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September 6, 1989
G02-89-155

Docket No. 50-397

U.S. Nuclear Regulatory Commission
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SUBJECT: NUCLEAR PLANT NO. 2
SUBMITTAL OF REVISION 9 TO THE WNP-1 AND 2
EMERGENCY PREPAREDNESS PLAN

In accordance with 10CFR50, Appendix E, paragraph V, and 50.54(q), attached are two copies of the WNP-2 Emergency Preparedness Plan, Revision 9. This revision incorporates comments and critiques from drills, the annual emergency exercise and editorial comments of NRC Region V on Revision 8. Actual changes made from Revision 8 to Revision 9 are indicated by change lines in the right hand margin. Under separate cover, one copy of this revision has been submitted to the NRC Region V Administrator.

Should you have any questions, please contact Mr. A. G. Hosler, Manager, WNP-2 Licensing.


G. C. Sorensen, Manager
Regulatory Programs

GCS/JDH/mmff

Attachments

cc: R Fish--NRC Region V (without attachment)
JB Martin--NRC Region V (with attachment)
NS Reynolds--BCP&R (without attachment)
RB Samworth--NRR (Washington, D.C.: without attachment)
DL Williams--BPA (399: without attachment)
NRC Site Inspector--(901A: without attachment)

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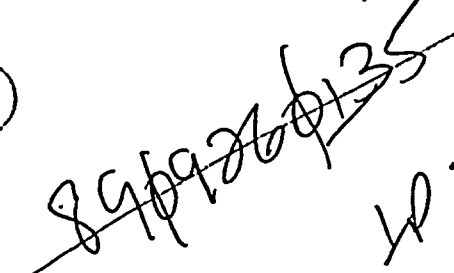
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Superseded per Rev 9 Emergency Preparedness Plan
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SECTION 2
DEFINITIONS

ALERT

- 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.

ANNUALLY

- yearly, normally between two consecutive annual emergency exercises.

EARLY WARNING SYSTEM

- a system designed to alert all residents and transients within the Ten-Mile Emergency Planning Zone. This system will include sirens for areas along the Columbia River and tone activated radios for residents within ten miles of the plant.

EMERGENCY DECONTAMINATION
CENTER

- a facility located adjacent to Kadlec Hospital in Richland to be used for decontamination and emergency medical care of highly contaminated persons.

EMERGENCY OPERATIONS
FACILITY

- see Plant Support Facility.

EXCLUSION AREA

- an area extending out to 1.2 miles from each facility controlled by the Supply System.

FIXED NUCLEAR FACILITY

- a permanent facility (plant) with an operable nuclear reactor.

GENERAL EMERGENCY

- a condition at the plant or its surroundings where the level of safety has or could be degraded to the point of significant failed fuel and where the loss of primary containment 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 emergency planning zone (EPZ) public protective actions.

HANFORD RESERVATION

- a federally owned reservation under the control of the Department of Energy, Richland Operations, Richland, Washington. The reservation covers 570 square miles and is located north of the City of Richland in Benton County.

INGESTION EXPOSURE
EMERGENCY PLANNING ZONE

- a zone around the Supply System plants in which planning for protective actions for the public is based on ingestion of contaminated water and/or foods. Protective actions include removal of dairy cows from contaminated pastures and/or terminating use of river irrigation water.

PLANT SUPPORT FACILITY

- a facility located approximately 0.75 miles southwest of WNP-2 and 1.3 miles west-southwest of WNP-1. The structure includes a shielded area designated as the Emergency Operations Facility.

PROTECTIVE ACTION GUIDES

- numerical doses and concentrations which act as trigger points to initiate protective actions such as sheltering, evacuation, or placement of dairy herds on stored feed. These guides are established by the State of Washington and are conservative with respect to the Environmental Protection Agency Protective Action Guides.

RECOVERY MANAGER

- is responsible for overall management of the Supply System resources and will be in charge of all activities related to plant emergency and recovery operations.

SITE AREA EMERGENCY

- 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. This includes the violation of Safety Limits as defined in the Plant 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 site.

UNUSUAL EVENT

- 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 the 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.

