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Subject: **NUCLEAR PLANT NO. 2**
SUBMITTAL OF REVISION 10 TO THE WNP-1 AND WNP-2
EMERGENCY PREPAREDNESS PLAN

In accordance with 10CFR50, Appendix E, Paragraph V, and 50.54(q), enclosed are two copies of the subject Emergency Preparedness Plan, Revision 10. This revision incorporates comments and critiques from drills, the annual emergency exercise and editorial comments of NRC Region V on Revision 9. Actual changes made by this revision are indicated by change lines in the right-hand margin.

This revision is being resubmitted as we understand that the copies that were sent to the NRC earlier in December have not been received by some of the addressees. Under separate cover, two copies of this revision have been submitted to the NRC Region V Administrator.

G. C. Sorensen, Manager
Regulatory Programs

HLA:GCS:lg
Enclosures

cc: JB Martin/NRC Region V
NS Reynolds/Winston & Strawn w/o attachment
PL Eng/NRR w/o attachment
DL Williams/BPA/399 w/o attachment
NRC Site Inspector/901A w/o attachment

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In 1989 the Hanford Site Neighbor Calendar which also provided emergency information and instructions contained a modified graphical description of the 10 mile Emergency Planning Zone (EPZ). This change was made to provide a map that was consistent with the 10 mile EPZ county road description historically used in Emergency Broadcast Messages.

The elements necessary to bring the program into alignment with this EPZ change will take some time since it involves updating population surveys, development of unique graphics for emergency centers, procurement of additional Emergency Broadcast radios, etc. This update will be completed during calendar year 1990 or earlier. A sensitivity study was completed in February 1990 to examine the possible impact of the EPZ change on the evacuation study. No further work was done because the changes were determined to be insignificant. Emergency Planning will review the 1990 census data when it becomes available for possible impact on the evacuation study. None of the EPZ related changes are regarded as a problem since these additions are enhancements to the existing program with little possibility for impacting public health and safety throughout implementation.

The emergency planning zones are designated as areas for planning to assure that prompt and effective actions shall be taken to protect the public in the event of an accident. The emergency planning zone concept establishes two zones, a ten-mile plume exposure pathway emergency planning zone and an approximately 50-mile ingestion exposure pathway emergency planning zone.

In the Ten-Mile Emergency Planning Zone the principal exposure sources are:

a. Whole body external exposure to beta/gamma radiation from the plume and from deposited radioactive material.

b. Inhalation exposure from the passing radioactive plume.

The Ten-Mile Emergency Planning Zone includes parts of the Hanford Reservation and Benton and Franklin Counties. Benton County is designated as the lead county for the joint planning and response program between the two

c. Provide the Radiation Protection Manager with information concerning potential future radiological conditions in the plant.

d. Maintain operating personnel schedules and make provisions for briefings of shift operating relief personnel reporting for duty.

4.3.1.4 Shift Manager

Reports To: Operations Manager

Supervises: Control Room Supervisor, Control Room Staff, and Shift Technical Advisor/Shift Engineer

Normal Operations Title: Shift Manager (on duty on all shifts)

Line of Succession: Control Room Supervisor/Control Room Shift Support Supervisor (on duty on all shifts)

Assigned Location: Control Room

Basic Emergency Function: The Shift Manager is responsible for overall plant control. The Shift Manager initially acts as the Plant Emergency Director and coordinates activities of the Control Room Supervisor, Shift Technical Advisor, and Control Room Staff (Control Room Operators and Equipment Operators).

Primary Responsibilities:

a. Coordinates activities of the Control Room Supervisor, Shift Technical Advisor/Shift Engineer, and Control Room Staff.

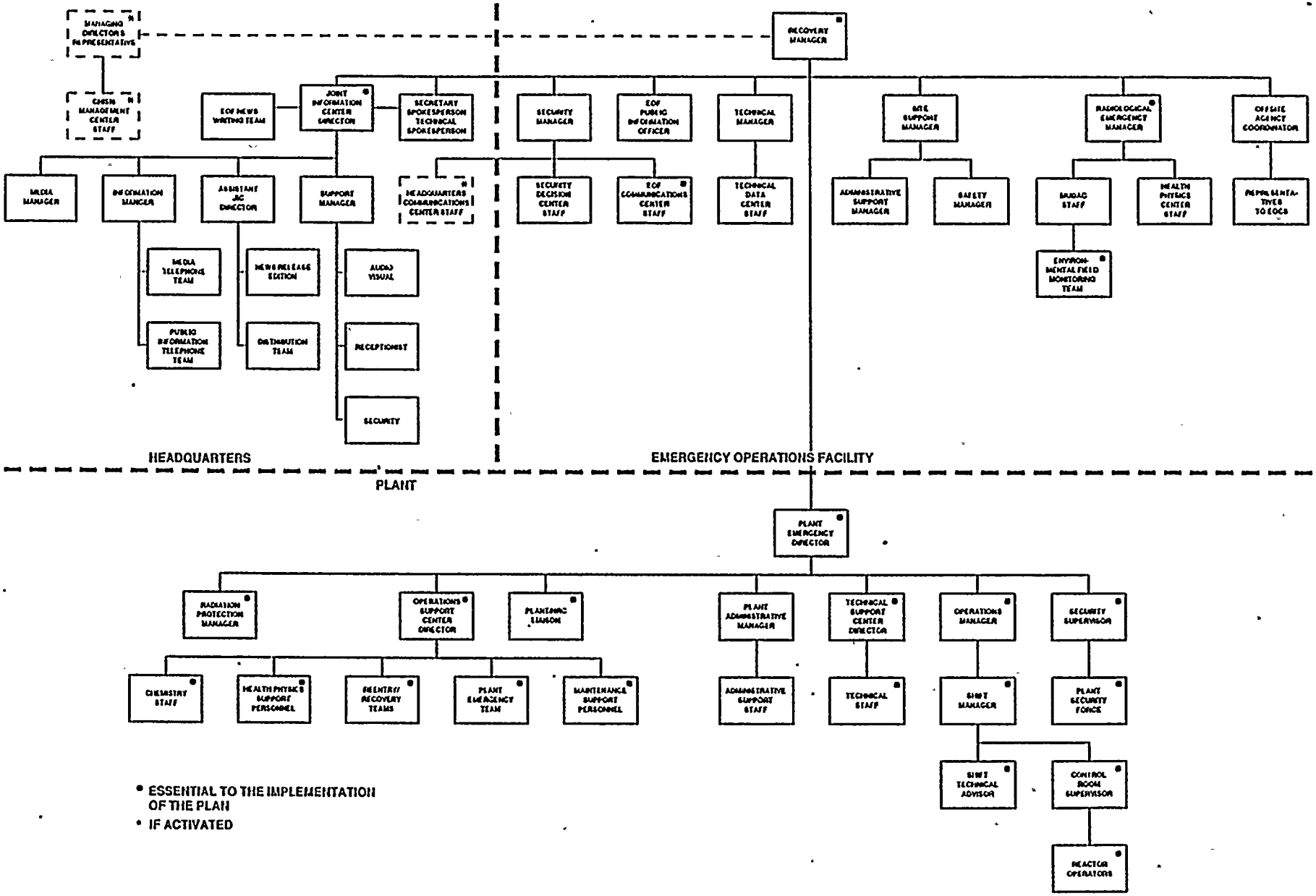

FIGURE 4.3 WNP-1,2 BASIC EMERGENCY ORGANIZATION

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Figure 5-1 illustrates the various assistance organizations which may respond to the Emergency Operations Facility. One person from each agency which has been activated will be identified as the lead contact and will be kept up-to-date through periodic briefings on plant and environmental conditions.

5.3 LOCAL SUPPORT SERVICES

A rapid response is available to the Supply System from local fire, medical, law enforcement, and radiological organizations. Agreements have been made with response agencies either through agreement letters or through the county and state emergency plans. In cooperation with the Supply System, Benton/ Franklin County Emergency Management, and the Department of Energy, a training program has been established to familiarize responding agencies with their role at the plant site during an emergency. The Supply System will provide escorts, assistance, and dosimetry for all persons entering the plant protected areas.

5.3.1 FIRE

Lease agreements established between the Department of Energy and the Supply System provide for Westinghouse Hanford Company Fire Department response to all Supply System facilities on the Hanford Reservation. Response comes from the 400 Area fire station located approximately two miles from the site. Three other fire stations on the reservation provide backup capability. Additional fire department response, if needed, is available through mutual aid agreements between county and municipal fire departments. The Westinghouse Hanford Company Fire Department personnel are specifically trained to handle nuclear facility fire incidents and have specially equipped vehicles and personnel for rescue and other emergencies. Included are chlorine gas kits and trained personnel for securing cylinders. The Safety Manager will be the overall interface with the fire organizations to assure an adequate response is being provided. However, fire organizations performing functions onsite will interface directly with the Plant Emergency Director or his representative.

5.4.4 TELEDYNE CORPORATION

The Supply System presently operates its own thermoluminescent dosimeter (TLD) system; however, during an emergency, Teledyne Corporation would be a potential source for additional TLD services.

5.4.5 GENERAL ELECTRIC COMPANY

The General Electric Company, suppliers of the WNP-2 nuclear steam supply system, provides a support program utilizing the resources of their Nuclear Energy Group in San Jose, California. An emergency response team can be dispatched to the Emergency Operations Facility within twenty-four hours to provide technical assistance. A technical support team with experts in appropriate technical disciplines will be activated at General Electric Headquarters and will establish telephone communications with the onsite General Electric Emergency Response Team. The response team, dispatched to the Supply System, will be provided work space in the Emergency Operations Facility and will coordinate efforts with the Technical Manager. General Electric personnel may be used in the plant as needed. When in the plant the Technical Support Center Director will be the primary interface.

5.4.6 BABCOCK AND WILCOX COMPANY

The Babcock and Wilcox Company, suppliers of the WNP-1 Nuclear Steam Supply System provides emergency support facilities and manpower resources in support of its utility customers. This support is provided by the Babcock Wilcox Nuclear Power Generation Division in Lynchburg, Virginia.

The initiating event for an emergency response by Babcock and Wilcox is a request by the Supply System Recovery Manager according to established procedures identified in the Babcock and Wilcox Response Program Notebook.

centers and the County Emergency Operations Center, making protective action decisions, activation of the early warning system, and coordination of local protective action implementation and support and recovery operations. The effort is administrated by Benton County Emergency Management located in the basement of the Kennewick City Hall. County officials are notified of an emergency through the Emergency Dispatch Center, and also receive any recommendations initially provided by the Supply System in this manner. When activated, the county staff in the Emergency Operations Center will communicate with the staff at the Emergency Operations Facility over Supply System dedicated communications system. Activation of the county plan is automatic for an Alert, a Site Area, or General Emergency and county representatives will be dispatched to the Emergency Operations Facility and the Joint Information Center.

5.5.2 COUNTIES WITHIN THE INGESTION EXPOSURE EMERGENCY PLANNING ZONE

Six counties in addition to Benton and Franklin Counties are located within the Ingestion Exposure Emergency Planning Zone. A portion of the Yakima Indian Nation also falls within the Ingestion Exposure EPZ. The State of Washington will provide notification to these counties and the Yakima Indian Nation will be notified by Yakima County. If resources are needed by the Supply System from these counties, specific requests will be made. This will be coordinated through the State Division of Emergency Management by the Offsite Agency Coordinator. Local governments will be kept informed regarding the status of the plant and recommended protective actions by the state.

5.6 STATE ORGANIZATIONS

5.6.1. STATE OF WASHINGTON

The Washington State Plan referenced in Appendix 1 describes the detailed response which will be given during an emergency. Responsibilities are outlined for all state agencies which have a response role. The following list outlines the response actions of several of the state agencies which

Dedicated communications with the State Emergency Operations Center in Olympia are available. Representatives from the State Division of Emergency Management will have access to the Emergency Operations Facility and will coordinate activities with the Offsite Agency Coordinator.

5.6.1.2 Department of Health

The Department of Health (DOH) is responsible for administering and directing radiation control program activities within the State. DOH provides local authorities with technical guidance, assistance in establishing monitoring and decontamination programs, and recommended appropriate emergency countermeasures and recovery actions offsite. Responding at an Alert or higher classification, DOH provides representatives to the centers within the Emergency Operations Facility (EOF) generally as follows:

a. To the Meteorology and Unified Dose Assessment Center (MUDAC) for joint control of environmental field and aerial monitoring teams, assessment of dose projection information, preparation of protective action recommendations for the plume exposure pathway and ingestion zones, and estimation of total dose exposure. Also, DOH provides Radiation Control (Radcon) field and aerial monitoring teams that perform radiological monitoring, collect samples and provide limited field analysis. In addition, if the support has not been effected through requests to the Department of Energy - Richland Operations (DOE-RL), the teams provide monitoring and decontamination support to the counties at emergency worker and assistance centers.

b. To the Offsite Agency Coordination Center (OACC) for the coordination of State agency responses.

c. To other EOF centers, such as the Technical Data Center (TDC), for necessary information exchange.

Outside of the EOF, DOH normally furnishes a representative to the Joint Information Center (JIC) for the coordination of public information. At the State Emergency Operations Center (EOC), DOH representatives furnish guidance on implementation of protective actions and assist local health officials with the implementation of protective actions. Agency response times to the Richland area are expected to be between two and six hours.

5.6.1.3 Washington State Patrol

The Washington State Patrol, through the State Division of Emergency Management, will provide upon request, emergency traffic control, area access control, escort services, communications, and other law enforcement assistance. The Supply System Security Decision Center will be available for a representative from the Washington State Patrol to coordinate activities with the Supply System Security Manager.

5.6.1.4 Energy Facility Site Evaluation Council

The Energy Facility Site Evaluation Council is the lead state organization for siting of power generating facilities in the State of Washington. The Council is responsible for assessing the overall safety of the facility and ensuring the safety and well-being of the public.

The Chairman functions as the Governor's Onsite Representative and will proceed to the Emergency Operations Facility to assess the situation. The Offsite Agency Coordinator will provide necessary support and information to the State Governor's Representative. The Recovery Manager and Managing Director's Representative will be the primary points of contacts with the Governor's Representative here.

SECTION 6

EMERGENCY CLASSIFICATION SYSTEM

6.1 INTRODUCTION

This section describes the four emergency classifications and the initiating conditions for classifying an accident. A detailed description of instrumentation used in assessing an accident is given in the Final Safety Analysis Report. The response organizations to be notified and/or activated by the Supply System for each class of emergency are listed in Table 7-1.

6.2 EMERGENCY CLASSIFICATION

Emergency classification is the responsibility of the Plant Emergency Director. Classification is made based on the guidelines provided herein, and the recommendations of the Technical and Operations staff. Input may come from the Control Room, Technical Support Center, or Emergency Operations Facility. The initial classification will most likely be made by the Shift Manager, acting as the Plant Emergency Director, and will be based on plant parameters or initial dose assessment.

The tables in this section provide examples of emergency conditions that warrant classification. They are presented as symptomatic initiating conditions (Table A.1) and situation based emergency action levels (Table A.2). It must be noted that these are only examples, and other problems may coexist such that when all conditions are considered, an emergency condition may exist. Table B.1 provides the basis for situation based Emergency Action Levels (EALs), and as such may be used as guidance.

The symptomatic initiating conditions are distinct, usually singular quantitative plant safety parameters. However, since it is not possible to provide a comprehensive set of examples with measurable symptoms alone, a second method

was incorporated. This second method uses a set of discretionary guidelines derived from NUREG-0654, and listed in Table B.1. Examples to help the user better understand these discretionary guidelines are provided in Table A.2.

