBAB emergency complex.
b) Routine habitability surveys of the DBAB.
c) Decontamination of individuals and equipment within the DBAB.
d) Preliminary analyses of environmental samples gathered by the RMTs.

4. Radiation Monitoring Team (RMT)

Each Radiation Monitoring Team is comprised of two individuals who have been trained in radiological and environmental sampling techniques.

The RMT members are responsible for taking air, water and soil samples, performing radiation surveys, and using associated survey equipment.

d. Emergency Planning Advisor

The Emergency Planning Advisor is responsible for the coordination of the Emergency Operations Facility (EOF) physical operating requirements. The Emergency Planning Advisor assesses facility readiness, supervises offsite communication, and provides for around-the-clock staffing during extended emergency situations.

The Emergency Planning Advisor interfaces with the Emergency Facility Services Manager for the procurement of personnel and equipment.

Reporting to the Emergency Planning Advisor are the EOF Communications Staff, EOF Administrative Assistant, and the Log and Status Board Keepers (EOF).

The EOF communications staff is comprised, at a minimum, of two communicators who are responsible for communications with the Ottawa County Emergency Operations Center, the Lucas County Emergency Operations Center, the State of Ohio, and the Corporate Assistance Center (CAC). The EOF Communications staff may be augmented by additional personnel to assist in communications, Nuclear Network transmissions, and operations of support equipment.

e. County and State Technical Liaisons

A technical liaison is dispatched to each of the Ottawa County, Lucas County, and the State Emergency Operations Centers, at the declaration of a Site Area Emergency. The technical liaisons provide interpretation of events that occur at the station. They report to the Emergency Offsite Manager and will communicate with station personnel to obtain information, as necessary, and report offsite activities.

5.6 Joint Information Center (JIC)

The Emergency Public Information staff is activated by call tree notification, and operates the Joint Information Center (JIC). Coordination of the JIC is the responsibility of the JIC Manager, who reports to the Company Spokesperson.

5.7 Corporate Assistance Center (CAC)

The CAC has been established to ensure that the full capabilities and resources of the Company can be effectively utilized to respond to any postulated emergency condition at Davis-Besse. The CAC is staffed by designated personnel who coordinate and provide various technical, logistical, and liaison support services to the Emergency Director. This support could include public relations, engineering, technical assistance, security services, and procurement.

Notification and activation of the CAC will depend upon the classification of the emergency event. At the ALERT level, key CAC members are notified and provide support as necessary. At SITE AREA EMERGENCY and GENERAL EMERGENCY levels, the CAC is activated.

Coordination of the CAC is the responsibility of a Senior ERO Position member located at an unaffected FirstEnergy facility. The Senior ERO Position member oversees the operation of the CAC and ensures that CAC activities are carried out in a manner that supports the requests made by the Emergency Director.

5.8 Supporting Emergency Organizations

5.8.1 Letters of Agreement

Since an emergency may require augmenting the onsite ERO, it may become necessary to request and utilize assistance furnished by local personnel, organizations, and activities.

Since it is essential that support from local law enforcement agencies, fire departments, hospitals, and ambulance services be available on relatively short notice, letters of agreement have been signed with many of these personnel, organizations, agencies and support groups.

Sample letters of agreement are contained in Appendix C.

a. Medical Support Organizations and Personnel

The following medical support organizations and personnel have signed letters of agreement to furnish necessary services upon request:

1. H. B. Magruder Hospital
2. Mercy St. Charles Hospital
3. Carroll Township Emergency Medical Services
4. Promedica Memorial Hospital

b. Fire-Fighting Organizations

The Carroll Township Fire Department will provide fire fighting assistance, as requested by Davis-Besse Nuclear Power Station.

When local fire support is required within the Protected Area, local fire department personnel will function in conjunction with, and under the direction of, the DBNPS Fire Brigade.

5.8.2 Medical Emergency Response Organization

a. Medical support for the DBNPS is a three-tiered system consisting of:

1. First Aid and evaluation at the station.
2. Emergency treatment at H. B. Magruder Hospital, Port Clinton, Ohio; Mercy St. Charles Hospital, Oregon, Ohio; or Promedica Memorial Hospital, Fremont, Ohio (noncontaminated injuries may receive routine medical treatment at other area hospitals).
3. Consultative or direct medical and radiological assistance is provided by the radiological emergency assistance provider.

b. Emergency Medical Responsibilities

1. Director, Site Operations:

The Director, Site Operations is notified in all cases of serious personnel injury or illness.

2. First Aid Teams:

First Aid Teams consisting of station personnel have been established along with a continuous training program. These teams provide first aid for both radiation and nonradiation injuries in a manner outlined below:

a) Injuries Involving Radiological Complications:

1) Injured personnel, whose injuries are known or suspected to have been complicated by excessive internal or external exposure to radioactive materials or ionizing radiation, shall be given first aid and shall be medically evacuated to the hospital for further treatment if their injuries warrant. Decontamination and treatment of excessive dose will be rendered on a second priority basis.

2) First Aid Team members will work with Radiation Protection personnel to ensure radioactive contamination is removed or contained as much as possible prior to the patient's medical treatment if the injuries allow.

b) Non-Radiological Injuries:

1) Any injury requiring medical assistance at DBNPS shall be given first aid by the First Aid Team.
2) A minor injury is an injury that can be treated by the First Aid Team.
3) Major injuries are injuries that require offsite assistance, in addition to treatment by the First Aid Team.

3. Radiation Protection Personnel:

a) Shall respond to injuries involving radioactive contamination and shall control radiological aspects of the scene as much as possible.

b) Shall remove or contain the injured person's contamination as much as possible prior to medical treatment or transportation if injuries allow.

c) Shall accompany the potentially contaminated injured person(s) to the hospital and render assistance to the attending physicians as required.

d) Shall provide the attending physicians with prompt evaluations of the internal and/or external doses incurred

by injured personnel. The services of the radiological emergency assistance provider are available for assistance in this matter.

4. Davis-Besse Security:

Shall notify the appropriate hospital as soon as it is suspected that a potentially contaminated injured person may be sent to H.B. Magruder Hospital, Mercy St. Charles Hospital or Promedica Memorial Hospital, so that they may prepare their Radiation Emergency Area.

5. Ambulance Service:

Carroll Township Emergency Medical Services (EMS), located four (4) miles from DBNPS, has agreed to provide ambulance service to DBNPS. Backup ambulance service is provided in accordance with the Ottawa County Mutual Aid Agreement, which all EMS services in the county have signed.

All personnel involved with this service have received extensive first aid training and have been certified by the Ohio Department of Education as Emergency Medical Technicians (EMT). Periodic training is given to the members of the Carroll Township Emergency Medical Services (EMS) and Mid-County EMS at which time discussions are held on the handling of contaminated injured personnel and standard health physics practices.

6. Radiological Emergency Assistance Provider:

In the event of radiation/medical emergencies, the Radiological Emergency Assistance Provider will provide medical assistance.

The Radiological Emergency Assistance Provider has expertise and is equipped to conduct:

a) Medical and radiological triage
b) Decontamination procedures and therapies for external contamination and internally deposited radionuclides
c) Diagnostic and prognostic assessments of radiation induced injuries
d) Radiation dose estimates by methods that include cytogenetic analysis, bioassay and invivo counting

c. Over-Exposure/Internal Contamination:

If it is known, or suspected, that an individual has been exposed in excess of the limits specified by 10 CFR 20.1201, an immediate investigation shall be conducted by Radiation Protection personnel,

and such reports or notifications required by 10 CFR20 shall be submitted.

If a dose falls outside the acceptable limits of 10 CFR 20.2202(a)(1), the Director, Site Operations shall immediately obtain medical consultation from the radiological emergency assistance provider. The radiological emergency assistance provider, in turn, will assure that the exposed individual(s) are promptly evaluated and appropriately treated.

5.8.3 Government Agency Support

a. Agreements with Government Agencies

1. Discussions have been held with appropriate government agencies which have emergency preparedness responsibilities. The responsibility for overall management of response to accidental off-site releases of radioactivity resulting from either a nuclear power plant, or a transportation accident, rests with the State of Ohio and local governments. Through the provisions of the Atomic Energy Development and Radiation Control Act, P.L. 1625 (1965), as amended, the following State agencies have prime responsibilities in matters of radiation hazards:

a) Ohio Department of Agriculture
b) Ohio Department of Health
c) Ohio Department of Highway Safety
d) Ohio Department of Natural Resources
e) Ohio Department of Public Safety
f) Ohio Department of Transportation
g) Ohio Emergency Management Agency (OEMA)
h) Ohio Environmental Protection Agency

2. The Emergency Plans for DBNPS, State of Ohio, Ottawa County and Lucas County, have been formulated to provide timely notification and close coordination with these agencies.

3. In the event of a HOSTILE ACTION at the site (including attack by air, land or water using guns, explosives, projectiles, vehicles or other devices to deliver destructive force), the Federal Bureau of Investigation (FBI) will be the lead federal agency to coordinate response to the emergency, as described in the Ohio Radiological Emergency Preparedness Plan and the Ohio Emergency Operations Plan, the Ottawa and Lucas County Radiological Emergency Response Plans, and existing letters of agreement.

4. In addition, arrangements have been made for timely notification of the NRC in an emergency. Emergency support will be provided by the NRC, Region III, Office of Inspection and Enforcement; and the Department of Energy, Chicago Operations Office,

Radiological Assistance Program. Other arrangements include police protection, fire-fighting support, and ambulance support.

b. Criteria for Notification of Government Agencies

1. Federal regulations require timely notification of local and state emergency response agencies. Additionally, notifications are made to the NRC and the Onsite Emergency Response Organization and other key company personnel.

Upon declaration of an emergency, and periodically throughout the emergency, notifications are made to the following:

a) Station Personnel
b) Onsite Emergency Response Personnel and other Key Company Personnel
c) Ottawa County Sheriff's Office or the Ottawa County Emergency Management Agency (OCEMA)
d) Lucas County Sheriff's Office or the Lucas County Emergency Management Agency (LCEMA)
e) Ohio Emergency Management Agency or Ohio Highway Patrol
f) NRC, Emergency Incident Response Center

2. In the event of personnel injury/illness, which require transportation to an offsite medical facility, the Ottawa County Sheriff's Office will be notified so that local authorities may prepare to answer public/media inquiries.

3. Section 6.0 discusses the radiological incident notification order.

4. Notification will take place as soon as the emergency is declared. Notification will normally be in the order noted above. The Shift Manager/ Emergency Director will ensure that the Ottawa and Lucas County Sheriff's Offices, and the State of Ohio, are notified within 15 minutes of the declaration. The NRC will be notified as soon thereafter as possible, but in no case more than one hour after declaration.

5. The Emergency Notification System (ENS) (red phone) will be used for notifying the NRC. In the event that the ENS is unavailable, the NRC commercial number will be used. If radiological concerns arise, the NRC Health Physics Network should be utilized.

c. Local Agencies

1. Ottawa County Sheriff's Office

The Ottawa County Sheriff's Office is experienced in providing area control, communications assistance, and direct handling of the local population; including evacuation, should it become necessary. The Sheriff's Office provides 24-hour radio communication coverage with the Central Alarm Station at DBNPS. Until the OCEMA is activated, the Ottawa County Sheriff's Office is the lead Ottawa County agency contacted in the event of an emergency at DBNPS.

2. Lucas County Sheriff's Office

The Lucas County Sheriff's Office is experienced in providing area control, communications assistance, and direct handling of the local population; including evacuation, should it become necessary. Until the LCEMA is activated, the Lucas County Sheriff's Office is the lead Lucas County agency contacted in the event of an emergency at the site.

3. In the event of a HOSTILE ACTION at the site (including attack by air, land or water using guns, explosives, projectiles, vehicles or other devices to deliver destructive force), local agencies will provide appropriate response to the emergency (including law enforcement, fire, and medical support) as described in the Ohio Radiological Emergency Preparedness Plan and the Ohio Emergency Operations Plan, the Ottawa and Lucas County Radiological Emergency Response Plans, and existing letters of agreement.

d. State of Ohio Agencies

As outlined in the State of Ohio Emergency Plan, the following State Departments/Agencies are prepared for and will respond to radiological incidents involving licensed nuclear facilities:

1. Department of Public Safety will:

a) Act as the lead-planning agency for developing the State of Ohio Nuclear Incident Plans for Licensed Nuclear Facilities.
b) Determine which State agencies should perform specific tasks within their capabilities and ensure assignment of responsibility.
c) Coordinate preparation of annexes by other State agencies having response capability/ responsibility.
d) Assist, if needed, in the preparation of plans by other state agencies and counties. Coordinate agreements in local plans between nuclear power utility operators and the county Radiological Emergency Response Plans for disasters as identified by the Ohio Emergency Management Agency.

e) Establish additional or alternate radiological field monitoring stations, as necessary for data acquisition.
f) Develop notification methods and procedures, which will include communication with the nuclear facility licensee.
g) Coordinate with adjacent states in matters pertaining to radiological emergency planning.
h) Instruct National Guard units located in the vicinity of the nuclear power station to prepare plans to provide access control and other general assistance with local government officials and the licensee.
i) Be prepared to support the evacuation process, with the assistance of the National Guard, for residents near the nuclear site unable to transport themselves.
j) Make provisions for the alerting of boaters on Lake Erie inside the 10-mile EPZ. In coordination with the United States Coast Guard, Ohio Department of Natural Resources and Ohio Department of Transportation make provisions to close the portion of Lake Erie inside the 10 mile EPZ when directed by Ohio EMA.

2. State Department of Agriculture shall:

a) Plan and direct a statewide program for protection against radiological damage to animals, foodstuffs, and crops.
b) Coordinate with the U.S. Department of Agriculture in making estimates of crop and animal damage from radiation incidents.
c) Coordinate with the Department of Jobs and Family Services in matters pertaining to feeding and housing evacuees.
d) Control, through quarantine, isolation, or confiscation, crops and foodstuffs, on the stalk or harvested, that might be contaminated.

3. Ohio Environmental Protection Agency shall:

a) Assist the Ohio Department of Health in establishing protective actions based on projected radiation dose levels, which might result from a nuclear incident. Due consideration will be given to protective action guidelines established by the U.S. Environmental Protection Agency.
b) Provide assistance to the Ohio Department of Health and Ohio Emergency Management Agency in the development of radiological emergency response plans.
c) Cooperate with the Ohio Department of Health in recommending protective measures to mitigate the effects of a nuclear incident.
d) Review emergency contingency plans for all proposed and existing Licensed Nuclear Facilities with either the facility

operators, or sponsors, and the U.S. Nuclear Regulatory Commission.

e) Ensure that an adequate supply of safe, potable water is maintained.

4. Ohio Department of Health shall:

a) Coordinate Department of Health planning for radiation emergencies at licensed nuclear facilities.

b) Provide guidance and support to other State agencies and local health services with regard to the assessment of radiological hazards and protective actions.

c) Formulate protective action guides to be used in the assessment of radiological hazards, which would be used as the basis for protective action decisions.

d) Act as the chief State agency in evaluating the extent of the hazard and recommending protective actions.

e) Make arrangements for emergency medical supplies and health service to the affected areas.

f) Develop plans for:

1) Relocation of hospitalized persons.
2) Utilization of hospitals and other medical facilities during radiation incidents.
3) Assuring environmental sanitation.
4) Stockpiling and distribution of Potassium Iodide (KI)

5. Ohio Department of Highway Safety shall:

a) Develop a system for implementing emergency traffic control measures within areas affected by radiological incidents.

b) The Ohio Highway Patrol shall:

1) Operate the National Warning System (NAWAS) for warning and emergency communication services insofar as it relates to the State Plan.
2) Obtain information about the radiological incident and resultant damage, and report it to the State Emergency Operations Center (EOC).
3) Provide a mobile radiological monitoring capability, consistent with the capabilities and limitations of the equipment, which is provided.
4) Operate, through the statewide Law Enforcement Emergency Radio Network, a notification system for State Highway Patrol Posts to disseminate nuclear incident information to local authorities as required.

6. Ohio Department of Natural Resources shall:

   a) Maintain inventories of primary and secondary sources for water, and prescribe methods of use for such sources, in areas affected by radiological incidents.
   b) Cooperate with the Ohio Department of Job and Family Services in providing for the use of departmental land and facilities as evacuation centers or mass care areas.
   c) Make provisions for the alerting of persons on state property (e.g., campers and vacationers) to possible radiological dangers, and provide for marine emergency access to the Lake Erie Islands, for possible evacuation in cooperation with the Ohio National Guard.
   d) Make available the departments radio communications system for use in the state Emergency Operations Center, if needed.

7. Ohio Department of Transportation (ODOT):

   ODOT supports the Ottawa County Engineer's Office with traffic and access control assistance, impediment removal, and evacuation route maintenance.

   The Division of Aviation will provide air transportation and aerial radiological monitoring in case of an incident at a licensed facility.

e. Federal Agencies

1. Department of Energy (DOE), Chicago Operations Office, Radiological Assistance Program (RAP)

   Upon notification of a hazard to public health and safety, the DOE, Chicago Operations Office, will dispatch a Radiological Assistance Program (RAP) Team to the scene to advise and assist, as necessary, and to minimize the public radiation exposure. This advice and assistance will take the form of technical advice and environmental monitoring assistance, and will support the efforts of the Ohio Emergency Management Agency.

2. U.S. Environmental Protection Agency (USEPA)

   Region V, USEPA, Chicago, will provide support to the DOE, Chicago Operations Office, upon request. This support consist of qualified radiation monitoring teams.

3. Nuclear Regulatory Commission, Region III, Office of Inspection and Enforcement.

   The Office of Inspection and Enforcement Region III, NRC, will dispatch personnel to the scene in the event of an emergency, and will lend support in the areas of observation and accident evaluation.

4. U.S. Coast Guard (USCG)

Upon request, the USCG will broadcast an emergency notice to mariners. In addition, the Ninth District USCG stations will provide available resources (i.e., vessels, aircraft, and personnel) to begin notifying boaters on Lake Erie.

5.8.4 Other Support Organizations

Assistance in response to an emergency is provided to DBNPS by several organizations which specialize in various areas of emergency response, or are structured to provide timely and effective mobilization of resources when the need exists. These organizations are:

a. Institute of Nuclear Power Operations (INPO)

1. One of the roles of INPO is to assist the affected utility in quickly applying resources throughout the nuclear industry to meet the needs of the emergency.

2. INPO, when notified of an emergency situation at a nuclear plant, will provide emergency response as requested. Such situations are equivalent to the ALERT, SITE AREA EMERGENCY and GENERAL EMERGENCY conditions as defined by NRC.

3. INPO is able to provide the following emergency support functions:

a) Assistance in locating sources of emergency manpower and equipment.
b) Analysis of the operational aspects of the incident.
c) Dissemination to member utilities, of information concerning the incident, that is applicable to their operations.
d) Organization of industry experts who could advise the utility on technical matters.

4. To support these functions, INPO maintains the following emergency support capabilities:

a) Twenty-four hour-a-day operation of an Emergency Response Center.
b) Designated INPO representative(s) who can be quickly dispatched to the utility emergency response organization to coordinate INPO support activities and information flow.

5. If requested by DBNPS, one or more suitably qualified members of the INPO technical staff will report to the

Recovery Manager, and will assist his staff in coordinating INPO's response to the emergency as follows:

a) Staff a liaison to the appropriate utility manager.
b) Work with the INPO Duty Person, in Atlanta, to coordinate all requests for assistance, INPO response, and related communications.
c) Assist the utility, as requested, in initiating and updating entries into industry information systems (such as NUCLEAR NETWORK).
d) Ensure that all information concerning the emergency, which is released by the INPO liaison, is properly and formally cleared through appropriate utility channels.

6. The president of INPO will direct an analysis of operational factors relating to the incident.

Onsite activities, when undertaken, will be coordinated with the onsite INPO Representative.

b. Davis-Besse's Insurance Carriers

1. There are three occasions that require interfacing with the insurance carriers:

a) Nuclear Emergencies (Alert, Site Area Emergency, General Emergency).
b) Fire Protection impairment.
c) Accidents involving damage to insured property (e.g., fire, smoke, explosion, sprinkler leakage, damage to property by vehicles, lightning, windstorm, materials handling, losses.)

2. American Nuclear Insurers (ANI) will be notified in accordance with the Emergency Plan Implementing Procedures.

3. In the event of an extraordinary nuclear occurrence (as defined in the Price-Anderson Law), ANI has plans prepared to provide prompt emergency funding to affected members of the public.

4. The provisions of the Price-Anderson Law facilitate providing prompt assistance to members of the public who may be adversely affected in the event of a nuclear incident at an ANI indemnified facility. This arrangement is intended to alleviate the immediate financial burden which may be incurred by members of the public due, for

example, to evacuation and relocation activities initiated as a consequence of the nuclear occurrence.

5. In providing emergency assistance to members of the public, representatives will be promptly dispatched to commence the distribution of emergency assistance funds. Such emergency assistance enables members of the public to cope with and to otherwise defray the reasonable immediate expenses incurred by a nuclear occurrence.

6. Nuclear Electric Insurance Limited is the Station's property damage carrier and is notified of situations requiring their attention by appropriate Station procedures.

c. Nuclear Steam Supply System (NSSS) Vendor and Architect/Engineer Support

The NSSS vendor for the Davis-Besse plant was the Babcock and Wilcox (B&W) Company. Babcock & Wilcox later became B&W Nuclear Technology (BWNT) and is currently known as Areva NP. The Architect/ Engineer (A/E) for construction of the Davis-Besse plant was the Bechtel Power Corporation.

These two firms can be called on during emergency situations to provide the technical analysis and engineering support necessary to mitigate abnormal plant conditions.

d. Bordering Counties and Contiguous States

Davis-Besse notifies Ottawa and Lucas Counties, and the Ohio Emergency Management Agency.

Ottawa County, in turn, notifies Sandusky County, Ohio; and Erie County, Ohio; of the emergency.

The Ohio Emergency Management Agency notifies the State of Michigan of emergencies at Davis-Besse.

TABLE 5-1

MANPOWER, LOCATION, AND RESPONSE CONSIDERATIONS FOR EMERGENCIES
Page 1 of 2

A. ONSHIFT MINIMUM STAFFING REQUIREMENTS

Functional Area	Major Tasks	Emergency Positions	Analysis Shift Staffing
1. Plant Operations and Assessment of Operational Aspects	Control Room Staff	Shift Manager (SRO)	1
		Unit Supervisor (SRO)	1
		Shift Engineer (STA)	1
		Reactor Operator	2
		Non-Licensed Operator (EO3)	1
2. Emergency Direction and Control	Command and Control	Shift Manager	1[(a)]
3. Notification & Communication	Licensee	CAS Operator	1[(a)]
	Local/ State	NLO or above	1[(a)]
	Federal	NLO or above	1[(a)]
4. Radiological Assessment	Dose Assessment	Shift Engineer (STA)	1[(a)]
	In-plant Surveys	RP Technician	1
	Onsite Surveys	RP Technician	1[(a)]
	Chemistry	Chemistry Technician	1
5. Plant System Engineering, Repair, and Mitigative Actions	Technical Support – OPs	Shift Engineer (STA)	1[(a)]
	– Core Damage	Shift Engineer (STA)	1[(a)]
	Repair and Mitigative Actions	Mechanical Repair	1[(a)]
		Electrical Repair	1[(a)]
		I&C Repair	1[(a)]
6. In-Plant PAs	Radiation Protection	RP Technician	2[(a)]
7. Fire Fighting	--	Fire Brigade Captain (RO/EO3)	1
		Fire Brigade Member	4
8. 1st Aid and Rescue	--	NLO	1[(a)]
9. Site Access Control and Accountability	Security & Accountability	Security Shift Supervisor	1
		CAS Operator	1
		Security Personnel	(b)
		TOTAL:	**15**

Notes: Personnel assigned to the shift in excess of the minimum staffing listed above may be assigned to any of the emergency positions in functions 2 through 9 for which they are qualified. Appendix F, Davis-Besse Nuclear Power Station (DBNPS) ERO On-Shift Staffing Analysis Report, documents the minimum shift's ability to implement the emergency plan.

Operations personnel and Chemistry Technicians are qualified on survey instruments.

(a) May be filled by someone filling another position having functional qualifications.

(b) Per DBNPS Physical Security Plan.

TABLE 5-1

MANPOWER, LOCATION, AND RESPONSE CONSIDERATIONS FOR EMERGENCIES
Page 2 of 2

B. AUGMENTED EMERGENCY RESPONSE STAFFING REQUIREMENTS

UNUSUAL EVENT			**ALERT, SITE AREA EMERGENCY, GENERAL EMERGENCY**			
PERSONNEL		TIME	PERSONNEL			TIME
CONTROL ROOM			CONTROL ROOM			
Emergency Assistant Plant Manager	(1)	Alerted	Emergency Assistant Plant Manager		(1)	Normal Hours: 30 minutes Off Hours: 60 minutes
OPERATIONS SUPPORT CENTER			OPERATIONS SUPPORT CENTER			
OSC Manager	(1)	Alerted	OSC Manager		(1)	
OSC RP Coordinator	(1)		OSC RP Coordinator		(1)	Normal Hours: 30 minutes
			Mechanical Maintenance		(2)	
			Instrument & controls		(2)	
			Electrical Maintenance		(2)	
				Add	Total	Off Hours: 60 minutes
			RP Technician	(1)	(2)	
			Chemistry Technician	(0)	(1)	
			RP Technician	(3)	(5)	1-2 hours
			Chemistry Technician	(1)	(2)	
TECHNICAL SUPPORT CENTER			TECHNICAL SUPPORT CENTER			As Required:
TSC Engineering Manager	(1)	Alerted	TSC Engineering Manager		(1)	Normal Hours: 30 minutes Off Hours: 60 minutes
			Core/Thermal Hydraulic Engineer		(1)	
			TSC I&C Engineer		(1)	
			TSC Electrical Engineer		(1)	1-2 hours
			TSC Mechanical Engineer		(1)	
EMERGENCY OPERATIONS FACILITY			EMERGENCY OPERATIONS FACILITY			As Required:
Emergency Director	(1)	Alerted	Emergency Offsite Manager		(1)	Normal Hours: 60 minutes Off Hours: 60 minutes
Emergency Offsite Manager	(1)		Dose Assessment Coordinator		(1)	
			Emergency Planning Advisor		(1)	
			RMTs		(3)	30-60 minutes
			Emergency Director		(1)	
			NRC Liaison		(1)	1-2 hours
			State/County Communicator		(1)	

NOTES: 1. All time requirements are based on optimum response conditions.
2. Figure 5-2, Emergency Response Organization, depicts functional levels beyond these augmented staffing requirements.

