REFUELING OPERATIONS

3/4.9.6 MANIPULATOR CRANE

LIMITING CONDITION FOR OPERATION

II d — reactor building — an

3.9.6 The manipulator crane and auxiliary hoist shall be used for movement of ~~drive rods or fuel assemblies~~ fuel assemblies or control rods and shall be OPERABLE with:

II a

a. The manipulator crane used for movement of fuel assemblies having:

1) A minimum capacity of 3250 pounds, and

2) An overload cutoff limit less than or equal to 2900 pounds, and

II b — b. ~~The~~ A auxiliary hoist used for latching, ~~and~~ S unlatching and drag load testing of control ~~drive~~ rods having:

1) A minimum capacity of ~~610~~ 1000 pounds, II c and

I — 2) A load indicator which shall be used to prevent applying a lifting ~~loads~~ force in excess of 600 pounds on the core internals.

APPLICABILITY: During movement of ~~drive rods or fuel assemblies~~ fuel assemblies and control rods within the reactor vessel.

II d

ACTION:

With the requirements for crane and/or hoist OPERABILITY not satisfied, suspend use of any inoperable manipulator crane and/or auxiliary hoist from operations involving the movement of ~~drive rods and fuel assemblies~~ fuel assemblies and control rods within the reactor vessel.

II d

SURVEILLANCE REQUIREMENTS

4.9.6.1 Each manipulator crane used for movement of fuel assemblies within the reactor vessel shall be demonstrated OPERABLE within 100 hours prior to the start of such operations by performing a load test of at least 3250 pounds and demonstrating an automatic load cutoff when the crane load exceeds 2900 pounds.

II d

control

4.9.6.2 Each auxiliary hoist and associated load indicator used for movement of ~~drive~~ rods or control rod drag load testing within the reactor vessel shall be demonstrated OPERABLE within 100 hours prior to the start of such operations by performing a load test of at least ~~610~~ 1000 pounds. II b II c

3/4.9.6 MANIPULATOR CRANE

LIMITING CONDITION FOR OPERATION

3.9.6 The reactor building manipulator crane and an auxiliary hoist shall be used for movement of ~~drive rods or fuel assemblies~~ fuel assemblies or control rods and shall be OPERABLE with:

a. The manipulator crane used for movement of fuel assemblies having:

1) A minimum capacity of 3250 pounds, and

2) An overload cutoff limit less than or equal to 2900 pounds.

b. ~~The~~ A auxiliary hoist used for latching, ~~and~~ unlatching and drag load testing of control ~~drive~~ rods having:

1) A minimum capacity of ~~610~~ 1000 pounds, and

2) A load indicator which shall be used to prevent applying a ~~loads~~ force in excess of 600 pounds on the core internals.

APPLICABILITY: During movement of ~~drive rods or fuel assemblies~~ fuel assemblies and control rods within the reactor vessel.

ACTION:

With the requirements for crane and/or hoist OPERABILITY not satisfied, suspend use of any inoperable manipulator crane and/or auxiliary hoist from operations involving the movement of ~~drive rods and fuel assemblies~~ fuel assemblies and control rods within the reactor vessel.

SURVEILLANCE REQUIREMENTS

4.9.6.1 Each manipulator crane used for movement of fuel assemblies within the reactor vessel shall be demonstrated OPERABLE within 100 hours prior to the start of such operations by performing a load test of at least 3250 pounds and demonstrating an automatic load cutoff when the crane load exceeds 2900 pounds.

4.9.6.2 Each auxiliary hoist and associated load indicator used for movement of ~~drive~~ control rods or control rod drag load testing within the reactor vessel shall be demonstrated OPERABLE within 100 hours prior to the start of such operations by performing a load test of at least ~~610~~ 1000 pounds.

3/4.9.6 ~~MANIPULATOR CRANE~~

LIMITING CONDITION FOR OPERATION

3.9.6 The reactor building manipulator crane and auxiliary hoist shall be used for movement of ~~drive rods or fuel assemblies~~ fuel assemblies or control rods and shall be OPERABLE with:

a. The manipulator crane used for movement of fuel assemblies having:

1) A minimum capacity of 3250 pounds, and

2) An overload cutoff limit less than or equal to 2900 pounds.

b. ~~The~~ A auxiliary hoists used for latching, ~~and~~ unlatching control ~~drive~~ rods having:

1) A minimum capacity of ~~610~~ 1000 pounds, and

2) A load indicator which shall be used to prevent lifting ~~loads~~ applying a force in excess of 600 pounds on the core internals.

and drag load testing of

APPLICABILITY: During movement of ~~drive rods or fuel assemblies~~ fuel assemblies and control rods within the reactor vessel.

ACTION:

With the requirements for crane and/or hoist OPERABILITY not satisfied, suspend use of any inoperable manipulator crane and/or auxiliary hoist from operations involving the movement of ~~drive rods and fuel assemblies~~ fuel assemblies and control rods within the reactor vessel.