To aid the operator, the symptomatic initiating conditions have been computerized. When a symptomatic initiating condition has been exceeded, the Graphic Display System (GDS) will display the appropriate emergency classification and the basis for that classification. If the GDS is not operational, Table A.1 makes a useful quick reference guide to symptomatic initiating conditions. Use of these symptomatic parameters minimizes the need for operator judgements during an emergency; however, some level of subjective judgement is still required to accommodate the large number of possible situations. In situations not covered by examples, the definitions and purposes must be used as a guiding consideration in determination of an emergency classification.

6.3 CLASSIFICATION DEFINITIONS AND PURPOSES

The conditions for event classification presented here are not intended to cover all situations. Other events and combinations of situations can warrant conservative action and emergency classifications. Classifications shall be made utilizing conservative principles. In situations not covered by examples, which require judgement in determining emergency classifications, the following definitions and purposes of each classification must be used as the final consideration:

6.3.1 Unusual Event

1. Definition

   A condition at the plant, or its surroundings, that threatens the normal level of plant safety, or an event where an increased awareness on the part of plant operating staff is warranted. This includes conditions at the plant that result in a plant shutdown under Technical Specification requirements where the normal level of plant safety has degraded, or is imminent.

2. Purpose

To bring the plant operating staff to a state of readiness, provide systematic handling of information and decision making, and notify the emergency response organization, including all offiste emergency authorities when necessary.

3. Rationale

The rationale for the Unusual Event classification is to provide early notification of minor events which could lead to more serious consequences given operator error or equipment failure or which might be indicative of more serious conditions which are not yet fully realized.

6.3.2 Alert

1. Definition

A condition at the plant or its surroundings where the level of safety has or could be substantially degraded; such as failure of the reactor protective system to initiate and complete a scram which brings the reactor subcritical. This includes conditions where a small release of radioactive material may warrant offsite response and/or monitoring, but does not require protective actions, or where the use of additional personnel for accident assessment and in-plant response is warranted.

2. Purpose

To provide additional help in responding to the situation and provide systematic handling of information and decision making. Declaring an Alert will provide additional manpower in the Technical Support Center to help the normal operating crew in those duties not directly related to plant control, such as offsite dose assessment, technical problem evaluation, and communications with outside organizations. It will also

activate the Operations Support Center which will provide additional manpower to respond to plant conditions. It will likewise activate the Emergency Operations Facility and Headquarters emergency centers.

6.3.3 Site Area Emergency

1. Definition

A condition at the plant or its surroundings where the level of safety has or could be degraded to the point of losing a plant function needed to protect the public from a release of radiation. This includes the violation of Safety Limits as defined in the WNP-2 Technical Specifications, or where a significant release of radioactive material has or could take place. It is a condition that warrants use of additional personnel for accident assessment, in-plant response, and offsite emergency response or monitoring, public notification, and public protective action implementation near the site.

2. Purpose

To assure that all emergency response centers are activated, field monitoring teams dispatched, evacuation coordinators readied, and to initiate predetermined protective actions for the public and to keep them informed.

6.3.4 General Emergency

1. Definition

A condition at the plant or its surroundings where the level of safety has or could be degraded to the point of substantial core damage and where the loss of primary containment integrity has occurred or is projected to occur. This includes conditions where large amounts of radioactive material have or could be released in a short period of

time. This classification warrants the use of additional personnel for accident assessment, in-plant response, and off-site emergency response to aid in the implementation of plume EPZ public protective actions.

2. Purpose

To intiate predetermined actions for the public; to provide for continuous offsite assessment; initiate additional measures, as indicated by radiological releases or plant conditions; and to provide for consultation and flow of information to and from the various offsite authorities.

6.4 COMPARISON TO NUREG-0654 EXAMPLES

Emergency classification guidance is provided in NUREG-0654, and is often used as the standard for emergency classification examples. To aid the reader in comparing NUREG-0654 with the WNP-2 classification system, Tables 6-1 through 6-4 provide a cross reference of examples. The examples used in the WNP-2 classification system are representative of the intent of the NUREG-0654 examples, but not necessarily identical. Where the examples are not directly implementable such as the many NUREG-0654 examples that are PWR oriented, a note is provided to explain the differences.

Symptomatic Initiating Conditions †

Safety Group	Parameter	UE	ALERT	SAE	GE
Reactivity	Reactor Power	≥ 1% with Suppression Pool Temp ≥ 110°F	≥ 5%; 10 or more seconds after a scram	≥ 5% *and* Suppression Pool Temp. ≥ 110 °F *and* either an SRV open *or* Drywell Pressure > 1.68 psig	——
Core Cooling	Reactor Vessel Water Level	≤ -50"(except during design transients)	≤ -129"	≤ -161"	——
Coolant System Integrity	Drywell Drains Cummulative Flow (FDR + EDR)	EDR + FDR ≥ 36,000 gal. in any 24 Hr. period	——	——	——
	Drywell Floor Drain Flow Rate (FDR)	≥ 5 gpm	——	——	——
	Drywell Pressure	≥ +1.68 psig	——	——	——
	Reactor Pressure	≥ 1148 psig	≥ 1250 psig	≥ 1325 psig; >SRVTPLL; >HCTL	——
	Containment Isolation	——	MSIV closure logic met, but both inboard & outboard valves on one or more lines fail to close	——	——
Containment	Drywell Average Air Temperature	≥ 135°F for> 8 Hrs.	——	≥ 340 °F	——
	Drywell Pressure	≤ -1.0 psig for > 1 Hr.	——	>HCTL	——
	Suppression Pool Water Temperature	≥ 110°F & Rx Power ≥1%	——	>HCTL	——
	Suppression Pool Water Level	≥ +2" for more than 1 Hr. or ≤ -2" for more than 1 Hr.	——	< HCLL; > SRVTPLL; >52 ft.	——
	Containment Isolation	——	Reactor Coolant Pressure Boundary lines fail to isolate when design logic is met.	——	——
	Wetwell Pressure	——	——	> PSPL	——
Radioactivity Control	Exclusion Area Boundary (1.2 Miles) Whole Body Dose Rate	——	≥ 0.5 mR/hr	≥ 50 mR/hr	≥ 1 R/hr
	Exclusion Area Boundary (1.2 Miles) Thyroid Dose Rate	——	≥ 2.5 mrem/hr	≥ 250 mrem/hr	≥ 5 rem/hr

† All conditions alarm on the Graphic Display System.

TABLE A.1

9004202A

Examples of
Situation Based Emergency Action Levels

Safety Category	UE Examples		ALERT Examples	SAE Examples	GE Examples
Plant Safety Barrier	If in Operating Condition 1 or 2 and:		—	—	—
	TSAS†				
	3.0.3	Tech. Spec. Applicability is met	—	—	—
	3.1.3.1.c	More than 8 control rods are inoperative.	—	—	—
	3.1.3.8	The CRD housing support is not in place.	—	—	—
	3.3.1.b	Both RPS trip systems having less than the minimum number of operable channels.	—	—	—
	3.3.2.c	Both containment isolation trip systems having less than the minimum number of operable channels.	—	—	—
	3.4.1.2	Any inoperable jet pumps.	—	—	—
	3.4.2.a	Any of 12 designated reactor coolant safety relief valves unable to lift from high reactor pressure (i.e. Safety Function)	—	—	—
	3.4.2.b	Any reactor coolant safety relief valves that are stuck open for more than two minutes or regardless of time, stuck open and suppression pool temperature ≥ 110°F.	—	—	—
	3.4.3.2.a	Any Reactor Coolant Pressure Boundary leakage.	—	—	—
	—	—	—	—	—

†TSAS: Technical Specification Action Statements

TABLE A.2

900420.3A

Examples of
Situation Based Emergency Action Levels.

Safety Category	UE Examples		ALERT Examples	SAE Examples	GE Examples
Plant Safety Barrier	If in Operating Condition 1 or 2 and:		—	—	—
	TSAS†				
	3.4.5.a.1.2	The reactor coolant has a specific activity greater than 4 microcuries/gram DOSE EQUIVALENT I-131.	—	—	—
	3.4.5.a.2	The reactor coolant has a specific activity greater than 100/E microcuries per gram.	—	—	—
	3.6.1.1	The loss of primary containment integrity for more than one hour.	—	—	—
	3.6.1.8	Any containment purge isolation valves open for more than one hour for any reason other than inerting, deinerting, or pressure control.	—	—	—
	3.6.2.1.c	The average suppression pool water temperature > 120°F.	—	—	—
	3.6.2.3	Both suppression pool cooling loops inoperable.	—	—	—
	3.7.1.3.a	The spray pond level drops below 14 .5 feet.	—	—	—
	3.7.1.3.b	The spray pond water temperature exceeds 77°F.	—	—	—
	3.7.1.3.c	The average sediment depth on the spray pond floor exceeds 6 inches.	—	—	—

900420. 4 A

†TSAS: Technical Specification Action Statements

TABLE A.2

Examples of
Situation Based Emergency Action Levels

Safety Category	UE Examples		ALERT Examples	SAE Examples	GE Examples
Plant Safety Barrier	If in Operating Condition 1 or 2 and:		—	—	—
	TSAS†				
	3.10.1	Performing low power physics tests with the reactor head off and power exceeds 1%, or reactor coolant temperature exceeds 200°F.	—	—	—
	3.10.4	Performing low power physics tests with the reactor head on and recirculation loop flows are unmatched and reactor power is in excess of 5%.	—	—	—
	—	—	—	Significant failed fuel (Defined in this specific context to mean appoximately 1% cladding failure or 0.1% fuel melt as verified by reactor coolant sample analysis and evaluated per PPM 9.3.22; *Core Damage Evaluation*).	—
	—	—	—	Failure of the Emergency Core Cooling systems and other water sources to maintain RPV water level above the top of the active irradiated fuel. (-161 in.)	—
	—	—	—	—	Loss of, or high potential for loss of, primary containment *and* significant failed fuel. (Defined in this specific context to mean appoximately 1% cladding failure or 0.1% fuel melt as verified by reactor coolant sample analysis and evaluated per PPM 9.3.22; *Core Damage Evaluation*.)

†TSAS: Technical Specification Action Statements

TABLE A.2

000420.5A

Examples of
Situation Based Emergency Action Levels

Situation Based Safety Category		UE Examples	ALERT Examples	SAE Examples	GE Examples
Plant Safety Level	Floods	Floods where the river pumphouse is observed to be in danger of inudation.	Flooding or potential flooding that prevents the operation of plant safety systems.	A flood that jeopardizes the plant safety systems to the point of inadequate control of the plant.	—
	Earth-quakes	Earthquakes detected by the seismic instrumentation.	An earthquake equivalent to an operating basis earthquake.	An earthquake greater than the safe shutdown earthquake.	External events such as fires and earthquakes substanially beyond the design basis.
	Tornados	Tornados sighted from the exclusion area.	A tornado striking or projected to strike equipment or a facility within the protected area boundary.	—	—
	Ash	Visible ash fallout from volcanic activity. (Refer to PPM 4.12.4.5; *Design Basis Ash Fallout*)	Volcanic ash fallout severe enought to warrent plant shutdown. (Refer to PPM 4.12.4.5; *Design Basis Ash Fallout*)	—	—
	Winds	High winds; sustained above 80 mph.	Sustained wind speeds in excess of 100 mph.	—	—
	Range Fire	Range fires near the plant which threaten to reduce the normal level of plant safety.	—	—	—
	Explosions	Explosions within the Protected Area, but not affecting plant operations.	—	—	—
	Storms	—	Severe electrical storms that cause major failure of saftey related instruments.	—	—

600120.6A

TABLE A.2

Examples of
Situation Based Emergency Action Levels

Situation Based Safety Category	UE Examples	ALERT Examples	SAE Examples	GE Examples
Emergency Response Team Awareness Level	Loss of one critical switchgear bus (excluding Division 3) for more than 8 hours and not in Hot Shutdown (Operational Condition 3) or colder.	—	—	—
	Loss of all offsite power.	A Station Blackout.	Station Blackout > 15 minutes	—
	Unusual aircraft activity over the facility, aircraft crash, or train derailment onsite but not affecting safety related equipment.	An aircraft crash or train derailment compromising safety related equipment.	—	—
	Toxic or flammable gas releases near or within the Protected Area.	Entry of toxic or flammable gas into plant facilities.	Elevated hydrogen levels inside primary containment, coupled with oxygen concentrations sufficient to cause a potentially harmful pressure spike should the two gases ignite. (This requires engineering analysis in accordance with PPM 9.3.25; *Containment Hydrogen Assessment*).	—
	—	An explosion causing plant damage that prevents or could prevent the operation of safety systems.	—	—
	—	Loss of all P601, P602, and P603 annunciators.	—	—
	Loss of all core decay heat removal systems for more than one hour in operational condition 4 or 5.	Anticipated Control Room evacuation to the Remote Shutdown Panel.	—	—

TABLE A.2

600420.7A

Examples of
Situation Based Emergency Action Levels

Situation Based Safety Category	UE Examples	ALERT Examples	SAE Examples	GE Examples
Emergency Response Team Awareness Level	Loss of fire protection systems that threaten the normal level of plant safety.	A fire potentially affecting a safety system.	A fire disabling a safety system needed to mitigate release of radioactive material.	—
	•A fire within the power block, or within the protected area and affecting plant equipment, lasting more than 10 minutes.	—	—	—
	Reactor scram initiated and more than one control rod not inserted past position 06.	—	—	—
	An area radiation Hi-alarm *and* an actual increasing or sustained Hi-alarm value confirmed by direct measurement, except for transient conditions consistent with expected plant operations, e.g., operation of RHR in shutdown cooling, or RWCU resin transfer.	—	—	—
	Transportation of a contaminated injured individual from the plant to an offsite medical facility.	—	—	—
	—	Fuel handling accident resulting in the reactor bldg exhaust plenum radiation level above 13 mR/hr. ("2" signal)	Major damage to more than one spent fuel assembly leading to clad rupture.	—
	—	—	Fuel pool level below bottom of the fuel transfer gate and decreasing.	—
	—	—	Failure of the Standby Gas Treatment System to function when needed to mitigate offsite release.	—

TABLE A.2

900420.8A

Examples of
Situation Based Emergency Action Levels

Situation Based Safety Category	UE Examples	ALERT Examples	SAE Examples	GE Examples
Release Of Radioactivity	Release of radioactive material in liquid, gaseous, or particulate form in excess of Technical Specification limits, but no offsite monitoring required.	Projected Exclusion Area Boundary (1.2 miles) whole body dose rates greater than or equal to 0.5 mR/hr; or 2.5 mrem/hr to the thyroid.	Projected Exclusion Area Boundary (1.2 miles) whole body dose rates greater than or equal to 50 mR/hr; or 250 mrem/hr to the thyroid.	Projected Exclusion Area Boundary (1.2 miles) whole body dose greater than or equal to 1 R; or 5 rem to the thyroid.
	—	A confirmed Standby Service Water system radiation level that equals or exceeds the radiation monitors Hi-alarm value and the plant can not isolate that Standby Service Water loop.	—	—

TABLE A.2

830420. 9 A

Examples of
Situation Based Emergency Action Levels

Situation Based Safety Category	UE Examples	ALERT Examples	SAE Examples	GE Examples
Security Action Level	A credible threat to bomb the plant is received.	Bomb device is found in a vital area.	Bomb explosion interferes with ability to maintain physical control of plant.	Bomb explosion destroys equipment required to mitigate release of radioactive material.
	A credible threat to attack the plant is received.	Protected or vital area barrier intentionally breached.	An imminent attack or assault on the plant, or plant has been attacked and adversaries are holding hostages or making extortion threats.	Insurgents in physical control of the plant.
	Plant safety degradation which may have been caused by sabotage.	Visual observation of unidentified or unauthorized persons in a vital or protected area with an intent to commit sabotage.	Confirmed sabotage in a vital area that affects the ability to adequately shutdown the plant.	—
	A personnel disturbance in the Protected Area that compromises plant security.	A situation that represents an ongoing security compromise of vital equipment.	—	—

TABLE A.2

Basis for Situation Based Emergency Action Levels

Situation Based Safety Category	UE	ALERT	SAE	GE
Plant Safety Barrier	Plant shutdown under Technical Specification requirements where the normal level of plant safety has degraded.	Exceeding a Limiting Safety System Setpoint, as defined in the Technical Specifications.	Exceeding a Safety Limit , as defined in the Technical Specifications.	A loss of or high potential for loss of primary containment and significant failed fuel.
Plant Safety Level	Natural phenomenon or other hazards within or near the Exclusion Area Boundary (1.2 miles) that threaten the normal level of plant safety.	Natural phenomenon and other hazards that represent a substantial degradation in the level of plant safety.	Situations where the level of safety has, or could be, degraded to the point of losing a plant function that is required to mitigate release of radioactive material.	Any major internal or external events that could cause a degradation of plant safety such that the release of large amounts of radioactive material in a short period of time is possible.
Emergency Response Team Awareness Level	Situations that warrant increased awareness on the part of Plant operating staff.	Situations that warrant the use of additional personnel for accident assessment and offsite radiation monitoring.	Situations that warrant the activation of the TSC, OSC, and EOF for the purpose of event assessment, in-plant response, and offsite response or radiation monitoring, public notification and public protective action implementation near the site.	Situations that require technical or emergency support for radiological release beyond the Exclusion Area Boundary.
Release of Radioactivity	A situation where a release of radioactive material in excess of Technical Specification limits exists, but no offsite monitoring is required.	A situation where the release of radioactive material warrants offsite radiation monitoring.	A situation where significant release of radioactive material has or could take place.	A situation where large amounts of radioactive material are being released.
Security Action Level	Conditions that threaten the security of the Plant and require increased precationary measures. (Refer to the Safeguards Contingency Plan (SCP) for additional information.	Ongoing security compromise requiring additional support. (Refer to the SCP for additional information)	A security compromise seriously affecting the physical control of the Plant. (Refer to the SCP for additional information).	Confirmed sabotage and a loss of security control in an area that could cause an uncontrolled radiation release or could impact the Plant's ability to perform a safe shutdown.