WNP-1

- Washington Nuclear Project -1, a Babcock and Wilcox pressurized water reactor rated at approximately 1250 MWe. WNP-1 is temporarily in a preservation mode. A firm operational date has not been established at this point.

WNP-2

- Washington Nuclear Project -2, an operational General Electric Boiling Water Reactor rated at approximately 1145 MWe.

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

Four classes are used to describe the emergencies covered in this Plan. These classes are listed in order of increasing severity:

- a. Unusual Event
- b. Alert
- c. Site Area Emergency
- d. General Emergency

The emergency shall be classified by the Plant Emergency Director as soon as an off-normal event occurs which corresponds to one of the initiating conditions given in this section. Declaration of each emergency classification prompts initiation of appropriate Emergency Plan Implementing Procedures. Each class is described in such a manner that emergencies can change classification, either up or down, depending on whether the emergency becomes more or less severe. 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:

6.2.1 UNUSUAL EVENT

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 the plant operating personnel 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.

The purpose of declaring an Unusual Event is 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 offsite emergency authorities.

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.

6.2.2 ALERT

An Alert is 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.

The purpose of declaring an Alert is 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.

6.2.3 SITE AREA EMERGENCY

A Site Area Emergency is 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. This includes the violation of Safety Limits, as defined in the Plant 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 site.

The purpose of declaring a Site Area Emergency is to assure that all emergency response centers are activated, field monitoring teams are dispatched, evacuation coordinators readied, and to initiate predetermined protective actions for the public and to keep them informed.

6.2.4 GENERAL EMERGENCY

A General Emergency is a condition at the plant or its surroundings where the level of safety has or could be degraded to the point of significant failed fuel and where the loss of primary containment has occurred or is projected to occur. This includes conditions where release of 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 offsite emergency response to aid in the implementation of plume EPZ public protective actions.

The purpose of declaring a General Emergency is to initiate predetermined protective 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.

6.3 INITIATING CONDITIONS (WNP-1)

This section will be developed at a later date.

6.4 INITIATING CONDITIONS (WNP-2)

This section gives various WNP-2 plant conditions used to determine the emergency classification. More detailed plant parameters and classification logic are provided in the appropriate Emergency Plan Implementing Procedures.

Emergency classification at WNP-2 is arrived at by two methods. The first method is through the use of predetermined safety parameters and their status. These are called symptomatic initiating conditions, and if any one of the parameters indicates an unsafe condition, then the appropriate emergency classification is declared. To aid the operator in the implementation of this procedure, 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, EPIP 13.1.1, Attachment B, makes a useful quick reference guide to symptomatic initiating conditions. Use of these symptomatic parameters minimizes the need for operator judgments during an emergency; however, some level of subjective judgment 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.

Since it is virtually impossible to predefine a symptomatic initiating condition for every conceivable abnormal situation, a second method was developed

to accommodate those plant conditions which cannot be quantitatively defined. The second method of determining emergency classification is by the use of a set of discretionary guidelines. Unlike the symptomatic conditions, which are distinct, usually singular, quantitative parameters, the situation based initiating conditions represent multiple input situations that are qualitative in nature and thus require more judgement in the classification process.

6.4.1 SYMPTOMATIC INITIATING CONDITIONS (WNP-2)

The following classifications and their bases were established using the definitions in section 6.2 and a set of defined safety parameters based on NUREG 0696 safety groups. The five groups are reactivity control, core cooling parameters, coolant system integrity, containment integrity, and radioactivity control.

6.4.1.1 UNUSUAL EVENT (WNP-2 SYMPTOMATIC CONDITIONS)

a. Reactivity Control Initiating Conditions

None.

Basis--N/A

b. Core Cooling Initiating Conditions

Lo Lo reactor vessel water level (-50 inches) except for momentary transients below the Lo Lo level that are consistent with the plant design and expected response.

Basis---Threatens normal level of plant safety and warrants increased awareness on part of plant operating staff.

c. Coolant System Integrity Initiating Conditions

- (1) Drywell floor plus equipment drain sump flow greater than or equal to 36,000 gallons in any 24-hour period.