FIGURE 5-1

ONSHIFT EMERGENCY ORGANIZATION Page 1 of 1

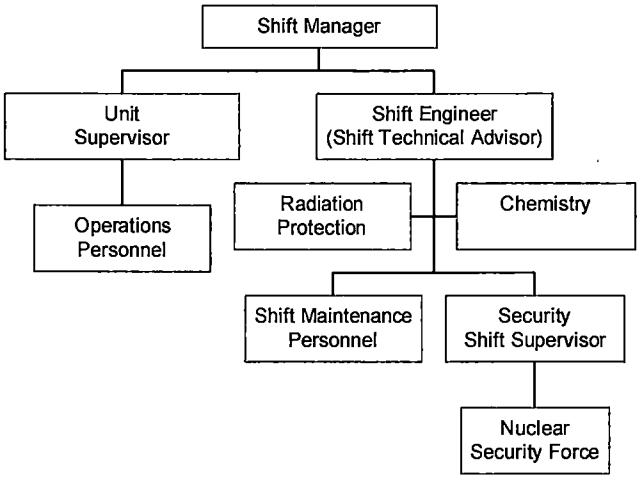
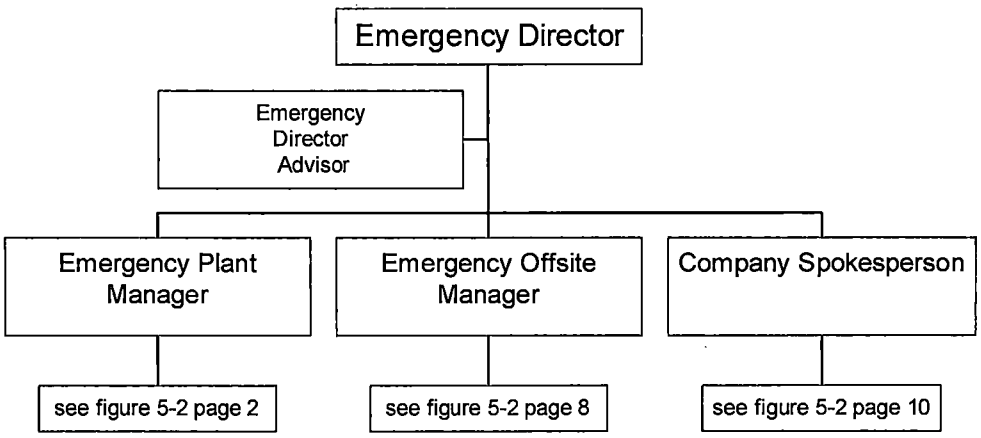


FIGURE 5-2

Emergency Response Organization
Page 1 of 10



Responsibilities:
-Plant Operations
-Engineering Assessment
-Radiation Protection
-Repair Activities
-Station Security

Responsibilities:
-Offsite Communications
- Dose Assessment

Responsibilities:
-Communications with the News Media

FIGURE 5-2

Emergency Response Organization
Page 2 of 10

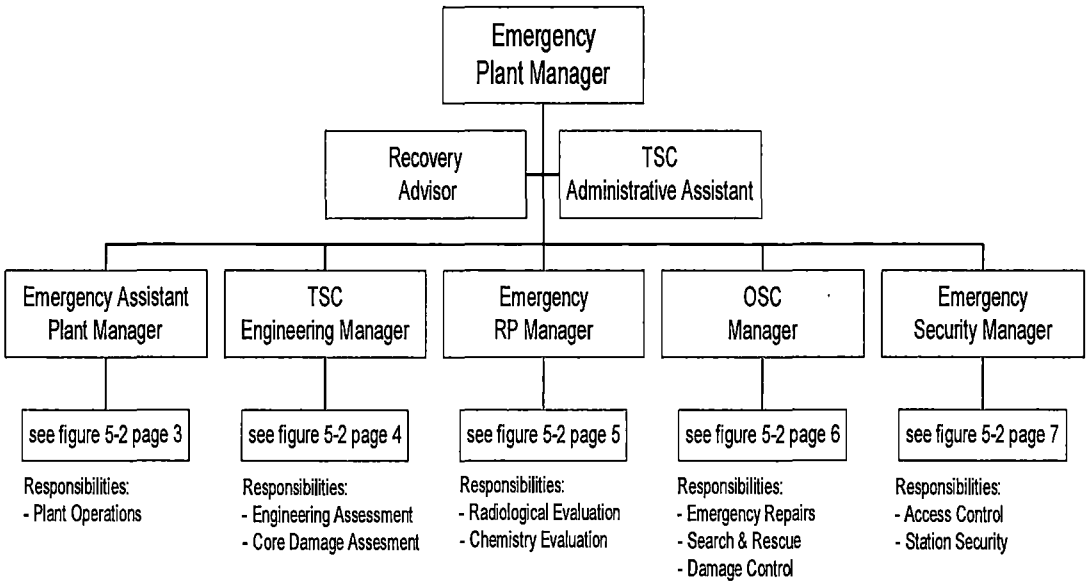


FIGURE 5-2

Emergency Response Organization
Page 3 of 10

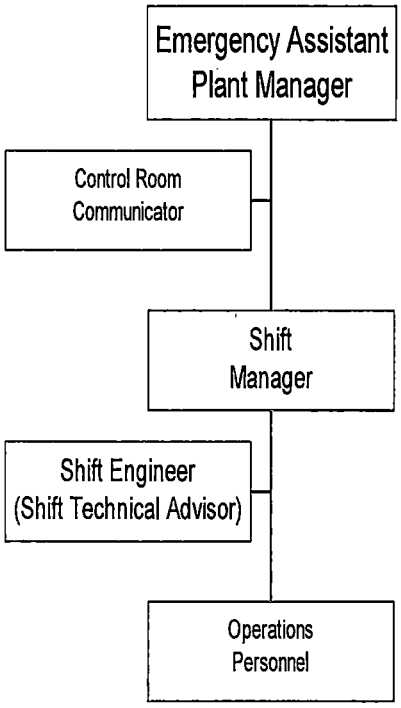
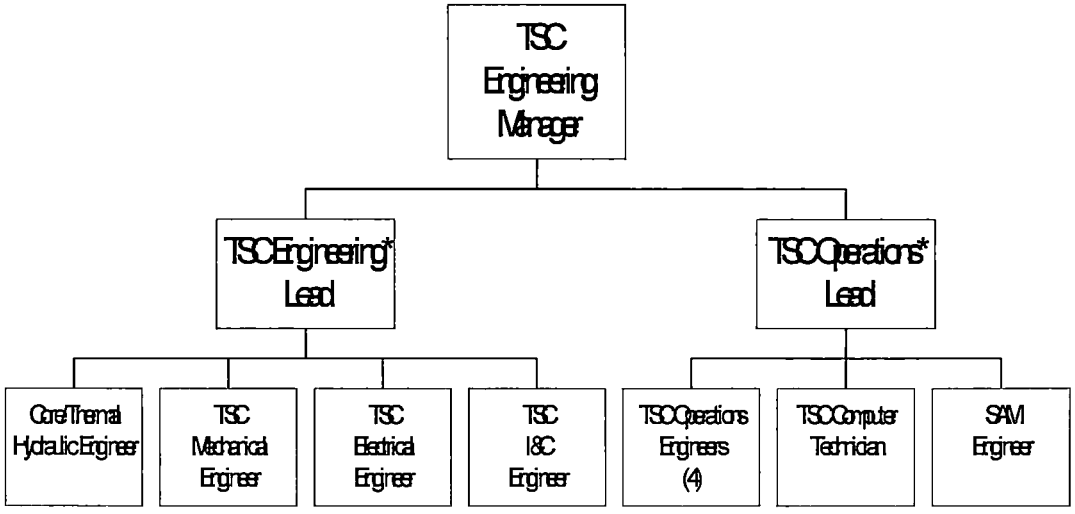


FIGURE 5-2

Emergency Response Organization
Page 4 of 10



*Optional position that may be staffed at the discretion of the TSC Engineering Manager.

FIGURE 5-2

Emergency Response Organization
Page 5 of 10

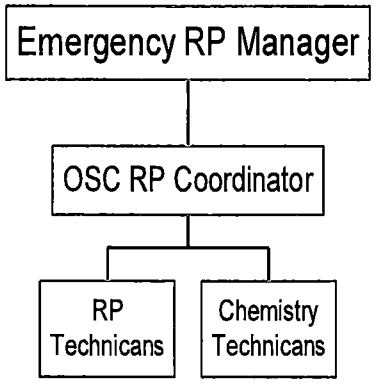


FIGURE 5-2

Emergency Response Organization
Page 6 of 10

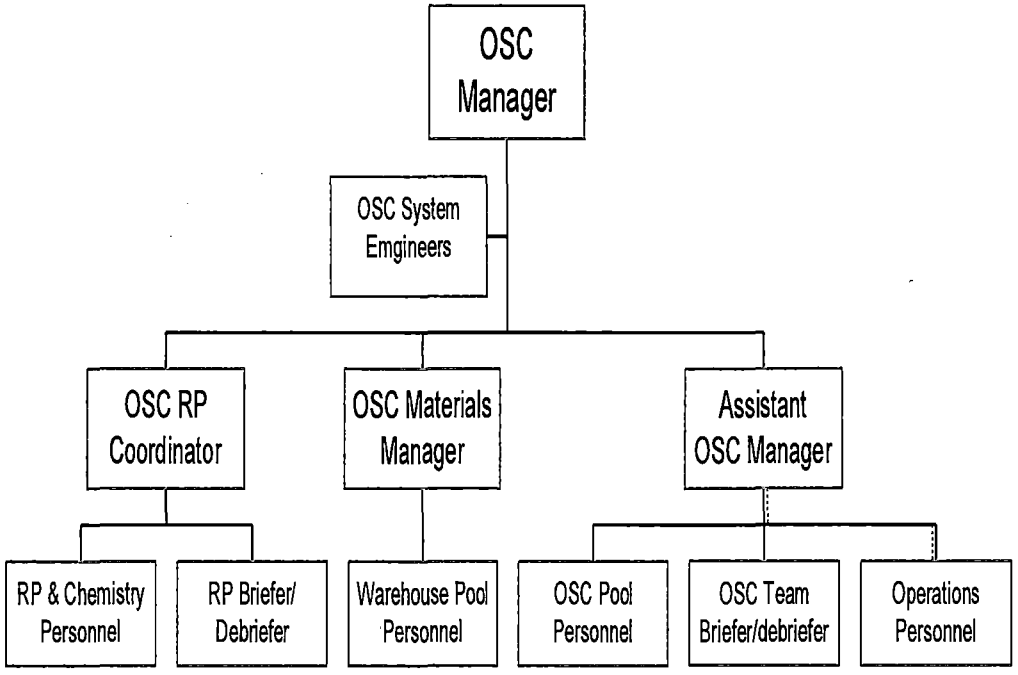


FIGURE 5-2

Emergency Response Organization
Page 7 of 10

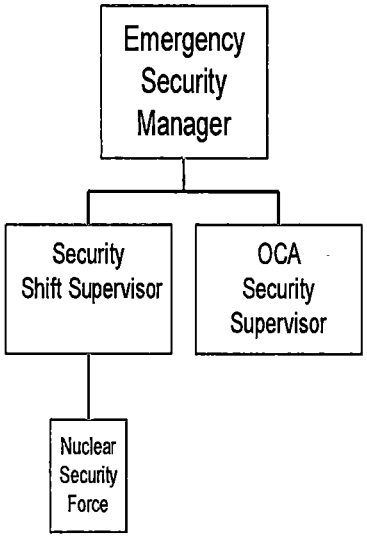


FIGURE 5-2

Emergency Response Organization
Page 8 of 10

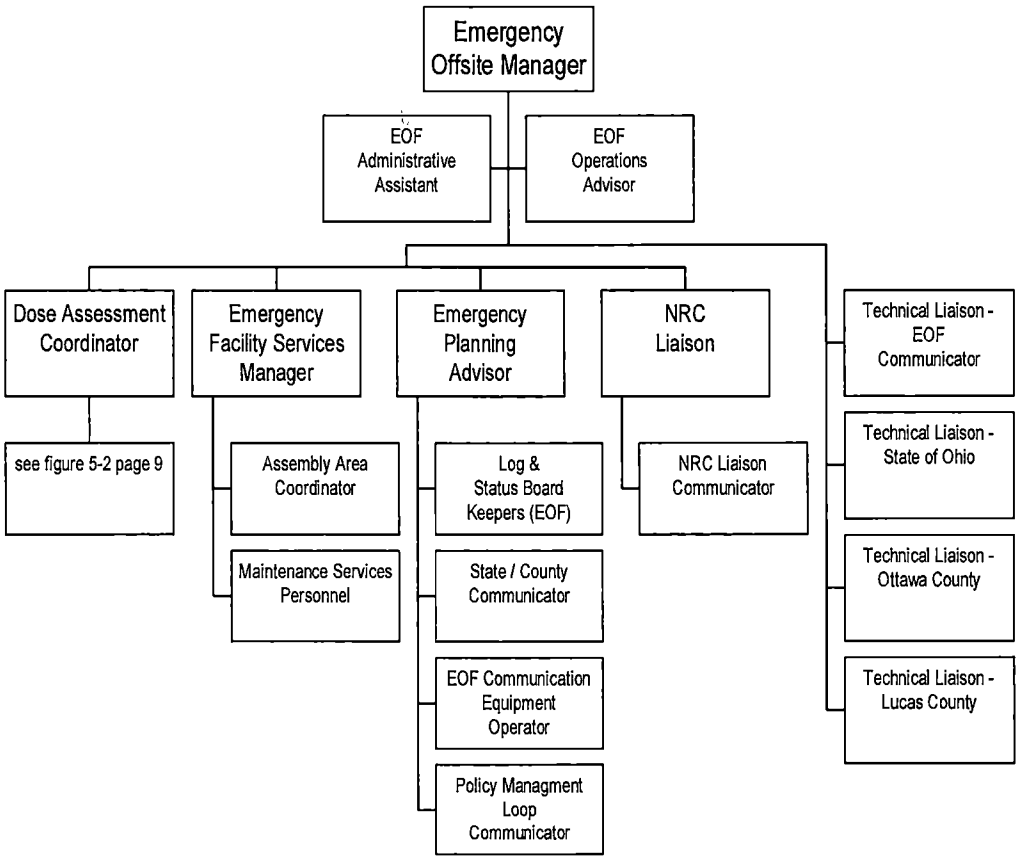


FIGURE 5-2

Emergency Response Organization
Page 9 of 10

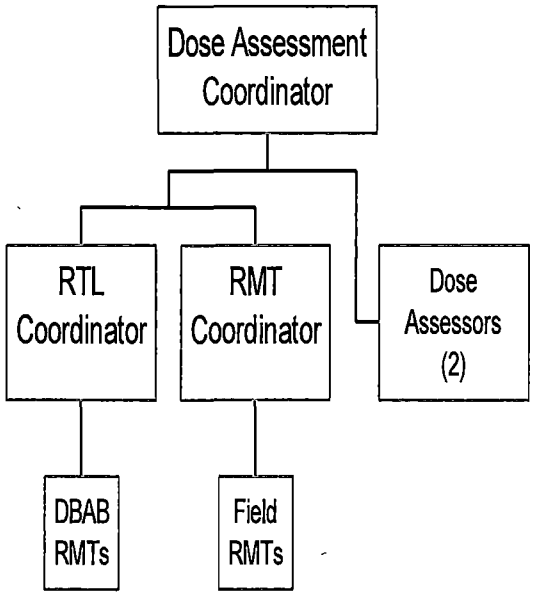
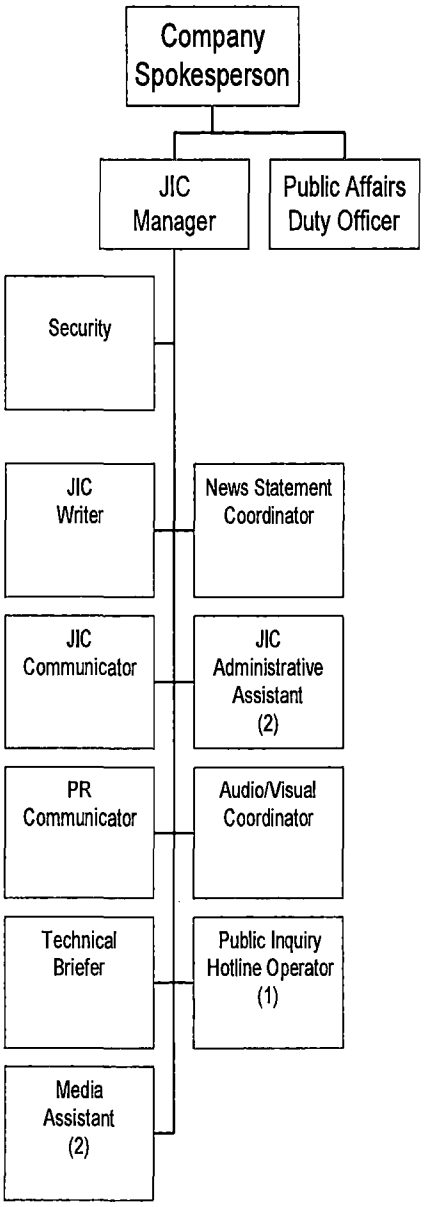


FIGURE 5-2

Emergency Response Organization
Page 10 of 10



6.0 EMERGENCY MEASURES

This section identifies the specific measures that are taken for each class of emergency defined in Section 4.0, "Emergency Conditions", of this Plan. The logic presented in this section is the basis for detailed Emergency Plan Procedures which define the emergency actions to be taken for each emergency category. Emergency measures begin with the following:

a. The recognition and declaration of an emergency.
b. Notification of the applicable agencies for each emergency classification.
c. Mobilization of the appropriate portions of the emergency response organization.

Emergency measures can be classified as falling into one of the following categories:

a. Assessment Actions
b. Mitigative Actions
c. Protective Actions

Figure 6-1 is a summary of typical emergency measures, which may be appropriate for each classification of emergency. Figure 6-2 indicates the groups and organizations that will be notified at each emergency classification.

6.1 Activation of the Emergency Response Organizations

If conditions at Davis-Besse meet or exceed a predetermined value or condition specified as an EAL in the emergency classification procedure, the provisions of this plan, and those of the specific procedures shall be implemented.

Specific emergency action levels for each emergency category are defined in Section 4.0. The Shift Manager, acting as Emergency Director, will implement this plan by initially classifying the emergency and ensuring that required notifications are made.

When an emergency classification level is declared or upgraded, initial notifications are promptly made to offsite response organizations. Notification and mobilization of federal, state and local agency response personnel is performed in accordance with their applicable emergency plan and procedures.

- State and Local Response Agencies

  State and local agencies receive within fifteen (15) minutes an initial notification message of an event declaration (initial or an escalation). General Emergency classifications also include Protective Action Recommendations (PARs) within that same 15 minutes. Any subsequent changes to PARs continue to be provided to the agencies within 15 minutes.

- Nuclear Regulatory Commission (NRC)

  The NRC is notified immediately after notification of the appropriate state and local agencies and not later than one (1) hour after the time of initial event declaration, escalation to a higher classification level, emergency termination or entry into recovery.

The NRC is notified using the dedicated Emergency Notification System (ENS) by an individual knowledgeable of the event. If the ENS is inoperative, the required notifications are made via commercial telephone service. An open, continuous communication line is maintained with the NRC Operations Center upon request. An NRC Event Notification Worksheet (Form 361) may be utilized to assist in communicating event and plant information to the NRC.
For hostile action events, the NRC is notified immediately following or concurrent with state and local notifications.

Other event notifications related to emergency response capabilities not associated with an emergency classification level are performed in accordance with 10 CFR 50.72.

- Support Organizations

  - Medical, rescue, and firefighting support services are notified for assistance as the situation dictates.

  - The Institute of Nuclear Power Operations (INPO) is notified at an Alert or higher classification with requests for assistance as necessary.

  - The American Nuclear Insurers (ANI) are notified at an Alert or higher classification with requests for assistance as necessary.

  - Vendor and contractor support services are notified for assistance as the situation dictates.

Following the notifications made to the counties, state, and NRC; notifications will be made to the Director, Site Operations, the Manager of Operations, and the Emergency Director, or their designated alternates. The Emergency Assistant Plant Manager, working closely with the Shift Manager, will continually assess the emergency to verify that the most appropriate classification is made.

Depending on the level of the emergency and its severity, portions or all of the onsite and offsite EROs and the CAC will be mobilized as detailed below:

6.1.1 Shift Manager/Control Room Operations

a. Should emergency conditions arise, it is expected that the Control Room Operator(s) and/or the Shift Manager will be made aware of the situation by alarms, instrument readings, reports, etc. The Control Room Operator(s) will ensure that the Shift Manager is immediately informed of the situation. The Shift Manager will direct the Control Room staff to inform the Emergency Director and Station Management immediately.

b. The Shift Manager, when informed of an emergency situation, is responsible for assessing the emergency (e.g., plant systems and reactor core status, radiological conditions, etc.) in the following manner:

1. Determine the immediate actions to be taken (e.g., use of Abnormal Procedures and the Emergency Operating Procedure) to ensure the safe and proper operation of the plant. The Shift Engineer, acting as Shift Technical Advisor (STA), will advise and assist the Shift Manager on matters pertaining to the safety and proper operation of the plant, with regards to nuclear safety.

2. If the situation requires implementation of the DBNPS Emergency Plan, the Emergency Director will:

   a) Classify the emergency. Classification of emergencies is a non-delegable responsibility of the Emergency Director.
   b) Ensure that the appropriate alarm (Fire, Access Evacuation, or Initiate Emergency Procedures) is sounded.
   c) Announce the location, type and classification of the emergency on the station public address system (twice).
   d) Implement the applicable Emergency Plan Procedure.
   e) Notify the following personnel and organizations of the emergency conditions:

      1) Nuclear Security Supervision.
      2) Station Management.
      3) Ottawa County Sheriff/EMA (within 15 minutes).
      4) Lucas County Sheriff/EMA (within 15 minutes).
      5) Ohio State Highway Patrol/EMA (within 15 minutes).
      6) Key Emergency Response Personnel.
      7) NRC, Emergency Operations Center, Bethesda, Maryland (within one hour).

   f) Provide periodic follow-up notifications.
   g) Recommend protective actions for public protection, as needed. Recommending public protective actions is a non-delegable responsibility of the Emergency Director.

3. Due to the numerous responsibilities assigned to the Shift Manager at the onset of an emergency, he will perform the following actions in their listed priority.

   a) Ensure the safe operation of the plant.
   b) Ensure that immediate notification requirements are met.
   c) Dispatch, in the event of radiological emergencies, Radiation Protection (RP) personnel to appropriate locations within the protected area.
   d) Perform additional emergency actions as time and conditions permit.

6.1.2 Emergency Director

The designated Emergency Director, upon being informed that an emergency exists and has been declared by the Emergency Director on-shift will:

a. Review information, data, and methods used by the on-shift Emergency Director (Shift Manager) in making the emergency classification. The Emergency Director may NOT delegate the responsibility of classifying emergencies.
b. Determine, to what extent the Emergency Response Organization (ERO) will be activated, using the following guidelines:

    1. For an UNUSUAL EVENT, key individuals in the ERO will be alerted or mobilized at the discretion of the Emergency Director.
    2. For an ALERT, all of the ERO will be activated. Key individuals in the CAC will be alerted.
    3. For a SITE AREA EMERGENCY or GENERAL EMERGENCY, the entire ERO, and the CAC will be activated.

c. Ensure that the Emergency Response Organizations have been activated as indicated above. (If not already performed by Control Room staff.)
d. Report to the TSC/EOF and relieve the Emergency Director.
e. Ensure that the Periodic Update Form, as provided in the Emergency Plan Procedures, is completed and supplied to the state and county Emergency Management Agencies. Protective action recommendations, for the Plume Exposure EPZ, is a non-delegable responsibility of the Emergency Director.
f. Ensure that dose rate calculations, in accordance with the Emergency Plan Procedures, are performed periodically. A total population dose estimation may also be performed.

6.1.3 Ottawa and Lucas County Sheriffs' Offices

Dispatchers at the Sheriffs' Office for both counties, will notify key county officials and organizations, according to established procedures.

6.1.4 Ottawa County and Lucas County Emergency Management Agency Directors

The County EMA Directors will ensure that their county EROs are activated when necessary, and will notify municipalities near DBNPS.

6.1.5 Ohio Emergency Management Agency (OEMA)

The OEMA will ensure that applicable state agencies and organizations are notified and will ensure the State Emergency Operations Center is activated when necessary. Additional state agencies are contacted depending on the severity of the emergency classifications. These notifications are made in accordance with the State of Ohio emergency plan.

The OEMA will have Radiological Monitoring Teams and an accident assessment team respond to an emergency at DBNPS. The accident assessment team will set up an operations center at the local governmental Emergency Operations Center. Using estimates from utility and offsite monitoring teams; and local governmental official's input, the accident assessment team will perform independent accident assessment activities to determine:

a. Protective measures including evacuation.
b. Actions to control exposure to radioactivity.
c. What further sampling of milk, food chain, water and air will be required.

If deemed appropriate, the accident assessment team will request assistance from responding federal agencies in accordance with the State of Ohio emergency plan.

6.1.6 Federal Agencies (Other than NRC)

The NRC, as the cognizant federal agency, will request assistance from other federal agencies when and if deemed appropriate.

Station management may also request assistance and/or information from federal agencies (other than the Department of Energy Radiological Assistance Program) as appropriate to the circumstances.

State organizations and agencies may consult with their federal counterparts if appropriate.

If required, the Department of Energy Radiological Assistance Program teams can be expected to begin arriving at the site in 4 to 6 hours following notification. The first teams to arrive will have some survey instruments and air samplers. A mobile environmental monitoring lab can be expected to arrive at the site in 6 to 8 hours. Appendix B contains a reference to the Radiological Assistance Program with the DOE to provide radiological assistance.

6.1.7 Ohio Department of Health

The Ohio Department of Health, Radiological Health Unit, maintains a communications link with the U.S. NRC, Region III Office, from which assistance and support may be requested.

6.2 Assessment Actions

Effective coordination and direction of all elements of the emergency organization requires continuing accident assessment throughout an emergency situation. Each emergency class invokes similar assessment methods; however each classification imposes a different magnitude of assessment effort. In the following sections, assessment actions taken for each emergency classification are outlined.

6.2.1 Assessment Actions for an UNUSUAL EVENT

The declaration of an UNUSUAL EVENT arises when a specific Emergency Action Level for this classification has been met.

Recognition of the need to declare the event will result from alarms, instrument readings, severe weather warnings, a security threat to facility protection, operating experience, or any combination thereof.

Continuing assessment actions to be performed for this category of emergency will be in accordance with the Emergency Plan Procedures and consist of the normal monitoring of Control Room and plant instrumentation and status, until the situation is resolved. Tornado and severe weather assessment actions consist of keeping in contact with the system dispatcher and the appropriate public authorities. If a fire prompted the declaration of an UNUSUAL EVENT, the Fire Brigade Captain will go to the fire location, make continuing assessments, and report to the Shift Manager on whether offsite fire fighting support is required. If a security event is in progress, then the emergency organization will immediately implement procedures for security events or threats.

6.2.2 Assessment Actions for an ALERT

Once an incident has been classified as an ALERT, assessment actions will be performed in accordance with the Emergency Plan Procedure for an ALERT. These actions include:

a. Increased surveillance of in-plant instrumentation.
b. If possible, the dispatching of shift personnel to the identified problem area to confirm and visually assess the problem.
c. The dispatching of personnel to monitor for possible releases, and to confirm the correct classification.
d. If a radiological incident is occurring, surveillance of the in-plant instrumentation necessary to obtain meteorological and radiological data required for calculating or estimating projected doses. Dose assessment activity will continue until termination of the emergency, so that assessment updates may be provided to all concerned offsite agencies and to the Emergency Director. Emergency Plan Procedures are provided to allow a rapid, consistent projection of dose.
e. If a security event is in progress, then the emergency organization will immediately implement specific procedures for security events or threats.

6.2.3 Assessment Actions for a SITE AREA EMERGENCY

Assessment actions for the SITE AREA EMERGENCY category are similar to the actions for an ALERT. However, due to the increased potential for a possible release, assessment activity of greater scope will occur. The personnel necessary for this assessment effort will be provided by mobilization of the onsite and offsite EROs.