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TABLE B.1

TABLE 6-1

WNP-2 INITIATING CONDITION NUREG-0654 CROSS REFERENCE
FOR UNUSUAL EVENT CLASSIFICATION

NUREG-0654 APPENDIX 1, Rev. 1 Example Initiating Conditions	Representative Example(s) in Emerg. Plan (Table #; Page #	NOTES
1. ECCS Initiated	Table A.1; Page 6-6	1
2. Rad. Effluent	Table A.2; Page 6-13	
3. Fuel Damage		
a. High Offgas Activity	Table A.2; Page 6-13	2
b. High Coolant Activity	Table A.2; Page 6-8	
c. Failed Fuel Monitor	None (PWR unique)	
4. Abnormal Reactor Conditions		
a. Coolant Temperature	None (PWR unique)	
b. Coolant Pressure	Table A.1; Page 6-6	3
c. Fuel Temperature	None (PWR unique)	
5. PCPB Leakage		
a. Primary to Secondary Leakage	None (PWR unique)	
b. Primary Leakage	Table A.1; Page 6-6 Table A.2; Page 6-7	
6. Stuck Safety Relief Valve	Table A.2; Page 6-7	
7. Loss of Power		
a. Loss of Offsite Power	Table A.2; Page 6-11	
b. Loss of Onsite AC Power	Table A.2; Page 6-11	
8. Loss of Containment Integrity	Table A.2; Page 6-8	
9. Loss of Safety Features		
a. Engineered Safety Features	Table A.2; Page 6-7 Table A.2; Page 6-8 Table A.2; Page 6-11	
b. Fire Protection Sys. Functions	Table A.2; Page 6-12	
10. Fire	Table A.2; Page 6-12	
11. Loss of Indications	Table A.2; Page 6-7	
12. Security Threat		
a. Security Threat	Table A.2; Page 6-14	
b. Attempted Entry	Table A.2; Page 6-14	
c. Attempted Sabotage	Table A.2; Page 6-14	
13. Natural Phenomenon	Table A.2; Page 6-10	
14. Other Hazards		
a. Aircraft Activity	Table A.2; Page 6-11	
b. Train Derailment	Table A.2; Page 6-11	
c. Explosion	Table A.2; Page 6-10	
d. Toxic or Flammable Gas	Table A.2; Page 6-11	
e. Turbine Falure	Table A.2; Page 6-7	4, 11
15. Catchall Conditions	Table A.2; Page 6-7 Table A.2; Page 6-11 and 12	4,
16. Contaminated Persons	Table A.2; Page 6-12	
17. Depressurize Secondary Side	None (PWR Unique)	

TABLE 6-2

WNP-2 INITIATING CONDITION NUREG-0654 CROSS REFERENCE
FOR ALERT CLASSIFICATION

NUREG-0654 APPENDIX 1, Rev. 1 Example Initiating Conditions	Representative Example(s) in Emerg. Plan (Table #; Page #	NOTES
1. Severe Loss of Fuel Cladding		
a. High Offgas Activity	Table A.2; Page 6-13	2
b. High Coolant Activity	Table A.1; Page 6-6	5
c. Failed Fuel Monitor	None (PWR unique)	
2. Steam Generator Failure	None (PWR unique)	
3. Steam Generator Failure	None (PWR unique)	
4. Steam Line Break	Table A.1; Page 6-6	
5. Fifty GPM Leak Rate	Table B.1; Page 6-15	6
6. High Airborne Radiation	Table A.1; Page 6-6	7
7. Loss of all AC Power	Table A.2; Page 6-11	
8. Loss of DC Power	Table A.2; Page 6-11	8
9. Coolant Pump Seizure	None (PWR unique)	9
10. Loss of Shutdown Cooling	Table B.1; Page 6-15	10
11. RPS Failure to SCRAM	Table A.1; Page 6-6	
12. Fuel Damage Accident	Table A.2; Page 6-12	
13. Fire	Table A.2; Page 6-12	
14. Loss of all Annunciators	Table A.2; Page 6-11	
15. High Radiological Effluent	Table A.1; Page 6-6	
16. Ongoing Security Compromise	Table A.2; Page 6-14	
17. Severe Natural Phenomena	Table A.2; Page 6-10	
18. Other Hazards		
a. Aircraft Crash	Table A.2; Page 6-11	
b. Missile Impacts	Table B.1, Page 6-15	11
c. Explosions	Table A.2; Page 6-11	
d. Toxic or Flammable Gas	Table A.2; Page 6-11	
e. Turbine Failure	Table B.1; Page 6-15	11
19. Catchall Conditions	Table B.1; Page 6-15	
20. Control Room Evacuation	Table A.2; Page 6-11	

TABLE 6-3

WNP-2 INITIATING CONDITION NUREG-0654 CROSS REFERENCE
FOR SITE AREA EMERGENCY CLASSIFICATION

NUREG-0654 APPENDIX 1, Rev. 1 Example Initiating Conditions	Representative Example(s) in Emerg. Plan (Table #; Page #	NOTES
1. Known LOCA	Table A.1; Page 6-6	
2. Loss of Coolable Geometry	Table A.1; Page 6-6	
	Table A.1; Page 6-6	12
3. Rapid SG Tube Failure	None (PWR unique)	
4. Steam Line Break	Table A.1; Page 6-6	13
5. PWR Line Break	None (PWR unique)	
6. Loss of all AC Power for 15 min.	Table A.2; Page 6-11	
7. Loss of all DC Power for 15 min.	Table A.2; Page 6-11	8
8. Loss of Shutdown Cooling	Table B.1; Page 6-15	10
9. Failure to SCRAM plus LOCA	Table A.1; Page 6-6	
10. Major Spent Fuel Damage	Table A.2; Page 6-12	
11. Fire	Table A.2; Page 6-12	
12. Loss of Annunciators	Table B.1; Page 6-15	14
13. Radioactive Effluent High	Table A.1; Page 6-6	15
14. Loss of Physical Control	Table B.1; Page 6-15	
15. Severe Natural Phenomena	Table A.2; Page 6-10	
16. Other Hazards	Table B.1; Page 6-15	16
17. Catchall Conditions	Table B.1; Page 6-15	
18. Control Room Evacuation	Table B.1; Page 6-15	11

TABLE 6-4

WNP-2 INITIATING CONDITION NUREG-0654 CROSS REFERENCE
FOR GENERAL EMERGENCY CLASSIFICATION

NUREG-0654 APPENDIX 1, Rev. 1 Example Initiating Conditions	Representative Example(s) in Emerg. Plan (Table #; Page #	NOTES
1. Radioactive Effluents High		
a. Site Boundary Dose	Table A.2; Page 6-13	
b. Site Boundary Dose Rates	Table A.1; Page 6-6	
2. Loss of Fission Product Barriers	Table A.2; Page 6-9	
3. Loss of Physical Control	Table A.2; Page 6-14	
4. Other Plant Conditions	Table B.1; Page 6-15	
5. PWR Sequences	None (PWR unique)	
6. BWR Sequences	Table A.2; Page 6-9	
	Table B.1; Page 6-15	17
7. Other Major Events	Table A.2; Page 6-10	

NOTES FOR TABLES 6-1 THROUGH 6-4

1. Emergency Core Cooling System initiation is not used as an example at WNP-2 because this can happen on a normal operating transient in accordance with accepted design and operating practices. To declare an unusual event for a normal occurrence would not serve the purpose of emergency classification. This example is most applicable to PWR's. The intent of this example is to warn of impending problems with the control of reactor coolant inventory. The WNP-2 Emergency Plan does not ignore the intent, but rather uses a more specific example on Table A.1 for low reactor water level _ 50" (except during design transients). This provides a much more specific indicator of reactor coolant inventory than ECCS initiation.

2. High offgas activity at the air ejector monitors on a BWR is not a good indicator of failed fuel because that is not their specific design function. Instead, there are radiation detectors located in the main steam lines whose sole purpose is to detect a failed fuel condition. If these detectors sense failed fuel, they will isolate the main steam lines, which by the way isolates the steam flow to the Offgas monitors, and trips the reactor, placing the plant in a safe condition. As such there is no need to declare an Emergency, unless other indicators cause concern such as item 3.b. The intent of this example is met in the referenced representative examples, however.

3. The only limitation on reactor pressure in the Technical Specifications is the design rated condition of 1325 psig, which cannot be achieved without the failure of 18 relief valves, and many other safety devices. This example is directed at a PWR, but understanding the intent, we have chosen the pressure at which the first safety relief valve would lift as a significant level of safety degradation, and hence an unusual event action level.

4. A turbine rotating component failure causing rapid plant shutdown is only one of an infinite set of examples that could cause the plant to be shutdown because of unsafe conditions. This contingency is covered by the Technical Specification Action Statement 3.0.3 that requires a plant shutdown for any condition that is outside the limits of the Technical Specifications.

5. Coolant activity levels high enough to indicate severe loss of fuel cladding dictates that a Site Area Emergency be declared. Because of this, WNP-2 does not include this as an example in the Alert classification. An indicator of similar safety concern may be the site boundary dose value example, which does not necessarily relate to an incore fuel failure, but indicates a precursor to a potentially escalating event.

6. A primary coolant leak rate greater than 50 gpm is by default a PWR example, because BWRs do not have instrumentation that measures beyond 30 gpm. The reason being is that the BWR containments are smaller, and more sensitive to primary coolant leaks. The maximum leakage allowable by Technical Specifications is 25 gpm, and if exceeded, the reactor is shutdown, and an Unusual Event would be declared. If the event escalates beyond this condition, other more pertinent parameters would dictate an alert or higher classification.

7. The NUREG-0654 example is not discrete enough to be implementable. However, the intent has been met by the representative example, and the more general direction of increased awareness in Table B.1. It is important to understand that before an increase in any radiation level could occur (be it by a factor of 1000, or any other number), several other conditions would have to be present, and even then, an unsafe condition still may not exist. It is because of this infinite set of conditions, some safe, and some not, that this example is not directly implementable.

8. In order to lose all DC power, you would have to also lose all AC power, because all DC power supplies have AC to DC converters on the front end of the DC batteries. Therefore, this condition can not exist unless you have a station blackout.

9. This example is not applicable to BWRs. "Coolant pump seizure leading to fuel failure." As defined in the FSAR for WNP-2, a recirculation pump seizure does not represent a safety concern. The concern here is circulation of water through the core to keep it cool. Unlike PWRs, the reactor design on a BWR allows this to happen with natural convection inside the reactor, and thus this scenario is not applicable.

10. The loss of Shutdown Cooling capabilities is a safety concern, but it is a function of time, reactor mode, and ECCS status. The real concern here is the ability to remove heat from the core, not whether or not shutdown cooling is operable. Because there are many alternate means of cooling residual core heat in a BWR, we have chosen to remain with the primary safety parameters as the means of classification. The primary safety parameter that would indicate a problem with core cooling is reactor water level, and in Table A.1 on page 6-5, we list an ALERT at $\leq$ -129", and an SAE at $\leq$-161". Once again, this is more of a PWR example, because PWRs only have one method of removing residual core heat.

11. Although this specific example seems explicit, its relation to safety is not clear. There is no direct correlation to plant safety, and as such has not been specifically listed in the Tables. We have chosen, on the other hand, to meet the intent by providing guidance in Table B.1 for the infinite number of situations that can occur. This recognizes the need for judgement and provides specific guidance based on the stated purposes of NUREG-0654.

12. Since there is no direct measurement of a degraded core condition, the representative examples were defined to meet the intent of this example.

13. A BWR steam line break outside containment without isolation in and of itself is already defined as an ALERT in NUREG-0654; example 4. In order for the escalating event to be more severe, failed fuel would have to be present also, in which case there would be a release of radioactive material, and the representative example is the appropriate indicator.

14. This example has already been defined in NUREG-0654 as an ALERT condition. The only twist, is that an undefined plant transient may be in progress. Since this undefined transient is key to the safety significance, it is impossible to use this example as written. The intent seems to reflect a need to identify an escalated event, which is covered by our guidance in Table B.1.

15. The values listed in Table A.1 were mutually agreed upon in writing with all interested parties prior to reactor startup in 1983.

16. The three examples listed in NUREG-0654 for this classification are an attempt to continue the severity level of previous examples in the ALERT and UNUSUAL EVENT category. Unfortunately these three examples are not discrete enough to be implementable at this level. However, the intent has been met by the representative example of Table B.1.

17. Throughout NUREG-0654 a pattern of examples is provided as guidance in understanding the purpose and definition of the various levels of emergency classification. Then, in the General Emergency classification section, the format changes to list a series of scenarios that revolve around core melt, and loss of containment. Since it is not practical to change the format of our procedures or Emergency Plan, we have chosen instead to present the essence of these scenarios. The representative example listed in this Table provides the essential elements of each of these scenarios.

SECTION 7

NOTIFICATION METHODS AND PROCEDURES

7.1 INTRODUCTION

This section describes the Supply System notification methods and procedures for activating the emergency organizations. Notification of emergency personnel and assistance organizations will begin immediately upon declaring the emergency. The extent of notification will depend upon the emergency classification declared. A means for verifying the authenticity of all notifications is established.

7.2 METHODS OF NOTIFICATION

7.2.1 SUPPLY SYSTEM EMERGENCY ORGANIZATION

After classifying the emergency, the Plant Emergency Director will initiate notification of emergency personnel by utilizing the Emergency Operations Facility Communication Center, the in-plant paging system and high noise evacuation devices.

Non-essential personnel will be advised to take specific action regarding evacuation based on plant conditions at that time. The on-duty Supply System personnel will notify the State of Washington Division of Emergency Management, Benton/Franklin Counties Emergency Management, and the Department of Energy. A computerized auto dialer and a pager system will also be activated to notify Supply System emergency personnel. (A predetermined call list will serve as a backup to these systems.)