Basis--Violates a Limiting Condition for Operation

- (2) Drywell floor drain sump flow rate greater than or equal to 5 gpm.

Basis--Violates a Limiting Condition for Operation

- (3) Drywell pressure greater than or equal to 1.68 psig.

Basis--Condition is an early indication of a potential break in the reactor coolant pressure boundary that threatens the normal level of plant safety and warrants increased awareness on the part of plant operating staff.

- (4) Reactor pressure vessel greater than or equal to 1148 psig.

Basis--Condition indicates a failure of pressure actuated relief valves and actuation of first set of safety relief valves and therefore represents a threat to the normal level of plant safety.

d. Containment Integrity Initiating Conditions

- (1) Drywell temperature greater than or equal to 135°F for a period of eight hours or more.

Basis--Violates a Limiting Condition for Operation.



- (2) Suppression Pool water temperature greater than or equal to 110°F and reactor power greater than or equal to one percent.

Basis--Violates a Limiting Condition for Operation.

- (3) Drywell pressure less than or equal to -1.0 psig for a period greater than or equal to one hour.

Basis--Violates a Limiting Condition for Operation.

- (4) Unplanned Suppression Pool level greater than or equal to +2 inches above normal for a period of one hour or more.

Basis--Violates a Limiting Condition for Operation.

- (5) Unplanned Suppression Pool level less than or equal to -2 inches below normal for a period of one hour or more.

Basis--Violates a Limiting Condition for Operation.

e. Radioactivity Control Initiating Conditions

None.

Basis--N/A

6.4.1.2 ALERT (WNP-2 SYMPTOMATIC CONDITIONS)

a. Reactivity Control Initiating Conditions

Power range monitoring system detects reactor power at greater than or equal to five percent, ten or more seconds after a scram.

Basis--Condition indicative of a failure to scram and, since the automatic protective action (i.e., full scram) did not occur, the safety limits are jeopardized.

b. Core Cooling Initiating Conditions

Reactor water level less than or equal to -129 inches.

Basis--Safety Limits are jeopardized due to possible failure of automatic protective actions (i.e., high pressure core spray) to restore water level. This condition also represents a substantial degradation of the level of plant safety.

c. Coolant System Integrity Initiating Conditions

- (1) Main Steam Isolation Valve closure logic met; but both inboard and outboard valves on one or more lines fail to close.

Basis--Situation represents a substantial degradation in the level of plant safety.

- (2) Reactor pressure greater than or equal to 1250 psig.

Basis--Same as 6.4.1.2c(1) above.

d. Containment Integrity Initiating Conditions

Containment isolation logic met, but both inboard and outboard valves on one or more Reactor Coolant Pressure Boundary (RCPB) lines fail to close.

Basis--Situation represents a substantial degradation in the level of plant safety.

e. Radioactivity Control Initiating Conditions

Projected Exclusion Area Boundary (1.2 mile) dose rates greater than or equal to 0.5 mR/hr whole body or 2.5 mRem/hr. thyroid.

Basis--A condition where a small release of radioactive material warrants offsite response and/or monitoring.

6.4.1.3 SITE AREA EMERGENCY (WNP-2 SYMPTOMATIC CONDITIONS)

a. Reactivity Control Initiating Conditions

Reactor power greater than five percent and Suppression Pool temperature greater than 110°F and either a safety relief valve opens or is opened or drywell pressure greater than 1.68 psig.

Basis--BWR Owner's Group accident analysis indicates this unlikely condition could degrade the level of safety to the point of losing a plant function (fuel failure or containment failure) needed to protect the public.

b. Core Cooling Initiating Conditions

None.

c. Coolant System Integrity Initiating Conditions

Reactor pressure greater than or equal to 1325 psig.

Basis--Safety Limit violated.

d. Containment Integrity Initiating Conditions

- (1) Drywell temperature greater than or equal to 340°F.

Basis--This condition represents a situation where the level of safety could degrade to the point of losing a plant function (i.e., primary containment) needed to protect the public.

- (2) Heat Capacity Temperature Limit (HCTL) exceeded

Basis--This condition represents a situation where the level of safety could degrade to the point of losing the primary containment which is needed to protect the public. (Refer to Emergency Procedures (PPM 5.0 Series) for limit levels.)