These actions include:

a. An increased amount of plant instrumentation will be monitored. (In particular, indications of core status, e.g., incore thermocouple readings, etc.)

b. Radiation monitoring efforts will be greatly increased. Radiation Monitoring Teams will be available for immediate dispatch. Beta-gamma field measurements may be performed; air sampling, environmental thermoluminescent dosimeter (TLD) change out, and collection of environmental media for assessment of material transport and deposition will be performed as necessary.

c. Dose assessment activities will be performed more frequently, with an increased emphasis on dose projection for use as a factor in determining necessary protective actions. Radiological and meteorological instrumentation readings will be used to project the dose rate at predetermined distances from the station, and to the potential integrated dose.

   In reporting the dose projections to the Emergency Director or to offsite agencies, the dose rate, dose, and basis for the time used for the dose estimate will always be provided. Confirmation of dose rates by RMTs will be reflected in reports and/or revised dose estimate information provided to offsite agencies.

   All dose projections will be performed in accordance with the Emergency Plan Procedures which incorporate recommendations found in EPA-400-R-92-001 Manual of Protective Action Guides and Protective Actions for Nuclear Incidents. Reports to offsite authorities will include the relationship of dose to these guidelines. Emergency Plan Procedures are provided for recording pertinent information.

d. If a security event is in progress, then the emergency organization will immediately implement specific procedures for security events or threats.

6.2.4 Assessment Actions for a GENERAL EMERGENCY

Assessment actions for the GENERAL EMERGENCY category are the same as for the SITE AREA EMERGENCY, with some possible increase in the scope of dose assessment/projection activities. Additionally, since projected doses are likely to be much closer to EPA Protective Action Guidelines (PAGs), greater emphasis will be placed on the assessment of release duration. Judgments and assumptions used for dose assessment will be documented.

6.3 Mitigative Actions

Detailed operating procedures are available for use during emergencies, as well as during normal operations. Specific Emergency Operating Procedures and Abnormal Procedures are provided to assist the operators in placing the plant in a safe condition, and taking necessary supplemental mitigative actions. In addition, operations personnel are trained in the operation of the plant systems and their associated procedures, and are therefore capable of taking appropriate mitigative actions based on their training, knowledge, and experience.

Selected DBNPS Staff personnel, including Operations, Radiation Protection, Chemistry, and Maintenance personnel are trained and assigned to emergency teams. These teams are capable of responding to situations as set forth in the Emergency Plan Procedures, to assess conditions and take appropriate mitigative actions. Maintenance personnel will provide the necessary expertise to effect damage control and repair activities.

Mitigative actions will normally be planned events that are taken to gain control of, or terminate the emergency situation. Planned radioactive releases, or mitigative actions that may result in a radioactive release will be evaluated by the Emergency Director and staff as far in advance of the event as is possible. Such events and data pertaining to the release, will be reported to the appropriate offsite organizations and/or agencies. DBNPS recommendations to authorities regarding the Plume Exposure EPZ are the non-delegable responsibility of the Emergency Director.

6.4 Protective Actions

Protective actions are emergency measures taken during or after an emergency situation to minimize or eliminate the hazard to the health and safety of the general public and/or station personnel. Such actions taken onsite are the responsibility of Company management, while those taken offsite fall under the jurisdiction of the State of Ohio and other offsite response agencies. All visitors to the Protected Area will be either escorted by an employee or receive training on actions required by them during an emergency.

6.4.1 Plant Site Protective Actions

During an emergency, sheltering or evacuation of personnel may be required to prevent or minimize exposure to radiation and radioactive materials. The following sub-sections present information on policies concerning such situations. Figure 6-3 illustrates the routes to be taken from the site if evacuation becomes necessary.

a. Plant Site (within the protected area):

All personnel within the site protected area at the time of the declaration of an emergency, will be notified of the emergency by audible or visual alarms and verbal announcement over the public address system (Gai-Tronics). Personnel may be instructed to report to assembly areas. Personnel will be trained as to the location of assembly areas and the suggested routes to each. Visitors will assemble with their escorts, or be escorted offsite. At the assembly areas, members of the emergency organization will conduct personnel assembly and evacuation (if required).

Accountability within the protected area is coordinated by the OSC Manager and Security. The goal for completion of personnel accountability is 30 minutes. Results are forwarded to the Emergency Director. Once established, accountability within the protected area will be maintained throughout the course of the event. Specific guidance for performing accountability can be found in the Emergency Plan Procedures. Search for and rescue of missing persons will be performed in accordance with Emergency Plan Procedures.

Sheltering at onsite locations will be ordered when the projected dose would be less than or equal to that received during evacuation. For essential personnel who must remain within the protected area following an evacuation (e.g., Operations and Security personnel), particular attention will be paid to their radiation dose for ALARA purposes.

If a localized emergency exists, evacuation of the affected facility or area can be performed. Access to this area should then be restricted. The Protected Area will be evacuated if a SITE AREA EMERGENCY has been declared or if, at the discretion of the Emergency Director/Shift Manager, a personnel hazard exists. Nonessential personnel shall be evacuated from the site if a GENERAL EMERGENCY has been declared, or if, at the discretion of the Emergency Director/Shift Manager, site evacuation is warranted for personnel safety reasons. Access control will be established by Security to prohibit the entry of unauthorized personnel to the protected area.

Personal vehicles will be used for site evacuation. Nonessential personnel may be evacuated to the designated offsite assembly area; the Lindsey Service Center, or other company facilities as appropriate. Personnel and vehicles will be monitored for contamination at the offsite assembly area, if necessary, prior to release.

b. Plant Site (Outside the Protected Area):

All personnel onsite, but outside the protected area will be notified, at the declaration of an emergency, of conditions that may affect them. Personnel outside of the range of the Gai-Tronics system will be notified via bullhorn. Additionally, site personnel who are assigned pagers will automatically receive notification of the emergency condition. Personnel may be instructed to report to the nearest assembly area as described below. At other site locations (i.e., Davis-Besse Training Center, Davis-Besse Administration Building and Annex, Warehouse), key personnel have been delegated responsibility for receiving emergency information and disseminating such information to personnel in these areas. If assembly becomes necessary, Assembly Area Coordinators will perform these functions and report the results to the Emergency Director.

c. Hostile-Action Based Protective Actions

Hostile-Action Based, or security related, emergencies offer different challenges to the site organization. Davis-Besse Nuclear Power Station has incorporated a range of protective actions for onsite personnel during a hostile action event, consistent with the possible threat (including land/water based, as well as airborne attacks). Generally, these protective actions may include considerations for:

- Site evacuation via normal exits

- Site evacuation via alternate means
- Dispersal of plant operators and essential ERO members
- Take Cover (sheltering in place for personnel onsite)

Arrangements for accounting for personnel after a hostile action have been made. When the site is secure, all personnel who were in the protected area when the hostile action occurred will be accounted for as promptly as possible while not interfering with critical safe reactor shutdown activities or known medical emergencies. The details of these protective actions are described in site implementing procedures.

6.4.2 Offsite Protective Actions:

Responsibility for implementing actions to protect personnel in offsite areas rests with State and local officials, and is described in detail in the The Ohio Radiological Emergency Preparedness Plan and the Ohio Emergency Operations Plan (under a separate cover), and is implemented in conjunction with The Ottawa County Radiological Emergency Response Plan, and The Lucas County Radiological Emergency Response Plan (under separate covers).

At a General Emergency classification Davis-Besse, through the Emergency Director, shall make offsite protective action recommendations to state and local authorities, based on emergency conditions. The FENOC PAR determination process has been developed in accordance with NUREG-0654 Supplement 3 revision 1, and its PAR logic diagram. The process includes consideration of precautionary protective actions, wind persistence, rapidly progressing release scenarios, hostile-action based events, and termination of protective actions. It also includes considerations that embody Offsite Response Organizations input at the various decision points as identified in the guidance.

Offsite protective action recommendations will be made for affected predetermined subareas. (Refer to the Ohio Radiological Emergency Preparedness Plan and the Ohio Emergency Operations Plan for description of the Davis-Besse 10-mile emergency planning zone subareas.) The preferred offsite protective action recommendation (PAR) is evacuation. A sheltering PAR will be considered when known roadway impediments impact the ability to evacuate a large portion of the Emergency Planning Zone, during a controlled short duration release, and during a Hostile-Action based event. Dose to the public from any actual or potential radiological release are evaluated prior to the determination of these sheltering recommendations.

The means to warn or advise persons involved in taking protective actions is the responsibility of the Ottawa County EMA Director, Lucas County EMA Director, and the Ottawa and Lucas County emergency organizations. These counties are responsible for the preparation and dissemination of public information material related to implementation of protective actions for the general public. The Ottawa County Sheriff's Office will authorize the broadcast of appropriate Emergency Alert System messages to the public, when necessary. The general content of these messages is contained in the Ottawa County Plan, the Lucas County Plan, and the State of Ohio Plan.

6.4.3 Use of Onsite Protective Equipment and Supplies

Table 6-1 summarizes typical protective action recommendations for the general public and emergency workers. Tables 6-2, 6-3, 6-4, and 6-5 provide guidelines for the expected local protection against direction and inhalation exposure afforded by structures. The following onsite locations have been designated for assembly and dispatch of emergency teams:

a. Operations Support Center
b. Radiological Testing Laboratory.

The exact location, type, and quantity of emergency equipment and supplies is specified in the Emergency Plan Procedures.

6.4.4 Contamination Control Measures

a. Station Area:

Access to the owner-controlled area will be limited. Contamination control within the station shall be exercised in accordance with approved Radiation Protection procedures.

b. Offsite Areas:

It is the responsibility of the State Department of Agriculture, in conjunction with the Department of Health and the Ohio Environmental Protection Agency, to issue guidance and coordinate actions to control the use and transport of contaminated agricultural products.

6.4.5 Ingestion Pathway Control Measures

The Ingestion Pathway EPZ (50-mile radius) has been established to address the additional concern for ingestion of contamination. There are two levels at which protective actions may be recommended by the State (i.e., preventive and emergency levels) for food and water contamination. Suggested action levels for ground, food, and water contamination are given in Table 6-6.

6.5 Aid to Affected Personnel

6.5.1 Emergency Personnel Exposure

Under emergency conditions, it may not be possible to perform mitigative/protective actions, while maintaining exposure (i.e., radiation doses) below limits specified in 10CFR20. Saving a life, measures to circumvent substantial doses to population groups, or preservation of safety related equipment, may be sufficient cause for above normal doses.

The following are the exposure limits based on EPA-400-R-92-001 guidance for these emergency activities:

a. Mitigative/protective actions:

Limit doses to the following when protecting valuable property and lower doses are not practicable:

1. 10,000 mrem Total Effective Dose Equivalent (TEDE)
2. 30,000 mrem Lens Dose Equivalent (LDE)
3. 100,000 mrem:

- Total Organ Dose Equivalent (TODE)
- Shallow Dose Equivalent (SDE) to the skin of the whole body or to any extremity

b. Lifesaving actions:

Limit doses to the following when protecting large populations or performing life saving activities and lower doses are not practicable:

1. 25,000 mrem TEDE
2. 75,000 mrem LDE
3. 250,000 mrem

- Total Organ Dose Equivalent (TODE)
- Shallow Dose Equivalent (SDE) to the skin of the whole body or to any extremity

The Emergency Director has the authority to permit the above exposures in excess of the 10 CFR 20 occupational dose limits. This responsibility may be delegated to the Emergency Plant Manager.

Personnel involved in any of the above actions must be volunteers, and cognizant of the effects of such doses.

Emergency worker dose records shall be maintained in accordance with Davis-Besse RP Procedures.

Although doses in excess of the normal legal limits may be authorized, the Emergency Director will ensure that all doses are kept ALARA.

6.5.2 Thyroid Blocking

A ready supply of suitable thyroid blocking agent is maintained and available for use by emergency workers. Guidance for administration of the blocking agent will be provided by medical advisors, and is specified in emergency plan procedures.

The Emergency Director or, when designated, the Emergency Plant Manager shall authorize the use of the thyroid blocking agent, i.e., potassium iodide (KI).

The State of Ohio has elected to distribute and stockpile potassium iodide (KI) for the general public. At a General Emergency the Ohio Department of Health in coordination with the local Health Departments may elect to recommend that the general public take potassium iodide.

6.5.3 Decontamination and First Aid

Decontamination materials, including specialized equipment and supplies are available in station decontamination areas. Portable instruments for personnel monitoring and portal monitors are available at the RCA entrance. Decontamination showers and sinks, both of which drain to the radwaste system, are also located in the Decontamination Area.

Action levels for determining the need for decontamination of personnel and equipment are specified in the Davis-Besse RP Procedures.

Personnel found to be contaminated will be decontaminated by Radiation Protection personnel (or other qualified personnel, as specified in RP Procedures). It is preferred that personnel decontamination be performed by trained RP personnel.

Measures shall be taken to prevent the spread of contamination. Such measures may include isolating the affected areas, placing contaminated personnel in "clean" clothing before moving them, and decontaminating affected personnel, their clothing, and equipment prior to release.

Emergency first aid and medical treatment will be given to injured personnel who are contaminated. Station personnel trained in first aid are available onsite, on a 24-hour basis, and will assist injured personnel. Provisions have been made to ensure contaminated and injured personnel receive specialized medical treatment, if necessary. H. B. Magruder Hospital, Memorial Hospital, and Mercy St. Charles Hospital have agreed to accept contaminated patients for emergency medical and surgical treatment. If affected personnel must be transported, measures will be taken to limit the spread of contamination.

Any contaminated patient moved to an offsite facility will be accompanied by a member of the RP staff. If during the same incident, more than one victim is involved, the first victim will be accompanied by a member of the RP staff who will remain at the receiving facility during transport of the remaining patients. If more than one offsite facility is involved, then a member of the RP staff shall be present at each offsite facility. If necessary, a physician may be requested to provide onsite medical assistance.

6.5.4 Medical Transportation

Ambulance service for Davis-Besse is provided for by a letter of agreement with Carroll Township Emergency Medical Service.

6.5.5 Medical Treatment

Arrangements for hospital and medical services for injured and/or contaminated/over-exposed personnel are provided for by letters of agreement with the. Magruder Hospital; Memorial Hospital; Mercy St. Charles Hospital.

The services of the radiological emergency assistance provider assures personnel providing services are prepared and qualified to handle radiological emergencies.

TABLE 6-1

PAGs for the Early Phase of a Nuclear Incident

Protective Action	PAG (Projected Dose)	Comments
Evacuation (or sheltering[1])	1-5 rem[2]	Evacuation (or for some situations, sheltering[1]) should normally be initiated at 1 rem.
Administration of stable iodine	25 rem[3]	Requires approval of State medical officials

[1]Sheltering may be the preferred protective action when it will provide protection equal to or greater than evacuation, based on consideration of factors such as source term characteristics, and temporal or other site-specific conditions.

[2]The sum of the effective dose equivalent resulting from exposure to external sources and the committed effective dose equivalent incurred from all significant inhalation pathways during the early phase. Committed dose equivalent to the thyroid and to the skin may be 5 and 50 times larger, respectively.

[3]Committed dose equivalent to the thyroid from radioiodine.

Guidance on Dose Limits for Workers Performing Emergency Services

Dose Limit[1] (rem)	Activity	Condition
5	all	
10	protecting valuable property	lower dose not practicable
25	life saving or protection of large populations	lower dose not practicable
>25	life saving or protection of large populations	only on a voluntary basis to persons fully aware of the risks involved

[1]Sum or external effective dose equivalent and committed effective dose equivalent to nonpregnant adults from exposure and intake during an emergency situation. Workers performing services during emergencies should limit dose to the lens of the eye to three times the listed value and doses to any other organ (including skin and body extremities) to ten times the listed value. These limits apply to all doses from an incident, except those received in unrestricted areas as members of the public during the intermediate phase of the incident.

Reference: Manual of Protective Action Guides and Protective Actions for Nuclear Incidents. (EPA-400-R-92-001) U.S. Environmental Protection Agency, Washington, D.C., May 1992.

TABLE 6-2

RECOMMENDED PROTECTIVE ACTIONS

Accident Phase	Exposure Pathway	Examples Of Actions To Be Recommended
Emergency Phase[1] (0 to 4 hours)	Inhalation of gases, radio-iodine, or particulate	Evacuation, shelter, access control, respiratory protection, prophylaxis (thyroid protection)
	Direct whole body dose	Evacuation, shelter, access control
INTERMEDIATE PHASE[2]	Ingestion of milk	Take cows off pasture, prevent cows from drinking surface water, discard contaminated milk, or divert to stored products such as cheese
	Ingestion of fruits and vegetables	Wash all produce, or impound produce, delay harvest until approved, substitute uncontaminated produce
	Ingestion of water	Cut off contaminated supplies, substitute from other sources, filter, demineralize
(4 to 48 hours)	Whole body exposure and inhalation	Relocation, decontamination, access control
LONG TERM PHASE[3]	Ingestion of food and water contaminated from the soil either by resuspension or uptake through roots	Decontamination, condemnation, or destruction of food; deep plowing, condemnation, or alternate use of land
(2 to 14 days)	Whole body exposure from deposition material or inhalation of resuspended material.	Relocation, access control, decontamination, fixing of contamination, deep plowing

[1]Emergency phase - Time period of major release and subsequent plume exposure.

[2]Intermediate phase - Time period of moderate continuous release with plume exposure and contamination of environment.

[3]Long Term Phase - Recovery period.

TABLE 6-3

REPRESENTATIVE SHIELDING FACTORS FROM GAMMA CLOUD SOURCE

Structure or Location	Shielding[1] Factor	Representative Range
Outside	1.0	--
Vehicles	1.0	--
Wood-frame house[2] (no basement)	0.9	--
Basement of wood house	0.6	0.1 to 0.7[3]
Masonry House (no basement)	0.6	0.4 to 0.7[3]
Basement of masonry house	0.4	0.1 to 0.5[3]
Large office or industrial building	0.2	0.1 to 0.3[3,4]

[1]The ratio of the dose received inside the structure to the dose that would be received outside the structure.

[2]A wood frame house with brick or stone veneer is approximately equivalent to a masonry house for shielding purposes.

[3]This range is mainly due to different wall materials and different geometries.

[4]The shielding factor depends on where the personnel are located within the building (e.g., the basement or an inside room).

Reference: Aldrich, D.C., D.M. Ericson, Jr., and T. D. Johnson. Public Protection Strategies for Potential Nuclear Reactor Accidents: Sheltering Concepts with Existing Public and Private Structures. Sandia Laboratories Report SAND 77-1725 (February 1978).

TABLE 6-4

SELECTED SHIELDING FACTORS FOR AIRBORNE RADIONUCLIDES

Wood house, no basement	0.9
Wood house, basement	0.6
Brick house, no basement	0.6
Brick house, basement	0.4
Large office or industrial building	0.2
Outside	1.0

Reference: Aldrich, D.C., D.M. Ericson, Jr., and T. D. Johnson. Public Protection Strategies for Potential Nuclear Reactor Accidents: Sheltering Concepts with Existing Public and Private Structures. Sandia Laboratories Report SAND 77-1725 (February 1978).

TABLE 6-5

REPRESENTATIVE SHIELDING FACTORS FOR SURFACE DEPOSITED RADIONUCLIDES

Structure or Location	Representative[1] Shielding Factor	Representative Range
1 m above an infinite smooth surface	1.00	--
1 m above ordinary ground	0.70	0.47-0.85
1 m above center of 50-ft roadways, 50% decontaminated	0.55	0.4-0.6
Cars on 50-ft road:		
Road fully contaminated	0.50	0.4-0.7
Road 50% decontaminated	0.50	0.4-0.6
Road fully decontaminated	0.25	0.2-0.5
Trains	0.40	0.3-0.5
One and two-story wood-frame house (no basement)	0.4[2]	0.2-0.5
One and two-story block and brick house (no basement)	0.2[2]	0.04-0.40
House basement, one or two walls fully exposed	0.1[2]	0.03-0.15
One story, less than 2 ft of basement, walls exposed	0.05[2]	0.03-0.07
Two stories, less than 2 ft of basement, walls exposed	0.03[2]	0.02-0.05
Three- or four-story structures, 5000 to 10,000 ft² per floor		
First and second floors	0.05[2]	0.01-0.08
Basement	0.01[2]	0.001-0.07
Multistory structures, >10,000 sq. ft. per floor:		
Upper floors	0.01[2]	0.001-0.02
Basement	0.005[2]	0.001-0.015

[1]The ratio of dose received inside the structure to the dose that would be received outside the structure.

[2]Away from doors and windows.

Reference: Aldrich, D.C., D.M. Ericson, Jr., and T. D. Johnson. Public Protection Strategies for Potential Nuclear Reactor Accidents: Sheltering Concepts with Existing Public and Private Structures. Sandia Laboratories Report SAND 77-1725 (February 1978).

TABLE 6-6

GUIDELINES FOR PROTECTION AGAINST INGESTION OF CONTAMINATION

A. Response Levels for Preventive PAG

A "Preventive PAG" is the projected dose commitment value at which responsible officials should take protective actions with minimal impact, to prevent or reduce the radioactive contamination of human food or animal feeds.

Sample Media	I-131[1]	Cs-134[2]	Cs-137[2]	Sr-90	Sr-89
Initial Activity Area Deposition (μCi/m2)	0.13	2.0	3.0	0.5	8.0
Forage Concentration[3] (μCi/kg)	0.05	0.8	1.3	0.18	3.0
Peak Milk Activity (μCi/l)	0.015	0.15	0.24	0.009	0.14
Total Intake (μCi)	0.09	4.0	7.0	0.2	2.6

[1]The cumulative intake of Iodine-133 via milk is about 2 percent of Iodine-131 assuming equivalent deposition.

[2]Intake of Cesium via the meat/person pathway for adults may exceed that of the milk pathway; therefore, such levels in milk should cause surveilance and protective actions for meat as appropriate. If both Cesium-134 and Cesium-137 are equally present, the response levels should be reduced by a factor of two.

[3]Fresh weight.

Reference: Federal Radiation Council. Radiation Protection Guidance for Federal Agencies. Federal Register (May 22, 1965).

TABLE 6-6 Page 2 of 2

GUIDELINES FOR PROTECTION AGAINST INGESTION OF CONTAMINATION

B. Response Levels for Emergency PAG

An "Emergency PAG" is the projected dose commitment value at which responsible officials should isolate food containing radioactivity, to prevent its introduction into commerce, and at which responsible officials should determine whether condemnation or another method of disposal is appropriate. At the Emergency PAG, higher impact actions are justified because of the projected health hazards.

Sample Media	I-131 Infant[3]/Adult	Cs-134[2] Infant[4]/Adult	Cs-137 Infant[4]/Adult	Sr-90 Infant[4]/Adult	Sr-89 Infant[4]/Adult
Initial Activity Area Deposition (μCi/m2)	1.3/18	20/40	30/50	5.0/20	80/1600
Forage Concentration[5] (μCi/kg)	0.5/7.0	8.0/17	13/19	1.8/8.0	30/700
Peak Milk Activity (μCi/l)	0.015/2.0	1.5/3.0	2.4/4.0	0.09/0.4	1.4/30
Total Intake (μCi)	0.9/10	40/70	70/80	2.0/7.0	26/400

[1]The cumulative intake of Iodine-133 via milk is about 2 percent of Iodine-131 assuming equivalent deposition.

[2]Intake of cesium via the meat/person pathway for adults may exceed that of the milk pathway; therefore, such levels in milk should cause surveillance and protective actions for meat as appropriate. If both Cesium-134 and Cesium-137 are equally present, the response levels should be reduced by a factor of 2.

[3]Newborn infant, includes fetus (pregnant woman) as critical segment of population for Iodine-131.

[4]"Infant" refers to child less than 1 year of age.

[5]Fresh weight.

Reference: Federal Radiation Council. Radiation Protection Guidance for Federal Agencies. Federal Register (May 22, 1965).

