

POWER DISTRIBUTION

LIMITING CONDITION FOR OPERATION (Continued)

2. Verify that the QUADRANT POWER TILT RATIO is within its limit within 2 hours after exceeding the limit or reduce THERMAL POWER to less than 50% of RATED THERMAL POWER within the next 2 hours and reduce the Power Range Neutron Flux-High trip Setpoints to  $\leq 55\%$  of RATED THERMAL POWER within the next 4 hours.
  3. Identify and correct the cause of the out of limit condition prior to increasing THERMAL POWER; subsequent POWER OPERATION above 50% of RATED THERMAL POWER may proceed provided that the QUADRANT POWER TILT RATIO is verified within its limit at least once per hour until verified acceptable at 95% or greater RATED THERMAL POWER.
- c. With the QUADRANT POWER TILT RATIO determined to exceed 1.09 due to causes other than the misalignment of either a control or shutdown rod:
1. Reduce THERMAL POWER to less than 50% of RATED THERMAL POWER within 2 hours and reduce the Power Range Neutron Flux-High Trip Setpoints to  $\leq 55\%$  of RATED THERMAL POWER within the next 4 hours.
  2. Identify and correct the cause of the out of limit condition prior to increasing THERMAL POWER; subsequent POWER OPERATION above 50% of RATED THERMAL POWER may proceed provided that the QUADRANT POWER TILT RATIO is verified within its limit at least once per hour until verified at 95% or greater RATED THERMAL POWER.
- d. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.2.4 The QUADRANT POWER TILT RATIO shall be determined to be within the limit above 50% of RATED THERMAL POWER by:

- a. Calculating the ratio at least once per 7 days when the alarm is OPERABLE.
- b. Calculating the ratio at least once per 12 hours during steady state operation when the alarm is inoperable.
- c. Using the movable incore detectors to determine the QUADRANT POWER TILT RATIO at least once per 12 hours when one Power Range Channel is inoperable & THERMAL POWER is  $> 75$  percent of RATED THERMAL POWER.

## INSTRUMENTATION

### REMOTE SHUTDOWN INSTRUMENTATION

#### LIMITING CONDITION FOR OPERATION

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3.3.3.5 The remote shutdown monitoring instrumentation channels shown in Table 3.3-9 shall be OPERABLE with readouts displayed external to the control room.

APPLICABILITY: MODES 1, 2, and 3.

#### ACTION:

With the number of OPERABLE remote shutdown monitoring channels less than required by Table 3.3-9, either:

- a. Restore the inoperable channel to OPERABLE status within 30 days, or
- b. Be in HOT SHUTDOWN within the next 12 hours.
- c. The provisions of Specification 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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4.3.3.5 Each remote shutdown monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3-6.

REACTOR COOLANT SYSTEM

3/4.4.6 REACTOR COOLANT SYSTEM LEAKAGE

LEAKAGE DETECTION SYSTEMS

LIMITING CONDITION FOR OPERATION

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3.4.6.1 The following Reactor Coolant System leakage detection systems shall be OPERABLE:

- a. The containment atmosphere particulate radioactivity monitoring system,
- b. The containment sump inventory, and
- c. Either the containment air cooler condensate inventory or the containment atmosphere gaseous radioactivity monitoring system.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

- a. With one of the above required radioactivity monitoring leakage detection systems inoperable, operations may continue for up to 30 days provided:
  1. The other two above required leakage detection systems are OPERABLE, and
  2. Appropriate grab samples are obtained and analyzed at least once per 24 hours:otherwise, be in COLD SHUTDOWN within the next 36 hours.
- b. With the containment sump inventory and the containment air cooler condensate inventory inoperable, restore the inoperable system to OPERABLE status within 7 days or be in COLD SHUTDOWN within the next 36 hours.
- c. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

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4.4.6.1 The leakage detection systems shall be demonstrated OPERABLE by:

- a. Containment atmosphere particulate and gaseous (if being used) monitoring system-performance of CHANNEL CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST at the frequencies specified in Table 4.3-9 Item 3b.