- (3) Suppression Pool Load Limit (SPLL) exceeded

Basis--Same as item 6.4.1.3.d.2 above.

- (4) Heat Capacity Level Limit (HCLL) exceeded

Basis--Same as item 6.4.1.3.d.2 above.

- (5) Wetwell pressure above 90 psig

Basis--Same as item 6.4.1.3.d.2 above.

e. Radioactivity Control Initiating Conditions

Projected Exclusion Area Boundary (1.2 miles) dose rates greater than or equal to 50 mR/hr whole body or 250 mRem/hr thyroid.

Basis--A condition where significant release of radioactive material has taken place.

6.4.1.4 GENERAL EMERGENCY (WNP-2 SYMPTOMATIC CONDITIONS)

a. Reactivity Control Initiating Conditions

None.

b. Core Cooling Initiating Conditions

None.

c. Coolant System Integrity Initiating Conditions

None.

d. Containment Integrity Initiating Conditions

None.

e. Radioactivity Control Initiating Conditions

Projected Exclusion Area Boundary (1.2 miles) dose rates greater than or equal to 1 R/hr whole body or 5 Rem/hr thyroid.

Basis--A condition where large amounts of radioactive material has been released.

6.4.2 SITUATION BASED INITIATING CONDITIONS (WNP-2)

When the following situation based initiating conditions exist, the emergency will be classified in accordance with procedures contained in the Emergency Plan Implementing Procedures.

6.4.2.1 UNUSUAL EVENT (WNP-2 SITUATION BASED CONDITIONS)

- a. Plant Shutdown under Technical Specification requirements where the normal level of plant safety has degraded, or is imminent. For Shutdown under Plant Technical Specification Action Statements (TSAS) which are "One-Hour-Or-Less" (including TSAS which are 'immediate'), refer to Attachment E of EPIP 13.1.1, "Plant Technical Specification Shutdown ECL Listing", for guidance. Should the TSAS allow longer than one hour prior to initiation of the required Plant Shutdown, then contact on-call Plant Management for the decision on whether or not to declare an ECL.

(1) Other examples include, but are not limited to, the following:

- a) Loss of fire protection systems that threaten the normal level of Plant safety.

- b) Release of radioactive material in liquid, gaseous or particulate form in excess of Technical Specification Limits.
 - c) Loss of one critical switchgear bus (excluding Division 3) for more than 8 hours and not in Hot Shutdown condition (Operational Condition 3) or lower.
- (2) Certain shutdowns as a result of exceeding Technical Specification Limits may not require declaration of an Unusual Event. This would be the case in situations that have only long-term safety concerns or that involve surveillance or operability requirements which result in no immediate safety threat. Refer to Attachment E of EPIP 13.1.1 for guidance on select "One-Hour-Or-Less" TSAS which may fall into this category. Also, other examples that may not be classified include, but are not limited to, the following:
- a) Failure of one of the three reactor coolant leakage detection systems to be operable (T.S. 3.4.3.1).
 - b) Failure of one or more safety/relief valve acoustic monitors if the associated tailpipe temperature indication is available.
 - c) The rendering of equipment inoperable due to secondary effects, e.g., lack of seismic qualifications, loss of support ventilation systems, etc.
- b. Natural phenomena and other hazards within or near the Exclusion Area Boundary (1.2 miles) that threaten the normal level of safety of the plant. Examples of such hazards include, but are not limited to, the following:
- (1) Floods (River Pumphouse observed to be in danger of inundation).

- (2) Earthquakes (any earthquake detected by the seismic instrumentation).
 - (3) Tornados (sighted from the exclusion area).
 - (4) Unusual aircraft activity over facility, aircraft crash or train derailment on site but not affecting safety-related equipment.
 - (5) Range fires near the plant which threaten to reduce the normal level of safety at the plant.
 - (6) Explosions within the Protected Area, but not affecting plant operation.
 - (7) Toxic or flammable gas releases near or within the Protected Area.
 - (8) Visible ash fallout from volcanic activity.
 - (9) High winds, sustained above 80 mph.
- c. Any condition at or near the plant that warrants increased awareness on the part of plant operating staff and/or emergency offsite authorities. Examples of this condition include, but are not limited to, the following:
- (1) Transportation of a contaminated injured individual from the Plant to an offsite medical facility.
 - (2) Loss of all offsite power.
 - (3) Fire within the plant lasting more than 10 minutes.
 - (4) Reactor scram initiated and more than one rod not inserted past position 06.