The extent of the notification will depend upon the emergency classification; however, the Plant Emergency Director may call anyone he deems necessary to support the emergency effort. Table 7-1 outlines the response organizations which will be notified by the Supply System for each emergency class.

7.2.2 NEARBY FACILITIES

Initial emergency notification to nearby Supply System facilities by the Plant Emergency Director of the affected plant will be made through the Emergency Operations Facility Communication Center. Both phone lines and radio communications are available. The nearby facilities will implement the necessary emergency actions. In the event of an emergency requiring protective measures to be taken at the nearby facilities, the Plant Emergency Director or Recovery Manager will provide specific instructions.

The Department of Energy is responsible for notifying facilities on the Hanford Reservation during a Supply System emergency, except notification to the Fast Flux Test Facility control room will be made if protective measures are needed and recommendations will be made by the Recovery Manager or Plant Emergency Director.

7.2.3 SUPPORT ORGANIZATIONS

Initial notification to Benton County Emergency Management and to the Department of Energy will be made from the control room or the Emergency Operations Facility Communication Center. Notification to the State of Washington Division of Emergency Management will be made initially by either the standard phone lines to their 24-hour state emergency number or by the Crash network. Notification to the Nuclear Regulatory Commission in Bethesda, Maryland will be made via the NRC dedicated phone network from the control room. The Nuclear Regulatory Commission offices in Bethesda will patch the call through to the Nuclear Regulatory Commission offices in Region V, Walnut Creek, California. Notification of all other offsite emergency agencies will be made by telephone. Radio provides backup communications to the County Emergency Dispatch Center and Department of Energy-RL. A means for verifying the authenticity of the notification is established. The communications system is described in further detail in Section 8.

TABLE 7-1

Notification and Activation of Principle
Emergency Response Organizations
By The Supply System

Agency	Unusual Event	Alert	Site Area Emergency	General Emergency
Supply System:				
Technical Support Center	N	A	A	A
Operations Support Center	N	A	A	A
Headquarters Communications Center (as needed)	R	R	R	R
EOF Communication Center	A	A	A	A
Emergency Operations Facility	N	A	A	A
Joint Information Center (Supply System Headquarters)	N	A	A	A
Crisis Management Center		R	R	R
Nearby Supply System Nuclear Plants	N	N, R	N, R	N, R
County:				
Benton/Franklin Emergency Operations Center	N	A	A	A
Emergency Dispatch Center	A	A	A	A
Benton and Franklin County Sheriffs	N, R	A	A	A

A = Activate N = Notify for information only R = Respond if requested

Table 8-1

RADIO CHANNEL AVAILABILITY

Control Room

- In-plant Operations Channel
- Interplant Security Channel (Secondary Alarm Station)

Technical Support Center

- Interplant Operations Channel
- In-plant Operations Channel
- Field Team - 46.00 MHz

Operations Support Center (and Alternate)

- In-Plant Operations Channel

Central Alarm Station

- Interplant Operations Channel
- In-plant Operations Channel
- Interplant Security Channel
- In-plant Security Channel

Secondary Alarm Station

- Interplant Operations Channel
- In-plant Operations Channel
- Interplant Security Channel
- In-plant Security Channel

Emergency Operations Facility Communications Center and Headquarters Communications Center

- Interplant Operations Channel
- In-plant Operations Channel WNP-2
- Interplant Security Channel Link
  - o Franklin County Sheriff
  - o 911 Dispatch
  - o Department of Energy Patrol Emergency Office

Table 8-1

RADIO CHANNEL AVAILABILITY

(Continued)

Area-Wide Security Tactical
In-plant Security Channel WNP-2
Radio Paging Channel
Hanford Patrol
Hanford Fire
Field Team - 46.00 MHz
Department of Energy Emergency Response
Advanced Nuclear Fuels Emergency Response
Hanford Transportation
Marine
Benton County Sheriff, LERN

Crisis Management Center
Interplant Operations Channel

Department of Energy
Interplant Security Channel

Benton County Emergency Dispatch Center
Interplant Security Channel

Franklin County Emergency Dispatch Center
Interplant Security Channel

Benton/Franklin Counties Emergency Operations Center
Interplant Security Channel

Table 8-1

RADIO CHANNEL AVAILABILITY

(Continued)

Area-Wide Security Tactical Channel
In-plant Security Channel
Radio Paging Channel
Hanford Patrol Channel
Hanford Fire Channel
Field Team - 46.00 MHz Channel
Department of Energy Emergency Response Channel
Advanced Nuclear Fuels Emergency Response Channel
Hanford Transportation Channel
Marine Channel
LERN Channel (Law Enforcement Radio Network)

Crisis Management Center
Interplant Operations Channel (Headquarters Communications Center)

Department of Energy
Interplant Security Channel

Benton County Emergency Dispatch Center
Interplant Security Channel

Franklin County Emergency Dispatch Center
Interplant Security Channel

Benton/Franklin Counties Emergency Operations Center
Interplant Security Channel

10.2.2.4 Security Alarm Stations

Two security centers are maintained at WNP-2. The Central Alarm Station (CAS) building is the primary security center and is located in a separate building near the Service Building. This is the main entrance to the plant during normal operations and is referred to as the Primary Access Point. The Secondary Alarm Station (SAS) is the backup security center located in the Control Room. The functions of the security alarm stations are the same as identified for WNP-1, in Section 10.2.1.4.

10.2.2.5 First Aid and Personnel Decontamination

First aid equipment kits required by the Washington Industrial Safety and Health Act are located as close as feasible to areas which have the heaviest concentration of workers. Designated locations are similar to those shown in Appendix 3.

Initial first aid for employees is provided by the Plant Emergency Team (PET) which is composed of first aid certified Operations and Health Physics personnel who are designated PET members during each work shift.

Medical emergencies are reported via a special phone number that is posted throughout the plant. The special number rings into the Control Room where personnel can then dispatch PET members to an emergency by radio, telephone, or by the plant public address system.

PET members receive initial and annual continuing education training in first aid from an in-house program that is certified as meeting "First Responder" requirements by the State of Washington.

A decontamination facility is provided on the 487' elevation of the Radwaste Building. The facility consists of a large shower area with drains connected to the radwaste effluent treatment system. First aid equipment and decontamination supplies are located nearby and will be used under the direction of a health physicist or health physics/chemistry technician whenever a contamination incident is involved.

10.3 EMERGENCY OPERATIONS FACILITY (PLANT SUPPORT FACILITY)

A Plant Support Facility is located 0.75 miles southwest of WNP-2 and 1.3 miles west-southwest of WNP-1. This facility is used to support normal plant operations for all three plants and includes a 20,000 square foot shielded area in the lower level for the Emergency Operations Facility.

A typical floor plan of the Plant Support Facility is shown in Figure 10-8. The Emergency Operations Facility contains several functional areas which are provided for various groups and will be activated as necessary for UE and fully for an Alert, Site Area or General Emergency.

The Emergency Operations Facility is under the direction of the Recovery Manager and assists the plant by handling those functions associated with evaluating and minimizing the offsite effects of the accident and supporting the TSC and Control Room with technical data analysis. These include such functions as field monitoring, dose projections, area security, interfacing with outside organizations, recommendation of protective actions for the public, assisting the plant technical staff, public information, administrative services, scheduling of personnel, and establishing a recovery program.

10.3.1 SUPPLY SYSTEM DECISION CENTER

The Recovery Manager and his immediate staff will coordinate activities from the Supply System Decision Center. The Recovery Manager is responsible for the overall emergency effort and provides the necessary support to the Plant Emergency Director. The Supply System Decision Center will maintain up-to-date information on scheduling of personnel and recovery planning and scheduling and will function as a conference room for periodic update meetings with selected personnel assigned to the EOF, including outside agency personnel. The Recovery Manager will use information from the Technical Data Center and Meteorology and Unified Dose Assessment Center areas to stay up to date on plant and environmental conditions.

10.3.2 SECURITY DECISION CENTER

The Security Decision Center will be used to coordinate security activities with local law enforcement and security agencies. Representatives of the local law enforcement and security agencies may utilize this area to coordinate access control of affected areas, and to coordinate assistance requested by the Supply System. Security operations planning will be performed at the Security Decision Center.

Evacuation of the Supply System reactor sites could require evacuation of the security force. In this case, the Security Decision Center staff, working with the Meteorology and Unified Dose Assessment Center staff will reestablish security boundaries and assist as necessary in the evacuation.

10.3.3 OFFSITE AGENCY COORDINATION CENTER

The Offsite Agency Coordination Center will be used by representatives of the various offsite agencies to coordinate activities, resolve problems, maintain duty rosters, and make periodic status reports to their respective agencies. A close working relationship between these agencies and the Supply System is essential to the success of operations involving the general public. The personnel in the center receive information from other EOF emergency centers and provide clarifications to their respective agencies. Periodic briefings will be provided by Supply System personnel to keep agency personnel up-to-date on plant conditions and emergency measures underway.

10.3.4 TECHNICAL DATA CENTER

To provide technical support to the plants during an emergency, a technical data center is established for use by the Supply System's central engineering personnel, architect/engineers, vendors, and contractors requested to assist the Supply System. A technical data information system including meteorological, radiological, and plant system status is available, in addition to as-built drawings of the plant. Essential Plant technical information is available in this center.

Utilizing the technical data center in the Emergency Operations Facility, personnel from organizations outside the plant staff can provide needed technical assistance without responding directly to the plant. This provides technical personnel readily available to the plant if needed. The technical data centers also provide a secondary location to track plant conditions and provides current and projected plant status reports to MUDAC and to the Recovery Manager for inclusion in the formulation of Protective Action Recommendations.

10.3.5 METEOROLOGY AND UNIFIED DOSE ASSESSMENT CENTER (MUDAC)

The Meteorology and Unified Dose Assessment Center is utilized as a joint center by the Supply System, DOE-RL, and State of Washington Department of Health to coordinate field team operations, project dose rates, record actual measured dose rates during an emergency, and determine protective action recommendations. The computerized emergency dose projection system as described in Section 11.5 is located in this center. Actual and projected doses obtained will be available for use in determining protective action recommendations for the general populations. From the Meteorology and Unified Dose Assessment Center, information can be sent by facsimile to the Benton County Emergency Operations Center, State Emergency Operations Center, and other Supply System emergency centers.

10.3.6 COMMUNICATION CENTER

A Communication Center is established to provide Communications with field monitoring teams, assisting agencies, and other emergency centers. The Communication Center has the capability to set up a voice link between the Meteorology and Unified Dose Assessment Center and the field teams to relay instructions and receive survey results. It is utilized in the notification process and has voice and hard copy transmission capabilities as detailed in Section 8. Any information received by the Communication Center will be delivered to the appropriate personnel. The Radio Equipment room, located near the Communication Center, contains base stations which are operated from the Communications Center consoles.

10.3.7 MEDIA BRIEFING AREA

The Media Briefing Area is in the nonhardened portion of the Plant Support Facility building. The main media center is located at the Supply System Headquarters in Richland. Groups of media personnel will be escorted to the Emergency Operations Facility, as conditions permit, for briefings and tours. This action will be taken under the direction of the Emergency Operations Facility Public Information Officer and with approval of the Recovery Manager.

10.3.8 MEDIA BRIEFING PREPARATION AREA

A Media Briefing Preparation Area is provided for the Supply Systems' public relations personnel to develop public information status reports. These status reports will be updated and distributed over the facsimile system to the Joint Information Center located at the headquarters complex.

10.3.9 NUCLEAR REGULATORY COMMISSION WORK AREA

A work area is provided for Nuclear Regulatory Commission personnel during an emergency in the Emergency Operations Facility. The area will be limited to Nuclear Regulatory Commission personnel and will have adequate communication to the Nuclear Regulatory Commission headquarters in Bethesda, Maryland.

10.3.10 WORK AREAS

Several work areas are identified for Supply System personnel as well as for federal agencies (DOE, FEMA, etc.), outside consultants, architect/engineers, contractors, and vendors. These areas include the Radiological Indoctrination Center in the protected area and classrooms in the nonhardened areas of the building.

10.3.11 HEALTH PHYSICS CENTER

The Health Physics Center consists of several areas in the protected Emergency Operations Facility and the non-protected Plant Support Facility including

external dosimetry, internal dosimetry, a radiological laboratory, counting lab, whole body counters and respiratory testing facilities. The external dosimetry area contains automated thermoluminescent dosimeter (TLD) readers which are sufficient to process the increased numbers of TLDs required during an emergency. Results are recorded into a Radiation Exposure Records System which can be accessed for information from the plant health physics areas as well as the Emergency Operations Facility. Several thousand TLD badges are available within the Supply System.

The internal dosimetry area includes whole body counting chairs and a computerized internal dose assessment system. The facility is capable of providing about twelve whole body counts per hour.

The respiratory testing area consists of fitting booths and testing equipment. A large supply of respirators is available if required for emergency response or recovery operations.

The radiological laboratory and adjoining counting lab provide for radiological analysis of environmental samples as well as partial backup capability for plant laboratories. If plant analytical capabilities become unusable, plant samples can be transported to the Emergency Operations Facility or a support agency laboratory for chemical and/or radiological analysis.

10.3.12 FIRST AID AND DECONTAMINATION AREA

The first aid and decontamination facilities are located in the unprotected portion of the Plant Support Facility adjacent to the ambulance garage. The relative locations of these facilities provide for simultaneous treatment and decontamination of injured personnel as well as independent operation of both facilities. The first aid facility is equipped for normal first aid treatments and can be staffed by qualified personnel. Drains from the decontamination area are connected to an isolable tank.

10.3.13 ENVIRONMENTAL PROGRAMS AREA

The environmental programs area includes an environmental equipment area and biology lab. The environmental equipment area will be used to store any backlog of environmental samples. Additional storage is available in the biology lab. Provisions have been made for cataloging stored samples.

10.3.14 COMMUNICATION CENTER/ACCESS CONTROL

During non-duty hours and prior to activation of the emergency organization, access into the Plant Support Facility and the Emergency Operations Facility will be controlled through the Emergency Operations Facility Communication Center utilizing a closed circuit TV system and electrically released doors.

10.3.15 HABITABILITY

The Emergency Operations Facility is a protected area in the Plant Support Facility which has special shielding and ventilation to maintain habitability requirements. The ventilation system is designed to provide maximum habitability during an accidental radiological release. HEPA filters condition entering air during emergency conditions. Ion chambers are strategically located in the ventilation system to detect potential infiltration of contaminated air thus automatically allowing reconfiguration of airflows from replenishment to recirculation modes.

Two feet of concrete equivalent shielding is provided to ensure that the total dose to occupying personnel is less than the Environmental Protection Agency Protective Action Guide limit of 5 rem whole body for the duration of the postulated accident. Shielding requirements were determined using source terms from BWR/PWR accident scenarios described in the WASH 1400 Reactor Safety Study. Calculations considered worst case meteorology and assumed a 0.75 miles distance from the plant to the Emergency Operations Facility. Figure 10-9 shows the results of the calculations performed to determine shielding requirements.

10.3.16 EMERGENCY POWER

A 365 kW emergency power generator provides power to the Emergency Operations Facility during power loss. Vital equipment such as communication systems, counting equipment, dose assessment equipment, and lights are connected to the emergency power generator.

10.4 HEADQUARTERS COMPLEX

The Supply System Headquarters complex, located approximately 10 miles south of the nuclear facilities, integrates emergency response/recovery public information considerations with the resources normally available to upper management personnel. Figures 10-10 and 10-11 show the typical floor plan for the Multipurpose Facility, which is the main headquarters building for emergency use.

10.4.1 CRISIS MANAGEMENT CENTER

The Supply System Managing Director/Representative and his staff may support the Recovery Manager and the emergency effort from the Crisis Management Center in the Multipurpose Facility in Richland if the center is activated.