CONTAINMENT SYSTEMS

3/4.6.4 COMBUSTIBLE GAS CONTROL

HYDROGEN ANALYZERS

LIMITING CONDITION FOR OPERATION

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3.6.4.1 Two independent containment hydrogen analyzers shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTION:

- a. With one hydrogen analyzer inoperable, restore the inoperable analyzer to OPERABLE status within 30 days or be in HOT STANDBY within the next 6 hours.
- b. With both hydrogen analyzers inoperable, restore at least one monitor to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours.
- c. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

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4.6.4.1 Each hydrogen analyzer shall be demonstrated OPERABLE at least once per 92 days on a STAGGERED TEST BASIS by performing a CHANNEL CALIBRATION using sample gases containing:

- a. One volume percent hydrogen, balance nitrogen, and
- b. Four volume percent hydrogen, balance nitrogen.

CONTAINMENT SYSTEMS

ELECTRIC HYDROGEN RECOMBINERS - W

LIMITING CONDITION FOR OPERATION

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3.6.4.2 Two independent containment hydrogen recombiner systems shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTION:

With one hydrogen recombiner system inoperable, restore the inoperable system to OPERABLE status within 30 days or be in at least HOT STANDBY within the next 12 hours. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

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4.6.4.2 Each hydrogen recombiner system shall be demonstrated OPERABLE:

- a. At least once per 6 months by verifying during a recombiner system functional test that the minimum heater sheath temperature increases to  $\geq 700^{\circ}\text{F}$  within 90 minutes and is maintained for at least 2 hours.
- b. At least once per 18 months by:
  1. Performing a CHANNEL CALIBRATION of all recombiner instrumentation and control circuits.
  2. Verifying through a visual examination that there is no evidence of abnormal conditions within the recombiners (ie, loose wiring or structural connections, deposits of foreign materials, etc).
  3. Verifying during a recombiner system functional tests that the heater sheath temperature increases to  $\geq 1200^{\circ}\text{F}$  within 5 hours and is maintained for at least 4 hours.

## CONTAINMENT SYSTEMS

### HYDROGEN VENT SYSTEM

#### LIMITING CONDITION FOR OPERATION

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3.6.4.3 At least one containment hydrogen vent system shall be OPERABLE and capable of being powered from an OPERABLE emergency bus.

APPLICABILITY: MODES 1 and 2.

#### ACTION:

With no containment hydrogen vent system OPERABLE, restore at least one hydrogen vent system to OPERABLE status within 30 days or be in HOT STANDBY within 12 hours. The provisions of Specification 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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4.6.4.3 The above required hydrogen vent system shall be demonstrated OPERABLE:

- a. At least once per 31 days by initiating flow through the HEPA filter and charcoal adsorber train and verifying that the vent system operates for at least 15 minutes.
- b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release in any ventilation zone communicating with the system by:
  1. Verifying that the charcoal adsorbers remove  $\geq 99\%$  of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ANSI N510-1975 while operating the vent system at a flow rate of 140 cfm  $\pm 10\%$ .
  2. Verifying that the HEPA filter banks remove  $\geq 99\%$  the DOP when they are tested in-place in accordance with ANSI N510-1975 while operating the vent system at a flow rate of 140 cfm  $\pm 10\%$ .
  3. Verifying within 31 days after removal that a laboratory analysis of a carbon sample from at least one test canister demonstrates a removal efficiency of  $\geq 90\%$  for radioactive methyl iodide when the sample is tested in accordance with ANSI N510-1975 (130°C, 95% R.H.).

CONTAINMENT SYSTEMS

HYDROGEN MIXING SYSTEM

LIMITING CONDITION FOR OPERATION

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3.6.4.4 Two independent hydrogen mixing systems shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTION:

With one hydrogen mixing system inoperable, restore the inoperable system to OPERABLE status within 30 days or be in HOT STANDBY within the next 12 hours. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

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4.6.4.4 Each hydrogen mixing system shall be demonstrated OPERABLE:

- a. At least once per 92 days on a STAGGERED TEST BASIS by:
  1. Verifying that the system can be started on operator action in the control room, and
  2. Verifying that the system operates for at least 15 minutes.
- b. At least once per 18 months by verifying a system flow rate of  $2500 \pm 250$  cfm.



REFUELING OPERATIONS

INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

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3.9.2 As a minimum, two source range neutron flux monitors shall be operating, each with continuous visual indication in the control room and one with audible indication in the containment.

