

ENCLOSURE 1

BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2  
NRC DOCKET NOS. 50-325 & 50-324  
OPERATING LICENSE NOS. DPR-71 & DPR-62  
REFUELING PLATFORM MAST REPLACEMENT  
(NRC TAC NO. 82846)

TYPED TECHNICAL SPECIFICATION PAGES - UNIT 1

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## REFUELING OPERATIONS

### 3/4.9.6 CRANE AND HOIST OPERABILITY

#### LIMITING CONDITION FOR OPERATION

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3.9.6 All cranes and hoists used for handling fuel assemblies or control rods within the reactor pressure vessel shall be OPERABLE.

APPLICABILITY: During movement of fuel assemblies or control rods within the reactor pressure vessel.

ACTION:

With the requirements for crane or hoist OPERABILITY not satisfied, suspend use of any inoperable crane or hoist from operations involving the movement of control rods and fuel assemblies after placing the load in a safe location. The provisions of Specification 3.0.3 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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4.9.6 Each crane or hoist used for movement of control rods or fuel assemblies within the reactor pressure vessel shall be demonstrated OPERABLE within 7 days prior to the start of such operations with that crane or hoist by:

- a. Demonstrating operation of the overload cutoff when the load exceeds 1600 pounds for the mast fuel gripper and  $\leq$  1050 pounds for all other cranes and hoists.
- b. Demonstrating operation of the loaded interlock when the load exceeds 750 pounds for the mast fuel gripper and  $\leq$  350 pounds for all other cranes and hoists.
- c. Demonstrating operation of the uptravel stop for all cranes and hoists other than the mast fuel gripper when uptravel would bring the top of the active fuel to 7 feet below the normal spent fuel pool water level.
- d. Demonstrating operation of the slack cable cutoff when the load is less than  $50 \pm 25$  pounds for the mast fuel gripper.
- e. Performing a load test of at least 1000 pounds.

## REFUELING OPERATIONS

### BASES

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#### 3/4.9.6 CRANE AND HOIST OPERABILITY

The OPERABILITY requirements of the cranes and hoists used for movement of fuel assemblies ensures that: 1) each has sufficient load capacity to lift a fuel element, and 2) the core internals and pressure vessel are protected from excessive lifting force in the event they are inadvertently engaged during lifting operations.\*

#### 3/4.9.7 CRANE TRAVEL-SPE. FUEL STORAGE POOL

The restriction on movement of loads in excess of the weight specified provides some assurance that with the failure of the lifting device the fuel pool would not be damaged to such a degree that the irradiated fuel would be subjected to a loss-of-coolant.

#### 3/4.9.8 and 3/4.9.9 WATER LEVEL-REACTOR VESSEL AND SPENT FUEL STORAGE POOL

The restrictions on minimum water level ensure that sufficient water depth is available to remove 99% of the assumed 10% iodine gap activity released from the rupture of irradiated fuel assembly. This minimum water depth is consistent with the assumptions of the accident analysis.

#### 3/4.9.10 CONTROL ROD REMOVAL

This specification ensures that maintenance or repair on control rods or control rod drives will be performed under conditions that limit the probability of inadvertent criticality. The requirements for simultaneous removal of more than one control rod are more stringent since the SHUTDOWN MARGIN specification provides for the core to remain subcritical with only one control rod fully withdrawn.

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\* The fuel grapple hoist overload cutoff demonstration load of 1600 pounds is based on the submerged fuel bundle loads of 650 pounds, the highest unloaded hoist cable-supported load of approximately 660 pounds, and a tolerance for fuel bundle friction and load spikes of 290 pounds.

The fuel grapple hoist loaded interlock demonstration load of 750 pounds is based on the highest unloaded hoist cable-supported load of approximately 660 pounds plus a tolerance for load spikes of 90 pounds as sections are raised and lowered.

ENCLOSURE 2

BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2  
NRC DOCKET NOS. 50-325 & 50-324  
OPERATING LICENSE NOS. DPR-71 & DPR-62  
REFUELING PLATFORM MAST REPLACEMENT  
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TYPED TECHNICAL SPECIFICATION PAGES - UNIT 2

## REFUELING OPERATIONS

### 3/4.9.6 CRANE AND HOIST OPERABILITY

#### LIMITING CONDITION FOR OPERATION

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3.9.6 All cranes and hoists used for handling fuel assemblies or control rods within the reactor pressure vessel shall be OPERABLE.

APPLICABILITY: During movement of fuel assemblies or control rods within the reactor pressure vessel.

#### ACTION:

With the requirements for crane or hoist OPERABILITY not satisfied, suspend use of any inoperable crane or hoist from operations involving the movement of control rods and fuel assemblies after placing the load in a safe location. The provisions of Specification 3.0.3 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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4.9.6 Each crane or hoist used for movement of control rods or fuel assemblies within the reactor pressure vessel shall be demonstrated OPERABLE within 7 days prior to the start of such operations with that crane or hoist by:

- a. Demonstrating operation of the overload cutoff when the load exceeds 1600 pounds for the mast fuel gripper and  $\leq$  1050 pounds for all other cranes and hoists.
- b. Demonstrating operation of the loaded interlock when the load exceeds 750 pounds for the mast fuel gripper and  $\leq$  350 pounds for all other cranes and hoists.
- c. Demonstrating operation of the uptravel stop for all cranes and hoists other than the mast fuel gripper when uptravel would bring the top of the active fuel to 7 feet below the normal spent fuel pool water level.
- d. Demonstrating operation of the slack cable cutoff when the load is less than  $50 \pm 25$  pounds for the mast fuel gripper.
- e. Performing a load test of at least 1000 pounds.

## REFUELING OPERATIONS

### BASES

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#### 3/4.9.6 CRANE AND HOIST OPERABILITY

The OPERABILITY requirements of the cranes and hoists used for movement of fuel assemblies ensures that: 1) each has sufficient load capacity to lift a fuel element, and 2) the core internals and pressure vessel are protected from excessive lifting force in the event they are inadvertently engaged during lifting operations.\*

#### 3/4.9.7 CRANE TRAVEL-SPENT FUEL STORAGE POOL

The restriction on movement of loads in excess of the weight specified provides some assurance that with the failure of the lifting device the fuel pool would not be damaged to such a degree that the irradiated fuel would be subjected to a loss-of-coolant.

#### 3/4.9.8 and 3/4.9.9 WATER LEVEL-REACTOR VESSEL AND SPENT FUEL STORAGE POOL

The restrictions on minimum water level ensure that sufficient water depth is available to remove 98% of the assumed 10% iodine gas activity released from the rupture of irradiated fuel assembly. This minimum water depth is consistent with the assumptions of the accident analysis.

#### 3/4.9.10 CONTROL ROD REMOVAL

This specification ensures that maintenance or repair on control rods or control rod drives will be performed under conditions that limit the probability of inadvertent criticality. The requirements for simultaneous removal of more than one control rod are more stringent since the SHUTDOWN MARGIN specification provides for the core to remain subcritical with only one control rod fully withdrawn.

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- \* The fuel grapple hoist overload cutoff demonstration load of 1600 pounds is based on the submerged fuel bundle loads of 650 pounds, the highest unloaded hoist cable-supported load of approximately 660 pounds, and a tolerance for fuel bundle friction and load spikes of 290 pounds.

The fuel grapple hoist loaded interlock demonstration load of 750 pounds is based on the highest unloaded hoist cable-supported load of approximately 660 pounds plus a tolerance for load spikes of 90 pounds as sector are raised and lowered.