Dedicated phones and an adjacent communications center, provide continuous contact with the plant and Emergency Operations Facility. Facsimile is available for the exchange of the latest data with other emergency centers. Entry into this area will be controlled by Supply System Security personnel.

10.4.2 HEADQUARTERS COMMUNICATIONS CENTER

The offsite backup communications center is located in the Multipurpose Facility. The offsite backup communications center is maintained and periodically tested and may be activated as necessary. It may also be utilized to provide a communications link between the Crisis Management Center and all other emergency centers and field teams.

10.4.3 JOINT INFORMATION CENTER

The Joint Information Center will function as a joint news release center for the Supply System, county, state, DOE-RL and other federal agencies to minimize conflicting and confusing media releases. The Multipurpose Facility auditorium (160 seating capacity) and the visitors display area will be used as the Joint Information Center for briefing media personnel. Additional briefing areas may be established in other conference rooms or classrooms within the Multipurpose Facility or adjacent main office building. Areas will be set up to provide work space for the various media personnel.

10.4.4 SUPPORTING WORK AREAS

The Supply System occupies several buildings in Richland, containing various classrooms, conference rooms, and offices for potential use by organizations called in to assist during an emergency.

10.4.5 EMERGENCY POWER

Emergency power is provided for the Crisis Management Center, Joint Information Center, headquarters telephone system, and the Headquarters Communications Center by emergency generators located in the Multipurpose Facility and the Telecommunications Equipment Center.

10.5 EMERGENCY EQUIPMENT AND SUPPLIES

Appendix 3 lists the location of emergency equipment maintained by the Supply System. Several emergency equipment lockers are maintained at strategic locations within the plant. These lockers are to be used for a rapid initial response and are not intended to provide the resources for a long term recovery operation. Additional supporting equipment can be obtained from other locations in the plant, from the nearby Supply System plants, from the Emergency Operations Facility or from the Supply System warehouse.

Equipment is stored for field team use at the Emergency Operation Facility. Four-wheel drive vehicles, automobiles, and survey equipment kits are available for use by the field teams.

An inspection, inventory, and operational check of emergency equipment/instruments in each emergency cabinet or kit is conducted at least quarterly and after each drill which utilized that particular cabinet and kit. The equipment designated for emergency use will be calibrated at the intervals recommended by the manufacturer. Sufficient reserves of instruments and equipment are maintained to replace instruments removed from kits for repair or calibration. Respirators will be inspected monthly.

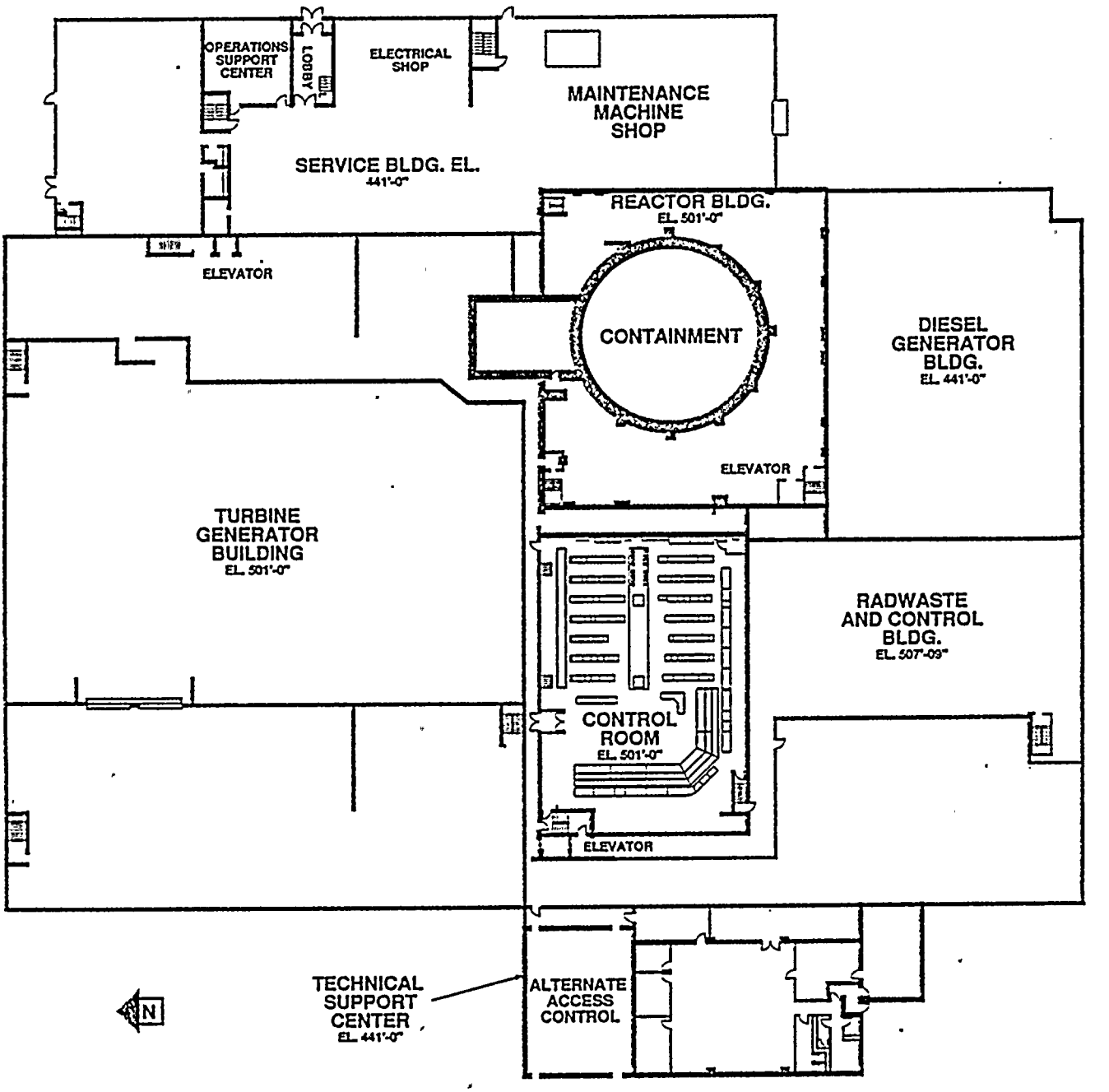

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FIGURE 10-1. PLANT 2 CONTROL ROOM LOCATION (TYPICAL ARRANGEMENT)

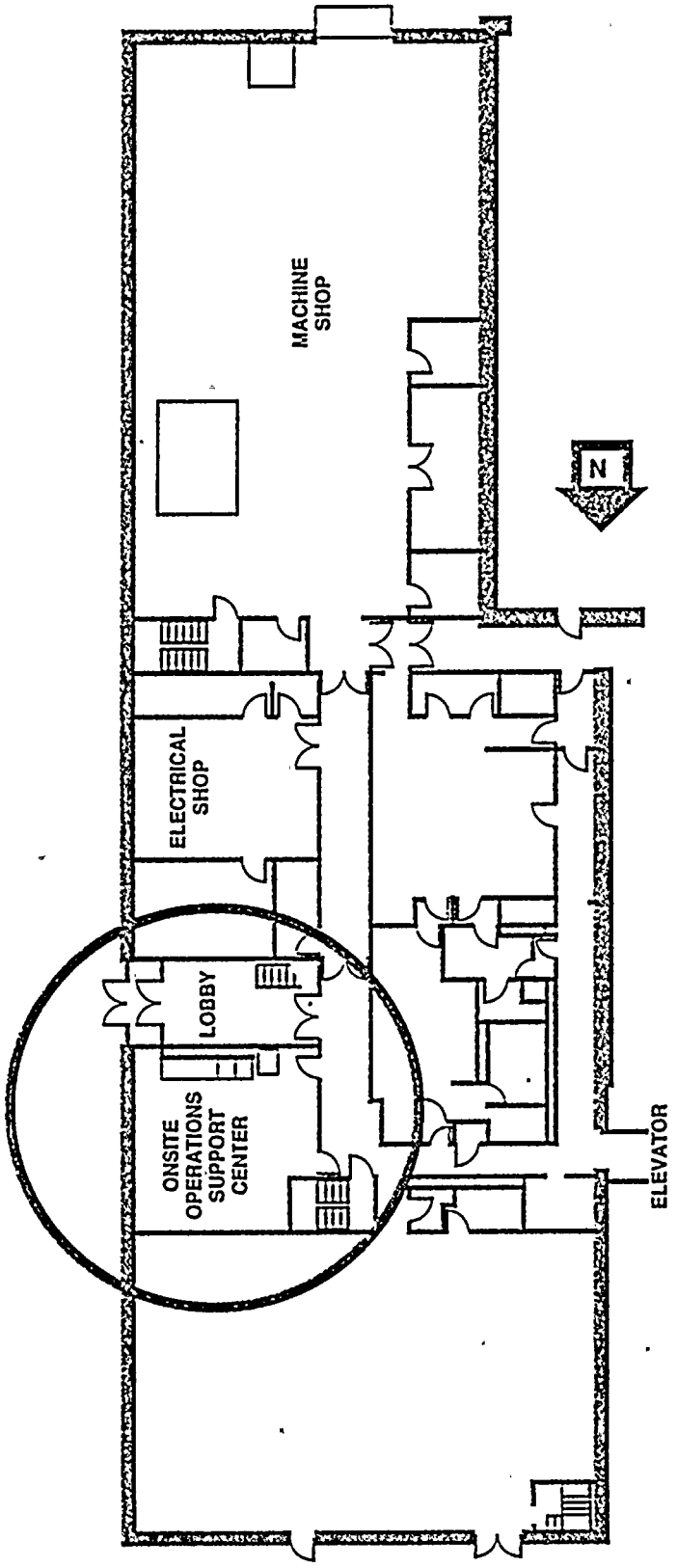

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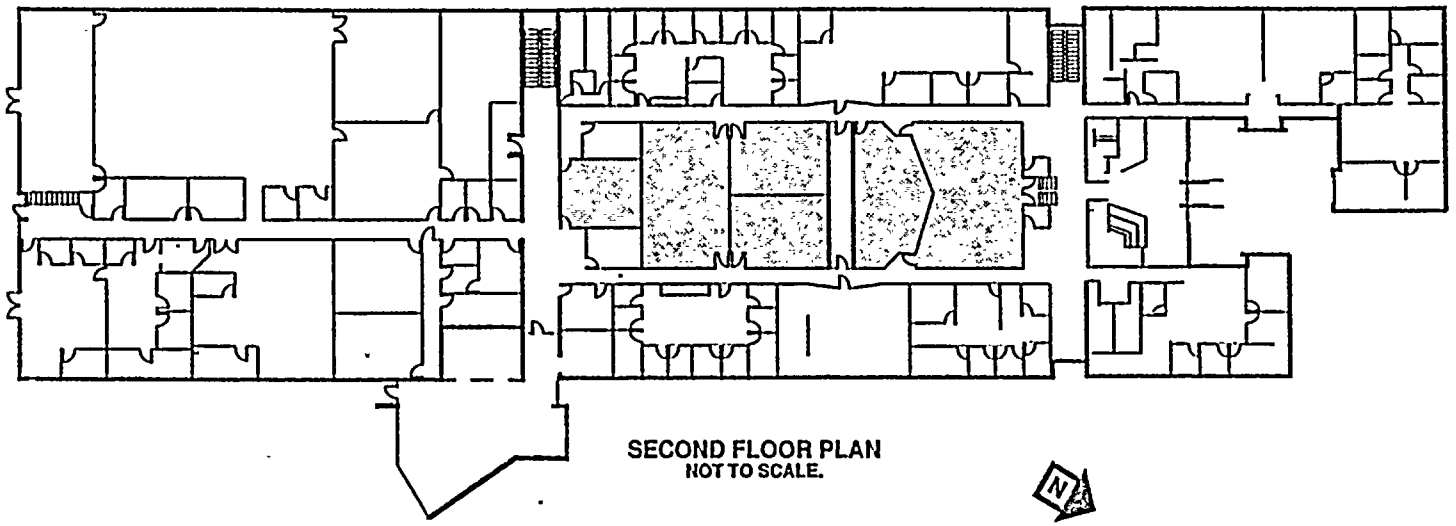
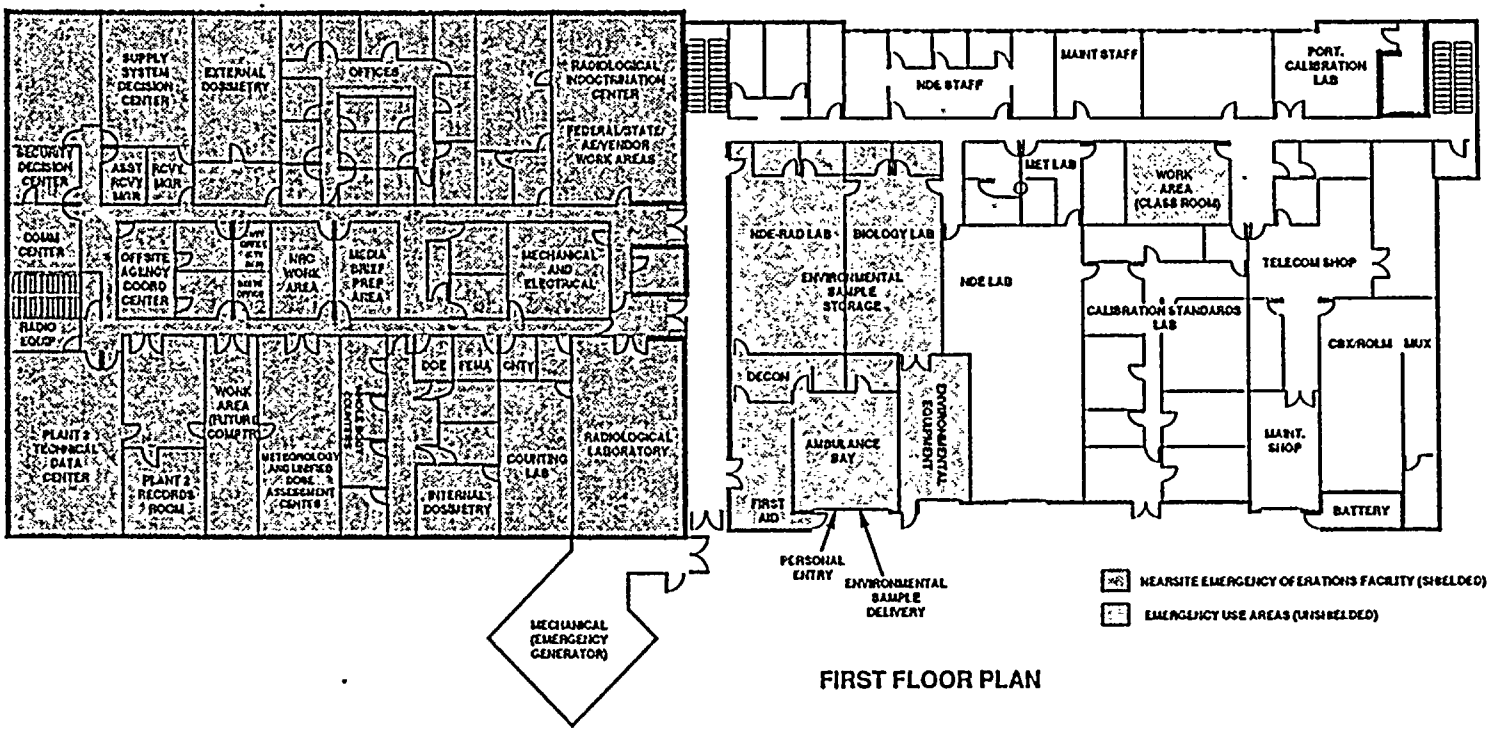
FIGURE 10-3. WNP-2 OPERATIONS SUPPORT CENTER
(TYPICAL ARRANGEMENT)



SECOND FLOOR PLAN
NOT TO SCALE.