Figure 6-1 Page 1 of 4

SUMMARY OF TYPICAL EMERGENCY MEASURES

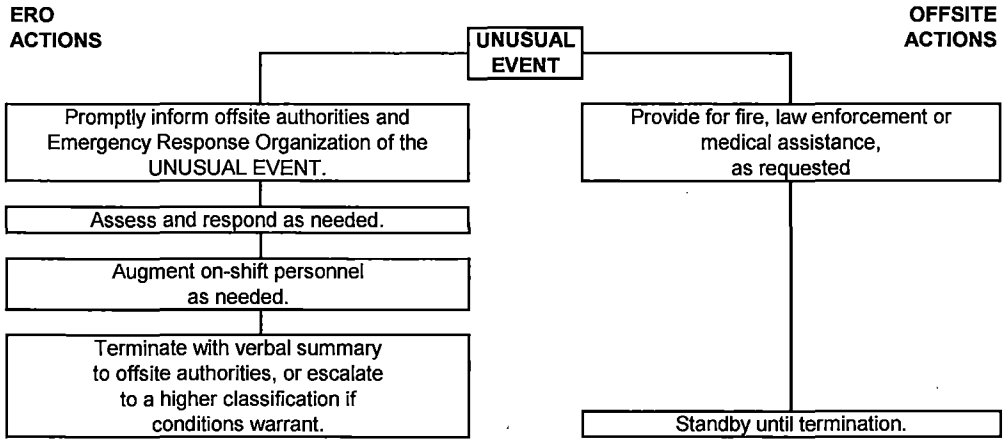


Figure 6-1 Page 2 of 4

SUMMARY OF TYPICAL EMERGENCY MEASURES

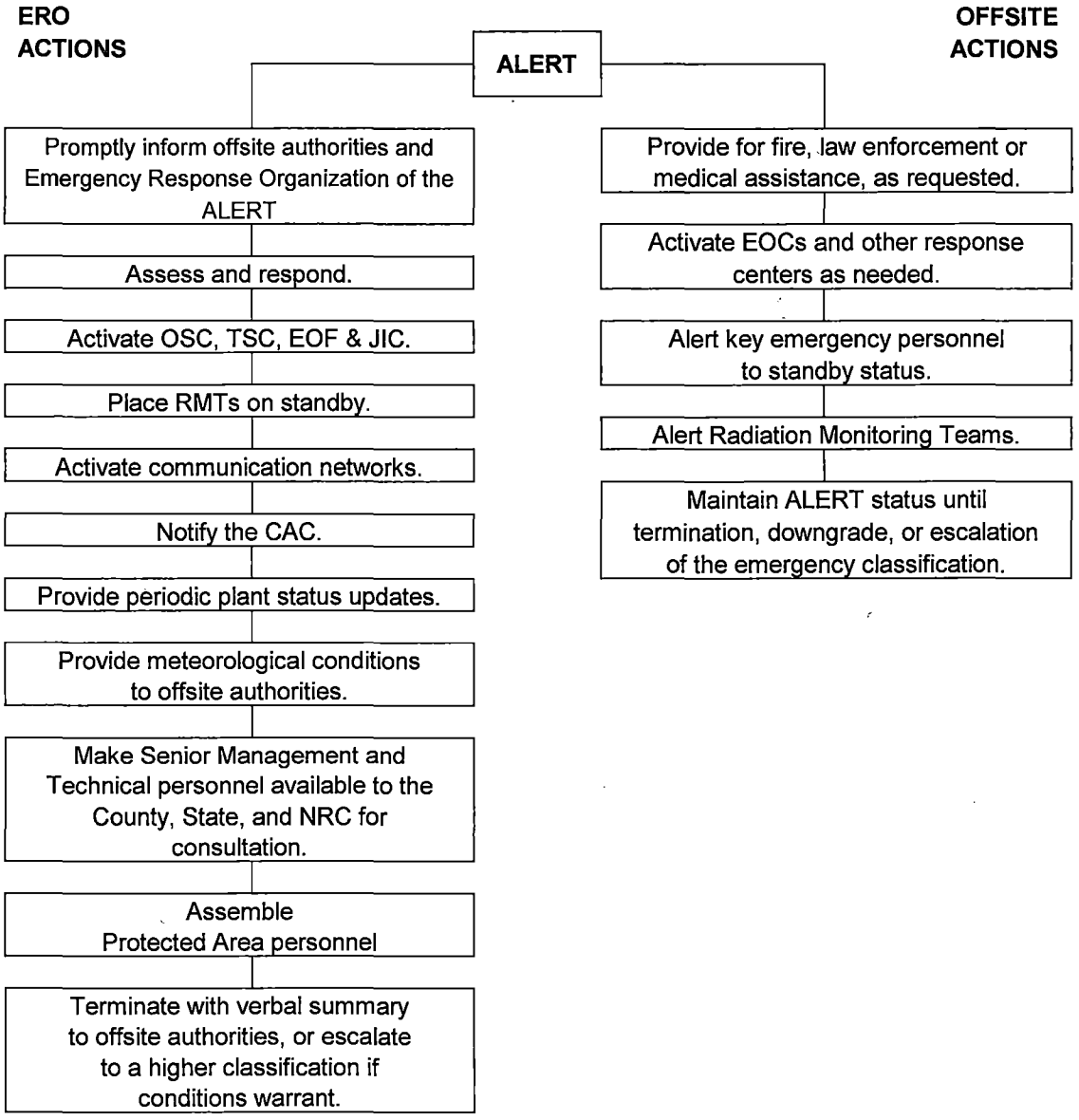


Figure 6-1 Page 3 of 4

SUMMARY OF TYPICAL EMERGENCY MEASURES

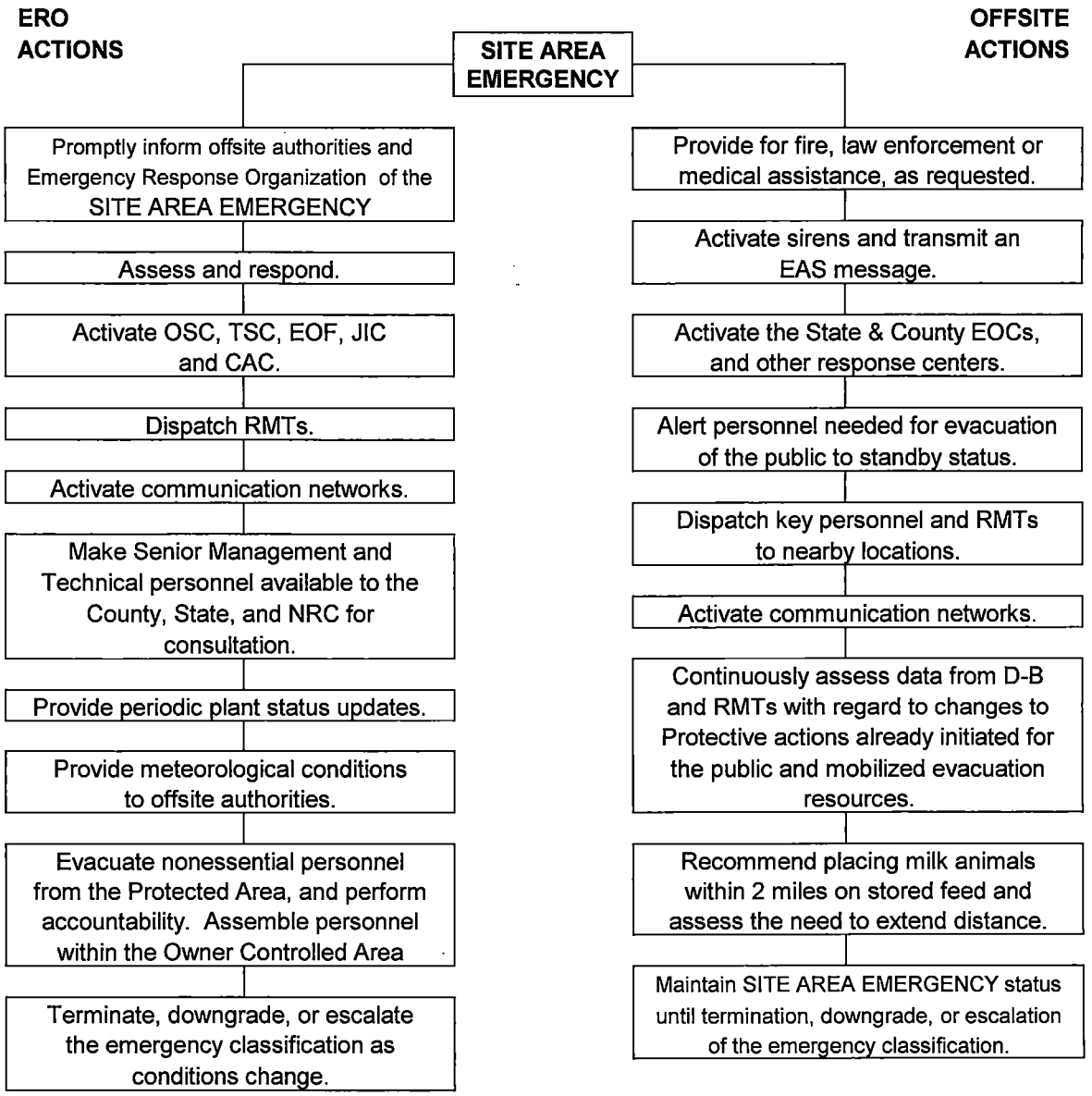


Figure 6-1 Page 4 of 4

SUMMARY OF TYPICAL EMERGENCY MEASURES

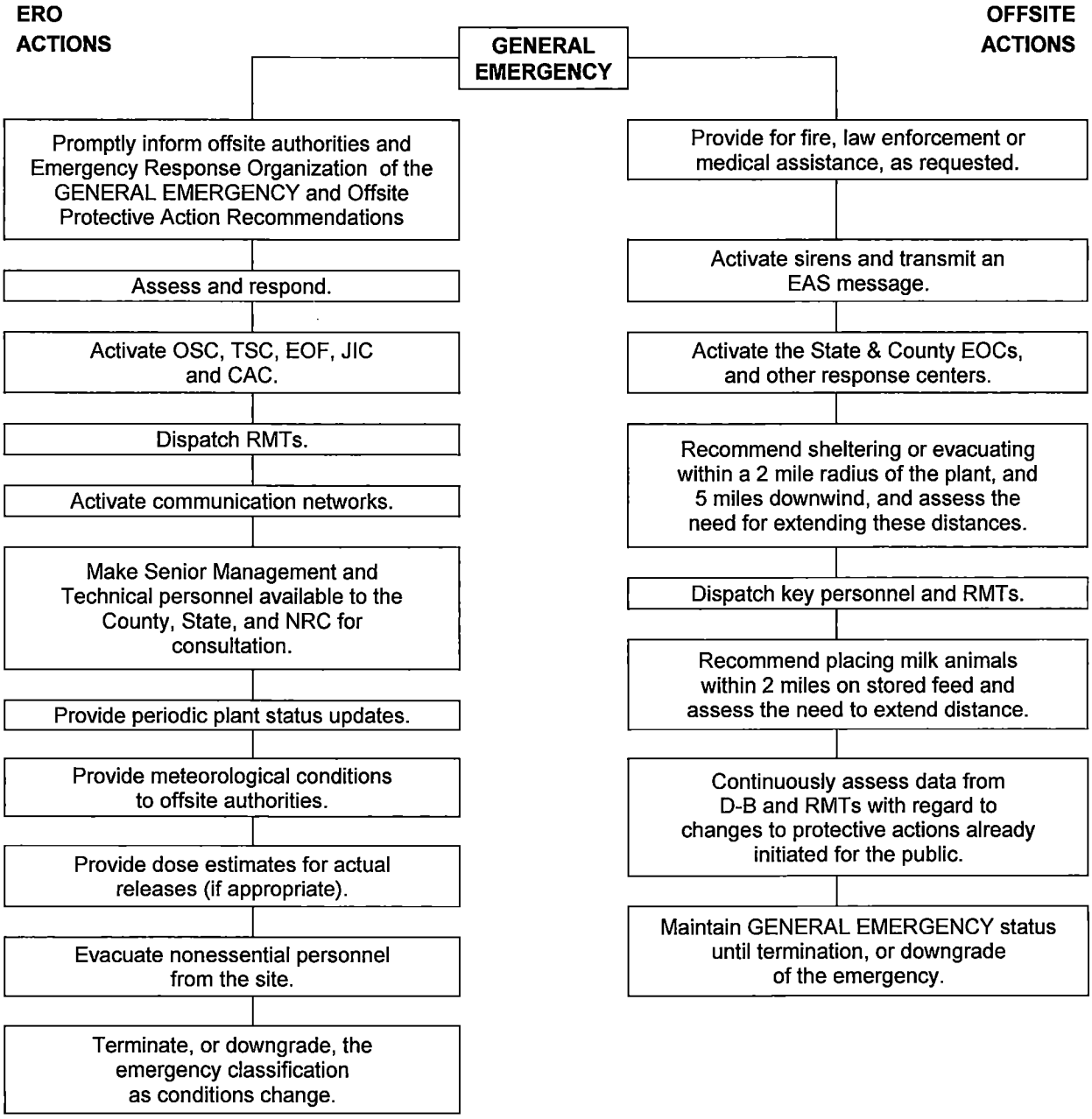


Figure 6-2 Page 1 of 2

EMERGENCY NOTIFICATION:
UNUSUAL EVENT

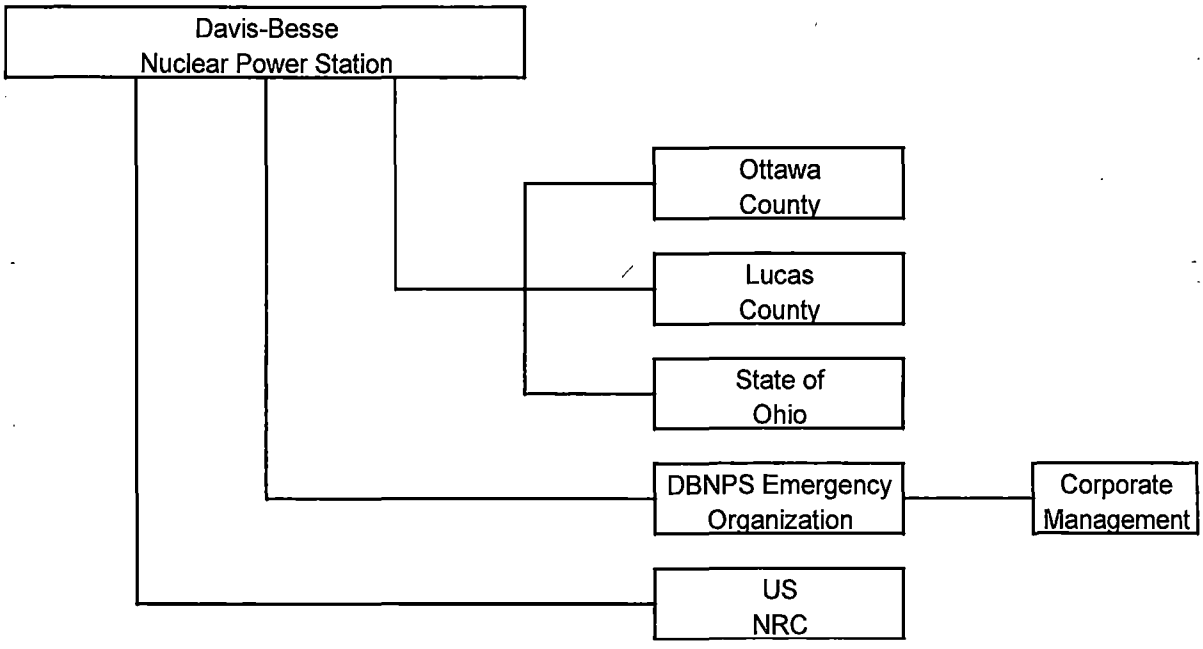


Figure 6-2 Page 2 of 2

EMERGENCY NOTIFICATION:
ALERT, SITE AREA EMERGENCY, GENERAL EMERGENCY

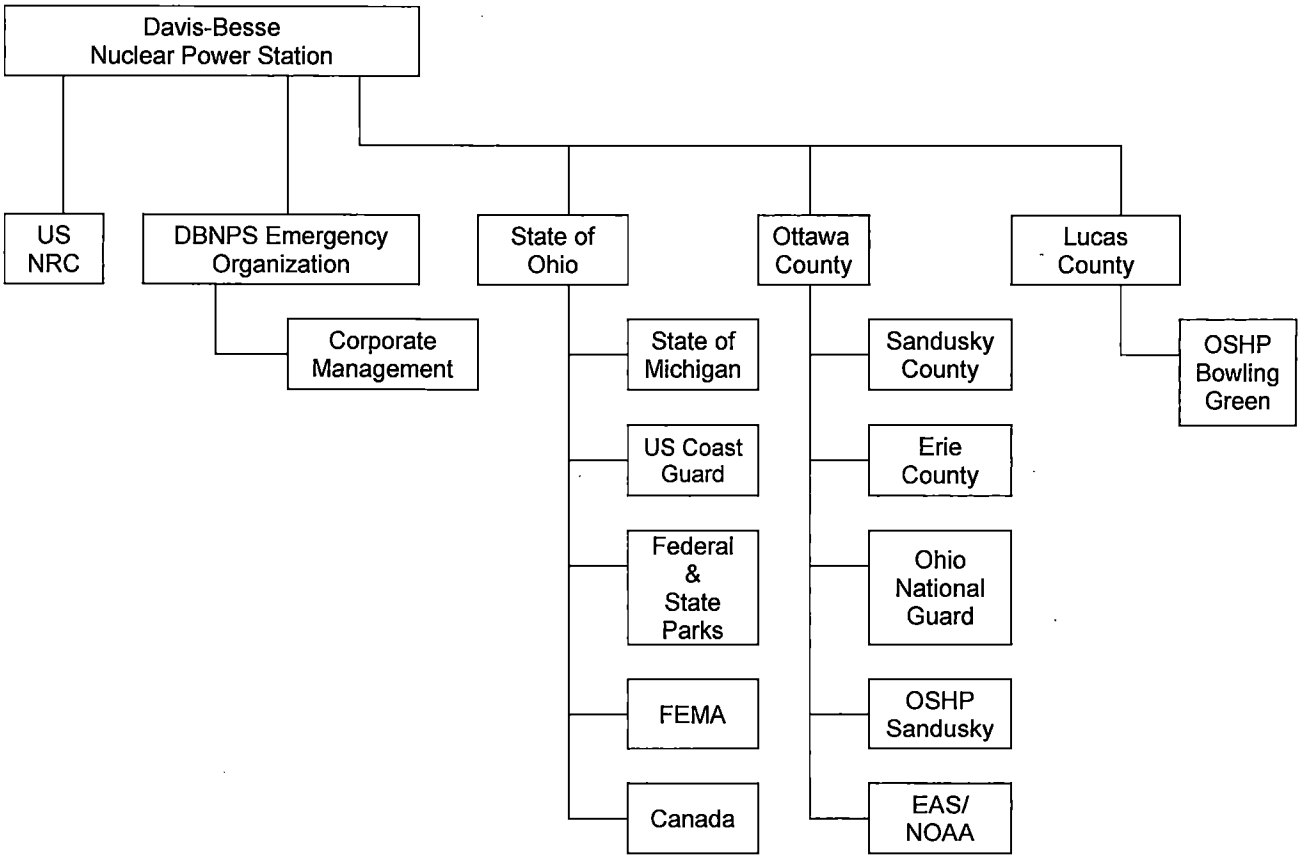
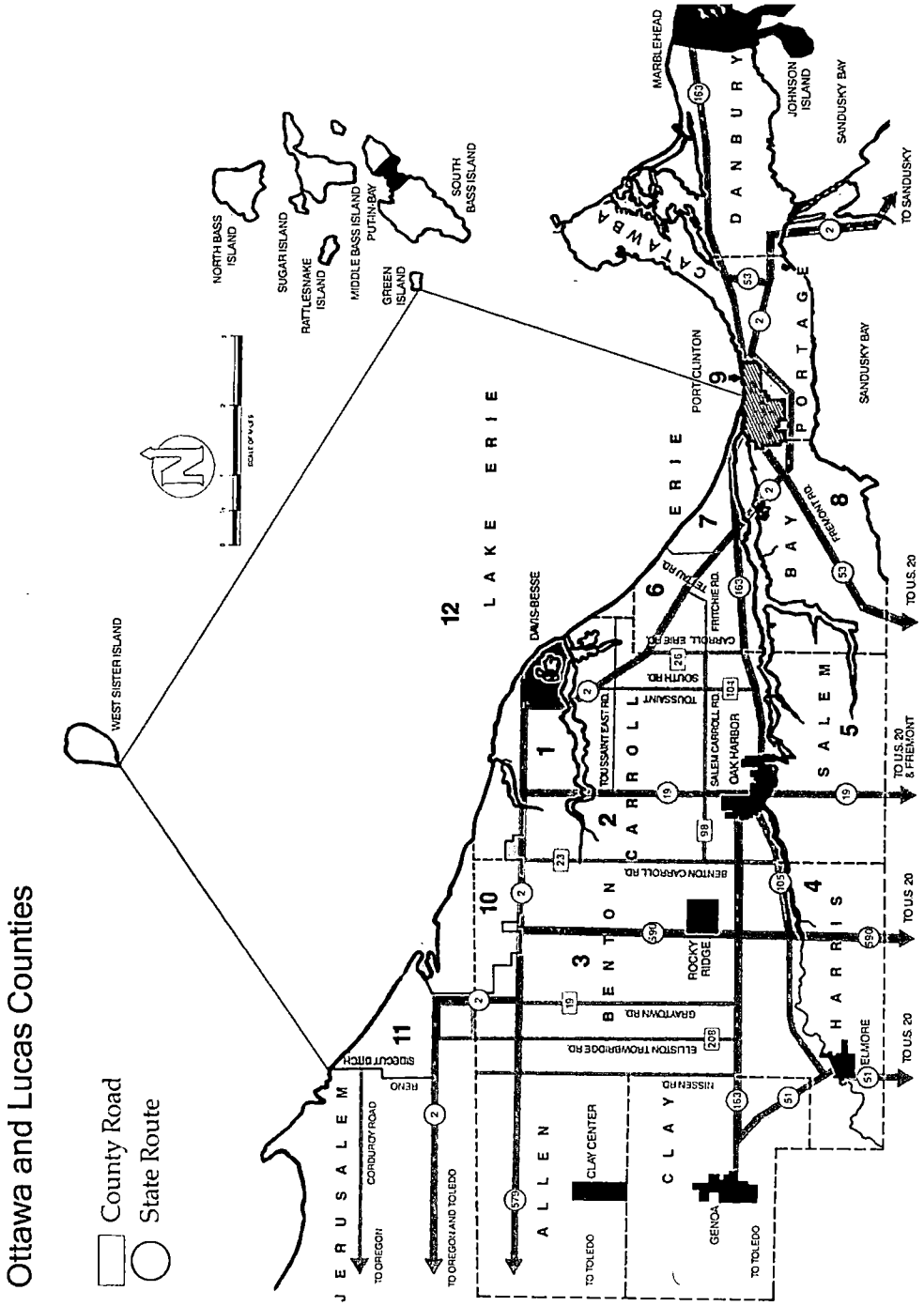


Figure 6-3

OFFSITE EMERGENCY EVACUATION ROUTES



7.0 EMERGENCY FACILITIES AND EQUIPMENT

This section describes the equipment and facilities used at DBNPS to:

- Assess the extent of accident hazards.
- Mitigate the consequences of an accident.
- Provide protection to station personnel.
- Support accident mitigation operations.
- Provide immediate care for injured personnel.

A diagram identifying the emergency facilities and their general location relative to each other, is included as Figure 7-1, "Emergency Facilities by General Location". Many of the DBNPS facilities and much of the equipment is normally used for routine plant operations. Other items are reserved for use only on an "as needed" basis.

7.1 DBNPS In-Plant Emergency Facilities

7.1.1 Control Room

a. The Control Room is the location from which the plant is operated. It contains the instrumentation, controls, and displays for:

1. Nuclear systems
2. Reactor coolant systems
3. Steam systems
4. Electrical systems
5. Safety systems (including engineered safety features)
6. Accident monitoring systems.

The operating shift is staffed in accordance with TS 5.2.2 and TRM 10.2.1 requirements. Control manipulations and the safe operation of the plant are directed by the Senior Reactor Operator licensed Shift Manager and Unit Supervisor, and are performed by licensed Reactor Operators.

b. During abnormal operating conditions, the complexity of Station responsibilities increases significantly and the Control Room transforms into an emergency response center. These responsibilities include the following:

1. Diagnosing the abnormal conditions.
2. Performing mitigative actions.
3. Mitigation of abnormal conditions.
4. Management of plant operations.
5. Management of emergency response.
6. Informing Federal, State, and local officials.
7. Recommendations for public protective measures to State and local officials.
8. Restoring the plant to a safe condition.
9. Recovering from the abnormal conditions.

Initially, Control Room personnel will assume all of these responsibilities. However, by activating other emergency response facilities, much of this responsibility is turned over to other personnel.

During emergencies, the Emergency Assistant Plant Manager uses the Shift Manager's Office, which is within the Control Room envelope, to observe and provide guidance to the Shift Manager for direction and control of in-plant activities.

7.1.2 Operations Support Center (OSC)

The OSC is on the fourth floor of the Personnel Shop Facility (PSF). The area designated for the OSC consists of a conference room and an adjacent storage room. The OSC is the assembly and dispatch point for damage control and repair teams.

7.2 Davis-Besse Administration Building (DBAB) Facilities

The DBAB contains the Emergency Response Facilities (ERFs) necessary to assist Control Room personnel in accident assessment and abnormal operating conditions. The ERF area of the DBAB has been designed to provide radiological habitability for approximately 30 days during a design basis accident, as described in Chapter 15 of the Davis-Besse Updated Safety Analysis Report. Within this protected environment, the ERFs function to:

1. Help the Control Room staff determine the plant safety status.
2. Relieve the Control Room staff of peripheral duties and communications not directly related to reactor system manipulations.
3. Prevent congestion in the Control Room.
4. Provide assistance to the operators from technical personnel who have comprehensive plant data at their disposal.
5. Provide a coordinated emergency response by both technical and management personnel.
6. Provide reliable communications between onsite and offsite emergency response personnel.
7. Provide relevant plant data to the NRC for its analysis of abnormal plant operating conditions.

The DBAB Annex and the second floor of the DBAB provide general administrative office space for the Station. The ERFs are on the first floor and are either in the restricted (north end) or unrestricted areas (south end).

The restricted area consists of two mechanical equipment rooms, a computer equipment room, telephone equipment room, Technical Support Center (TSC), TSC Library, Radiological Testing Laboratory (RTL), badging area, kitchen, and two areas designated as private office space.

The unrestricted area consists of the Energy Education Center (EEC), a Site Emergency Operations Center (SEOC) and several work/conference rooms. The DBAB is approximately 2100 feet from the Control Room. They are linked by a paved road which is completely contained within the site security boundary.

The water supply to the DBAB can store up to 4,000 gallons within the buildings, if necessary. Electrical power for the DBAB is supplied by the grid through a power structure approximately 200 feet east of the building. Backup power is provided by a diesel generator and vital loads are protected by an uninterruptible power supply.

The electrical and mechanical systems within the DBAB are computer controlled and activated using the Central Control and Monitoring System (CCMS). This system maintains building temperature and ventilation, and provides security alarms, trouble alarms, and fire protection, as conditions may warrant. For fires, an alarm on the CCMS can automatically activate the dry main sprinkler system in the records management vault; or a wet main sprinkler system in any other area. To minimize radiation exposure, two emergency ventilation air handling units are provided; one for the restricted area (north end) and one for the remaining areas (south end). By design, either unit can supply the restricted area, should the primary unit fail. Upon local activation, the units will switch to the recirculation mode employing high efficiency filters to minimize the introduction of airborne radiation sources into the emergency facilities.

7.2.1 Technical Support Center (TSC)

The TSC serves as the workplace for key ERO personnel who, during emergencies, assist the Control Room staff, perform accident assessment, and determine appropriate protective actions. The TSC provides for direct voice and data communication with the Control Room. The TSC also contains the Safety Parameters Display System (SPDS).

The SPDS computer was designed to provide sufficient Station information and data communication for operations personnel to evaluate and diagnose station conditions and activities so as to conduct emergency operations in an orderly manner. The SPDS provides data communication to the EOF, TSC, and Control Room. Because the SPDS aids in the detection and monitoring of plant transients and accidents, the SPDS is capable of functioning during and following most events expected to occur during the life of the station.

The TSC is in the restricted side of the DBAB.

The TSC contains workspace for up to 25 people, within a main work area and three conference areas.

Activation and operation of the TSC is contained in the Emergency Plan Procedures.

7.2.2 Radiological Testing Laboratory (RTL)

The RTL is a facility near the TSC for equipping and dispatching Radiological Monitoring Teams; and for the receipt, counting, and disposition of potentially contaminated environmental samples. The RTL reports to the Dose Assessment Coordinator in the near site EOF.

The RTL is on the ground floor of the DBAB.

7.2.3. Private Office Areas

Two areas are available as private office space for the NRC Site Director and other key emergency response officials. These office areas are in the restricted area of the DBAB.

7.2.4 Equipment Rooms

The telephone equipment room contains communications equipment necessary to connect the site telephone system into company and external phone systems.

Two mechanical equipment rooms contain redundant systems for electrical distribution, heating and ventilation, and compressed air. Both mechanical equipment rooms are in the restricted side of the DBAB.

7.3 Near Site Emergency Response Facility

The near site emergency response facilities are located near Lindsey, Ohio at the corner of SR 20 and SR 590. The facility houses the Emergency Operations Facility, the Alternate TSC and a muster area for station personnel. The facility has access to station radio and public Address systems. The facility is equipped with an uninterruptable power system and an emergency diesel generator. The Near Site Emergency response Facilities include the following:

7.3.1 Emergency Operations Facility (EOF)

The EOF provides a central location for the development of protective action recommendations by DBNPS and for representatives from offsite organizations. The EOF staff evaluates the magnitude and effects of actual or potential radioactive releases, and provides management assistance in the decision-making process to protect the public health and safety. Recommendations are based on station conditions with radiological and meteorological data obtained, through the Safety Parameters Display System (SPDS). The EOF utilizes various communication systems to establish and maintain communications with State, Federal, and local officials, and mobile Radiation Monitoring Teams (RMTs).

The EOF provides space for at least 22 people.

Activation and operation of the EOF is described in the Emergency Plan Procedures.

7.3.2 Alternate TSC

The Alternate TSC provides a location for the TSC in the event that the onsite TSC is not available. The Alternate TSC is equipped with those drawings, procedures, computer system and communications to be able to support the onsite response.

Activation and operation of the Alternate TSC is described in the Emergency Plan Procedures.

7.3.3. Muster Area

A Muster Area for approximately 75 individuals is available for the staging of personnel in the event that the station is not accessible.

7.4 Other Company Emergency Facilities

7.4.1 Joint Information Center (JIC)

The Joint Information Center (JIC) is the emergency facility for coordinating news statements and providing joint media briefings during an event at Davis-Besse. The Company, state, local and federal agencies represented at the JIC jointly prepare news information for release to the public via the news media. Equipment and work spaces for Public Information Officers and their staffs are provided to support timely communications on plant status and emergency response actions. JIC facilities include news briefing areas for electronic and print media representatives. JIC support is available for any plant emergency. However, facility activation is mandatory at (and above) the Alert emergency

classification level. The JIC is located at a FirstEnergy Corporation facility outside the 10-mile EPZ.