APPLICABILITY: MODE 6.

ACTION:

With the requirements of the above specification not satisfied, immediately suspend all operations involving CORE ALTERATIONS or positive reactivity changes. The provisions of Specification 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

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4.9.2 Each source range neutron flux monitor shall be demonstrated OPERABLE by performance of:

- a. A CHANNEL FUNCTIONAL TEST at least once per 7 days, and
- b. A CHANNEL FUNCTIONAL TEST within 8 hours prior to the initial start of CORE ALTERATIONS, and
- c. A CHANNEL CHECK at least once per 12 hours during CORE ALTERATIONS.



REFUELING OPERATIONS

CRANE TRAVEL - FUEL BUILDING

LIMITING CONDITION FOR OPERATION

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3.9.7 Loads carried over the spent fuel pool and the heights at which they may be carried over racks containing fuel shall be limited in such a way as to preclude impact energies over 240,000 in.-lbs, if the loads are dropped.

APPLICABILITY: With fuel assemblies and water in the storage pool.

ACTION:

With the requirements of the above specification not satisfied, place the crane load in a safe condition. The provisions of Specification 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

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4.9.7 The potential impact energy due to dropping the crane's load shall be determined to be  $\leq$  240,000 in.-lbs prior to moving each load over racks containing fuel.

REFUELING OPERATIONS

CONTAINMENT VENTILATION ISOLATION SYSTEM

LIMITING CONDITION FOR OPERATION

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3.9.9 The Containment Ventilation isolation system shall be OPERABLE.

APPLICABILITY: MODE 6

ACTION:

With the Containment Ventilation isolation system inoperable, close each of the penetrations providing direct access from the containment atmosphere to the outside atmosphere. The provisions of Specification 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

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4.9.9 The Containment Ventilation isolation system shall be demonstrated OPERABLE within 100 hours prior to the start of and at least once per 7 days during CORE ALTERATIONS by verifying that Containment Ventilation isolation occurs on manual initiation and on a high radiation signal from each of the containment process radiation monitoring instrumentation channels.

REFUELING OPERATIONS

STORAGE POOL WATER LEVEL

LIMITING CONDITION FOR OPERATION

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3.9.11 As a minimum, 23 feet of water shall be maintained over the top of irradiated fuel assemblies seated in the storage racks.

APPLICABILITY: Whenever irradiated fuel assemblies are in the storage pool.

ACTION:

With the requirement of the specification not satisfied, suspend all movement of fuel and crane operations with loads in the fuel storage areas and restore the water level to within its limit within 4 hours. The provisions of Specification 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

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4.9.11 The water level in the storage pool shall be determined to be at least its minimum required depth at least once per 7 days when irradiated fuel assemblies are in the fuel storage pool.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION


|                                    |   |                         |
|------------------------------------|---|-------------------------|
| In the Matter of                   | ) |                         |
|                                    | ) |                         |
| PORTLAND GENERAL ELECTRIC COMPANY, | ) | Docket 50-344           |
| THE CITY OF EUGENE, OREGON, AND    | ) | Operating License NPF-1 |
| PACIFIC POWER & LIGHT COMPANY      | ) |                         |
|                                    | ) |                         |
| (TROJAN NUCLEAR PLANT)             | ) |                         |

CERTIFICATE OF SERVICE

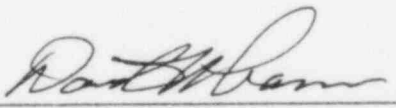
I hereby certify that copies of License Change Application 126 to the Operating License for Trojan Nuclear Plant, dated August 16, 1985, have been served on the following by hand delivery or by deposit in the United States mail, first class, this 16th day of August 1985:

Mr. Lynn Frank, Director  
State of Oregon  
Department of Energy  
Labor & Industries Bldg, Rm 102  
Salem OR 97310

Mr. Robert L. King  
Chairman of County Commissioners  
Columbia County Courthouse  
St. Helens OR 97051

  
\_\_\_\_\_  
G. A. Zimmerman, Manager  
Nuclear Regulation Branch  
Nuclear Safety & Regulation

Subscribed and sworn to before me this 16th day of August 1985.

  
\_\_\_\_\_  
Notary Public of Oregon

My Commission Expires: 10-8-88