SURVEILLANCE REQUIREMENTS

4.9.6.1 Each manipulator crane used for movement of fuel assemblies within the reactor vessel shall be demonstrated OPERABLE within 72 hours prior to the start of such operations by performing a load test of at least 3250 pounds and demonstrating an automatic load cutoff when the crane load exceeds 2850 pounds.

4.9.6.2 Each auxiliary hoist and associated load indicator used for movement of ~~drive~~ control rods within the reactor vessel shall be demonstrated OPERABLE within 72 hours prior to the start of such operations by performing a load test of at least ~~610~~ 1000 pounds. or control rod drag load testing

Attachment 2

Description of Proposed Changes and Technical Justification

Part I:

The changes in Part I of this proposed amendment are an administrative clarification in that they more accurately align the TS wording with the actual procedures and practices utilized at both McGuire and Catawba Nuclear Stations, and as stated in the Bases.

Technical Specification 3.9.6.b.2 indicates the auxiliary hoist used for latching and unlatching drive rods shall have a load indicator which shall be used to prevent "lifting loads" in excess of 600 pounds. The term "lifting loads" has created some confusion as to whether or not the lifting tool, drive rod, and control rod weights are included in the 600 pound value. This amendment proposes changing "lifting loads" to "lifting force".

The intent of this requirement, as stated in the Bases for T/S 3/4.9.6, is to ensure the core internals and reactor vessel are protected from excessive lifting forces in the event they are inadvertently engaged during lifting operations. The 600 pound value given in the Technical Specification originates from limits specified in Westinghouse General Equipment Specification 952260 Rev. 03. In paragraph 3.2.11.10, a specific limit of 600 pounds is given for Guide Tube loads due to a jammed Rod Control Cluster (RCC) in both the upward and downward directions. Thus, the Technical Specification provides protection for the guide tube which is part of the reactor vessel upper internals structure. The 600 pound "lifting load" limit given in the Technical Specifications 3.9.6.b.2 (for both MNS and CNS) refers to the dynamic force that may be inadvertently applied to the guide tube only. It does not include loads registered on the indicator by the static weights of the latching tool, drive rod, or control rod. Therefore the actual limiting load reading on the indicator will be 600 pounds greater than the combined values of the static weight of the latching tool, drive rod and control rod.

Further administrative word enhancements were added to T/S 3.9.6.b.2 for a more effective description of both the activities and the components of concern.

Attachment 2

Part II:

The changes in Part II (see MNS Unit 1 markup as a guide) of this proposed amendment are an administrative clarification in that they more accurately align the TS wording with the actual procedures and practices utilized at both McGuire and Catawba Nuclear Stations. This is evidenced in the items below:

IIa.

The change of the T/S references "drive rods or fuel assemblies" to "fuel assemblies and/or control rods" is actually two changes. The first changes the term "drive rods" to "control rods" to effect a more accurate description of refueling activities which the LCO is intended to address. The second changes the order of the items in the reference into their logical order with respect to the listing "manipulator crane and auxiliary hoist" as it is given in the line above in the LCO. This change of T/S references was effected in both the applicability and the action statements as well. These T/S references were changed in both the applicability and the action statements.

IIb.

In line 3.9.6.b, the term "The auxiliary hoist" was changed to "Auxiliary hoists" to provide flexibility and protection to utilize other hoists in the future provided they meet the technical requirements of this specification.

In the same line, drag load testing was added into the activities under the control of these specifications, because the core internals and reactor vessel are at risk to the same forces during these tests as they are during refueling activities. This provides the same protective measures for these testing activities as are required during refueling activities. This same addition was also made in the associated surveillance 4.9.6.2.

IIc.

In the LCO, 3.9.6.b.1. and the surveillance 4.9.6.2, the minimum capacity value is changed from 610 to 1000. This change more accurately reflects the actual minimum capacity required and retained by the hoists. Both McGuire and Catawba actually load test the hoists to $\geq$ 1000 pounds.

IId.

(Applies to MNS only) Adding "reactor building" into the first line is a descriptive administrative clarification that brings MNS's manipulator crane term in line with that of CNS.

Part II of the amendment more accurately defines auxiliary hoist minimum capacities and gives a more expansive description of the activities for which protective measures and surveillance testing are utilized.

Attachment 2

Part II: (cont.)

Impact To McGuire and Catawba FSARs

The McGuire and Catawba FSARs were reviewed for technical impact with regard to this proposed amendment to Technical Specification 3/4.9.6. Chapter 3 (Design Criteria), Chapter 4 (Reactor), Chapter 5 (Reactor Coolant System) and Chapter 9 (Auxiliary Systems) were reviewed and revealed no manipulator crane or auxiliary hoist load values or testing limits. Thus, the proposed amendment does not impact or require any changes to the FSARs.

Attachment 3

No Significant Hazards Consideration:

Question: Will the change involve a significant increase in the probability or consequences of an accident previously evaluated?