EMERGENCY OPERATIONS FACILITY



FIRST FLOOR PLAN

Figure No. 10-8
PLANT SUPPORT FACILITY (PSF)
(TYPICAL ARRANGEMENT)

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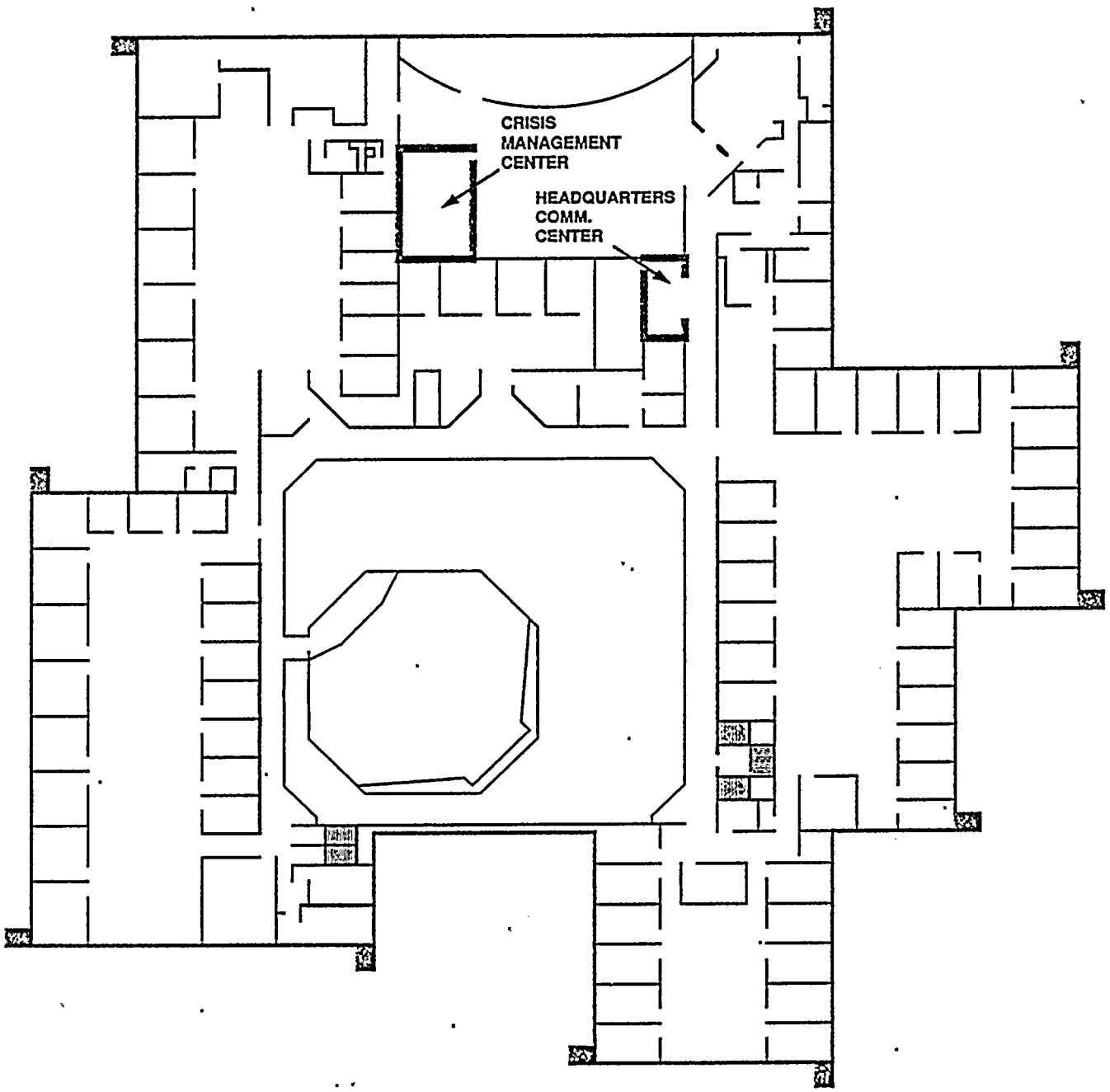

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FIGURE 10-11. MULTIPURPOSE FACILITY
(SECOND FLOOR)
TYPICAL ARRANGEMENT

gauge (heated) is located 75 feet southwest of the tower. Sensor readings are routed to a microcomputer located in the Meteorology and Unified Dose Assessment Center in the Emergency Operations Facility for five-minute averaging and periodic polling by the computer systems.

Supplemental meteorological data for low-speed, terrain-dependent, wind speed and wind direction is also available from meteorological equipment on the pump house near the river. Other sources of meteorological information, such as BPA or the Hanford Meteorological Network, may be accessed by telephone, and the National Weather Service may be accessed by telephone and computer digital link.

The outputs of the primary and backup tower sensors are fed to microprocessors and independently to the WNP-2 and headquarters computers for 15 minute averaging for input to the Emergency Dose Projection System (EDPS). Near real time access for both emergency and routine operations is thus provided by both tower systems. Additionally, both primary and backup systems continually update the 10-mile Emergency Dose Projection System without any required intervention by the Control Room operators. Error diagnostics, simulated data entry, and archiving are performed concurrent with the continual data stream.

11.4.2 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

A routine radiological environmental monitoring program is established in accordance with environmental technical specifications for the Washington Nuclear Projects 1 and 2 sites. Supply System activities include air, milk, water, garden produce, fish, soil and sediment sampling, and thermoluminescent dosimeter (TLD) placement. Supply System environmental monitoring locations are similar to Figure 11-1 and are fully listed in Section 5.0 of the Supply System Offsite Dose Calculation Manual (ODCM).

In case of an emergency at a Supply System nuclear facility, TLDs will provide a time integrated exposure record during the course of any release. Permanent TLD stations are located within the Ten-Mile Emergency Planning Zone, around

the Exclusion Area Boundary, at various points of interest around the Hanford Reservation and across the Columbia River in Franklin County. A control station is located near Grandview, approximately 30 miles southwest of the sites. Exchange frequency during normal operations is quarterly; however, during an emergency the TLDs may be exchanged more frequently based on release conditions. In addition, continuous air samplers are located within the Ten-Mile Emergency Planning Zone. The air samplers collect airborne radioiodines and particulates on filters which will be analyzed either in the field or at the radiological laboratory in the Emergency Operations Facility.

11.5 OFFSITE DOSE PROJECTIONS

11.5.1 SOURCE TERM DETERMINATIONS

Airborne release data such as volumetric flow rates and gross radiation levels, in conjunction with calibration factors and time dependent nuclide ratios, will be utilized during an accident to rapidly assess the airborne source term. Data from instrumentation in the airborne effluent release pathways for each plant are available to be entered into the Emergency Dose Projection System computer to automatically calculate the source term. The effluent radiation levels, in conjunction with time dependent nuclide ratios allow reasonable, conservative source term estimates to be made. A more detailed assessment of the isotopic composition of the release will be determined by laboratory analysis of effluent and field sampling media. Methods for determining release rate in the event the instrumentation is offscale or inoperative are contained in the Emergency Plan Implementing Procedures.

For liquid releases, the minimum flow time from the site to the nearest domestic water intake (Richland) was found to be approximately three hours as documentated in HW-58312, Rev., J.K. Soldat, 1962. Due to this long amount of time available for the determination of the isotopic concentration and quantity of radioactive materials in liquid effluents, the primary method of assessing the liquid source term will be by sampling and analysis. However,

this source term may be assessed by calculating the total release in curies or the release rate in curies per second from recorded tank inventories or radiation detection instrumentation in the liquid effluent streams.

11.5.2 EMERGENCY DOSE PROJECTION SYSTEM

The Emergency Dose Projection System utilizes a computerized near-real time dose assessment with a historical record. A colorgraphic video terminal is used to allow a rapid assessment of the potential magnitude and location of any radiological hazard. The display format includes a grid square representation of the Ten-Mile Emergency Planning Zone including important cartographical features such as primary and secondary roads and the Columbia River.

The area within ten miles of the plant site has been divided into thirty-four, 3-mile by 4-mile rectangles designated by numbers 1 through 34 (refer to Figure 11-3). These rectangles have each been subdivided into twelve, one square mile grids designated by the letters A through L (refer to Figure 11-3). Any one square mile grid within ten miles from the plant site may be representated by a two part designator, e.g. 25E. The projection of radiological doses at any point within the Ten-Mile Emergency Planning Zone is supported by both meteorological and release parameters.

The meteorological parameters needed for atmospheric diffusion determinations will be automatically processed, edited, and listed for CRT display. This information is available to the computerized Emergency Dose Projection System on a near real time basis. Five minute averages of the meteorological parameters are input to the diffusion program in the system computer. The primary means of determining the atmospheric stability classification is by the use of temperature change with height. The backup means utilizes the standard deviation of horizontal wind direction fluctuation as indicated in Table 11-1.

A constant mean vector wind direction Gaussian diffussion model is used to calculate the atmospheric diffussion factors for existing or predicted meteorological conditions. Available meteorological resources and local experience allow reasonable predictions of diffussion categories over time and distance.

In the event of an emergency, the computer accesses the appropriate near real time meteorological parameters and computes a representative file of diffussion factors. The computer then uses the diffussion factors and effluent data to calculate exposures and exposure rates within each one square mile grid. A record of the values calculated will be kept on file and continuously updated.

The colorgraphic terminal display uses color coding to represent exposure rates or integrated exposures in each one square mile grid. As integrated exposures approach Protective Action Guides and exceed a predetermined value, the affected area on the screen will indicate this condition.

If more detailed information is needed than can be shown on the display of the entire Ten-Mile Emergency Planning Zone map, portions of the map may be expanded to fill the entire display screen or the map may be plotted out on a printer/plotter device. This allows individual exposure rates to be shown within each one square mile grid.

The display is available in the Technical Support Centers, the Control Rooms and the Emergency Operations Facility. State and county organizations will have access to this system in the Emergency Operations Facility or by facsimile transmission of information to their emergency centers.

In the unlikely case of failure of the primary emergency dose projection system, calculations can be obtained from a backup dose projection system that is battery powered.

11.5.3 TOTAL POPULATION EXPOSURE

The Emergency Dose Projection System maintains a current integrated dose value throughout the accident by multiplying the dose rate by the amount of time the

dose rate existed in each one mile square. The total population exposure can then be calculated using the integrated exposure within each one mile square combined with population and the evacuation/sheltering data.

11.6 FIELD MONITORING

11.6.1 ENVIRONMENTAL FIELD TEAMS

Field monitoring capabilities will be initiated whenever an Alert classification occurs. Field monitoring will be performed by environmental field teams which have been selected and trained to perform these duties.

Sufficient personnel are identified within the Supply System and outside assistance agencies to maintain 24 hour shift coverage if needed for an extended period. The Supply System maintains sufficient dedicated equipment to adequately equip four Supply System environmental field teams.

Activation of response teams during normal working hours will be via the in-house telephone system or the in-house paging system. Activation during hours other than normal working hours will be accomplished by the paging system automatic notification system and telephone call lists. This system will be initiated by the EOF Communication Center Duty Officer. The Duty Officer will be informed to commence the notifications by the Plant Emergency Director. Field team personnel are required to be at their duty station within 60 minutes from the time an Alert or greater emergency active level is declared. Deployment time for field team personnel after they have arrived at their duty stations is anticipated to be 30 minutes or less. This is based on the time necessary to brief the team, load equipment, and depart the staging area. This deployment time could be shorter during normal work hours when field team personnel are more available and could respond sooner than the 60 minute required response time.

Field monitoring will concentrate in the downwind area from the affected plants. Locations used during the normal environmental monitoring program will be used as preselected monitoring points when applicable.

11.6.2 AERIAL MONITORING

Aerial monitoring can be accomplished by utilizing a field team member from either the State or the Supply System, and an aircraft and pilot provided by the Civil Air Patrol, a commercial aircraft charter company, or possibly the Bonneville Power Administration. Aerial monitoring may be performed to determine the approximate location of a radioactive plume. This information will then be used by the Meteorology and Unified Dose Assessment Center staff to direct environmental field monitoring teams in the more accurate definition of the plume.

11.6.3 ENVIRONMENTAL FIELD TEAM KITS

Environmental field team monitoring kits are maintained in a state of readiness. Additional supplies and equipment are available to replace equipment out of service for repair and recalibration. Equipment in the calibrations laboratory at the Emergency Operations Facility provides an additional resource. Appendix 3 consists of lists of equipment and their location.

11.6.4 RADIOIODINE DETERMINATIONS

Two portable multi-channel analyzers are available for rapid analysis of particulate and iodine air samples. These analyzers provide the ability to discriminate between airborne radioiodines and noble gases collected on an iodine sampling cartridge. Procedures concerning sampling time and field analysis techniques are established to measure airborne radioiodine concentrations as low as 10^{-7} microcuries per cubic centimeter under field conditions.

An additional recreation attraction has been created in the south section of the Ten-Mile Emergency Planning Zone in Benton County. An Off-Road Vehicle Park (ORV) has been developed. As many as 1,500 participant/spectators may be present during an event. Thus, a maximum total of 2,550 recreationists may be located within the Ten-Mile Emergency Planning Zone.

12.3.3 SPECIAL FACILITY POPULATION

There are no individuals within the Ten-Mile Emergency Planning Zone confined to facilities such as hospitals, nursing homes, or penal institutions. There are three schools, the Edwin Markham Elementary School, the Country Haven Academy, and the Country Christian Center, with a total enrollment of approximately 455 (students and faculty). Most of the students live within the Ten-Mile Emergency Planning Zone.

12.4 EVACUATION ROUTES AND ASSISTANCE CENTERS

The Benton and Franklin Counties Fixed Nuclear Facility Response Plan (referred to in Appendix 1) contains information concerning evacuation routes and assistance centers for personnel who would be evacuated from the Ten-Mile Emergency Planning Zone. See Figure 12-3 for Assistance Center locations.

12.4.1 EVACUATION ROUTES

Several evacuation routes are available to site personnel. These are shown in Figure 12-3 and include:

a. Route 4 South - This four-lane road leads southeast from the site to Richland and is the main route from the plants.

b. Route 10 South - A two-lane road (FFTF access road) connects Route 4 with Route 10 to Highway 240, then leads on into Richland.

If inclement weather, radiation levels, or other conditions make occupancy at the Plant Support Facility inadvisable, Supply System personnel will be directed to the Radiological Indoctrination Center in the Emergency Operations Facility. If contamination is involved, they may be directed to a remote decontamination location.

Personnel in the Supply System Exclusion Area, but not within the protected area or the Emergency Operations Facility, will be evacuated as needed at a Site Area or General Emergency to the Supply System Headquarters (or other area as appropriate and designated by procedure). Personnel assigned emergency functions will proceed to their assigned emergency centers. Accountability will be conducted and the need for radiological monitoring will be determined and provided if necessary.

12.4.3 RADIOLOGICAL MONITORING AND DECONTAMINATION OF PERSONNEL

Personnel will be monitored for contamination prior to leaving the plants if conditions permit. Exit whole body friskers and portable detectors are available. Personnel decontamination facilities in the operating plants include showers, sinks, and cleaning agents. Decontamination capabilities for emergency purposes are also available at the Plant Support Facility, at remote decontamination locations, and for injured personnel at the Hanford Environmental Health Foundation Emergency Decontamination Facility in Richland.

For the general population, monitoring will be conducted under provisions of the Benton and Franklin County Fixed Nuclear Facility Emergency Plan. Locations are identified for the monitoring of personnel leaving each of the quadrants. The Washington State Department of Health will be in charge of the monitoring and decontamination effort.