7.4.2 Corporate Emergency Facilities

Company facilities located throughout the service districts are available to provide support for the Corporate Assistance Center (CAC). Certain Company facilities have been designated to support coordination of CAC activities and centralized management of Company resources. The primary company facility identified for Fleet Emergency Response Support is the Corporate Assistance Center (CAC), located at the unaffected FirstEnergy nuclear station/plant..

7.5 County and State Emergency Operations Centers

7.5.1 Ottawa County Emergency Operations Center

Potential or actual emergencies at Davis-Besse could impact those persons who reside in Ottawa County within the 10-mile Emergency Planning Zone. To aid in protecting these residents, Ottawa County has a dedicated Emergency Operating Center (EOC) which meets the minimum federal criteria for space, communications, warning systems, and supplies.

The EOC is in the basement of the Ottawa County Courthouse Annex, in Port Clinton, Ohio. Communications during an emergency at Davis-Besse are coordinated through this facility, and the Ottawa County Sheriff's Office.

Davis-Besse dispatches a technical liaison to the EOC to help to aid offsite officials in understanding the event.

7.5.2 Lucas County Emergency Operations Center

Potential or actual emergencies at Davis-Besse could impact those persons who reside in the eastern portion of Lucas County within the 10-mile Emergency Planning Zone. To aid in protecting these residents, Lucas County has a dedicated Emergency Operating Center (EOC) which meets the minimum federal criteria for space, communications, warning systems, and supplies.

The EOC is located in the Lucas County Emergency Services Building, 2144 Monroe Street, Toledo, Ohio. Communications during an emergency at Davis-Besse are coordinated through this facility, and the Lucas County Sheriff's Office.

Davis-Besse dispatches a technical liaison to the EOC to help to aid offsite officials in understanding the event.

7.5.3 State of Ohio Emergency Operations Center

The State Emergency Operations Center is operated by the Ohio Emergency Management Agency, in Worthington, Ohio. During an emergency, representatives from all State agencies assemble at the State EOC to manage the response efforts. A technical liaison will also be sent to the State EOC, to help coordinate communications and provide technical advice.

A reliable communications system, utilizing the Fixed Monitor Station Network of the State Highway Patrol, ties all areas, and both the Ottawa and Lucas County Emergency Operations Centers into the State EOC.

7.6 Communications Systems

7.6.1 Normal Communications Systems

A comprehensive communications network with backup capabilities has been provided to assure reliable communications among the various emergency facilities and agencies. The network is composed of the following systems:

a. Onsite Commercial telephone systems:

1. A Private Branch Exchange (PBX) is used by the station for telephone communications. The PBX system provides six in/out bound offsite communications paths.
   - 2 paths connect to the FirstEnergy company communications system.
   - 3 priority circuits travel to Toledo where then connect to the commercial telephone system.
   - 1 priority circuit connects directly into the local commercial telephone system.

   The PBX system is self-contained to the Davis-Besse Nuclear Power Station and has backup power.

2. In addition to the company PBX system, there are also a limited number of lines that bypass the PBX system and are connected directly into the local phone company."

b. Near site Commercial telephone systems:

1. Voice over IP service from the Akron Ohio West Akron Campus

c. A public address system (Gai-tronics), which is totally separate from the telephone system, includes handset stations, loud speakers, and portable station jacks. It provides five normal plant channels, five maintenance channels, two switchyard maintenance channels, and four fuel handling channels. Access to the Gai-tronics system is available at the near site emergency response facilities.

d. A radio system capable of transmitting and receiving the following types of voice communications:

1. A two-way mobile channel is normally used by service dispatchers in various locations to mobile units.
2. A channel for direct radio communications with the Ottawa County Sheriff's dispatcher.
3. A channel used exclusively by Security.

4. A channel used by the Maintenance Department for normal day-to-day transmissions.
5. A channel is used by Operations personnel for normal day-to-day transmissions.

e. Radiation Monitoring Teams communicate on a five-channel trunked 800 megahertz radio system. Cellular telephones are also available if needed.

f. Alpha-numeric pagers are carried by key emergency responders to provide 24-hour a day coverage. Emergency classifications are communicated to emergency responders and can be used to communicate with other key personnel.

g. A Computerized Automated Notification System (CANS) is available to facilitate the notification process. The system is composed of a minimum of 26 phone lines. One telephone line is dedicated for system activation by the Control Room or Security, and the others are connected to the telephone network. The CANS is capable of group paging, individual paging, and individually calling all emergency response personnel carrying pagers, as well as calling out non-pager carrying responders. The system communicates the emergency classification and logs personnel response times.

7.6.2 Emergency Communications Systems

a. The following phone systems are dedicated for emergency communications:

1. The Davis-Besse 4-way ring down circuit including the State and County EOCs, the Ohio Highway Patrol Office, the Lucas County and Ottawa County Sheriff's dispatcher offices, the Emergency Operations Facility, and the Control Room.

2. A diverse network of commercial telephones, on uninterruptable power has been installed to provide:

a. NRC Emergency Notification System (ENS) telephone ("red phone").
b. NRC Health Physics Network (HPN) telephones.
c. Emergency Response Data System (ERDS) data lines.

3. Media press lines.

b. DBNPS has also established two separate communication bridges between various ERFs to ensure reliable and timely exchange of information between the emergency organizations. These bridges consist of the following:

1. Technical Data Bridge

Provides a technical data link for the following:

a) Control Room
b) Technical Support Center
c) Emergency Operations Facility

d) Operations Support Center

2. Radiation Management Bridge

Provides dedicated communications for radiological conditions and radiation protection management information among the following:

a) Control Room
b) Technical Support Center
c) Operations Support Center
d) Dose Assessment Center

7.6 .3 Maintenance of Emergency Telephone Numbers

The communication system which has been provided assures reliable onsite and offsite communications in any emergency. DBNPS maintains an Emergency Plan Telephone Directory, which is kept current by the Emergency Response Manager. This directory is reviewed quarterly and includes ERO personnel, the radiological emergency assistance provider, hospitals, local, state, and federal agencies, and others with special qualifications for emergency support.

7.7 Alarms

There are three station alarms as follows:

7.7.1 FIRE - Rise and Fall Siren
7.7.2 ACCESS EVACUATION - Pulsed Tone Burst
7.7.3 INITIATE EMERGENCY PROCEDURES - Warbled Tone

The alarms are activated from the Control Room. The FIRE, INITIATE EMERGENCY PROCEDURES, and ACCESS EVACUATION alarms sound in all plant areas (i.e., station office building, personnel shop facility, radiologically controlled area, fuel handling area, outdoor areas, primary access facility, etc.)

7.8 Prompt Notification System

Early warning of, and instructions to the population-at-risk are done under the direction of the Ohio Emergency Management Agency (OEMA) in conjunction with local officials, the Ottawa County Emergency Management Agency, and the Lucas County Emergency Management Agency. Prompt notification by the DBNPS is the vital first link in this process.

Once local and state authorities have been notified, several methods to warn the population-at-risk can be utilized. The method used and the time required will depend upon the severity of the situation. The methods available are:

7.8.1 Prompt Notification System (PNS) - Fifty-four high powered rotating sirens have been installed to provide an acoustic alerting signal for the residents and transients within the 10-mile radius of the Davis-Besse Station. Each siren is equipped with an independent battery backup which will allow operation during the loss of normal AC electrical power. The sirens have been located to meet the design objectives of Appendix 3 in NUREG-0654/ FEMA-REP-1, REV. 1. Local authorities activate the warning sirens from the Ottawa County Sheriff's Office. The sounding of the Prompt Notification System alerts the public to tune to local radio stations for EAS messages.

The PNS sirens are tested from the Ottawa County Sheriff's Dispatch Center as follows:

- A three-minute audible test is performed at least once per year
- A one-minute audible test is performed at least monthly
- A three-minute, one-minute or a silent test is performed weekly

Back-up Alert and Notification Methods - Backup alert and notification for the Davis-Besse 10-mile EPZ is achieved through pre-planned route alerting. This method has been approved by the Federal Emergency Management Agency (FEMA). County emergency management agencies will be prepared to make special provisions such as back up route alerting for those areas with sirens out of service, in the event of an emergency. The route alerting system utilizes planned routes for each siren that is unable to be activated.

7.8.2 Emergency Alert System (EAS) - State and local authorities can broadcast information, instructions, and necessary bulletins to the general public over the EAS (e.g., from the local Sheriff's offices or their Emergency Operations Centers).

7.8.3 NOAA National Weather Service alert monitors can be pulsed, and automatically turned on to disseminate emergency information.

7.8.4 Central Dispatching - The Ottawa and Lucas County Sheriff's Offices have central dispatches, manned 24 hours a day, to communicate with the police, fire, medical responders, and the OEMA.

7.8.5 Commercial Paging System - A paging system, backed up by the local telephone service, is used to permit immediate contact of local officials.

7.8.6 Emergency Vehicles - Vehicles with loudspeakers can be dispatched to various remote locations to broadcast warning messages.

7.8.7 House-To-House Notification - Local fire and police departments can perform house-to-house notification of residents in the affected areas around the plant.

Notification times have been included in the Evacuation Time Estimate. Information and appropriate advisories developed for the public, including transient areas, concerning the actions to be taken during an emergency, are available. Pertinent information can also be found in the local telephone directories.

Additional information regarding warning capability and information to transient areas around the plant can be found in The Ottawa County Plan for Response to Radiation Emergencies at Licensed Nuclear Facilities, Section II Part D; The Lucas County Radiological Emergency Response Plan, Section II Part E; and The Ohio Radiological Emergency Preparedness Plan and the Ohio Emergency Operations Plan.

7.9 Assessment Facilities

The systems and equipment described in the following sections ensure that the capability and resources are available to provide valid and continuing assessment throughout the course of an incident.

7.9.1 Radiation Monitoring System

The onsite Radiation Monitoring System contributes to personnel radiological protection within the plant, in accordance with regulatory guidelines. The Radiation Monitoring System detects, alarms, and initiates emergency actions when radiation levels or radionuclide concentrations exceed predetermined levels. To perform these functions, area, liquid, and atmospheric monitoring subsystems are employed.

The data from these subsystems are displayed by readouts in the Control Room. Additionally, certain monitors sound an alarm and are displayed on the Fire Detection System/Radiation Monitoring System (FDS/RMS) Console in the Control Room. A summary description of individual radiation monitor channels, described below, is provided in the Updated Safety Analysis Report (USAR) Table 11.4-1, Liquid Gas, and Airborne Radiation Monitors, and Table 12.1-3, Area Radiation Monitors.

In general the radiation monitoring equipment is designed in accordance with the following specifications:

a. Each monitoring station has adjustable, high level, low level, and power supply failure alarms.
b. Solid-state circuitry is used except for primary detectors.
c. The safety-related radiation monitors are powered from the essential instrument distribution panels. The non-essential radiation monitors are powered from the uninterruptible instrument distribution panels.
d. With the exception of the Kaman monitors, each radiation monitor is capable of being checked periodically with solenoid actuated check sources.

e. A pulse generator or current source is used for electrically checking each monitor or subsystem. Electrical input tests measure the functional operation of the monitoring system from the detector output through the readout devices.
f. The modules are designed so that an alarm and/or indication is initiated when failure occurs anywhere in the channel.

7.9.2 Area Radiation Monitoring

The Area Radiation Monitoring subsystem is comprised of area monitors located throughout the plant. Under normal operating conditions, the area monitors warn personnel of increasing radiation level, which may result in a radiation health hazard. There are a total of 40 area monitors consisting of two types, Geiger-Mueller detectors and Ionization Chamber detectors. The detectors are housed in weather-proof containers and equipped with a remote controlled check source. The local alarm and readout for each of these channels is separate from the detector and is also housed in a weatherproof container.

These detectors can also monitor the high level of radiation that would be characteristic of the post-accident atmosphere in the containment. The detectors are desensitized by a lead shield.

The Control Room readout modules are located in the radiation monitoring panel in the Control Room.

7.9.3 Atmospheric Radiation Monitoring

Atmospheric Radiation Monitoring measures radioactive material contained in the air.

The atmospheric radiation monitoring subsystem is comprised of monitors of the fixed and movable type. Each fixed atmospheric monitor is comprised of a particulate measuring channel, iodine measuring channel, and a gaseous measuring channel. The air sample that passes through each of these channels is obtained by means of a sampler and a pump assembly. Samples are obtained by means of a sampling head placed in a ventilation duct.

Portable atmospheric monitors are available for use during maintenance operations. These monitors are capable of monitoring particulate, iodines, and noble gases. The installed and portable atmospheric monitors provide both an audible alarm and visual indications when pre-determined setpoints are exceded for airborne radioactivity.

7.9.4 Process Radiation Monitoring

Process radiation monitoring measures radiation given off radioactive material contained in process fluids within systems.

The process radiation monitoring subsystem consists of monitors each of which consists of a sampler, scintillation detector, and Control Room ratemeter module. The monitors readout in the Control Room on the individual ratemeter and two common recorders.

7.9.5 Radiation Monitoring Instruments and Equipment

Radiation Monitoring Instruments and Equipment includes those instruments and equipment which may be taken into the field (both on and offsite) to determine the presence of gaseous, particulate or airborne radioactive material. This includes general survey instruments. Portable radiation survey instruments and personnel dosimetry and equipment are shown in Table 7-1.

7.9.6 Fire Protection and Detection Devices

Fire protection at Davis-Besse is provided by (1) the Fire Protection Water System, and (2) the Fire Detection System.

a. Fire Protection Water System

The Fire Protection Water System is a full-loop, piped system that supplies water for (1) sprinklers, (2) deluge water spray, (3) fire hydrants, and (4) hose connections that are located such that they provide fire protection for all major areas of the plant and site.

A Fire Water Storage Tank provides a source of water via the Electric Driven Fire Pump. A jockey pump maintains system piping full and pressurized.

The Diesel Driven Fire Pump takes suction from the intake forebay. In the event that a fire occurs, and either an automatic or manual system is initiated, the Fire Protection Water System piping pressure will decrease and cause the electric (120 psig) and the diesel (100 psig) fire pumps to start at their respective pressure setpoint, to meet system flow requirements.

Sprinkler systems provide a coverage of 0.3 gpm per square foot of floor area, for any (including the most remote) 3,000 square foot area; and 0.2 gpm per square foot, for any 10,000 square foot of floor area under the turbine operating and intermediate floors, and in all areas to which oil may spread in the event of an oil line break. This protection is also provided below major steel grating floor whether or not sprinklers are installed above.

Fire hydrants are connected to the main fire yard loop around the periphery of the station. A distribution header loop is provided within the turbine building, with four branch feeders from the underground fire yard loop. Each section of the header loop and each branch line are provided with isolation valves. The headers supply readily accessible, mounted, fire hose stations located throughout the turbine and auxiliary buildings.

Hose cabinets are provided throughout the auxiliary building. Each hose cabinet contains 50-75 feet of 1½ inch hose, with an adjustable fog nozzle, and a separate 2½-inch hose connection for local fire department use. Fire extinguishers are provided throughout the building.

Hose reel units are provided in the turbine building. Each reel is provided with 50-75 feet of 1½ inch fire hose, and an adjustable fog and stream hose nozzle. Adjacent to each hose reel is a separate 2½-inch hose connection for local fire department use. Portable fire extinguishers are located throughout the building.

Fire suppression to the Administration Building, Warehouse, Training Center, Primary Access Facility, and Service Building #3 consists of sprinkler systems and hose stations.

b. Fire Detection System

The fire detection system is comprised of detectors located throughout Davis-Besse, especially in those areas not protected by sprinkler systems.

1. Temperature Rise Detectors

Temperature rise detectors monitor the protected area and will send a signal to a local control cabinet and Control Room alarm if the rise in temperature reaches a setpoint.

2. Smoke and Vapor Detectors

Ionization type smoke detectors monitor the area, and when activated, send a signal to a local control cabinet and Control Room alarm.

The Fire Detection Panels receive their inputs from the various detectors, and in turn send an alarm to the Control Room.

An alarm initiates when any of the following conditions occur within the Fire Detection System:

a) Fire
b) Trouble
c) Ground Fault

If any of the above occur, a line printer, fed by the Fire Detection System/Radiation Monitoring System (FDS/RMS), will print out the alarm in the Control Room.

Upon receipt of an alarm, the Control Room operator acknowledges the alarm on the FDS/RMS console printer, and identifies the specific cause of the alarm.

7.9.7 Seismic Monitoring System

The Seismic Monitoring System records (on magnetic tape) vibrations in the earth due to a local earthquake. In addition, the system will record the vibrations on man-made structures caused by the earthquake. The data acquired will contribute to the assessment of damage and the determination of cause of damage. The data is useful in confirming the design and analysis of the structure. To aid decision making, six alarm lights are provided at the

system rack, in the cabinet area of the Control Room. These lights show the exceedance of Operating Basis Earthquake (OBE) or Safe Shutdown Earthquake (SSE) at the containment foundation.

The sensors and seismic triggers are installed remotely from the system rack, and are connected by cables to the rack. (See the Technical Requirements Manual (TRM) for location of the sensors and trigger.)

One low-level triaxial seismic trigger is used to turn on the system automatically during the buildup of the event vibrations. The seismic trigger is adjustable from approximately 0.005g to 0.02g (g=acceleration due to gravity). The recording system is in full operation within 0.1 second after a low-level trigger signal. Recording continues with out interruption for approximately 10 seconds after the last low-level trigger signal. Upon completion of the seismic event recording, the Control Room operator removes the magnetic tape cassette from the recording machine. The recording cassette tape is placed in a playback unit which converts to strip-chart form, the longitudinal, transverse, and vertical axes of vibration. The time domain tape recording can be transferred to other available data analysis or acquisition equipment for more detailed analysis.

In keeping with the purposes of the system, the power is supplied by rechargeable batteries so that loss of site power will not prevent system operation. Continuous float charging of the batteries is provided by a battery charger module.

In addition to the components associated with the system rack, there are three peak recording accelerometers as listed in the TRM, Table 8.3.3-1, which require no electrical power to operate. After a seismic event operators can remove the three tape strips from each recorder, develop the strips, and determine the peak values recorded at the associated location.

7.9.8 Onsite Meteorological Measurement Programs

Data collection from the current onsite meteorological monitoring system began at DBNPS on August 4, 1974. The location of both meteorological towers is such that the meteorological data from the towers are representative of the DBNPS site. The system includes two levels of instrumentation on a 340-foot freestanding tower and one level of instrumentation on a 35-foot satellite tower. Both towers are located in the southwest corner of the site approximately 2800 feet from DBNPS.

Wind direction and speed are measured at the 250 and 340-foot levels on the freestanding tower and at 35 feet on the satellite tower. Differential temperature measurements (ΔT) are made between 35 and 250 feet and between 35 and 340 feet on the free standing tower.

The Control Room, Emergency Operations Facility (EOF), and Technical Support Center (TSC) can obtain meteorological data through the Data Acquisition and Display System (DADS). All meteorological data are recorded on strip chart recorders. Dual-channel strip chart recorders are used for recording wind speed and direction; one recorder for each tower level. Ambient temperature, dewpoint, delta T, and precipitation are recorded on one multipoint strip chart recorder; each parameter is recorded on an individual channel.

The data recording and signal conditioning equipment is housed in an environmentally controlled out structure located near the base of the tower.

The meteorological instruments at DBNPS are calibrated at least semiannually. The instrumentation and records are checked on a nominal daily basis for proper functioning of equipment. All maintenance and calibrations are performed in accordance with written procedures.

Backup meteorological data (i.e., wind speed and direction) are available from the National Weather Service. Arrangements have also been made to obtain complete backup meteorological information from the Enrico Fermi Nuclear Power Station at Newport, Michigan. Backup hydrological data can be obtained from the Marblehead Coast Guard Station, and the Port Clinton Sewage treatment plant (lake level and precipitation respectively).

7.9.9 Control Room Instrumentation

Control Room Instrumentation measures appropriate parameters that are indicative of the status of various plant systems and the reactor itself.

The Post Accident Monitoring System (PAMS) is also available to follow the course of an accident with wide range instrumentation. This system will provide to the plant operators, the essential safety status information necessary to allow them to return the plant to a maintained, safe, shutdown condition.

USAR Table 7.5-1 provides a listing and a description of Control Room instrumentation, including PAMS that would be used in performing continued assessment of plant conditions.

7.9.10 Laboratory Facilities

The Davis-Besse laboratory facilities are equipped to provide the water chemistry and radiochemical analysis support required during normal plant operations. This equipment can also be utilized in the analysis of abnormal events to assist in the diagnosis of plant operation when conditions permit.

If an accident occurs which would make normal sampling and counting methods impractical, the following measures can be taken:

a. A Radiological Testing Laboratory (RTL) is located in the DBAB in the restricted area near the TSC. Its primary functions are to act as a staging area for Radiation Monitoring Teams and provide a handling area for environmental samples.

b. For reactor coolant system sampling, a shielded, high-pressure sampler is available for pressurized samples. These samples are obtained using the Post Accident Sampling System (PASS) which was designed specifically for this purpose.

c. For containment atmosphere sampling, the normal sampling procedure is used. If any channel of the RE 4597 series monitor is off scale or an independent sample

and analysis is required, a grab sample can be obtained from the Emergency Grab Sample System.

d. For station vent sampling, procedure guidance exists for sampling using either the normal or accident range station vent monitors. Provisions are included to replace and quantify radioactive particulate and iodine sampling media. Also if RE 4598 series Channel 1, 2 or 3 is off scale, a portable survey instrument on the sample line can be used and dose rate is then converted to μCi/cc.

7.9.11 Facilities and Equipment for Offsite Monitoring

A complete Radiological Environmental Monitoring Program (REMP) for effluent control has been established at the DBNPS. The program has been in effect since August 1972.

The REMP employs fixed radiation/radionuclide detection and measurement instruments at various locations within a 25 mile radius from DBNPS. Samples of vegetation, water, soil, milk, and produce are routinely collected and analyzed. The REMP is conducted under the guidance contained in the Davis-Besse Offsite Dose Calculation Manual (ODCM).

During emergencies at DBNPS, baseline data from the REMP will be used in assessing the radiological effects of any possible releases on the environment.

DBNPS has three, four-wheel drive vehicles, equipped to perform field monitoring during emergencies. These vehicles are available within about 30 minutes after declaration of an emergency. Radiation Monitoring Teams (RMTs), dispatched at an ALERT or higher, will conduct emergency field monitoring of radiation and airborne activity levels throughout the EPZ, under direction from the Dose Assessment Center, in the EOF. Monitoring results will be used to verify plume boundaries and to adjust dose projections for more correct protective action recommendations.

7.10 Protective Facilities and Equipment

Personnel protective action at DBNPS is a function of the nature of the hazards, for instance, preparing for a hurricane is somewhat different from preparing for radiological hazards. Preplanned responses to the basic hazards, such as high winds, flooding, earthquakes, and radiation exposures are an integral part of the DBNPS Emergency Plan and are therefore discussed separately. A fundamental concept in personnel protection is the immediate release and removal of all individuals not essential to the operation, safety, security, and damage control of the plant. Obviously some hazards can occur before any protective action can be taken. When the situation permits, the appropriate alarms are sounded and all personnel on site either assume their assigned emergency responsibilities, or are assembled at the designated points for accountability prior to release from the site or reassignment to an emergency team.

Protected facilities include the DBNPS Control Room and the emergency facilities on the first floor of the Administration Building. These areas are located in seismically rated structures and have adequate shielding to permit safe occupation for extended periods of time without exceeding a dose limit. The ventilation systems in these facilities have redundant fans and chillers and are provided with appropriate alarms and interlocks. Provisions have also been made for the air to be

recirculated through high efficiency particulate (HEPA), and activated charcoal filters when necessary.

Self contained breathing apparatus (SCBAs) are located in the Control Room to permit continued occupancy if ventilation systems fail. Air-purifying respirators are available in the Radiologically Controlled Area and would be provided to Control Room personnel as needed. Additional SCBAs, protective clothing, and respirators are available at, or near, each onsite ERF, and are listed in applicable Radiation Protection Procedures and Emergency Plan Procedures.

Parts for the respirators and SCBAs, as well as additional protective clothing are available through the FENOC Supply Chain.

7.11 First Aid and Medical Facilities

First aid facilities at DBNPS are designed to support immediate care ranging from simple first aid to procedures requiring a physician. The most readily available first aid is provided by the small kits placed throughout the plant. These kits contain items typically needed to care for minor injuries.

More complete medical cabinets are located throughout the site and contain medical supplies needed to care for more serious injuries.

7.12 Damage Control Equipment

The DBNPS is extensively equipped to conduct preventive and mitigative maintenance and repairs on mechanical, structural, electrical and instrumentation and control equipment found in the station.

Each maintenance crew is qualified and, when required, certified to perform the tasks associated with their craft in the working environment of a nuclear plant.

In addition to the equipment and materials required for normal maintenance, other items are available to handle extraordinary maintenance jobs that might arise in damage control. Refer to the appropriate system procedure or Emergency Plan Procedure for equipment lists.