- (5) 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 during RWCU resin transfer. (Refer to the Instrument Master Data Sheets - IMDS for current Hi-Alarm values.)
- d. A security condition that threatens the security of the Plant and requires increased precautionary measures to be implemented by security. (Refer to the Safeguards Contingency Plan, SCP, for additional information.) Examples of such include, but are not limited to the following:
 - (1) Threat to attack the Plant is received.
 - (2) Credible threat to bomb the Plant is received.
 - (3) A personnel disturbance at the Protected Area.
 - (4) Plant degradation which may have been caused by sabotage.

6.4.2.2 ALERT (WNP-2 SITUATION BASED CONDITIONS)

- a. A condition where safety system instrumentation has failed to initiate an automatic protective action.
- b. Natural phenomena and other hazards that represent a substantial degradation in the level of plant safety or warrant the use of additional personnel for accident assessment and in-plant response. Examples of such hazards include, but are not limited to, the following:
 - (1) Flooding or potential flooding that directly affects plant safety systems.
 - (2) Sustained wind speeds in excess of 100 mph.

- (3) Severe electrical storms that cause major failure of safety-related instruments.
- (4) A tornado striking or projected to strike equipment or a facility within the protected area boundary.
- (5) An aircraft crash or train derailment compromising safety-related equipment.
- (6) An explosion causing plant damage that affects the operation of safety systems.
- (7) Entry of toxic or flammable gas into plant facilities.
- (8) Volcanic ash fallout severe enough to warrant plant shutdown.
- (9) Anticipated Control Room evacuation to Remote Shutdown Panel.
- (10) A fire potentially affecting a safety system.
- (11) An earthquake equivalent to an operating basis earthquake.
- (12) Loss of all P601, P602, and P603 annunciators.
- (13) Station black out.

c. Situations where a release of radioactive material warrants offsite response or personnel to perform offsite monitoring, but does not require any public protective actions. Examples include, but are not limited, to the following:

- (1) Measured Exclusion Area Boundary (1.2 miles) whole body dose rates greater than or equal to 0.5 mR/hr or 2.5 mRem/hr thyroid.

- (2) A confirmed Standby Service Water System radiation level that equals or exceeds the radiation monitor's Hi-Alarm value and the Plant cannot isolate that Standby Service water loop. (Refer to the Instrument Master Data Sheets - IMDS for current Hi-Alarm value.
- d. Ongoing security compromise requiring additional support. (Refer to the Safeguards Contingency Plan, SCP, for additional information). Examples of such include, but are not limited to the following:
 - (1) Personnel disturbance which could affect the operation of the Plant.
 - (2) Visual observation of unidentified/unauthorized persons in a vital or protected area with an intent to commit sabotage.
 - (3) Discovery of intentionally breached, protected, or vital area barrier.

6.4.2.3 SITE AREA EMERGENCY (WNP-2 SITUATION BASED CONDITIONS)

- a. Conditions where the Safety Limits have been violated. Examples include, but are not limited to, the following:
 - (1) Significant failed fuel, defined in this specific context to mean approximately 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."
 - (2) Failure of the Emergency Core Cooling System and other water sources to adequately keep the core covered above 2/3 core height.

b. Situations where the level of safety has, or could be, degraded to the point of losing a plant function needed to protect the public. Examples include, but are not limited to, the following:

- (1) Failure of the Standby Gas Treatment System to function when needed to mitigate offsite release.
- (2) Fire compromising the functions of safety systems needed for the protection of the public.

c. Any plant condition that threatens the safety of the plant and warrants the activation of the Technical Support Center, Operations Support Center, and Emergency Operations Facility for the purpose of accident assessment, in-plant response, and offsite response or monitoring, public notification and public protective action implementation near the site. Examples include, but are not limited to, the following:

- (1) Elevated hydrogen levels inside containment, coupled with oxygen concentrations sufficient to cause a potentially harmful pressure spike should the two gases ignite (this requires engineering analysis, refer to PPM 9.3.25).
- (2) An earthquake greater than the safe shutdown earthquake.
- (3) Any natural or man-made event compromising a function of a safety system needed for the protection of the public.
- (4) Failure of secondary containment isolation when required to prevent offsite release.
- (5) Major damage to more than one spent fuel assembly leading to clad rupture.
- (6) Fuel pool level below bottom of the fuel transfer gate and decreasing (when spent fuel is in the pool).

- d. A situation where significant release of radioactive material has or could take place. Examples include, but are not limited to, the following:

Measured Exclusion Area Boundary (1.2 miles) dose rates greater than or equal to 50 mR/hr whole body or 250 mRem/hr to the thyroid.

- e. A security compromise seriously affecting the physical control of the plant. (Refer to the Safeguards Contingency Plan, SCP, for additional information.) Examples of such include, but are not limited to the following:

- (1) An attack or assault on the Plant is imminent.
- (2) Obvious sabotage attempt is confirmed; i.e., vital area intrusion.
- (3) Plant has been attacked, adversaries holding hostages, extortion threats.
- (4) A bomb explodes or other actual disruptive sabotage attempt.

6.4.2.4 GENERAL EMERGENCY (WNP-2 SITUATION BASED CONDITIONS)

- a. Loss of, or high potential for loss of, primary containment and significant failed fuel exists. Emergency Operating Procedures (PPM Volume 5) should be used as guidance in determining these conditions.
- b. 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. Examples include, but are not limited to, the following:
- (1) Measured Exclusion Area Boundary (1.2 miles) dose rate greater than or equal to 1R/hr whole body or 5 rem/hr thyroid.

(2) External events (e.g. fires, earthquakes) substantially beyond design basis.

- c. Confirmed sabotage and a loss of security control in an area that could cause an uncontrolled release or could impact the plant's ability to perform a safe shutdown.

NOTE: A summary of symptomatic and situation based initiating conditions can be found in EPIP 13.1.1, Attachments B and C, respectively.

TABLE 6-1

WNP-2 INITIATING CONDITIONS CROSS REFERENCE FOR UNUSUAL EVENTS

NUREG-0654

Appendix 1, Revision 1

Emergency Plan Section 6.4

Example Initiating ConditionsCorresponding Initiating Conditions

| | |
|---|--|
| 1. ECCS Initiated | 6.4.1.1.b. |
| 2. Rad. Effluent | 6.4.2.1.a.(1)(b) |
| 3. Fuel Damage | 6.4.2.1.a. |
| 4. Abnormal Temp. & Press. | 6.4.2.1.a. |
| 5. PCPB Leakage | 6.4.1.1.c.(1), 6.4.1.1.c.(2), 6.4.1.1.c.(3), and 6.4.2.1.a. |
| 6. Stuck SRV | 6.4.2.1.a. |
| 7. Loss of Offsite Power | 6.4.2.1.c.(2) |
| 8. Degraded Containment Integrity | 6.4.1.1.d. |
| 9. Loss of ESF or FP Systems | 6.4.2.1.a. and 6.4.2.1.a.(1)a) |
| 10. Fire | 6.4.1.c.(3) |
| 11. Loss of Indications | 6.4.2.1.a. and 6.4.2.1.c. |
| 12. Security Threat | 6.4.2.1.d. |
| 13. Natural Phenomenon | 6.4.2.1.b. |
| 14. Other Hazards | 6.4.2.1.b. |
| 15. Catchall Conditions | 6.4.2.1.c. |
| 16. Contaminated Persons | 6.4.2.1.c.(1) |
| 17. Depressurization of Secondary Side | N/A |