12.5.4 SPECIAL POPULATIONS

The only special facilities within the Ten-Mile Emergency Planning Zone are Edwin Markham Elementary School, Country Haven Academy, and the Country Christian Center, with a total enrollment of approximately 455 students and staff. Because of the small size of this population, it was considered counted as part of the permanent population in making evacuation time estimates. Buses which could be used in the evacuation are located at the district bus lot in north Pasco during the day. The buses can be dispatched to the schools within the one hour preparation time assumed for this section.

Public transportation, although not specifically identified as being needed, is available to the public in a portion of the Ten-Mile Emergency Planning Zone and is not relied upon for evacuation. The sheriffs' departments will be patrolling the area during an emergency and could make transportation arrangements for anyone not already evacuated.

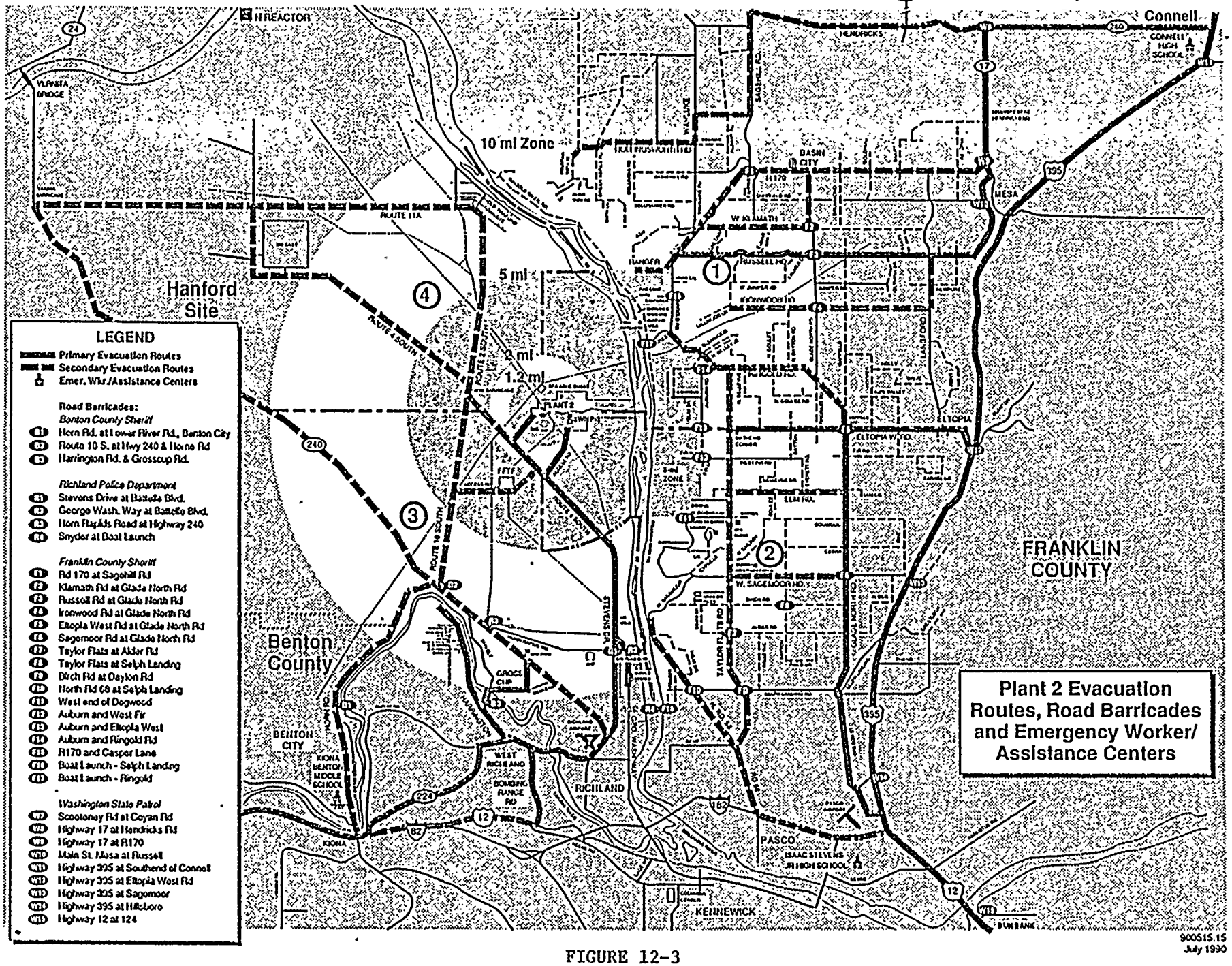

FIGURE 12-3
EVACUATION ROUTES, TRAFFIC CONTROL POINTS, AND ASSISTANCE CENTERS

14.2.2 WNP-2 IN-PLANT FACILITIES

The Health Physics/Chemistry area, elevation 487 of the Radwaste Building, (Refer to Figure 10-4) provides decontamination and first aid capabilities for contaminated and/or injured patients. The area's shower drains are connected to the plant radwaste system.

Designated Plant Emergency Team employees certified in first aid and radiological monitoring and decontamination procedures are available on all shifts to provide emergency care. First aid kits and emergency response supplies are also stored in emergency cabinets strategically located throughout the plant for use by Plant Emergency Teams. The locations of these kits are similar to those listed in Appendix 3.

14.2.3 PLANT SUPPORT FACILITY

A First Aid and Decontamination Area is located in the Plant Support Facility (Refer to Figure 10-8). This area contains first aid and decontamination supplies necessary for emergency patient care and decontamination. This facility is intended to provide a backup first aid and decon capability to support the plants.

14.3 MEDICAL TRANSPORTATION

Medical emergency transportation will be provided by the Department of Energy-RL. If additional assistance is required, local ambulance services may be used.

14.4 LOCAL HOSPITAL AND MEDICAL SERVICES

14.4.1 LOCAL HOSPITALS

The Emergency Decontamination Center (see Section 14.4.2) is the primary facility for handling highly contaminated patients.

Kennewick General Hospital in Kennewick, Washington, and Our Lady of Lourdes Hospital in Pasco, Washington, and Kadlec Hospital in Richland, Washington, provide hospital and medical services. These hospitals have emergency room coverage twenty four hours per day. Yakima Valley Memorial Hospital in Yakima, Washington, is a backup to the three Tri-City hospitals because of its direction away from the Hanford Site. Appendix 4 contains copies of the agreement letters with each of these hospitals. The State of Washington also maintains agreements for handling contaminated patients with other hospitals in the State of Washington.

The Supply System has placed and maintains kits containing radiological monitoring and decontaminating equipment for use in the care of radiation accident patients at these hospitals. The Supply System also assists each hospital in developing procedures for the care of radiation accident patients as requested. Training and assistance on radiological decontamination procedures is offered by the Supply System to these hospitals when requested and drills to evaluate hospital proficiency for handling contaminated victims are conducted periodically.

14.4.2 SPECIAL MEDICAL FACILITIES

If high levels of radioactive contamination or exposure are involved, injuries will be pre-treated at the specially equipped Emergency Decontamination Center. The Emergency Decontamination Center is a sophisticated unit specifically designed for handling and treatment of radiation/contamination accident victims. Provisions include decontamination equipment, shielded surgery tables, remote TV viewing, contaminated water retention, air filtration, radiation

monitoring instrumentation, whole body counting, and communciations equipment. The physicians responding to the Emergency Decontamination Center are prepared and qualified to make radiation exposure and uptake evaluations.

The Emergency Decontamination Center is operated by the Hanford Environmental Health Foundation for the Department of Energy in support of nuclear activities on the Hanford Reservation. Northwest Health Services is the commercial section of Hanford Environmental Health Foundation. Northwest Health Services will operate the Emergency Decontamination Center if the facility is needed by the Supply System.

14.4.3 TREATMENT OF PATIENTS

If an accident occurs at a Supply System facility, the injured person(s) will be decontaminated on site if possible unless the time delay would be injurious or life threatening to the victim.

A Supply System employee knowledgable in health physics will accompany contaminated patients to the hospital or meet the ambulance at the hospital to assist in the emergency. Additional assistance can be requested from the Department of Energy-RL.

APPENDIX 1

SUPPORTING PLANS

Plan	Source
Washington State Fixed Nuclear Facility Emergency Response Plan	State Division of Emergency Management, Department of Community Development
Benton/Franklin Counties Fixed Nuclear Facility Response Plan	Benton County Emergency Management

APPENDIX 2

EMERGENCY PLAN IMPLEMENTING PROCEDURES

Procedure	Title	Section of Plan Implemented
	Emergency Classification	
13.1.1	Classifying the Emergency	6.2
13.1.2	Plant Emergency Director Duties	4.3.1.1, 6.2
	Man-Caused Emergency	
13.2.1	Fires/Explosions	6.2, 6.4
13.2.2	Transportation Accidents	6.2, 6.4
13.2.3	Toxic or Flammable Gas Releases or Oxygen-Deficient Atmosphere	6.2, 6.4
13.2.4	Missiles	6.2, 6.4
13.2.5	Bomb Threats	6.2, 6.4
13.2.6	Civil Disturbance	6.2, 6.4
	Natural Emergency	
13.3.1	Earthquakes	6.2, 6.4
13.3.2	High Winds/Tornados	6.2, 6.4
13.3.3	Floods	6.2, 6.4
13.3.4	Ash Fallout	6.2, 6.4
	Notifications	
13.4.1	Notifications	7.2, 12.5

Procedure	Title	Section of Plan Implemented
	Evacuation and Accountability	
13.5.1	Controlled Evacuation of the Protected Area	10.2.2, 12.4
13.5.2	Immediate Evacuation of the Protected Area	10.2.2, 12.4
13.5.3	Evacuation of Nearby Facility	4.4.2, 12.4
13.5.4	Columbia River Evacuation	5.7.4
13.5.5	Personnel Accountability	4.3.1, 12.4, 12.5
13.5.6	Personnel Search and Rescue	15.2
	Emergency Security Procedures	
13.6.1	Security Procedures	3.2
	Personnnel Monitoring, Decontamination, First Aid	
13.7.1	Personnel Monitoring	12.4, 13.5
13.7.2	Contamination Control	13.5
13.7.3	Plant Personnel Decontamination	13.5
13.7.4	Personnel Decontamination Operations at the Emergency Operations Facility	14.2
13.7.5	Decontamination Operations at Remote Decontamination Locations	12.4
13.7.6	Plant Occupational Health Facility	14.2
13.7.7	Emergency Operations Facility First Aid Center Operations	14.2
13.7.8	Transportation of Injured or Contaminated Injured Personnel to an Offsite Medical Facility	5.3, 14.4
13.7.9	Decontamination Within the Site Area Boundary	13.5.2
13.7.10	Offsite Emergency Response Personnel Dosimetry	13.6.1.3

Procedure	Title	Section of Plan Implemented
13.10.9	Operations Support Center Operations and Operations Support Center Director's Duties	4.3.1, 10.2.2
13.10.10	Health Physics, Chemistry and Maintenance Support Personnel Duties	4.3.1
13.10.11	Plant Emergency Team Duties	4.3.1
13.10.12	Reentry/Recovery Team Duties	4.3.1
	Emergency Operations Facility	
13.11.1	Recovery Manager Duties	3.2, 4.3.2, 5.4 10.3
13.11.2	Assistant Recovery Manager Duties	4.3.2
13.11.3	Supply System Decision Center Operations and Site Support Manager Duties	4.4.2, 10.3
13.11.4	Safety Manager Duties	4.3.2, 5.3
13.11.7	Radiological Emergency Manager Duties	4.3.2
13.11.8	Licensing Manager Duties	4.4.2
13.11.9	Administrative Support Manager Duties	4.4.2
13.11.10	Security Decision Center Operations and Security Force Manager Duties	4.4.2, 5.3, 10.3
13.11.11	Offsite Agency Coordination Center Operations and Offsite Agency Coordinator Duties	3.2, 4.4.2, 5.2, 10.3
13.11.12	Technical Data Center Operations and Technical Manager Duties	4.4.2, 10.3
13.11.13	EOF Newswriting Team Duties	4.4.2, 10.3

Procedure	Title	Section of Plan Implemented
13.11.14	Meteorology and Unified Dose Assessment Center Operations	3.2, 10.3
13.11.15	Communication Center Operations	4.3.2, 10.3
13.11.16	Health Physics Center Operations	4.3.1, 13.6
13.11.17	Nearby Nuclear Facility Emergencies/Requests for Assistance	App 4
13.11.18	Information Network	10.3
	Headquarters Emergency Centers	
13.12.1	Crisis Management Center Operations	4.4.3, 10.4
13.12.2	Headquarters Communication Center Operations	4.4.3, 10.4
13.12.3	Joint Information Center News Coordination Team	4.3.3, 4.4.3, 9.3, 10.4
13.12.4	Joint Information Center Director and Staff	4.3.3, 9.3
13.12.5	Assistant Joint Information Center Director and Staff	4.3.3, 4.4.3
13.12.10	Joint Information Center Media Manager Duties	4.3.3
13.12.11	Joint Information Center Information Manager Duties and Staff	4.3.3, 4.4.3, 9.3
13.12.15	Joint Information Center Support Manager Duties	4.3.3, 4.4.3
13.12.18	Headquarters Administrative Support Supervisor Duties	4.4.2

Procedure	Title	Section of Plan Implemented
	Reentry/Recovery	
13.13.1	Reentry	4.3.1, 15.2
13.13.2	Recovery Operations	4.3.1, 4.3.2, 5.3
13.13.3	Offsite Reentry and Ingestion Pathways Monitoring/Sampling Plan	15.4
13.13.4	Post Incident Reporting	4.3.1, 4.3.2
	Supporting Information Procedures	
13.14.1	Emergency Exposure Level/Protective Action Guides	4.3.2, 12.2, 13.2, 13.3, 13.4, 13.8
13.14.2	Process for Determining Protective Action Recommendations	4.3.2, 12.2, 13.8
13.14.3	Supply System Health Physics Procedures, Radiological Programs Instructions, and Environmental Programs Instructions	4.3.2
13.14.4	Emergency Equipment	10.5, App. 3
13.14.5	Emergency Organization	4.3
13.14.6	Offsite Support and Assistance	4.3.2, 5.3, 5.4, 16.2
13.14.7	Emergency Training	4.3.1, 16.2, 16.4
13.14.8	Drills/Exercises	17
13.14.9	Emergency Program Maintenance	18

WNP-2 First Aid Kits

Seven first aid kits are located in the Service Building, the Radwaste Building, and the Turbine Building (corridors).

WNP-2 Radiological and Fire Emergency Cabinets

Five Radiological and Fire Emergency cabinets are located in the Service Building, the Radwaste Building, and the Turbine Generator Building (corridors). Contents include protective equipment, radiological monitoring equipment, and emergency supplies.

WNP-2 Decontamination Kits

Two decontamination kits are located in the Service Building and the Radwaste Building.

WNP-2 Protective Equipment Kit

A kit containing protective equipment and radiological monitoring equipment is located in the Technical Support Center.

Supply System Field Monitoring Kits

Kits containing protective equipment, radiological monitoring equipment, communications equipment, and emergency supplies for Environmental Monitoring Field Teams are located at the Plant Support Facility/Headquarters.

Hospital Radiological Emergency Kits

Kits containing protective equipment, radiological monitoring equipment, and emergency supplies are located as listed below.

Locations

1) Kennewick General Hospital

2) Our Lady of Lourdes Hospital

3) Yakima Valley Memorial Hospital

4) Kadlec Hospital

OMIT

OMIT

APPENDIX 4

AGREEMENT LETTERS

This appendix contains copies of the signed letters of agreement which formalize aid commitments between the Washington Public Power Supply System and outside organizations as listed below.