TABLE 7-1

Radiation Monitoring Instruments and Equipment

A. Portable Radiation Survey Instruments

	Range	Type Detector	Quantity	Location
High Range Survey Instruments	0-1000 mrad/hr-10^3 rad/hr	GM	5 3	RTL RP Area
	0-50 R/hr	Ion Chamber	6	RTL
Low Range Survey Instrument	0-5 rem/hr	Ion Chamber	2	RP Area
	0-5 x 10^5 cpm	GM	4	RTL
Alpha Survey Meter	0-5 x 10^5 cpm	Scintillator	1	RP Area
Neutron	0-5000 mrem/hr	BF_3	2	RP Area

B. Portable Air Sampling Equipment

	Type	Quantity	Location
Offsite	Air Sample	10	Environmental Survey Stations
Low Volume	12 volt D.C.	4	RTL
	Battery Power	4	RTL
Onsite	High Volume	1	RP Area
	Low Volume	2	RP Area

TABLE 7-1

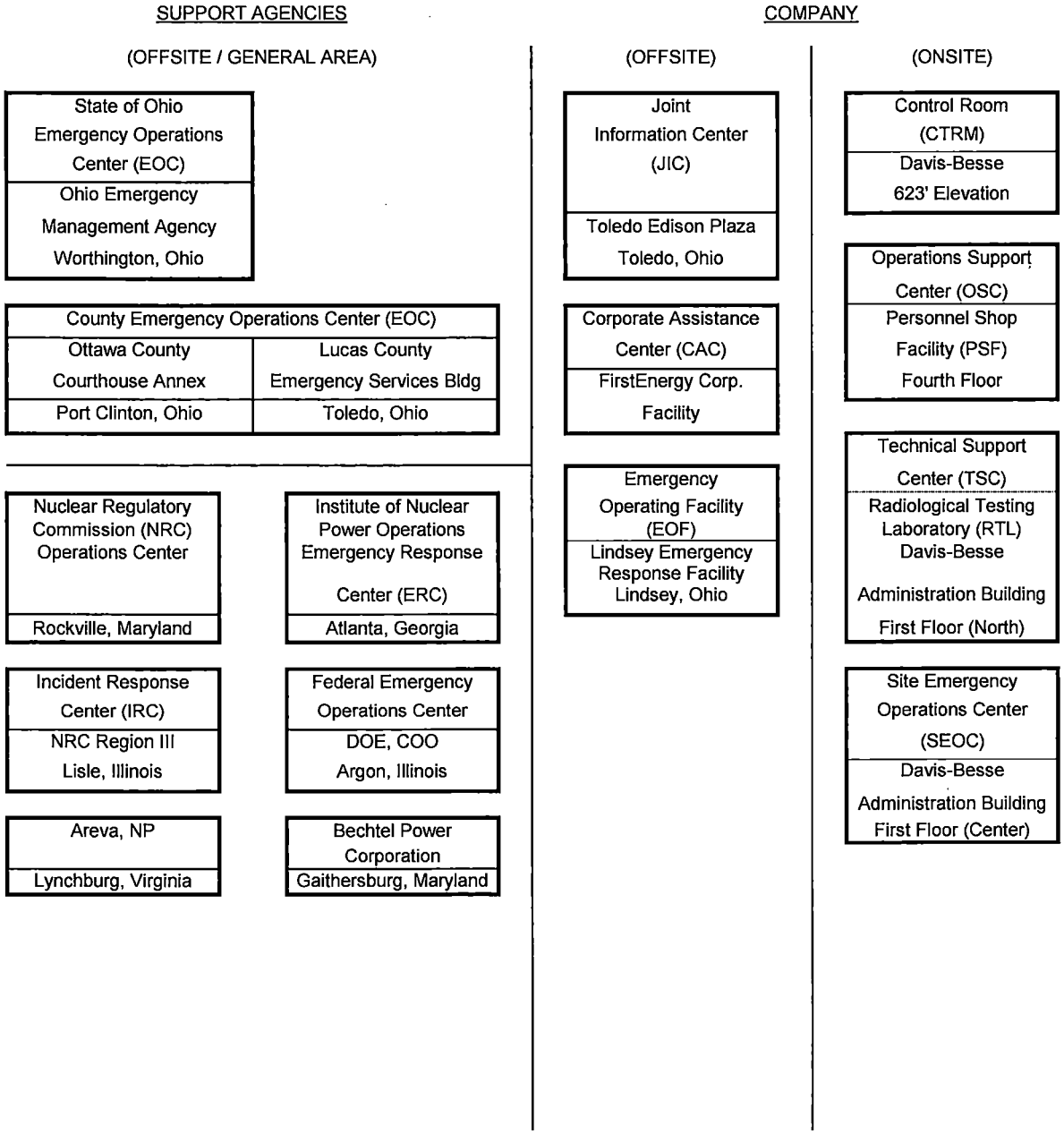
Radiation Monitoring Instruments and Equipment (Continued)

C. Personnel Dosimetry and Equipment

	Range
Self-Reading Dosimeters:	
Pocket Ion Chamber	0-10 rem or 0-100 rem 0-1.5 rem or 0-5 rem 0 – 200 mrem or 0-500 mrem
OR	
Electronic Alarming Dosimeters	All ranges
Dosimeter Charger	All ranges
Thermoluminescent Dosimetry (TLD)	All ranges
Radiation Monitor (Frisker)	0-50 kcpm
Automatic Whole Body Contamination Monitors	N/A

Figure 7-1

EMERGENCY FACILITIES BY GENERAL LOCATION



8.0 MAINTENANCE OF EMERGENCY PREPAREDNESS

Efforts will be made to assure continuous emergency preparedness and operational readiness among Company personnel and the offsite response agencies and organizations. The Vice President - Nuclear has been assigned the overall responsibility for emergency preparedness as related to the DBNPS. This responsibility includes not only maintenance of the DBNPS Emergency Plan and Emergency Plan Procedures, but also its interrelationships with state, federal and county plans; agreement letters; corporate policy and plans; and other related plans, programs, and procedures. The Vice President - Nuclear is also responsible for training of personnel who implement the Plan and Procedures. To assist the Site Vice President – DB Nuclear in meeting these assigned responsibilities, an Emergency Response Manager, has been designated. The specific responsibilities of the Emergency Response Manager are described in the following subsections; and in particular, subsection 8.1.3.

8.1 Organizational Preparedness

8.1.1 Training

All personnel permitted access to the DBNPS protected area will take part in a formal training program under the direction of the Vice President - Nuclear. This training program provides for the indoctrination of Company employees and contractors. In addition it provides specialized training for licensed operators, chemistry personnel, radiation protection personnel, and personnel assigned specific responsibilities in the ERO.

The Vice President - Nuclear is responsible for ensuring that personnel in each department receive the appropriate training. The Nuclear Group Department Directors are responsible for identifying training required for each individual's job specialty. Training in support of the Emergency Plan, includes the following:

b. All DBNPS staff personnel requiring unescorted access will receive training related to Emergency Response. This training will be completed initially, prior to being granted unescorted access, and annually to maintain unescorted access.

With regard to Emergency Response, the following objectives have been established:

1. State the purpose of the Emergency Plan, and associated procedures.
2. State the classifications of station emergencies.
3. Recognize the emergency alarms and state the proper response for each.
4. State the actions required during Emergency Plan implementation.
5. State the purpose and importance of accountability.
6. Identify the location of emergency facilities and assembly areas inside the Protected Area and Owner Controlled Area.
7. Discuss evacuation plans, including identification of evacuation routes.
8. State the company's policy concerning the release of information to the public and news media regarding an emergency.
9. State the function of the Prompt Notification System.

10. Identify the appropriate communication system to be used for reporting emergencies, locating an individual in the Plant, and conducting lengthy discussions.
11. Identify and discuss operation of the radiation exposure control criteria for personnel during an emergency for the persons who have access to Radiation Restricted Areas.

b. Personnel assigned to the DBNPS ERO with specific Emergency Plan duties and responsibilities will receive specialized training for their respective assignments. Table 8-1 delineates which personnel shall receive specialized training, the type of training, and the minimum required frequency for each type of training.

c. Training for offsite organizations and personnel involved in emergency response for DBNPS is the responsibility of the State of Ohio and Ottawa and Lucas County Emergency Management Agencies. Training programs for these agencies are controlled and conducted in accordance with existing radiological emergency plans and procedures. Davis-Besse coordinates with the State of Ohio, county emergency management agency directors, and local authorities to ensure consistency and continuity of the above-mentioned plans and procedures with the DBNPS Emergency Plan and Emergency Plan Procedures. Davis-Besse financially supports the State of Ohio and the county agencies to ensure continued program maintenance and training support of the Radiological Emergency Preparedness (REP) program.

d. The local fire departments will be invited to participate in a training program, which, as a minimum, will include the following topics:

1. Interface with the nuclear security force during emergencies.
2. Basic health physics indoctrination and training.
3. The DBNPS facility layout.
4. Onsite fire protection system equipment (permanent and portable).
5. Differences between onsite fire fighting equipment and fire company supplied equipment.
6. Communications systems.
7. Review of applicable parts of the DBNPS Emergency Plan and Emergency Plan Procedures.
8. The onsite emergency organization, with specific emphasis on the interface between the DBNPS Fire Brigade and local fire department personnel. (Included in this training will be the understanding that when local fire support is required within the protected area, local fire department personnel will function in conjunction with, and under the direction of, the DBNPS Fire Brigade.)

e. A review of the DBNPS EALs will be performed annually by the Emergency Response Section with state and local governmental agencies. This EAL review is directed toward offsite senior management personnel and may be performed through a mailing. This mailing includes an offer to receive training on the DBNPS EALs upon request.

f. A coordinated program shall be conducted annually to acquaint the news media with the Emergency Plan, information concerning radiation, and points of contact for release of public information in an emergency. Normally, this information will be presented through a mailing, which may include an invitation for a site/plant tour.

8.1.2 Drills and Exercises

a. Periodic drills and exercises will be conducted in order to test the overall state of emergency preparedness. The prime objective of this form of training is to determine the level of emergency preparedness of all participating personnel, organizations, and agencies. More specifically, each drill or exercise will be conducted to meet the following objectives:

1. Ensure that the participants are familiar with their duties and responsibilities.
2. Verify the adequacy of the DBNPS Emergency Plan and Emergency Plan Procedures.
3. Test communications networks and systems.
4. Check the availability of emergency supplies and equipment.
5. Verify the operability of emergency equipment.

The Emergency Response Manager is responsible for the planning, scheduling, and coordination of all emergency preparedness related drills and exercises.

All drills and exercises are subject to the approval of the Director, Site Operations. In addition, the Site Vice President, DB Nuclear will approve the Biennial Exercise.

Each drill requirement will be performed within the specified time interval, with a maximum allowable extension not to exceed 25% of the drill interval. An exercise will be conducted once every other calendar year to demonstrate the overall effectiveness of the Davis-Besse Emergency Response Program. The scope and content of the biennial exercise will be consistent with established departmental procedures and regulatory requirements.

Instructions and coaching may be given to participants during a drill. Such actions are prohibited during a biennial exercise. Therefore, in order to take credit for specific drill objectives during an exercise, no instructions or coaching may occur.

b. When a major drill or exercise is to be conducted, the Emergency Response Manager will:

1. Assign personnel to prepare a scenario.
2. Coordinate efforts with other participating emergency personnel, organizations, and agencies.
3. Obtain the approval of the Director, Site Operations (DB), and the Site Vice President-DB Nuclear (for the Biennial Exercise).
4. Schedule a date for drill execution and assign controllers.
5. Critique the results of the drill.
6. Assign personnel to correct any deficiencies.
7. Ensure that deficiencies are corrected.
8. Prepare and submit documentation to the Nuclear Records Management for record keeping of training conducted.

Scheduled drills and exercises will involve onsite as well as offsite emergency personnel, organizations, and agencies. These drills and exercises will be conducted simulating, as closely as possible, actual emergency conditions; and may be scheduled such that one or more drills or exercises are held simultaneously. Drill scenarios will be prepared that involve the participation of several emergency teams and all or specific parts of the onsite and offsite emergency organizations. This may include varying degrees of participation of state, county, and federal organizations and agencies, and local service support personnel and organizations. The Emergency Response Manager will notify the offsite emergency response organizations and agencies at least thirty days in advance of the scheduled date of the drill or exercise. Collection and analysis of all sample media (e.g., water, vegetation, soil and air) should be included in the drills. Drills will involve on-the-spot correction of erroneous performance, and a demonstration of the proper performance by the controller, if necessary.

During the conduct of exercises, the controllers are restricted in their ability to correct erroneous performance, and may only intercede to assure safety of personnel, or prevent damage to equipment.

Recommendations for revisions to the DBNPS Emergency Plan, Emergency Plan Procedures, and/or the upgrading of emergency equipment and supplies, as a result of a drill or exercise, are forwarded to the Emergency Response Manager by observers or participants. The Emergency Response Manager will submit such procedure revisions for review in accordance with Emergency Plan Administrative Procedure. Approved changes will be incorporated into the Emergency Response Program under the direction of the Emergency Response Manager.

c. Records will be maintained on each drill/exercise listed below.

1. Medical Emergency Drill:

At least one drill per calendar year will be conducted.

The drill will involve the participation of some, if not all, of the local medical support personnel and organizations (e.g., local physicians, ambulance services, hospitals, etc.), and will involve cases of radiation overexposure and/or contaminated personnel and/or contaminated/injured personnel.

2. Fire Emergency Drill:

Fire drills will be conducted in accordance with DB-FP-00005, Fire Brigade.

3. Communications Links Test:

The communication links used for notification (e.g., DBNPS Control Room to Ottawa and Lucas County Sheriffs' Offices, OEMA, Ottawa County EMA and Lucas County EMA) will be tested at least monthly.

Communications between the Nuclear Regulatory Commission (i.e., NRC Headquarters) and the TSC, EOF and Control Room will be tested at least monthly.

The communications links used for contacting federal agencies (i.e., NRC and the DOE Radiological Assistance Program personnel) and the State of Michigan will be tested at least quarterly.

The communications links between emergency centers and Field Assessment Teams (i.e., DBNPS EOF to RMTs) will be tested at least annually. Table 1-2, Communication Test Frequencies, defines the above time periods.

4. Exercise and Drills:

Emergency Response exercises shall test the adequacy of timing, the content of implementing procedures and methods, test emergency equipment and communication networks, test the public notification system, and ensure that emergency organization personnel are familiar with their duties.

a) DBNPS shall conduct an exercise of its onsite emergency plan every two years. This biennial exercise will include full participation by Ottawa and Lucas counties, and either full or partial participation by the State of Ohio. Federal agencies may also elect to participate.

b) In those years between biennial exercises, at least one drill involving a combination of some of the principal functional areas of the onsite emergency capabilities shall be conducted. The principal functional areas of emergency response include activities such as management and coordination of emergency response, accident assessment, event classification, notification of offsite authorities, assessment of the onsite and offsite impact of radiological releases, protective action recommendation development, protective action decision making, plant system repair and mitigative action implementation. During these drills, activation of all of the emergency response facilities is not necessary. State and local agencies within the plume exposure pathway EPZ may participate in these drills at their request.

5. Radiological Monitoring Drills

a) Radiological monitoring drills shall include, at least annually, collection and analysis of all samples (e.g., water, vegetation, soil, and air), and provisions for communications and record keeping.

b) Radiation Monitoring Team (RMT) drills will be conducted semiannually which involve simulated elevated airborne samples and direct radiation measurements in the offsite environment.

6. Health Physics Drills

a) Semiannual Health Physics drills will be conducted which involve response to, and analysis of, simulated elevated airborne and liquid samples and direct radiation measurements in the environment.

b) An annual drill will be conducted which includes an analysis of actual in-plant liquid samples (Reactor Coolant System) with simulated elevated radiation levels.

7. One exercise/drill in a six-year cycle will start between 6:00 p.m. and 4:00 a.m. Drills should be conducted under various weather conditions. Some drills may be unannounced.

8. Staff Augmentation Drills

Off-hours augmentation drills will be conducted semiannually to test and document the response times of the station emergency response staff personnel.

8.1.3 Emergency Response Manager

The Emergency Response Manager shall ensure that:

a. Information, data, and procedures detailed in the Emergency Plan Procedures are consistent with the DBNPS Emergency Plan.

b. Emergency Plan Procedures and other procedures are coordinated and interface properly (e.g., Administrative Procedures, Security Procedures, Radiation Protection Procedures, Training Procedures, etc.).

c. Coordination of the DBNPS Emergency Plan and Emergency Plan Procedures with the:

1. State Plans
2. County Plans
3. Davis-Besse Physical Security Plan

d. Adequate staffing of the ERO is maintained.

e. Emergency response related training documentation is sent to Nuclear Records Management.

f. Emergency related drills and exercises are coordinated as described in this Plan.

g. Periodic reviews and updates of the DBNPS Emergency Plan and Emergency Plan Procedures occur as described in this Plan.

h. Maintenance and inventory of emergency equipment and supplies is as described in this Plan.

i. Changes in the federal regulations and guidance that impact emergency preparedness activities are incorporated into the program as applicable.

8.1.4 Ottawa County EMA and Lucas County EMA Directors

Emergency planning coordination among all Ottawa County and Lucas County agencies is the responsibility of the EMA Directors for each county. The Directors for these counties have the following responsibilities:

a. Ensure that a sufficient number of preparatory courses are scheduled in the areas of radiological monitoring and decontamination procedures. These courses will assist radiological monitors and local officials in fulfilling their assigned functions in an emergency.

b. In coordination with the American Red Cross, determine that a sufficient number of care centers will be available to house evacuees.

c. Ensure a complete evacuation education program is available for residents and transients within the risk area.

d. Work with state and local authorities to complete, test, and improve upon the Countywide Emergency Warning Plans, Emergency Communications Development Plans and Countywide Resource Manuals.

8.2 Educational Information for the Public

For those members of the public residing within the 10-mile Emergency Planning Zone, DBNPS will provide written information on the following topics:

a) Educational information on radiation;
b) Contact for additional information;
c) Protective measures, e.g., evacuation routes and relocation centers, sheltering, respiratory protection, radioprotective drugs; and
d) Special needs of the handicapped.

Methods of providing this information may include direct mail, billing statement inserts, and/or telephone book inserts.

At least annually, in cooperation with the EMAs of Ottawa and Lucas Counties and the State of Ohio, DBNPS will update the information provided to members of the public within the 10-mile Emergency Planning Zone.

8.3 Review and Update of the Emergency Plan and Emergency Plan Procedures

DBNPS maintains, as separate documents; this Emergency Plan, the Emergency Plan Implementing Procedures, Off-Normal Occurrence Procedures, the Emergency Plan Administrative Procedures, Fleet procedures to support station emergency plans, a Public Information Emergency Response Procedure, the Emergency Plan Telephone Directory, and the Evacuation Time Estimate (ETE). It is intended that this plan, although considered as part of the Davis-Besse Nuclear Power Station (DBNPS), Unit 1, Final Safety Analysis Report (FSAR), will be maintained as a separate document. This is more clearly defined in the Updated Safety Analysis Report (USAR), Section 13.3.

8.3.1 The DBNPS Emergency Plan, including appended letters of agreement and plans of offsite organizations and agencies will be reviewed annually and updated as required by the Emergency Response Section, under the direction of the Emergency Response Manager.

8.3.2 The DBNPS Emergency Plan will be reviewed annually by an independent group with no immediate responsibility for the emergency response program. This group is the FENOC Oversight organization. Results and recommendations from the review will be documented and sent to appropriate corporate and plant management, including the Company Nuclear Review Board (CNRB). The CNRB is responsible for auditing the Davis-Besse Nuclear Power Station Emergency Plan to verify compliance at least once every two years. The CNRB performs this function by reviewing the audits which are performed by the FENOC Oversight organization. The report on the adequacy of the interfaces between the DBNPS Emergency Plan and the state and local governments will be sent to the respective government agencies by the Emergency Response Section, and retained on file for at least five years.

Davis-Besse Oversight is responsible for auditing the DBNPS Emergency Plan at least annually to verify compliance with the company's internal rules and procedures, federal regulations, and operating license provisions. Personnel performing audits of the DBNPS Emergency Plan and/or Emergency Plan Procedures will take into account

corporate policy, state policy and plans, county plans, and the various agreements and understandings with federal, state, county and local support groups, agencies and organizations. Davis-Besse Oversight is responsible for auditing the fire protection program at least once per 24 months per the FENOC Quality Assurance Program Manual.

Results of each annual and biennial review and update (if needed) of the Davis-Besse Nuclear Power Station Emergency Plan and Emergency Plan procedures will be reported to the Site Vice President – DB Nuclear.

8.3.3 The Emergency Response Manager will provide an ongoing review of the Emergency Plan and Procedures.

a. The DBNPS Emergency Plan Procedures will be incorporated into the DBNPS procedures program. As such, procedures will be prepared, reviewed, approved, controlled, distributed, and revised in accordance with DBNPS administrative procedures. Document holders (e.g., DBNPS, state, county, and federal agencies, etc.,) will receive revisions to the Emergency Plan Procedures in a controlled manner, as they are issued. In addition, these Emergency Plan Procedures will provide guidance to document holders on how to make comments and recommendations concerning the Emergency Response Program to DBNPS. Revisions to the DBNPS Emergency Plan will be similarly controlled.

b. The Emergency Response Manager is responsible for coordinating the periodic review and audit of the DBNPS Emergency Plan and Emergency Plan Procedures. In addition, the Emergency Response Manager will, through letters, meetings, seminars, or other means available; ensure that appropriate elements of the emergency organization are informed of the DBNPS Emergency Plan and amendments thereto, and the Emergency Plan Procedures and revisions thereto.

8.4 Maintenance and Inventory of Emergency Equipment and Supplies

The Emergency Response Manager is responsible for planning and scheduling the quarterly inventory and inspection of designated emergency supplies and equipment.

Designated emergency equipment and supplies, and their storage locations, will be listed in the Emergency Plan Administrative Procedures.

Such equipment and supplies will be maintained in accordance with approved DBNPS procedures. Equipment, supplies, and parts having shelf lives shall be checked and replaced as necessary.

TABLE 8-1 Sheet 1 of 3

PERIODIC TRAINING OF EMERGENCY RESPONSE PERSONNEL

Personnel Category	Involved Personnel	Training and Frequency
Emergency Assistant Plant Manager	Station personnel designated as Emergency Assistant Plant Manager	Emergency Assistant Plant Manager shall periodically receive training on DBNPS Emergency and Abnormal Operating Procedures and reactor thermal shock considerations equivalent to that received by SRO licensed individuals.
Licensed Operators	Shift Managers Unit Supervisors Other licensed staff members	Reactor Operators and Senior Reactor Operators receive extensive on-the-job and formal training as scheduled and conducted by the operator requalification training program. This program shall include a comprehensive review of the DBNPS Emergency Plan and the Emergency Plan Procedures.
Personnel responsible for assessment of emergencies	Emergency Director, Emergency Plant Manager, Emergency Offsite Manager, Shift Managers, Shift Technical Advisors (STAs), Key Emergency Response Personnel Staff personnel designated by the Director, Site Operations who may act as OSC and TSC Managers Other members of the Nuclear Group staff as designated by the Site Vice President – DB Nuclear.	Training will include the Emergency Plan, Emergency Plan Procedures, Technical Specifications (that are referenced in the Emergency Action Levels), and other station programs, plans, and procedures. The listed individuals attend at least one meeting per year to receive training on the Emergency Plan and Procedures. Detailed instructions with special attention given to the use of either dose assessment or engineering assessment techniques is provided based on the role they are expected to play during an emergency. Personnel shall participate in scheduled exercise and drills depending on availability.
Personnel responsible for repair and damage control	Maintenance Other personnel as designated by station management as Fire Brigade and First Aid	Periodic training is provided to Station maintenance personnel in troubleshooting techniques as described in the training program for the specific discipline. Fire Brigade and First Aid training occurs as described in this table.

TABLE 8-1

Sheet 2 of 3

PERIODIC TRAINING OF EMERGENCY RESPONSE PERSONNEL

Personnel Category	Involved Personnel	Training and Frequency
Radiological Monitoring Personnel	Station personnel designated as Radiation Monitoring Team Members	On an annual basis, detailed instructions are provided on such topics as classification of emergencies, interfaces and responsibilities of the radiological monitoring and assessment personnel, personnel protection during emergencies, location and use of emergency equipment, monitoring techniques, and communications.
Post Accident Sampling Personnel	Chemistry personnel designated by the Chemistry Supervisor to perform PASS samples	On an annual basis, detailed training shall be provided on the purpose and applications of the Post Accident Sampling System with both a detailed review of applicable system procedures and a walkdown of the system equipment.
First Aid Team(s)	Station personnel as designated by station management	Each member of the First Aid Team(s) shall receive a standard accredited first aid course, including cardiopulmonary resuscitation (CPR). Satisfactory completion of this course certifies them as members of the First Aid Team(s). Recertification training shall be provided at the frequency required by the certifying organization. Annually, a refresher course shall be made available for the team members which shall include a review of CPR, portions of the standard first aid course and handling of contaminated injured victims. In addition, after completing the standard first aid course, and during each of the annual refresher courses, each member shall be instructed on the availability of onsite medical treatment facilities, equipment, and supplies; communication systems; radiological hazards existing during personnel-related emergencies; and interfaces and responsibilities with local medical support personnel (e.g., local physicians, ambulance personnel, etc.).
Security Force	Nuclear Security Management	The listed individuals will receive training on at least an annual basis. The training program shall include the following subjects: a review of the applicable parts of the Emergency Plan, and Emergency Plan Procedures with emphasis on the classification of emergencies, communications, and specific areas of responsibility; personnel accountability; personnel and vehicle access control during emergencies; evacuation control; and interfaces with offsite support organizations and agencies.

TABLE 8-1 Sheet 3 of 3

PERIODIC TRAINING OF EMERGENCY RESPONSE PERSONNEL

Personnel Category	Involved Personnel	Training and Frequency
Fire Brigade	Fire Captains Designated shift personnel Other station personnel as designated by station management as Fire Brigade Members	This training which is provided to each person involved, is given by instructors trained in fire fighting. The program shall include, but not be limited to, the types of fires and their particular hazards, equipment to be used on each type of fire, the installed fire detection and protection systems, portable firefighting equipment and locations, respiratory protection devices, and radiological hazards existing during fire emergencies. In addition, a review of fire fighting procedures and techniques shall be included in the training program. Practical demonstrations of firefighting shall also be given. Fire Brigade training frequency is defined by the Fire Protection Program.
Offsite Medical Training	Medical Hospital and Ambulance Personnel	These personnel shall receive offsite medical training in accordance with the responsibilities and details contained in current state and local government plans and procedures.
Fleet Emergency Response Support Personnel	All Company personnel assigned duties and responsibilities in the Corporate Assistance Center (CAC) to support the DBNPS Emergency Plan	These personnel shall receive training at least on an annual basis. The program shall include a comprehensive review of Fleet procedures to support station emergency plans with specific attention and instruction given to their support role, responsibilities and duties.
Emergency Response Personnel	Emergency Response Manager and designated staff	Periodic classroom training and seminars on Emergency Response shall be provided on an as-needed basis and at the discretion of the Emergency Response Manager to these individuals from qualified outside organizations and documentation of this training maintained by the Emergency Response Section.

9.0 REENTRY AND RECOVERY

9.1 Reentry

During an emergency, immediate actions are directed toward limiting the consequences of the accident, so as to afford maximum protection to Station personnel and the general public. Once mitigative measures have been taken and effective control reestablished, the response efforts shift towards reentry and recovery. Reentry is made to perform certain essential actions which could not be performed coincident with the immediate response to the emergency.

Offsite Reentry is the responsibility of state and local authorities. It typically consists of environmental monitoring and assessment of the actions required to support return of the public to evacuated areas and residences. Additional details regarding plans and procedures for offsite reentry are found in The Ohio Radiological Emergency Preparedness Plan and the Ohio Emergency Operations Plan . DBNPS will provide support and assistance to offsite agencies as requested to facilitate these efforts.

Onsite reentry is made when the emergency situation is under control and more deliberate planning can be made for the activities to be performed. These activities may occur prior to termination of the emergency, or they may be conducted as part of the Recovery phase of the response. All reentry actions conducted prior to the termination of the emergency will be authorized by the Emergency Plant Manager, and coordinated by the Operations Support Center (OSC) Manager and the Emergency Radiation Protection (RP) Manager. Reentry conducted during Recovery will be authorized by the Plant Recovery Manager. When preplanning these initial onsite reentries, the following items will typically be considered:

9.1.1 Review available radiation surveillance data to determine plant areas potentially affected by radiation and/or contamination.

9.1.2 Review radiation dose histories of personnel required to participate in the recovery operations.

9.1.3 Determine the need for additional personnel and the source of these additional personnel.

9.1.4 Review adequacy of radiation survey instrumentation and equipment (i.e., types, ranges, number, calibration).

9.1.5 Pre-plan survey team activities to include:

a. Areas to be surveyed
b. Anticipated radiation and contamination levels
c. Radiation survey equipment required
d. Shielding requirements and availability
e. Protective clothing and equipment required
f. Access control procedures (issuance of new RWPs) including exposure control limits and personnel dosimetry required
g. Decontamination requirement
h. Communications requirements

9.1.6 Review and revise security access lists to prevent unauthorized or unintentional entry into hazardous areas.

9.1.7 Reentry teams should be tasked with as many of the following as possible:

a. Determination of the initial required recovery operations.
b. Observation of hazards or potential hazards associated with the recovery operations.
c. Conducting comprehensive surveillance of plant facilities.
d. Isolating and posting of areas in the plant with appropriate warning signs and rope barriers, such as Radiation Areas, High Radiation Areas, High Airborne Activity Areas, and Contaminated Areas, etc.
e. Assessing the conditions of station equipment and areas.