TABLE 6-2

WNP-2 INITIATING CONDITIONS CROSS REFERENCE FOR ALERTS

NUREG-0654

Appendix 1, Revision 1

Emergency Plan Section 6.4

Example Initiating ConditionsCorresponding Initiating Conditions

| | |
|---------------------------------|------------------------------|
| 1. Severe Loss of Fuel Cladding | 6.4.1.2.e. |
| 2. Failure of Steam Generator | N/A |
| 3. Failure of Steam Generator | N/A |
| 4. Steam Line Break | 6.4.1.2.c.(1) and 6.4.2.7.b. |
| 5. 50 gpm Leak Rate | 6.4.2.2.b. |
| 6. High Airborne Radiation | 6.4.2.2.b. |
| 7. Loss of all AC Power | 6.4.2.2.b. |
| 8. Loss of all DC Power | 6.4.2.2.b. |
| 9. Coolant Pumps Seizure | 6.4.2.2.b. |
| 10. Shutdown Cooling Lost | 6.4.2.2.b. |
| 11. RPS Failure to SCRAM | 6.4.1.2.a. |
| 12. Fuel Damage Accident | 6.4.2.2.b. |
| 13. Fire | 6.4.2.2.b.(10) |
| 14. Loss of All Annunciators | 6.4.2.2.b.(12) |
| 15. Radiological Effluent HI | 6.4.1.2.e. and 6.4.2.2.c. |
| 16. Ongoing Security Compromise | 6.4.2.2.d. |
| 17. Severe Natural Phenomena | 6.4.2.2.b. |
| 18. Other Hazards | 6.4.2.2.b. |
| 19. Catchall Conditions | 6.4.2.2.b. |
| 20. Control Room Evacuation | 6.4.2.2.b.(9) |

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TABLE 6-3

WNP-2 INITIATING CONDITIONS CROSS REFERENCE
FOR SITE AREA EMERGENCIES

NUREG-0654

Appendix 1, Revision 1

Emergency Plan Section 6.4

Example Initiating ConditionsCorresponding Initiating Conditions

| | |
|--|---------------------------------------|
| 1. Known LOCA | 6.4.2.3.a. and 6.4.2.3.b. |
| 2. Loss of Coolable Geometry | 6.4.2.3.b. |
| 3. Rapid Tube Failure | N/A |
| 4. Steam Line Break Outside Containment | 6.4.2.3.c. |
| 5. PWR Line Break | N/A |
| 6. Loss of all AC Power 15 Min. | 6.4.2.3.c. |
| 7. Loss of all DC Power 15 Min.. | 6.4.2.3.c. |
| 8. Loss of Hot Shutdown Capabil- ities | 6.4.2.3.c. |
| 9. Failure to SCRAM plus LOCA | 6.4.2.3.a. |
| 10. Major Spent Fuel Damage | 6.4.2.3.c.(5) |
| 11. Fire | 6.4.2.3.b.(2) |
| 12. Loss of Annunciators | 6.4.2.3.c. |
| 13. Radioactive Effluents HI | 6.4.1.3.e., 6.4.2.3.b. and 6.4.2.3.d. |
| 14. Loss of Physical Control of Plant | 6.4.2.3.e. |
| 15. Severe Natural Phenomana | 6.4.2.3.c. |
| 16. Other Hazards | 6.4.2.3.c. |
| 17. Catchall | 6.4.2.3.c. |
| 18. Control Room Evacuation | 6.4.2.3.c. |

TABLE 6-4

WNP-2 INITIATING CONDITIONS CROSS REFERENCE
FOR GENERAL EMERGENCIES

NUREG-0654

Appendix 1, Revision 1

Emergency Plan Section 6.4

Example Initiating ConditionsCorresponding Initiating Conditions

- | | |
|---|---------------------------|
| 1. Radioactive Effluents HI | 6.4.1.4.e. and 6.4.2.4.b. |
| 2. Loss of Fission Product Barriers | 6.4.2.4.a. |
| 3. Loss of Physical Control | 6.4.2.4.c. |
| 4. Other Plant Conditions of Serious Nature | 6.4.2.4.b. |
| 5. PWR Sequences | N/A |
| 6. BWR Sequences | 6.4.2.4.a. |
| 7. Other Major Events | 6.4.2.4.b. |