1. Agreement Letter Between Washington Public Power Supply System and Yakima Valley Memorial Hospital - February 8, 1985

2. Agreement Letter Between Washington Public Power Supply System and Our Lady of Lourdes Hospital - February 8, 1985

3. Agreement Letter Between Washington Public Power Supply System and Kennewick General Hospital - February 8, 1985

4. Agreement Letter Between Washington Public Power Supply System and Kadlec Medical Center - April 17, 1990

5. (Memorandum of Understanding Between) Department of Energy Richland Operations Office, Hanford Environmental Health Foundation, Washington Public Power Supply System - Emergency Response At the Hanford Site - Use of the Emergency Decontamination Facility (February 21, 1989)

6. Memorandum of Understanding Between Washington Public Power Supply System and Washington State, Emergency Preparedness and Response (January 1986)

7. Memorandum of Understanding Between Washington Public Power Supply System and Department .of Energy, Richland Operations Office - Emergency Preparedness and Response (September 1985)

AGREEMENT LETTER BETWEEN WASHINGTON PUBLIC POWER SUPPLY SYSTEM AND KADLEC MEDICAL CENTER - SEPTEMBER 1986

1. The Supply System will provide health physics services and available supporting assistance as requested by Kadlec Medical Center or the attending physician. The Supply System will be responsible for determining the contamination status of patients prior to transporting and for advising KMC as soon as possible, but prior to arrival at the hospital receiving area.

2. If it is necessary to send the patients in a contaminated condition, a person competent in radiological control method will either accompany the patient or will meet the transporting vehicle at the hospital receiving area. All cases involving known or suspected radioactive contamination will be transported to the Hanford Environmental Health Foundation Emergency Decontamination Facility for treatment. Those patients will be brought to the hospital upon recommendation of the HEHF staff.

3. The responsibilities of the hospital under this agreement will be limited to those activities performed at the hospital itself and will not include medical care and treatment at the site or transportation to and from the site.

4. The Supply System agrees to undertake all costs and expenses incurred that directly result from this agreement. This includes cleaning or replacement of equipment, decontamination of facilities, and disposal of radioactive wastes. Preplanned expenses are to be mutually acceptable to Kadlec Medical Center and the Supply System prior to committing to the expenditures. The Supply System will be responsible for any required decontamination of facilities and equipment as rapidly as conditions permit after treatment to restore the affected area to normal usage.

5. Kadlec Medical Center maintains the right to limit admission of patients from the Supply System nuclear project site to such numbers as can be properly handled. The Supply System shall have a similar agreement with an alternate hospital, in the event that Kadlec Medical Center is unable to care for all patients who require treatment.

6. It is recognized that admissions to the hospital involving radiation/contamination will be made as recommended by members of the Hanford Environmental Health Foundation staff. The Supply System will provide radiation protection monitoring, health physics recommendations, and other supporting assistance available as requested by Kadlec Medical Center and/or HEHF personnel.

7. The Supply System will continue to assist in development of plans and procedures for the handling and care of radiologically injured or contaminated patients at your hospital. We will also provide assistance with training, drills, and periodic updating of procedures as required. Additionally, an emergency kit will be provided and maintained which will contain radiological (beta/gamma) monitoring instrument dosimeters and other materials to support medical emergencies that may involve radiation.

8. The Supply System will develop procedures and provide training to their site personnel for preparation and transportation of injured persons. This training will include medical first aid, radiation monitoring, and decontamination methods. The intent of this program is to provide the basic knowledge required to assist in making judgements of priority in the handling of injured and contaminated personnel.

9. The hospital and the Supply System will jointly schedule and conduct medical emergency drills as necessary. The drills will serve to test the adequacy of procedures, equipment, and facilities as well as provide an opportunity for the involved staff to practice contamination control

10. These arrangements may be terminated by either party upon written notice to the other, which notice shall not become effective within less than thirty (30) days after the date thereof.

APPROVED BY:

A.L. Oxsen, Assistant Managing Director, Operations	4/6/90 Date
Jon Davis Administrator	4/11/90 Date
Ken Requard, M.D. Chief of Staff Kadlec Medical Center	4/17/90 Date

MEMORANDUM OF UNDERSTANDING BETWEEN

U. S. DEPARTMENT OF ENERGY, RICHLAND OPERATIONS OFFICE

HANFORD ENVIRONMENTAL HEALTH FOUNDATION, AND

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

FOR

EMERGENCY RESPONSE AT THE HANFORD SITE

USE OF THE EMERGENCY DECONTAMINATION FACILITY

The Washington Public Power Supply System (Supply System), the U.S. Department of Energy, Richland Operations Office (DOE-RL) and the Hanford Environmental Health Foundation (HEHF) agree to the following procedures and responsibilities in connection with the Emergency Decontamination Facility (EDF) at Richland, Washington when that facility is used in response to emergencies at the Hanford Site. These arrangements will be followed when implementing the applicable portions of Section III of the Memorandum of Understanding between the Supply System and the U.S. Department of Energy regarding Emergency Preparedness and Response which was executed in December 1982.

If the Supply System requests assistance from DOE-RL for treatment of a significantly contaminated and injured person:

- The Supply System will notify the HEHF physician on call about the person who requires medical care. The Supply System will also notify the DOE-RL Patrol Operations Center (POC) who in turn will notify the DOE-RL Duty Officer and the Hanford Exposure Evaluator. The HEHF physician on call will respond to assess the injury and will coordinate care at the Emergency Decontamination Facility (EDF) and/or Kadlec Medical Center.

- The HEHF physician will direct activation of the EDF, when indicated, and will utilize personnel from HEHF, Kadlec Medical Center or other organizations as deemed appropriate.

- The Supply System will provide qualified health physics personnel and appropriate radiation protection instrumentation for responding to the emergency decontamination facility. Transportation of radiation protection personnel will normally be provided by the Supply System unless agreed upon by the ambulance crew. Once the patient is delivered, the HEHF physician may elect to utilize other selected personnel for contamination and dose assessment, and can release the Supply System health personnel to return to the plant. However, the Supply System remains responsible for dose assessment of Supply System personnel and its contractors and may provide a representative in the EDF for close evaluation. The Supply System will be responsible for all decontamination.

- Any requests for press releases will be directed to the Supply System.

As preparation for an emergency covered under this agreement, the Supply System will:

- Make available basic radiological safety training to HEHF and Kadlec Medical Center personnel on, at least, an annual basis.
- Maintain agreements with other hospitals to handle incidents involving multiple injuries to allow for overflow emergency cases from the Hanford Site to be handled elsewhere.

In return, HEHF will:

- Be available to participate in an annual drill involving a simulated contaminated patient.
- Coordinate activities relating to this agreement with Kadlec Medical Center including provisions for receiving critical patients or overflow of patients into the Kadlec Medical Center.

This agreement will become effective upon signature and will continue until cancelled by one or more of the parties by written notice to the other(s).

12/15/88
Date

D. W. Mazur
Washington Public Power Supply System

2-21-89
Date

M. J. Lawrence
Richland Operations Office
United States Department of Energy

2 Feb 89
Date

B. D. Breitenstein
Hanford Environmental Health Foundation

MEMORANDUM OF UNDERSTANDING

BETWEEN

THE U.S. DEPARTMENT OF ENERGY, RICHLAND OPERATIONS OFFICE, THE WASHINGTON PUBLIC POWER SUPPLY SYSTEM, BENTON COUNTY, WASHINGTON, FRANKLIN COUNTY, WASHINGTON AND THE THIRTEENTH COAST GUARD DISTRICT

I. PURPOSE. The purpose of this Memorandum of Understanding (MOU) is to ensure safety on the Columbia River during a nuclear emergency at the Hanford Site through enhanced coordination and cooperation among the following signatory parties:

- o The U.S. Department of Energy, Richland Operations Office (DOE-RL)
- o The Washington Public Power Supply System (Supply System)
- o Benton County, Washington
- o Franklin County, Washington
- o The Thirteenth Coast Guard District (Coast Guard)

II. BACKGROUND.

A. The Hanford Site is an area of approximately 560 square miles located in South Central Washington which is used for a number of nuclear and chemical activities. The Site encompasses the Columbia River from mile 342 to mile 392. The area is managed by DOE-RL and includes facilities operated by DOE contractors, and the WNP 2 Power Reactor, which is owned and operated by the Supply System on land leased by the United States to the Supply System. These facilities may have the potential for adversely impacting public safety in the event of a radiological incident.

B. In recognition of the hazards associated with a radiological incident, both DOE-RL and the Supply System have developed comprehensive emergency plans to deal with the wide range of possible impacts. Where those impacts extend to the Columbia River and enter into the jurisdictions of other agencies, it is vitally important that all of the involved agencies and organizations understand each other's responsibilities and capabilities and that an effective plan to minimize the impacts be established.

III. SCOPE. This MOU.

A. Outlines the responsibilities of the involved parties.

B Defines actions to be taken by each party in response to an incident.

C. Promotes the best use of personnel and equipment through cooperative effort.

D. Provides for timely exchange of information among the parties to permit proper planning, execution, and evaluation.

IV. RESPONSIBILITIES.

A. The U.S. Coast Guard, through the Thirteenth District Commander in Seattle, Washington, and the Captain of the Port in Portland, Oregon, may regulate activities on navigable waters within the Hanford Site when necessary to prevent harm to persons, property, and the environment in or on those waters.

B. DOE-RL is responsible for coordinating actions and responding to all emergencies generated within its facilities.

C. The Supply System is responsible for coordinating actions and responding to all emergencies generated within its facilities.

D. Benton and Franklin Counties are responsible for the safety of persons, property, and the environment within their areas of jurisdiction but outside the Hanford Site.

V. EMERGENCY CLASSIFICATIONS. The following emergency classifications will be used to describe radiological events occurring at the Hanford Site:

A. Unusual Event - An event in progress or having occurred which indicates a potential reduction of the level of safety of a facility. Little or no potential for offsite release of radioactive material is expected.

B. Alert - An event in progress or having occurred which involves an actual or potential substantial reduction of the level of safety of a facility. Limited releases of radioactive material which could have potential adverse public impacts may occur.

C. Site Area Emergency - An event in progress or having occurred which involves actual or likely major failures of facility function needed for protection of onsite personnel, the public, and the environment. Significant releases of radioactive material are likely or are occurring which will lead to an offsite release.

D. General Emergency - An event in progress or having occurred which involves actual or imminent substantial reduction of facility safety systems. An actual or imminent significant release of radioactive material to the offsite environment is involved.

VI. ACTIONS.

A. DOE-RL:

1. Whenever it has an alert, site area emergency, or general emergency, DOE-RL will notify the Coast Guard Marine Safety Office, Portland.

2. Whenever the Supply System or DOE-RL has a site area or general emergency, DOE-RL will, if operations permit, provide a helicopter and a manned boat with radiation monitoring support to notify boaters along the Columbia River to evacuate and to enforce the upriver boundary of the safety zone. DOE-RL will also dispatch a patrolman to the Vernita Bridge to prevent the launching of river craft and will provide assistance in conducting radiation surveys until the Washington State RADCON teams arrive.

B. Supply System:

1. Whenever it has an alert, site area emergency, or general emergency, the Supply System will notify the Coast Guard Marine Safety Office, Portland.

2. For all site area or general emergencies, the Supply System will provide radiation monitoring support, protective clothing, and dosimeters for County Sheriff personnel, if required, and will provide assistance in conducting radiation surveys and boat decontamination until the Washington State RADCON teams arrive.

C. Coast Guard:

1. For all site area or general emergencies, the Coast Guard will establish a safety zone on the Columbia River based upon the recommendations of DOE-RL or the Supply System and will broadcast a river closure notice to mariners.

D. Benton County:

1. For all site area or general emergencies, Benton County will:

a. Broadcast Columbia River evacuation notices over the emergency broadcast system.

b. The Benton County Sheriff will, if operations permit, provide a manned boat to notify boaters along the Columbia River to evacuate and to enforce downriver boundary of the safety zone.

E. Franklin County:

1. For all site area or general emergencies, Franklin County will provide a manned Sheriff's boat, if available, to perform DOE-RL or Benton County Sheriff boat functions in the event either of those craft are unavailable to respond.

VII. TRAINING.

Annual training in radiological response will be provided to appropriate Sheriff Department's personnel as requested.

VIII. RESOURCES.

Each agency is responsible for costs it incurs under this MOU.

IX. RETENTION OF EXISTING AUTHORITY.

Nothing in this MOU shall detract from the existing responsibilities or authorities of each party.

X. ADMINISTRATION.

DOE-RL will provide secretarial support to administer this MOU.

XI. EFFECTIVE DATE, REVISIONS, AND TERMINATION.

A. The provisions of this MOU will become effective upon signature of all parties hereto. It will remain in effect until March 31, 1994, or until terminated by agreement of all parties. Any party may withdraw at any time provided 30 days written notice is given to all other parties. Amendments may be made at any time subject to the concurrence of all parties.

B. Withdrawal of the Coast Guard without prior notice is understood in the event of:

1. declaration of National Emergency;

2. transfer of the Coast Guard to the Department of the Navy; or

3. activation of part or all of Maritime Defense Zone Pacific.

J. E. Naback
Commander
Thirteenth Coast Guard District

Date: JUL 30 1990

Michael J. Lawrence
Manager
Richland Operations Office
U.S. Department of Energy

Date: 4-20-90

Assistant Managing Director
for Operations
Washington Public Power
Supply Systems

Date: 5/3/90

Jim Kamon
Sheriff
Benton County
State of Washington

Date: 5-11-90

Richard Lathim
Sheriff
Franklin County
State of Washington

Date: 5/16/90

A. Assignment of Responsibility (Organization Control) (continued)

Evaluation Criteria	Applicability and Cross Reference to Plans		
	Licensee	State	Local
4. Each principal organization shall be capable of continuous (24-hour) operations for a protracted period. The individual in the principal organization who will be responsible for assuring continuity of resources (technical, administrative, and material) shall be specified by title.	4.4.1.1 X 4.4.2.5 4.3.1.10	X	X

F. Emergency Communications (continued)

Evaluation Criteria	Applicability and Cross Reference to Plans		
	Licensee	State	Local
f. provision for communication by the licensee with NRC headquarters and NRC Regional Office Emergency Operations Centers and the licensee's near-site Emergency Operations Facility and radiological monitoring team assembly area.	7.2.3 X 8.2.3		
2. Each organization shall ensure that a coordinated communication link for fixed and mobile medical support facilities exists.	X 8.2.1	X	X
3. Each organization shall conduct periodic testing of the entire emergency communications system (see evaluation criteria H.10, N.2.a and Appendix 3).	X 8.3	X	X

L. Medical and Public Health Support

Planning Standard

Arrangements are made for medical services for contaminated injured individuals.[1]

Evaluation Criteria	Applicability and Cross Reference to Plans		
	Licensee	State	Local
1. Each organization shall arrange for local and backup hospital and medical services having the capability for evaluation of radiation exposure and uptake, including assurance that persons providing these services are adequately prepared to handle contaminated individuals.	5.3.2 X 14.2	X	X
2. Each licensee shall provide for onsite first aid capability.	10.2.1.5 X 10.3.12 14.2		
3. Each State shall develop lists indicating the location of public, private and military hospitals and other emergency medical services facilities within the State or contiguous States considered capable of providing medical support for any contaminated injured individual. The listing shall include the name, location, type of facility and capacity and any special radiological capabilities. These emergency medical services should be able to radiologically monitor contamination personnel, and have facilities and trained personnel able to care for contaminated injured persons.	10.2.2.5 16.2	X	
4. Each organization shall arrange for transporting victims of radiological accidents to medical support facilities.	X	X	X

1/ The availability of an integrated emergency medical services system and a public health emergency plan serving the area in which the facility is located and, as a minimum, equivalent to the Public Health Service Guide for Developing Health Disaster Plans, 1974, and to the requirements of an emergency medical services system as outlined in the Emergency Medical Services System Act of 1973 (P.L. 93-154 and amendments in 1979 P.L. 96-142), should be a part of and consistent with overall State or local disaster control plans and should be compatible with the specific overall emergency response plan for the facility.