In the period immediately following an accident, initial radiation monitoring functions involve only gross hazard evaluations, isolation of the hazard, and the definition of radiological problem areas. This immediate radiation surveillance activity is used to provide the basic information for recovery operations.

9.2 Recovery

The Emergency Director and Emergency Plant Manager have the joint responsibility for determining when an emergency situation is stable and the Station is ready to enter the recovery phase. The Recovery Organization will develop and coordinate plans and schedules for recovery operations. Following a SITE AREA or GENERAL EMERGENCY, the Company Nuclear Review Board (CNRB) will participate in the recovery planning effort to assure that all nuclear safety aspects of the recovery are satisfied. The CNRB will report their findings to the Recovery Director, who shall take the actions that he deems appropriate for safe recovery operations.

The Emergency Plant Manager, under the direction of the Emergency Director, will be responsible at the site for coordinating onsite recovery activities and the return to normal operations.

At the time that an emergency has been terminated, and Recovery has been initiated, the Emergency Offsite Manager will be responsible for providing notification to all applicable agencies (federal, state, county, etc.).

9.2.1 Prior to terminating an emergency and entering the Recovery phase, the Emergency Director will coordinate with the Emergency Plant Manager and the Emergency Offsite Manager to ensure that the following criteria have been considered:

a. The conditions which caused the emergency have stabilized, are under control, and are unlikely to deteriorate further.

b. The plume is beyond the ten-mile Emergency Planning Zone, and/or plume tracking is no longer required. The only environmental assessment activities in progress may be those necessary to assess the extent of deposition resulting from passage of the plume.

c. In-plant radiation levels are acceptable, and are stable or decreasing.

d. Radioactive releases are under control and are no longer in excess of technical specification limits.

e. The potential for uncontrolled radioactive releases is acceptably low.

f. Containment pressure is within technical specifications.

g. The reactor is in a stable safe shutdown condition and long-term core cooling is available as required.

h. Any fire, flood, earthquake or similar emergency condition no longer exist.

i. All contaminated injured, personnel have been transported to a medical care facility.

j. All required notifications have been made.

k. Offsite conditions will not limit access of personnel and support resources to DBNPS.

l. Discussions have been held with all offsite and select regulatory agencies, and agreement has been reached to terminate the emergency.

9.2.2 The extent of recovery activities will dictate the precise framework of the Recovery Organization:

a. For events of a minor nature, the normal onshift organization should be adequate to perform necessary recovery actions (e.g., for UNUSUAL EVENT classifications).

b. For events involving significant damage to plant systems required to maintain operation of the plant, the onsite emergency organization, or portions thereof, should be adequate to coordinate the necessary recovery actions (e.g., for ALERT classifications).

c. For events involving damage to plant systems required to maintain safe shutdown of the reactor, a formal Recovery Organization will be established to manage the recovery actions (e.g., for SITE AREA or GENERAL EMERGENCY classifications).

Particular attention should be directed toward isolating components and systems as required to control or minimize the hazards. A systematic investigation will be conducted to determine the extent of any equipment damage. Recovery operations are considered to be terminated when the plant has returned to pre-accident levels of radiation and contamination or to conditions, which are acceptable and controllable for an extended period of time.

Recovery operations that may result in the release of radioactive materials shall be evaluated by the Recovery Director. Such events and data pertaining to the release will be reported to the appropriate offsite emergency organizations and agencies.

In the final phase of the recovery operations, a restoration program will begin. The overall purpose of the restoration program is to prepare for resumption of full-power operations. This program will include a detailed incident analysis. Determinations will be made as to the repair work required to perform needed modifications to plant equipment and/or operating procedures. Repair work and approved modifications will be carried out as authorized. Test programs to confirm fitness and acceptability to return to service will be developed and executed.

Since no emergency is considered to exist during this time period, normal limits of radiation dose will be applied during the restoration. Compliance with the limits are the responsibility of the Recovery Director.

A recovery plan, must be flexible enough to adapt to existing, rather than theoretical, conditions. It is not possible to anticipate in advance all of the conditions that may be encountered in an emergency situation. Therefore, the DBNPS plan addresses some general principles that will serve as a guide for developing a flexible plan of action.

Specific members of the Recovery Organization will be selected based upon the sequence of events that preceded the recovery activities.

9.2.3 The following is a basic framework for the formation of a formal Recovery Organization. The reporting chain for the organization is outlined in Figure 9-1. This organization may be modified as necessary for any particular incident.

a. Recovery Director

The Recovery Director is responsible for directing the activities of the Recovery Organization, including the following:

1. Ensure that sufficient personnel from DBNPS and other organizations are available to support recovery.
2. Direct the development of a recovery plan and implementing procedures, as required.
3. Coordinate with the CNRB to ensure adequate review of engineering activities and proper review and approval of the recovery plan and implementing procedures.
4. Coordinate the deactivations of emergency response facilities and personnel as appropriate.
5. Coordinate the integration of available state and federal assistance into recovery activities.
6. Coordinate with offsite authorities, and provide support as required for offsite recovery activities.
7. Review all information released by the Public Information Organization.

b. Outage Director:

1. Reports to the Recovery Director.
2. Coordinates the development and implementation of the recovery plans and procedures, under the direction of the Recovery Director.
3. Directs all onsite activities supporting of the recovery of DBNPS.

c. Radiation Protection Manager:

1. Reports to the Outage Director.
2. Develop plans and instructions to process and control liquid, gaseous and solid wastes in a manner consistent with the recovery organizational goals.
3. Coordinate cleanup and repair activities, in such a manner as to ensure that dose to the workers is maintained as low as is reasonably achievable.
4. Estimate the total population dose, as necessary.
5. Develop plans for plant radiation surveys, sampling, and shielding in support of waste system processing, plant repairs, and design modification activities.
6. Designate members of Reentry/Recovery Team(s) dealing with onsite radiological aspects of the response.
7. Organize and coordinate actions of the Reentry Team.
8. Ensure teams are adequately briefed and equipped with the required protective gear, and are familiar with the radiological conditions and precautions for the area to be reentered.
9. Provide an interface between the teams and the Recovery Management to ensure reentry actions are approved and executed in accordance with instructions, and provide the teams with the required support.

d. Technical and Engineering Manager:

1. Reports to the Outage Director.
2. Coordinate the development of plans and procedures in support of plant systems and operation activities.
3. Provide a central point for the collection, retention, retrieval and transmission of plant data.
4. Analyze problems, determine alternatives and develop plans in the recovery of system operations.
5. Designate members of Recovery Team(s) dealing with technical and engineering aspects of the plant.

e. Operations Manager:

1. Reports to the Outage Director.
2. Direct recovery activities conducted by Operations personnel.
3. Provide recommendations to the Outage Director regarding plant operations-related aspects of the recovery.

f. Maintenance Manager:

1. Reports to the Outage Director.
2. Coordinate maintenance activities conducted in support of recovery.
3. Designate members of the Reentry team, as appropriate to support maintenance.

g. Offsite Recovery Advisor:

1. Reports to the Recovery Director.
2. Provides liaison with offsite agencies and coordinating DBNPS assistance with offsite recovery and assessment efforts, as requested.
3. Coordinates any ingestion pathway sampling DBNPS elects to do to supplement that performed by the state.
4. Coordinates the collection of other offsite radiological data, as required, in support of DBNPS recovery activities.

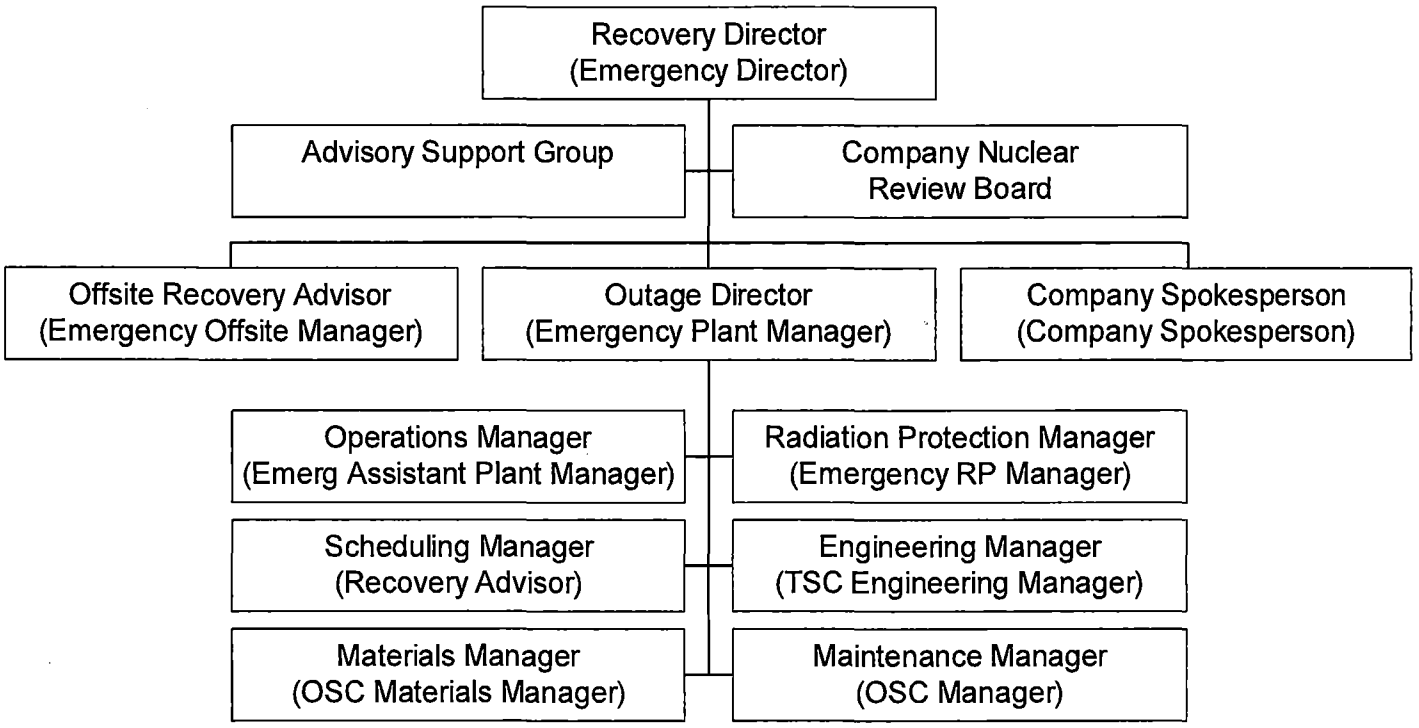
h. Company Spokesperson:

1. Reports to the Recovery Director.
2. Functions as the official spokesperson for the Company on all matters relating to the accident or the recovery.
3. Coordinates with non-Company public information groups (e.g., Ottawa County, Lucas County, OEMA, NRC, FEMA, etc.).
4. Interfaces with the news media.
5. Coordinates media monitoring and public inquiry activities.
6. Coordinates with Company Corporate Communications, as may be applicable.

9.2.4 The Recovery Organization described herein represents the disciplines and areas of expertise that would typically be required to support recovery from a severe nuclear accident. The organization will be modified based upon the specific accident from which DBNPS is recovering.

FIGURE 9-1

RECOVERY ORGANIZATION FRAMEWORK



Appendix A

EMERGENCY PLAN

PROCEDURE AND RELATED DOCUMENT INDEX AND CROSS-REFERENCE

Emergency Plan
Procedure and Related Document Index and Cross-Reference

Implementing Procedures	Procedure Number	DBNPS Emergency Plan Section
1. Emergency Classification	RA-EP-01500	4.1, 4.2
2. Unusual Event	RA-EP-01600	4.1.4
3. Alert	RA-EP-01700	4.1.3
4. Site Area Emergency	RA-EP-01800	4.1.2
5. General Emergency	RA-EP-01900	4.1.1
6. Emergency Management	RA-EP-02010	5.1, 5.2, 5.3
7. Emergency Notifications	RA-EP-02110	6.1.1, 7.6
8. EOF Activation and Response	RA-EP-02220	5.5.2, 6.1.2, 7.0, 7.2
9. Dose Assessment Center Activation and Response	RA-EP-02230	5.5.2, 7.2
10. FENOC MIDAS Dose Assessment Software	NOP-LP-5400	6.2
11. Davis-Besse MIDAS Dose Assessment Software	NOP-LP-5402	6.2
12. DBNPS MIDAS Multiple Accident Dose Assessment Software	NOP-LP-5412	6.2
13. Offsite Dose Assessment	RA-EP-02240	6.2
14. Protective Action Guidelines	RA-EP-02245	6.4
15. FENOC Field Monitoring Teams Radiation Monitoring Teams Field Surveys	NOP-LP-5015	6.2, 5.5.2
16. DBAB Radiation Monitoring Team Surveys	RA-EP-02252	6.2, 5.5.2
17. Radiological Controls in the DBAB	RA-EP-02260	6.4.1, 6.4.2, 7.2
18. Facilities Support	RA-EP-02270	7.0
19. TSC Activation and Response	RA-EP-02310	5.4.4, 7.2
20. Emergency Technical Assessment	RA-EP-02320	6.2
21. OSC Activation and Response	RA-EP-02410	5.4.5, 6.4.2, 7.1.2
22. Search and Rescue	RA-EP-02420	6.4.1
23. Emergency Security Activation and Response	RA-EP-02510	5.3.4, 5.4.4, 6.4.3
24. Assembly and Accountability	RA-EP-02520	6.4.1
25. Evacuation	RA-EP-02530	6.4.1
26. Offsite Personnel & Vehicle Monitoring & Decontamination	RA-EP-02550	6.4.1
27. Emergency RP Organization Activation and Response	RA-EP-02610	5.4.4, 5.4.5
28. Emergency Exposure Control and Potassium Iodide Distribution	RA-EP-02620	6.5.1, 6.5.2
29. Station Radiological Surveys and Controls During Emergencies	RA-EP-02640	5.4.5, 6.5
30. Reentry	RA-EP-02710	9.1
31. Recovery Organization	RA-EP-02720	9.2

Emergency Plan
Procedure and Related Document Index and Cross-Reference

Off Normal Occurrence Procedures	Procedure Number	DBNPS Emergency Plan Section
1. Medical Emergencies	RA-EP-02000	2.7, 5.8.2, 6.5.3
2. Preparation and Transport of Contaminated Injured Personnel	RA-EP-02800	2.7
3. Emergency Helicopter Landing Zone	RA-EP-02807	2.7
4. Tornado	RA-EP-02810	2.6.5, 2.7, 7.10
5. Earthquake	RA-EP-02820	2.6.5, 2.7, 7.10
6. Flooding	RA-EP-02830	2.6.5, 2.7, 7.10
7. Explosion	RA-EP-02840	2.6.5, 2.7, 7.10
8. Hazardous Chemical and Oil Spills	RA-EP-02850	2.6.5, 2.7, 7.10
9. Radiological Incidents	RA-EP-02861	2.6.5, 2.7, 7.10
10. Containment Evacuation	RA-EP-02864	2.7, 6.4.1
11. Loss of Containment Integrity	RA-EP-02865	2.7
12. Station Isolation	RA-EP-02870	2.6.5, 2.7, 7.10
13. Internal Flooding	RA-EP-02880	2.6.5, 2.7, 7.10
14. ERO Response to Security Events or Threats	RA-EP-02890	2.6.5, 2.7, 6.4.1
Administrative Procedures		
1. Emergency Plan Training Program	RA-EP-00100	2.7, 8.1.1
2. Emergency Response Organization Training Program	NOP-LP-5006	2.7, 8.1.1
3. Emergency Plan Drill and Exercise Program	RA-EP-00200	2.7, 8.1.2
4. Emergency Response Drill And Exercise Program	NOP-LP-5011	2.7, 8.1.2
5. Emergency Planning Activity Scheduling System	RA-EP-00300	2.7
6. FENOC Siren Testing And Maintenance Procedure	NOP-LP-5005	2.7, 7.8
7. Maintenance of Emergency Plan Telephone Directory	RA-EP-00510	2.7, 7.6.3
8. Emergency Response Organization	RA-EP-00520	2.7, 6.1
9. Computerized Automated Notification System	RA-EP-00550	2.7, 7.6.1
10. Emergency Facilities and Equipment Maintenance Program	RA-EP-00600	2.7, 8.4
11. DBAB Emergency Response Facility Preventative Maintenance Program	RA-EP-00650	2.7, 8.4
12. Emergency Facilities Communications Monthly Test	RA-EP-04000	2.7, 8.1.2
13. Station Alarm Test	RA-EP-04001	2.7, 8.1.2
14. Communication System Quarterly Test	RA-EP-04002	2.7, 8.1.2
15. Computerized Automated Notification System Weekly Test	RA-EP-04003	2.7, 8.1.2
16. Emergency Facilities Communication Quarterly Test	RA-EP-04010	2.7, 8.1.2

Emergency Plan
Procedure and Related Document Index and Cross-Reference

Public Information Procedure

1. JIC Activation and Response	RA-EP-02950	2.7, 4.3.3, 5.5, 7.2, 8.3

Supporting Documents

1. Fleet Support of Emergency Plans at FENOC Nuclear Plants	NOBP-LP-5001	8.3, Table 8-1

Emergency Plan
Procedure and Related Document Index and Cross-Reference

NUREG 0654	to	DB Emerg. Plan Section
A 1a		2.8, 5.8, Table 2.1
A 1b		5.1 - 5.8
A 1c		Table 2-1
A 1d		5.2
A 1e		5.1.2, 5.1.3, Table 5.1
A 2a		N/A
A 2b		N/A
A 3		App. C
A 4		5.0
B 1		5.3
B 2		5.2.1
B 3		5.2.1, 5.3.1-5.3.3
B 4		5.2.1
B 5		5.0, Table 5-1
B 6		Figure 6-2
B 7		Table 5-1, 5.6
B 7a		7.0
B 7b		7.2
B 7c		7.2
B 7d		7.2
B 8		5.8.4
B 9		5.7, App. C
C 1a		5.2.1, 6.1.6
C 1b		5.8.3
C 1c		7.6, 7.9
C 2a		N/A
C 2b		5.5.2
C 3		7.9.10-7.9.12
C 4		5.8, App. C
D 1		N/A (NEI 99-01)
D 2		N/A (NEI 99-01)
D 3		N/A
D 4		N/A
E 1		6.1, 7.6.2
E 2		6.1
E 3		6.1
E 4		6.0
E 5		N/A
E 6		6.4
E 7		6.4
F 1a		7.6
F 1b		7.6
F 1c		7.6
F 1d		7.6
F 1e		6.1.2, 7.6.1
F 1f		7.6
F2		7.6.3, 7.8
F 3		8.1.2
G 1		8.2
G 2		8.2
G 3a		7.3.4
G 3b		7.3.4
G 4a		5.2.4
G 4b		5.5, 7.3.4
G 4c		7.3.4
G 5		8.1.1
H 1		7.2, 7.2.2
H 2		7.2
H 3		N/A
H 4		Table 5-1, 7.6.1
H 5a		7.9
H 5b		7.9.6, 7.9.8
H 5c		7.9.9
H 5d		7.9.6
H 6a		7.9.8
H 6b		7.9.11
H 6c		7.9.10
H 7		7.9.11
H 8		7.9.6
H 9		7.10
H 10		7.12, 8.1.3
H 11		6.4.2, 7.12
H 12		7.9.10
I 1		4.0
I 2		7.9
I 3a		4.0
I 3b		4.0
I 4		4.0
I 5		7.2, 7.9.8
I 6		7.9.8
I 7		7.9.11
I 8		7.9
I 9		7.9, Table 7-4
I 10		7.9
I 11		N/A

Emergency Plan
Procedure and Related Document Index and Cross-Reference

NUREG 0654	to	DB Emerg. Plan Section
J 1a		6.4.1
J 1b		6.4.1
J 1 c		6.4.1
J 1d		6.4.1
J 2		6.4.1
J 3		6.4.1, 6.4.3, 6.5.3
J 4		6.4.1, 6.5.3
J 5		6.4.1
J 6a		7.9
J 7		6.4.1
J 8		App. D
J 9		N/A
J 10a		App. D
J 10b		App. D
J 10c		7.7
J 10d		N/A
J 10e		N/A
J 10f		N/A
J 10g		N/A
J 10h		N/A
J 10i		N/A
J 10j		N/A
J 10k		N/A
J 10l		N/A
J 10m		6.4.1, Table 6-1 thru 6-6
J 11		N/A
J 12		N/A
K 1a		6.5.3
K 1b		6.5.1
K 1c		6.5.1
K 1d		6.5.3
K 1e		6.5.3
K 1f		6.5.4
K 1g		6.5.5
K 2		5.2.1, 6.5.1
K 3a		5.2.1
K 3b		6.1
K 4		N/A
K 5a		6.5.3
K 5b		6.5.3
K 6a		6.4.3
K 6b		6.4.3
K 6c		6.4.3
K 7		6.5.3
L 1		5.8.2, 6.5.4, 6.5.5
L 2		6.5.3
L 3		N/A
L 4		5.8.2, 6.5.4
M 1		9.1, 9.2
M 2		9.2, Figure 9-1
M 3		9.2
M 4		9.2.3.c.3
N 1a		8.1.2
N 1b		8.1.2
N 2a		8.1.2
N 2b		8.1.2
N 2c		8.1.2
N 2d		8.1.2
N 2 e(1)		8.1.2
N 2e (2)		8.1.2
N 3a		8.1.2
N 3b		8.1.2
N 3c		8.1.2
N 3d		8.1.2
N 3e		8.1.2
N 3f		8.1.2
N 4		8.1.2
N 5		8.1.2
0 1		8.1.1
0 1a		8.1.1
0 1b		N/A
0 2		8.1.1, 8.1.2
0 3		8.1.1, Table 8-1
0 4a		8.1.1
0 4b		8.1.1
0 4c		8.1.1
0 4d		8.1.1
0 4e		8.1.1
0 4f		8.1.1
0 4g		8.1.1
0 4h		8.1.1
0 4i		8.1.1
04j		8.1.1
0 5		8.1.1

Emergency Plan
Procedure and Related Document Index and Cross-Reference

NUREG 0654	to	DB Emerg. Plan Section
P 1		Table 8-1
P 2		8.1.3
P 3		8.1.3, 8.3
P 4		8.3
P 5		8.3
P 6		App. A, 8.3, Table of Contents
P 7		App. A
P 8		App. A
P 9		8.3
P 10		7.6.3

Appendix B

Department of Energy Emergency Radiological Assistance Program (DOE O 153.1)

for

FirstEnergy Corporation

Davis-Besse Nuclear Power Station

(Reference to DOE O 153.1 is available Online at: www.directives.doe.gov)

Appendix C

SAMPLE LETTERS OF AGREEMENT

Contents

EMERGENCY RESPONSE AGREEMENT

This Agreement made and entered into by and between FirstEnergy (hereinafter "Utility") and the Carroll Township Emergency Medical and Fire Service, Inc., in consideration of the following:

1. The Carroll Township Emergency Medical and Fire Service, Inc., (hereinafter "Service, Inc.,") agrees to use equipment available to it to provide twenty-four (24) hour emergency ambulance and fire protection for actual emergencies, including hostile action events at Davis Besse Power Station, drills and training activities at FirstEnergy, located within the jurisdictional boundary of Carroll Township, Ottawa County, Ohio, all subject to the actual emergency needs of the whole Township. When necessary to provide such actual emergency service, Service, Inc., will request any mutual aid or assistance, as may be necessary and that may be available from surrounding communities.
2. The Utility shall provide Service, Inc., with any supplies and additional equipment or modifications to current equipment that may be necessary, as determined based upon the mutual agreement of the Utility and Service, Inc., for Service, Inc., to fulfill its obligations hereunder or to meet the requirements of the Nuclear Regulatory Commission that may apply to this Agreement; if the necessary equipment is not provided to Service, Inc., by Utility, then the obligations hereunder required of Service, Inc., are waived and Service, Inc., shall not be required in any fashion to fulfill the obligations hereof, nor shall Service, Inc., be liable for failing to fulfill said obligations. Any equipment provided by the Utility to Service, Inc., shall be stored and maintained at the discretion of Service, Inc..
3. Further, the Utility agrees to assume all expenses and costs of providing specialized training for participating personnel and support personnel as

designated by Service, Inc.. This training shall include an annual review of necessary emergency transportation procedures, equipment, supplies, annual training sessions and participation in periodic emergency drills. Service, Inc., will submit invoices for reimbursement on a time and material basis which shall be promptly paid to Service, Inc., by the Utility.

4. Carroll Township Emergency Medical and Fire Service, Inc., agrees to make practice runs and/or drills in conjunction with exercises of the emergency plan as may be mutually agreed upon, but such agreement shall not be unreasonably withheld.

5. It shall be the responsibility of The Utility to protect and safeguard the personnel and equipment of Service, Inc., and any mutual aid responders, from radiation. The Utility shall be liable for property damage to Service, Inc., equipment and any bodily injury to Service, Inc., personnel, including death, that is caused by exposure to radiation during the performance of obligations under the Agreement. The Utility shall be liable for non-radiation related injuries or damages to the extent caused by its own negligence. The Utility shall promptly repair or replace Service, Inc., equipment in order to avoid any interruption in fire or ambulance service to the community. However, in no event shall the Utility be required to replace or repair any property in excess of its prior fair market value. Further, The Utility shall not be liable for any cost of complete decontamination, repair and/or replacement of any property or non-radiation related bodily injury to the extent it is the result of the negligence of the Service, Inc..

6. Further, The Utility shall indemnify and hold Service, Inc., Carroll Township, the Board of Carroll Township Trustees, any other entity providing mutual aid response, and any and all persons associated with any such organizations, harmless from any and all liability for damages, expense, injuries or losses that may occur in the fulfillment of the obligations of this Agreement, except for non-radiological emergency ambulance and fire protection services. The Utility aforesaid indemnity and hold harmless agreement shall not be applicable to any liability caused by the sole active negligence of Service, Inc., or any other mutual aid responder.

7. There shall be no charge for the aforesaid fire protection; however, the Utility shall pay the Carroll Township Emergency Medical and Fire Service, Inc., the rate of $200.00 per hour, for time from call until the ambulance is back in service, for emergency ambulance calls in excess of twelve (12) per year.

8. Service, Inc., agrees to provide a staging area for emergency equipment and personnel in the event the Utility (Davis Besse Nuclear Power Station) is involved in a security related event.

9. This Agreement shall remain in effect until terminated in writing by either party thirty (30) days prior to the effective date.

Emergency Response Agreement

FirstEnergy

By: Raymond A Lieb
Name: Raymond A. Lieb
Position: Site Vice President
Davis Besse Nuclear

Carroll Township Emergency
Medical and Fire Service, Inc.

By: John Roy V Fire Chief

By: Kathryn Erstchey

VICKI A. WADSWORTH, NOTARY PUBLIC
State of Ohio
My Commission Expires March 22, 2018

STATE OF OHIO)
) SS:
COUNTY OF OTTAWA)

Be it remembered that on this 29th day of September, 2014, before me a Notary Public in and for said County, personally came Raymond A. Lieb an Officer of FirstEnergy, who acknowledged the signing of the above Agreement as an Officer of First Energy, on behalf of First Energy, and by the authority of its Board of Directors, and that the Agreement is the voluntary act and deed of First Energy and Raymond A. Lieb, as such Officer, and the voluntary act and deed of First Energy, for the purposes stated therein.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed my seal this 29th day of September, 2014.

