

BRUNSWICK PLANT

ANNUNCIATOR

PROCEDURE

8412110397 841205
PDR ADOCK 05000261
F PDR

SEISMIC EVENT

AUTO ACTIONS

1. Magnetic tape recording starts and records the output of the triaxial accelerographs located at the reactor building basement (elevation -17 ft. 4 inches).
2. The direct-write recording system of each unit starts and records the output of the reactor building basement accelerograph (or any other selected point).
3. The three multi-event triaxial peak accelerographs [two located at the reactor building basement (elevation -17 ft. 4 inches), and one at the RHR pipe support (elevation 20 ft.)] record peak accelerations at these points.

CAUSE

1. Earthquake.
2. Any other event which exceeds a seismic intensity of 0.01 g. horizontal acceleration.
3. Circuit malfunction.

OBSERVATIONS

1. All seismic recorders start.
2. Event alarm light is on for the strong motion accelerograph panel.
3. Event indicator for the strong motion accelerograph panel is black prior to an event and white after an event.

ACTIONS

1. From the direct-write recording system, determine the earthquake acceleration.
2. If the acceleration exceeds .08g., immediately initiate a controlled shutdown of both units.

NOTE:

If the acceleration is less than .08 g., the reactor operation may continue, provided that there is no damage and all systems are operating normally.

3. Start an immediate check of all plant parameters for abnormal changes or conditions.

NOTE:

The following checks will give some idea to the nature, extent or location of the damage.

ACTIONS (Continued)

4. Check major plant parameters such as reactor level, local area radiation monitors, feedwater flow, generator load, condenser vacuum, turbine vibration, bearing temperature, etc., to have a quick check on the status of the units.
5. Verify that plant electrical distribution system, switch yard and grid system are normal and there is no power loss.

NOTE:

An increase in off gas and stack gas radiation monitors could indicate an increase in fuel leaks.

6. Check all plant annunciator panels (Auxiliary Boiler, Diesel, MWT, Radwaste, etc.) to determine abnormal situations.
7. Verify running equipment for any spurious trips.
8. Check the following leak detection systems for abnormalities:
 - a. Main steam leak detection
 - b. RWCU System leak detection
 - c. Radwaste equipment area leak detection
 - d. RCIC System leak detection
 - e. HPCI System leak detection
 - f. Reactor recirculation pump leak detectors
 - g. RHR System leak detection
 - h. ADS leak detection

NOTE:

Drywell sump pump High level alarm and/or the frequency of sump pump starting will indicate areas of excessive leakage.

NOTE:

A large increase in off gas flow indicates increased air in leakage, most likely due to failure to the main condenser, air ejector or the connected system and piping normally under vacuum.

9. Verify all other plant parameters to ensure normal operation of all systems.

NOTE:

All vital structures, systems and equipment that were not operating during the earthquake should be checked thoroughly.

10. If damage is suspected on any system, conduct a Periodic Test on that equipment to assure operability.
11. Notify supervision of plant conditions in order to call for additional personnel, if required.

ACTIONS (Continued)

12. Survey all areas and inspect plant equipment and evaluate damage while following all radiation protection procedures.
13. If the plant cannot operate in a safe condition, proceed with the shutdown of the units.
14. Record a calibration record on the magnetic tape cassette and replace with a new blank cassette.
15. Record the time and date on the cassette that is removed from recorder.
16. Have the triaxial peak accelerographs (seismic recorders) calibrated by I&C PT crew (PT 26.1 PC).
17. If a circuit of equipment malfunction is suspected, ensure that a Work Request & Authorization Form is prepared.

DEVICE/SETPOINTS

Seismic Recorder
ENV-XR-823

Both horizontal and vertical
starters set at 0.01 g.

POSSIBLE PLANT EFFECTS

1. Unit shutdown and major damage.

REFERENCES

1. 9527-LL-93065 - 12 Rev. 2
2. Technical Specifications
3. FSAR