No. The proposed change is administrative in nature and does not represent any changes to the refueling process in the field. It more accurately describes the components for which the LCO's protection is intended as well as giving a more accurate description of the auxiliary hoist's minimum capacity. It also broadens the domain of activities for which protective measures are taken, by including drag load testing into monitored activities. At both MNS and CNS, the auxiliary hoists and the manipulator cranes are rated at $\geq$ 3000 pounds and are surveillance tested to greater than 1000 pounds. This brackets the limit force lifting value change from 600 to 1000 pounds in the amendment proposal.

Question: Will the change create the possibility of a new or different kind of accident from any accident previously evaluated?

No. This proposed administrative change reflects no changes in the refueling processes, or any systems, structures or components connected with the refueling process.

Question: Will the change involve a significant reduction in a margin of safety?

No. The proposed administrative change has no impact on refueling processes, systems, structures or components, and does not result in any significant reduction in a margin of safety. The subject change only clarifies the original intent of the specification and more accurately describes the involved components, component capacities and the domain of activities for which measures are taken to protect the reactor internals.

Environmental Impact Assessment

This proposed Technical Specification Amendment represents no adverse impact regarding releases of activity, any form and/or content of radioactive material, occupational exposure or any other non-radiological concerns.

Attachment 4

Updated TS Pages:

See attached.

REFUELING OPERATIONS

3/4.9.6 MANIPULATOR CRANE

LIMITING CONDITION FOR OPERATION

3.9.6 The reactor building manipulator crane and an auxiliary hoist shall be used for movement of fuel assemblies or control rods and shall be OPERABLE with:

a. The manipulator crane used for movement of fuel assemblies having:

1) A minimum capacity of 3250 pounds, and

2) An overload cutoff limit less than or equal to 2900 pounds.

b. Auxiliary hoists used for latching, unlatching and drag load testing of control rods having:

1) A minimum capacity of 1000 pounds, and

2) A load indicator which shall be used to prevent applying a lifting force in excess of 600 pounds on the core internals.

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

ACTION:

With the requirements for crane and/or hoist OPERABILITY not satisfied, suspend use of any inoperable manipulator crane and/or auxiliary hoist from operations involving the movement of fuel assemblies and control rods within the reactor vessel.

SURVEILLANCE REQUIREMENTS

4.9.6.1 Each manipulator crane used for movement of fuel assemblies within the reactor vessel shall be demonstrated OPERABLE within 100 hours prior to the start of such operations by performing a load test of at least 3250 pounds and demonstrating an automatic load cutoff when the crane load exceeds 2900 pounds.

4.9.6.2 Each auxiliary hoist and associated load indicator used for movement of control rods or control rod drag load testing within the reactor vessel shall be demonstrated OPERABLE within 100 hours prior to the start of such operations by performing a load test of at least 1000 pounds.

3/4.9.6 MANIPULATOR CRANE

LIMITING CONDITION FOR OPERATION

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

ACTION:

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SURVEILLANCE REQUIREMENTS

4.9.6.1 Each manipulator crane used for movement of fuel assemblies within the reactor vessel shall be demonstrated OPERABLE within 100 hours prior to the start of such operations by performing a load test of at least 3250 pounds and demonstrating an automatic load cutoff when the crane load exceeds 2900 pounds.

4.9.6.2 Each auxiliary hoist and associated load indicator used for movement of control rods or control rod drag load testing within the reactor vessel shall be demonstrated OPERABLE within 100 hours prior to the start of such operations by performing a load test of at least 1000 pounds.

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   1) A minimum capacity of 1000 pounds, and

   2) A load indicator which shall be used to prevent applying a lifting force in excess of 600 pounds on the core internals.

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

ACTION:

With the requirements for crane and/or hoist OPERABILITY not satisfied, suspend use of any inoperable manipulator crane and/or auxiliary hoist from operations involving the movement of fuel assemblies and control rods within the reactor vessel.

SURVEILLANCE REQUIREMENTS

4.9.6.1 Each manipulator crane used for movement of fuel assemblies within the reactor vessel shall be demonstrated OPERABLE within 72 hours prior to the start of such operations by performing a load test of at least 3250 pounds and demonstrating an automatic load cutoff when the crane load exceeds 2850 pounds.

4.9.6.2 Each auxiliary hoist and associated load indicator used for movement of control rods or control rod drag load testing within the reactor vessel shall be demonstrated OPERABLE within 72 hours prior to the start of such operations by performing a load test of at least 1000 pounds.

3/4.9.6 MANIPULATOR CRANE

LIMITING CONDITION FOR OPERATION

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1) A minimum capacity of 1000 pounds, and

2) A load indicator which shall be used to prevent applying a lifting force in excess of 600 pounds on the core internals.

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

ACTION:

With the requirements for crane and/or hoist OPERABILITY not satisfied, suspend use of any inoperable manipulator crane and/or auxiliary hoist from operations involving the movement of fuel assemblies and control rods within the reactor vessel.

SURVEILLANCE REQUIREMENTS

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