Vicki A. Wadsworth
Notary Public – State of Ohio

EKT 00-00625
E1.19.1

Magruder Hospital

615 Fulton Street
Port Clinton, Ohio 43452
(419) 734-3131, FAX (419) 732-8217

November 29, 2000

Mr. Patrick J. McCloskey
Supervisor – Emergency Preparedness
Davis-Besse Nuclear Power Station
5501 State Route 2, Mail Stop 3060
Oak Harbor, Ohio 43449-9760

Dear Mr. McCloskey:

This is to reaffirm our commitment of November 14, 1972 in that H.B. Magruder Memorial Hospital will accept casualties arising from radiation accidents at the Davis-Besse Nuclear Power Station.

It is understood that the FirstEnergy Company is financially responsible for any modifications of the existing hospital facility which may be required by regulations of the Nuclear Regulatory Commission or others, for the treatment of patients exposed to radioactive materials. This also includes training of hospital personnel as may be required, and for special equipment as may be necessary.

It is further understood that written procedures detailing the actions to be followed for the care of these patients will be implemented and that our personnel will continue to receive instructions regarding this plan of action and will make periodic "dry runs" as needed.

This agreement shall remain in effect until terminated in writing by either party thirty (30) days prior to the effective date.

Sincerely,

David R. Norwine
President & CEO

DRN/pap

12/7/00
cc R. Strauss

RECEIVED
DEC 5 2000
EMERGENCY PREPAREDNESS

LUCAS COUNTY

BAIC-11-0001

RECEIVED
JAN 20 2011
DBNPS

January 11, 2011

Mr. James Vetter
Emergency Response Manager
Davis-Besse Nuclear Power Station
5501 North State Route 2
Oak Harbor, OH 43449

Dear Mr. Vetter,

The Lucas County Emergency Management Agency is the lead agency in Lucas County for the coordination of response to area wide emergencies within the County. As such, the Lucas County Emergency Management Agency would lead and coordinate Lucas County's response to an incident at the Davis-Besse Nuclear Power Station.

Lucas County has developed plans and guidelines to deal with an emergency at Davis-Besse Nuclear Power Station, and would implement these plans and guidelines to the best of its ability in the event of an incident at the plant.

The County intends to protect the health and welfare of the people in Lucas County through the implementation of its response plans and guidelines.

This agreement shall remain in effect until terminated in writing by either party, thirty (30) days prior to the effective date.

Sincerely,

Peter Ujvagi
County Administrator

2144 Monroe Street • Toledo, Ohio 43604
(419) 213-6593 http://co.lucas.oh.us Fax: (419) 213-0552

EKT 01-00053
E1.19.1

January 26, 2001

MEMORIAL
HOSPITAL

715 SOUTH TAFT AVENUE
FREMONT, OHIO 43420
419 332 7321

Mr. Patrick J. McCloskey
Supervisor - Emergency Preparedness
Davis-Besse Nuclear Power Station
5501 State Route 2, Mail Stop 3060
Oak Harbor, Ohio 43449-9760

Dear. Mr. McCloskey:

This letter reaffirms our commitment of June 30, 1998, that Memorial Hospital will accept casualties arising from radiation accidents at the Davis-Besse Nuclear Power Station.

It is understood that FirstEnergy is financially responsible for any modifications to the existing hospital facility which may be required for regulations of the Nuclear Regulatory Commission or others, for the treatment of patients exposed to radioactive materials. This also includes training of hospital personnel as may be required and for special equipment as may be necessary.

It is further understood that written procedures detailing the actions to be followed for the care of these patients will be implemented and that our personnel will continue to receive instructions regarding this plan of action and will make periodic "dry runs" as needed.

This agreement shall remain in effect until terminated in writing by either party thirty (30) days prior to the effective date.

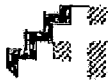
Sincerely,

John A. Gorman/AC

John A. Gorman, CEO

JAG:pc
cc: Safety Committee
Jerome McTague, Medical Director, Emergency Department

1/31/01
cc RWS/DSG



ST. CHARLES
Mercy Hospital

Care you can believe in.

www.mercyweb.org

2600 Navarre Avenue
Oregon, Ohio 43616
(419) 696-7200

January 4, 2010

Mr. James M. Vetter
Manager – Emergency Response
Davis-Besse Nuclear Power Station
5501 N. State Route 2, Mail Stop 3060
Oak Harbor, OH 43449-9760

Dear Mr. Vetter:

This Letter of Agreement reaffirms our commitment, specified in our mutual agreement with First Energy, that Mercy St. Charles Hospital will accept casualties arising from radiation accidents at the Davis-Besse Nuclear Power Station.

It is understood that First Energy is financially responsible for any modifications of the existing hospital facility which may be required by regulations or other guidance of the Nuclear Regulatory Commission (NRC) or the Federal Emergency Management Agency (FEMA) for the treatment of patients exposed to radioactive materials. This also includes training of hospital personnel as may be required, and for special equipment as may be necessary.

It is further understood that written procedures detailing the actions to be followed for the care of these patients will be implemented and that our personnel will continue to receive instructions regarding this plan of action and will make periodic "dry runs" as needed.

This agreement shall remain in effect until terminated in writing by either party thirty (30) days prior to the effective date.

Sincerely,

Judy Zbierajewski, RN, BSN, MBA
Vice President, Patient Care/CNO
Mercy St Charles Hospital

Agreed to:

James M. Vetter — 1/14/10

James M. Vetter
Manager, Emergency Response
Davis-Besse Nuclear Power Station

Date

INPO®

Institute of
Nuclear Power
Operations

Suite 100
700 Galleria Parkway, SE
Atlanta, GA 30339-5943
770-644-8000
FAX 770-644-8549

October 30, 2012

Dear Ladies and Gentlemen:

This letter certifies that the plant emergency assistance agreement between INPO and its member utilities remains in effect. In the event of an emergency at your utility, INPO will assist you in acquiring the help of other organizations in the industry, as described in Section 1 of the Emergency Resources Manual, INPO 03-001, and in the United States Nuclear Industry Response Framework. If requested, INPO will provide the following assistance:

- coordinate technical information flow from the affected utility to the nuclear industry and government agencies
- coordinate the procurement and shipping of equipment and supplies
- locate personnel with technical expertise
- facilitate industry vendor and commercial supplier support
- obtain technical information and industry operating experience regarding plant components and systems
- provide an INPO liaison to facilitate interface

This agreement will remain in effect until terminated in writing. Should you have any questions, please call Steve Meng at (770) 644-8548 or e-mail at MengSW@inpo.org.

Sincerely,

Jeffrey T. Gasser
Vice President
Emergency Response

JTG:cjm

Ottawa County Emergency Management Agency
315 Madison Street, Annex Basement
Port Clinton, Ohio 43452-1936
FRED PETERSEN, Director

Office: 419-734-6900
Countywide: 800-788-8803
Facsimile: 419-249-2361
fpetersen@co.ottawa.oh.us

www.co.ottawa.oh.us/ottawacoema

September 4, 2014

Mr. James Vetter,
Emergency Response Manager
Davis-Besse Nuclear Power Station
5501 North State Route 2
Oak Harbor, OH 43449

Dear Mr. Vetter,

The Ottawa County Emergency Management Agency is the lead agency in Ottawa County for handling and coordinating response to area-wide emergencies within the County. As such, the Ottawa County Emergency Management Agency would lead and coordinate County response to an incident at the Davis-Besse Nuclear Power Station.

Ottawa County has developed plans and guidelines to deal with an emergency at Davis-Besse Nuclear Power Station, including hostile action, and would implement these plans and guidelines to the best of its ability in the event of an incident at the plant.

The County intends to protect the health and welfare of the people in Ottawa County through the implementation of its response plans and guidelines.

This letter of agreement is not intended, and shall not be construed as creating liability on the part of the County of Ottawa, and of its agencies, or of the officers, agents or employees thereof.

This agreement will be reviewed and, if necessary, revised on an annual basis in accordance with NUREG-0654. If no revisions are necessary, this agreement will remain in effect unless terminated by either party giving ninety (90) days advance, written notice of termination to the other party.

BOARD OF OTTAWA COUNTY COMMISSIONERS
OTTAWA COUNTY EMERGENCY MANAGEMENT AGENCY

JoEllen Ilegal, President

Fred Petersen, EMA Director

James M. Sass, Commissioner

Steven M. Arndt, Commissioner

APPROVED AS TO FORM:

9/4/14

MARK E. MILLIGAN
Prosecuting Attorney
Ottawa County, Ohio

Appendix D

Supporting Documents

(Under Separate Cover)

EVACUATION TIME ESTIMATES

OHIO RADIOLOGICAL EMERGENCY PREPAREDNESS PLAN

OHIO RADIOLOGICAL EMERGENCY PREPAREDNESS (REP) OPERATIONS MANUAL
OHIO EMERGENCY OPERATIONS PLAN, EMERGENCY SUPPORT FUNCTION #10, HAZARDOUS MATERIALS, TAB B – REP INCIDENT RESPONSE PLAN

OTTAWA COUNTY RADIOLOGICAL EMERGENCY RESPONSE PLAN

LUCAS COUNTY RADIOLOGICAL EMERGENCY RESPONSE PLAN

Appendix E

(Under Separate Cover)

DBRM-EMER-1500 A, Davis-Besse Emergency Action Level
Basis Document

Appendix F

(Under Separate Cover)

Davis-Besse Nuclear Power Station (DBNPS) ERO
On-Shift Staffing Analysis Report

Enclosure B
L-17-359

(1 Report follows)

Davis-Besse Nuclear Power Station Emergency Plan
10 CFR 50.54(q) Screening Report

DB-2016-025-00 (Pages 1-10)

10 CFR 50.54(q) SCREENING

Number: DB-2016-025-00

Plant / Year / Number / Revision

Instructions: Use this form as a template for the 10 CFR 50.54(q) Screening Report. Attach additional pages and documentation as necessary.

1.0 Describe the change to the Emergency Plan or sub tier documents of the Emergency Plan. If procedure, indicate procedure number, revision, and facility. number)/facility. Include any tracking documents associated with the change (e.g., SAP notifications, Design Change Package, Procedure Change Request, etc).

Davis-Besse Nuclear Power Station Emergency Plan, Revision 31.

Step 8.1.1, Training, is being altered as follows:

Current wording:

"a. All DBNPS staff personnel requiring unescorted access into the protected and certain vital areas will initially qualify in Plant Access and, requalify annually.

With regard to Emergency Response, the following objectives have been established for the Plant Access Training Program:

1. **State the purpose of the Emergency Plan, and associated procedures.**
2. **State the classifications of station emergencies.**
3. **Recognize the emergency alarms and state the proper response for each.**
4. **State the actions required during Emergency Plan implementation.**
5. **State the purpose and importance of accountability.**
6. **Identify the location of emergency facilities and assembly areas inside the Protected Area and Owner Controlled Area.**
7. **Discuss evacuation plans, including identification of evacuation routes.**
8. **State the company's policy concerning the release of information to the public and news media regarding an emergency.**
9. **State the function of the Prompt Notification System.**
10. **Identify the appropriate communication system to be used for reporting emergencies, locating an individual in the Plant, and conducting lengthy discussions.**

With regard to Emergency Response, the following objectives have been established for the Radiation Worker Training Program:

1. **Identify and discuss operation of the radiation exposure control criteria for personnel during an emergency for the persons who have access to Radiation Restricted Areas."**

Revised wording:

"a. All DBNPS staff personnel requiring unescorted access will receive training related to Emergency Response. This training will be completed initially, prior

to being granted unescorted access, and annually to maintain unescorted access.

With regard to Emergency Response, the following objectives have been established:

1. **State the purpose of the Emergency Plan, and associated procedures.**
2. **State the classifications of station emergencies.**
3. **Recognize the emergency alarms and state the proper response for each.**
4. **State the actions required during Emergency Plan implementation.**
5. **State the purpose and importance of accountability.**
6. **Identify the location of emergency facilities and assembly areas inside the Protected Area and Owner Controlled Area.**
7. **Discuss evacuation plans, including identification of evacuation routes.**
8. **State the company's policy concerning the release of information to the public and news media regarding an emergency.**
9. **State the function of the Prompt Notification System.**
10. **Identify the appropriate communication system to be used for reporting emergencies, locating an individual in the Plant, and conducting lengthy discussions.**
11. **Identify and discuss operation of the radiation exposure control criteria for personnel during an emergency for the persons who have access to Radiation Restricted Areas."**

2.0 Has the proposed activity been specifically approved by the NRC as a change to the emergency plan in a License Amendment or by FEMA in the ANS Design Report? Explain in detail.

☐ YES, complete Section 9.0; the proposed activity may be implemented without further evaluation.
☒ NO, proceed.

Detailed explanation: The change has not been previously approved by the NRC in a License Amendment or by FEMA in the ANS Design Report.

3.0 Is the proposed activity an editorial change? Explain in detail.

☐ YES, complete Section 9.0; the proposed activity may be implemented without further evaluation.
☒ NO, proceed.

The above alteration is more than editorial in nature.

Number: DB-2016-025-00
Plant / Year / Number / Revision

4.0 Does the proposed activity meet the definition of a change? Explain in detail.

☐ YES – THEN, go directly to Section 8.0.
☒ NO – Proceed.

Detailed explanation: In NOP-LP-5002, a "change" is defined as follows: "An action that results in modification or addition to, or removal from, the station's Emergency Plan."

The training objectives and content that support required Emergency Plan training for individuals with unescorted access to the FENOC nuclear sites will be removed from Plant Access Training (PAT) and incorporated into separate training. This will allow the material to be delivered initially and on an annual basis following the implementation of generic industry Plant Access training in 2017. The separate Emergency Plan training material will be implemented such that it is required to obtain and maintain unescorted access to the FENOC nuclear plants.

Since training for site personnel requiring unescorted access will continue to contain the same content and will continue to be delivered initially and on an annual basis, the change does not meet the definition of a change to the Emergency Plan.

5.0 Using the table below, identify all emergency planning standard functions that may be affected by the proposed activity or change. Are any boxes checked YES for 10 CFR 50.47(b) or 10 CFR 50 Appendix E below?

☐ YES – THEN, go directly to Section 8.0.
☒ NO – Proceed.

The proposed alteration in Section 1.0, is associated with, but does not affect, the following Planning Standards:

<u>"10CFR50.47(b): (15). Emergency Responder Training</u>
Radiological emergency response training is provided to those who may be called on to assist in an emergency."

<u>10CFR50 Appendix E: IV. (F). Training</u>
"1. The program to provide for: (a) The training of employees and exercising, by periodic drills, of emergency plans to ensure that employees of the licensee are familiar with their specific emergency response duties, and (b) The participation in the training and drills by other persons whose assistance may be needed in the event of a radiological emergency shall be described. This shall include a description of specialized initial training and periodic retraining programs to be provided to each of the following categories of emergency personnel:

i. Directors and/or coordinators of the plant emergency organization;
ii. Personnel responsible for accident assessment, including control room shift personnel;
iii Radiological monitoring teams;
iv. Fire control teams (fire brigades);
v. Repair and damage control teams;
vi. First aid and rescue teams;
vii. Medical support personnel;
viii. Licensee's headquarters support personnel;
ix. Security personnel.
In addition, a radiological orientation training program shall be made available to local services personnel; e.g., local emergency services/Civil Defense, local law enforcement personnel, local news media persons.
2. The plan shall describe provisions for the conduct of emergency preparedness exercises as follows: Exercises shall test the adequacy of timing and content of implementing procedures and methods, test emergency equipment and communications networks, test the public alert and notification system, and ensure that emergency organization personnel are familiar with their duties.[3]
a. A full participation [4] exercise which tests as much of the licensee, State, and local emergency plans as is reasonably achievable without mandatory public participation shall be conducted for each site at which a power reactor is located. Nuclear power reactor licensees shall submit exercise scenarios under § 50.4 at least 60 days before use in a full participation exercise required by this paragraph 2.a.
(i) For an operating license issued under this part, this exercise must be conducted within two years before the issuance of the first operating license for full power (one authorizing operation above 5 percent of rated power) of the first reactor and shall include participation by each State and local government within the plume exposure pathway EPZ and each state within the ingestion exposure pathway EPZ. If the full participation exercise is conducted more than 1 year prior to issuance of an operating licensee for full power, an exercise which tests the licensee's onsite emergency plans must be conducted within one year before issuance of an operating license for full power. This exercise need not have State or local government participation.
(ii) For a combined license issued under part 52 of this chapter, this exercise must be conducted within two years of the scheduled date for initial loading of fuel. If the first full participation exercise is conducted more than one year before the scheduled date for initial loading of fuel, an exercise which tests the licensee's onsite emergency plans must be conducted within one year before the scheduled date for initial loading of fuel. This exercise need not have State or local government participation. If FEMA identifies one or more deficiencies in the state of offsite emergency preparedness as the result of the first full participation exercise, or if the Commission finds that the state of emergency preparedness does not provide reasonable assurance that adequate protective measures can

and will be taken in the event of a radiological emergency, the provisions of § 50.54(gg) apply.

(iii) For a combined license issued under part 52 of this chapter, if the applicant currently has an operating reactor at the site, an exercise, either full or partial participation,[5] shall be conducted for each subsequent reactor constructed on the site. This exercise may be incorporated in the exercise requirements of Sections IV.F.2.b. and c. in this appendix. If FEMA identifies one or more deficiencies in the state of offsite emergency preparedness as the result of this exercise for the new reactor, or if the Commission finds that the state of emergency preparedness does not provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency, the provisions of § 50.54(gg) apply.

b. Each licensee at each site shall conduct a subsequent exercise of its onsite emergency plan every 2 years. Nuclear power reactor licensees shall submit exercise scenarios under § 50.4 at least 60 days before use in an exercise required by this paragraph 2.b. The exercise may be included in the full participation biennial exercise required by paragraph 2.c. of this section. In addition, the licensee shall take actions necessary to ensure that adequate emergency response capabilities are maintained during the interval between biennial exercises by conducting drills, including at least one drill involving a combination of some of the principal functional areas of the licensee's onsite emergency response capabilities. The principal functional areas of emergency response include activities such as management and coordination of emergency response, accident assessment, event classification, notification of offsite authorities, assessment of the onsite and offsite impact of radiological releases, protective action recommendation development, protective action decision making, plant system repair and mitigative action implementation. During these drills, activation of all of the licensee's emergency response facilities (Technical Support Center (TSC), Operations Support Center (OSC), and the Emergency Operations Facility (EOF)) would not be necessary, licensees would have the opportunity to consider accident management strategies, supervised instruction would be permitted, operating staff in all participating facilities would have the opportunity to resolve problems (success paths) rather than have controllers intervene, and the drills may focus on the onsite exercise training objectives.

c. Offsite plans for each site shall be exercised biennially with full participation by each offsite authority having a role under the radiological response plan. Where the offsite authority has a role under a radiological response plan for more than one site, it shall fully participate in one exercise every two years and shall, at least, partially participate in other offsite plan exercises in this period. If two different licensees each have licensed facilities located either on the same site or on adjacent, contiguous sites, and share most of the elements defining co-located licensees,[6] then each licensee shall:

(1) Conduct an exercise biennially of its onsite emergency plan;

(2) Participate quadrennially in an offsite biennial full or partial participation exercise;

(3) Conduct emergency preparedness activities and interactions in the years between its participation in the offsite full or partial participation exercise with offsite authorities, to test and maintain interface among the affected State and local authorities and the licensee. Co-located licensees shall also participate in emergency preparedness activities and interaction with offsite authorities for the period between exercises;
(4) Conduct a hostile action exercise of its onsite emergency plan in each exercise cycle; and
(5) Participate in an offsite biennial full or partial participation hostile action exercise in alternating exercise cycles.
d. Each State with responsibility for nuclear power reactor emergency preparedness should fully participate in the ingestion pathway portion of exercises at least once every exercise cycle. In States with more than one nuclear power reactor plume exposure pathway EPZ, the State should rotate this participation from site to site. Each State with responsibility for nuclear power reactor emergency preparedness should fully participate in a hostile action exercise at least once every cycle and should fully participate in one hostile action exercise by December 31, 2015. States with more than one nuclear power reactor plume exposure pathway EPZ should rotate this participation from site to site.
e. Licensees shall enable any State or local government located within the plume exposure pathway EPZ to participate in the licensee's drills when requested by such State or local government.
f. Remedial exercises will be required if the emergency plan is not satisfactorily tested during the biennial exercise, such that NRC, in consultation with FEMA, cannot (1) find reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency or (2) determine that the Emergency Response Organization (ERO) has maintained key skills specific to emergency response. The extent of State and local participation in remedial exercises must be sufficient to show that appropriate corrective measures have been taken regarding the elements of the plan not properly tested in the previous exercises.
g. All exercises, drills, and training that provide performance opportunities to develop, maintain, or demonstrate key skills must provide for formal critiques in order to identify weak or deficient areas that need correction. Any weaknesses or deficiencies that are identified in a critique of exercises, drills, or training must be corrected.
h. The participation of State and local governments in an emergency exercise is not required to the extent that the applicant has identified those governments as refusing to participate further in emergency planning activities, pursuant to § 50.47(c)(1). In such cases, an exercise shall be held with the applicant or licensee and such governmental entities as elect to participate in the emergency planning process.
i. Licensees shall use drill and exercise scenarios that provide reasonable assurance that anticipatory responses will not result from preconditioning of participants. Such scenarios for nuclear power reactor licensees must include a

wide spectrum of radiological releases and events, including hostile action. Exercise and drill scenarios as appropriate must emphasize coordination among onsite and offsite response organizations.
j. The exercises conducted under paragraph 2 of this section by nuclear power reactor licensees must provide the opportunity for the ERO to demonstrate proficiency in the key skills necessary to implement the principal functional areas of emergency response identified in paragraph 2.b of this section. Each exercise must provide the opportunity for the ERO to demonstrate key skills specific to emergency response duties in the control room, TSC, OSC, EOF, and joint information center. Additionally, in each eight calendar year exercise cycle, nuclear power reactor licensees shall vary the content of scenarios during exercises conducted under paragraph 2 of this section to provide the opportunity for the ERO to demonstrate proficiency in the key skills necessary to respond to the following scenario elements: hostile action directed at the plant site, no radiological release or an unplanned minimal radiological release that does not require public protective actions, an initial classification of or rapid escalation to a Site Area Emergency or General Emergency, implementation of strategies, procedures, and guidance developed under § 50.54(hh)(2), and integration of offsite resources with onsite response. The licensee shall maintain a record of exercises conducted during each eight year exercise cycle that documents the content of scenarios used to comply with the requirements of this paragraph. Each licensee shall conduct a hostile action exercise for each of its sites no later than December 31, 2015. The first eight-year exercise cycle for a site will begin in the calendar year in which the first hostile action exercise is conducted. For a site licensed under Part 52, the first eight-year exercise cycle begins in the calendar year of the initial exercise required by Section IV.F.2.a."

The training requirements, listed in Step 8.1.1.a, will continue to be required initially, and annually thereafter, in order to maintain unescorted access. This change will continue this requirement via separate training. Because the training and frequency will continue to be met, there will be no impact on the Planning Standards. The program continues to meet the stated requirements of 10CFR50.47(b) and 10CFR50, Appendix E.

10 CFR 50.54(q) SCREENING

Number: DB-2016-025-00

Plant / Year / Number / Revision

IDENTIFICATION OF AFFECTED PLANNING STANDARDS

10 CFR 50.47(b)				
Emergency Planning Standard Functions		Risk Significant	YES	NO
1.	Assignment of Responsibilities – Organizational Control		☐	☒
2.	Onsite Emergency Organization		☐	☒
3.	Emergency Response Support and Resources		☐	☒
4.	Emergency Classification System	YES	☐	☒
5.	Emergency Notifications	YES	☐	☒
6.	Emergency Communications		☐	☒
7.	Emergency public Information		☐	☒
8.	Emergency Facilities and Equipment		☐	☒
9.	Emergency Assessment Capabilities	YES	☐	☒
10.	Emergency Protective Actions	YES	☐	☒
11.	Emergency Radiological Exposure Control		☐	☒
12.	Emergency Medical Support		☐	☒
13.	Recovery and Re-entry		☐	☒
14.	Drill and Exercise Program		☐	☒
15.	Emergency Responder Training		☐	☒
16.	Emergency Plan Maintenance		☐	☒

10 CFR 50, Appendix E, Section IV		Risk Significant	YES	NO
A.	Organization		☐	☒
B.	Assessment Actions	YES	☐	☒
C.	Activation of Emergency Organization	YES	☐	☒
D.	Notification Procedures	YES	☐	☒
E.	Emergency Facilities and Equipment	YES	☐	☒
F.	Training		☐	☒
G.	Maintaining Emergency Preparedness		☐	☒
H.	Recovery		☐	☒
I.	Onsite Protective Actions During Hostile Action		☐	☒

Number: DB-2016-025-00
Plant / Year / Number / Revision

6.0 Does the proposed activity affect any program element as defined in NUREG 0654?

☐ YES – THEN, go directly to Section 8.0.
☒ NO – Proceed.

The proposed change to Section 8.1.1.a of the Emergency Plan is associated with, but does not affect, the following Program Element defined in NUREG 0654:

O. Radiological Emergency Response Training: Radiological emergency response training is provided to those who may be called on to assist in an emergency.

As stated in Sections 4.0 and 5.0 above, creating a separate annual training module to cover the Emergency Plan training requirements, removed from Plant Access Training, will continue to assure that the required training is continued to be conducted.

The removal of the title of the training, while maintaining the content and frequency of the training, will have no effect on how Davis-Besse complies with the associated Program Elements as defined in NUREG 0654.

7.0 Does the proposed activity involve an EAL or EAL bases change?

☐ YES – THEN, go directly to Section 8.0.
☒ NO – Proceed.

The proposed alteration in this revision is related to training only and is not related to an EAL or EAL bases change.

8.0 Conclusion

☐ IF ANY "YES" is checked in Sections 4.0, 5.0, 6.0, and 7.0, THEN, complete Section 9.0 AND NOP-LP-5002-02, 10 CFR 50.54(q) Evaluation Report.

☒ IF ALL answers to Sections 4.0, 5.0, 6.0, and 7.0 are "NO", THEN, Complete Section 9.0. NO FURTHER evaluation is required

10 CFR 50.54(q) SCREENING

Number: DB-2016-025-00
Plant / Year / Number / Revision

9.0 Complete the following:

10 CFR 50.54(q) Screening Approval
Screening of changes affecting the Emergency Plan (document), EALs, or Risk Significant Planning Standard (RSPS) Functions require approval by the ERS Manager. The Risk Significant Planning Standards are listed below and include the corresponding sections of 10 CFR 50 Appendix E: 10 CFR 50.47(b)(4) RSPS Function: Standard scheme of emergency classification and action levels 10 CFR 50.47(b)(5) RSPS Function: • Notification of State and local governmental agencies within 15 minutes of an emergency declaration • Means of alerting and providing prompt instructions to the public within the plume exposure pathway • ANS is compliant with the FEMA approved Alert and Notification System (ANS) design report and FEMA approval letter 10 CFR 50.47(b)(9) RSPS Function: Means of assessing radioactive releases 10 CFR 50.47(b)(10) RSPS Function: Methods, systems and equipment for development of protective action recommendations (PARs) to protect public health and safety are in use

Prepared by:	G. S. Van Wey, Staff Nuclear Specialist		12/7/16
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Approved by:	J. M. Vetter, Emergency Response Manager		12/8/16
	Print Name / Signature ERS Manager or designee		Date

NOTE

Per 10 CFR 50.54(q), a summary of the evaluation of changes made by the licensee without prior NRC approval must be submitted to the NRC per 10 CFR 50.4 within 30 days after the change is put into effect. Additionally, these changes are required to be copied to the Director, Division of Spent Fuel Storage and Transportation to fulfill the reporting requirements of 10 CFR 72.44(f) and §72.4.