

No Changes

REACTOR COOLANT SYSTEM

3/4.4.5 STEAM GENERATORS

LIMITING CONDITION FOR OPERATION

---

3.4.5 Each steam generator shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With one or more steam generators inoperable, restore the inoperable generator(s) to OPERABLE status prior to increasing  $T_{avg}$  above 200°F.

SURVEILLANCE REQUIREMENTS

---

4.4.5.0 Each steam generator shall be demonstrated OPERABLE by performance of the following augmented inservice inspection program and the requirements of Specification 4.0.5.

4.4.5.1 Steam Generator Sample Selection and Inspection - Each steam generator shall be determined OPERABLE during shutdown by selecting and inspecting at least the minimum number of steam generators specified in Table 4.4-1.

4.4.5.2 Steam Generator Tube Sample Selection and Inspection - The steam generator tube minimum sample size, inspection result classification, and the corresponding action required shall be as specified in Table 4.4-2. The inservice inspection of steam generator tubes shall be performed at the frequencies specified in Specification 4.4.5.3 and the inspected tubes shall be verified acceptable per the acceptance criteria of Specification 4.4.5.4. The tubes selected for each inservice inspection shall include at least 3% of the total number of tubes in all steam generators; the tubes selected for these inspections shall be selected on a random basis except:

- a. Where experience in similar plants with similar water chemistry indicates critical areas to be inspected, then at least 50% of the tubes inspected shall be from these critical areas;
- b. The first sample of tubes selected for each inservice inspection (subsequent to the preservice inspection) of each steam generator shall include:

9706040319 970527  
PDR ADOCK 05000414  
P PDR

REACTOR COOLANT SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

- 1) All nonplugged tubes that previously had detectable wall penetrations (greater than 20%),
- 2) Tubes in those areas where experience has indicated potential problems, and
- 3) A tube inspection (pursuant to Specification 4.4.5.4a.8) shall be performed on each selected tube. If any selected tube does not permit the passage of the eddy current probe for a tube inspection, this shall be recorded and an adjacent tube shall be selected and subjected to a tube inspection.

~~c. Not Used~~

d. The tubes selected as the second and third samples (if required by Table 4.4-2) during each inservice inspection may be subjected to a partial tube inspection provided:

- 1) The tubes selected for these samples include the tubes from those areas of the tube sheet array where tubes with imperfections were previously found, and
- 2) The inspections include those portions of the tubes where imperfections were previously found.

~~e. Not Used~~

The results of each sample inspection shall be classified into one of the following three categories:

<u>Category</u>	<u>Inspection Results</u>
C-1	Less than 5% of the total tubes inspected are degraded tubes and none of the inspected tubes are defective.
C-2	One or more tubes, but not more than 1% of the total tubes inspected are defective, or between 5% and 10% of the total tubes inspected are degraded tubes.
C-3	More than 10% of the total tubes inspected are degraded tubes or more than 1% of the inspected tubes are defective.

Note: In all inspections, previously degraded tubes must exhibit significant (greater than 10%) further wall penetrations to be included in the above percentage calculations.

No changes

REACTOR COOLANT SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

4.4.5.3 Inspection Frequencies - The above required inservice inspections of steam generator tubes shall be performed at the following frequencies:

- a. The first inservice inspection shall be performed after 6 Effective Full Power Months but within 24 calendar months of initial criticality. Subsequent inservice inspections shall be performed at intervals of not less than 12 nor more than 24 calendar months after the previous inspection. If two consecutive inspections, not including the preservice inspection, result in all inspection results falling into the C-1 category or if two consecutive inspections demonstrate that previously observed degradation has not continued and no additional degradation has occurred, the inspection interval may be extended to a maximum of once per 40 months;
- b. If the results of the inservice inspection of a steam generator conducted in accordance with Table 4.4-2 at 40-month intervals fall in Category C-3, the inspection frequency shall be increased to at least once per 20 months. The increase in inspection frequency shall apply until the subsequent inspections satisfy the criteria of Specification 4.4.5.3a.; the interval may then be extended to a maximum of once per 40 months; and
- c. Additional, unscheduled inservice inspections shall be performed on each steam generator in accordance with the first sample inspection specified in Table 4.4-2 during the shutdown subsequent to any of the following conditions:
  - 1) Reactor-to-secondary tubes leak (not including leaks originating from tube-to-tube sheet welds) in excess of the limits of Specification 3.4.6.2, or
  - 2) A seismic occurrence greater than the Operating Basis Earthquake, or
  - 3) A loss-of-coolant accident requiring actuation of the Engineered Safety Features, or
  - 4) A main steam line or feedwater line break.

REACTOR COOLANT SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

4.4.5.4 Acceptance Criteria

a. As used in this specification:

- 1) Imperfection means an exception to the dimensions, finish or contour of a tube ~~or sleeve~~ from that required by fabrication drawings or specifications. Eddy-current testing indications below 20% of the nominal tube ~~or sleeve~~ wall thickness, if detectable, may be considered as imperfections;
  - 2) Degradation means a service-induced cracking, wastage, wear or general corrosion occurring on either inside or outside of a tube ~~or sleeve~~;
  - 3) Degraded Tube means a tube ~~or sleeve~~ containing imperfections greater than or equal to 20% of the nominal tube ~~or sleeve~~ wall thickness caused by degradation;
  - 4) % Degradation means the percentage of the tube ~~or sleeve~~ wall thickness affected or removed by degradation;
  - 5) Defect means an imperfection of such severity that it exceeds the repair limit. A tube ~~or sleeve~~ containing a defect is defective;
  - 6) Repair Limit means the imperfection depth at or beyond which the tube shall be removed from service by plugging ~~or repaired by sleeving~~. It also means the imperfection depth at or beyond which a sleeved tube shall be plugged. The repair limit is equal to 40% of the nominal tube ~~or sleeve~~ wall thickness. <sup>plugging</sup>  
~~If a tube is sleeved due to degradation in the F\* distance, then any defects found in the tube below the sleeve will not necessitate plugging.~~
- ~~The Babcock & Wilcox process described in Topical Report BAW-2045(P)-A, Rev. 1 will be used for sleeving.~~
- 7) Unserviceable describes the condition of a tube if it leaks or contains a defect large enough to affect its structural integrity in the event of an Operating Basis Earthquake, a loss-of-coolant accident, or a steam line or feedwater line break as specified in 4.4.5.3c., above;
  - 8) Tube Inspection means an inspection of the steam generator tube from the point of entry (hot leg side) completely around the U-bend to the top support of the cold leg;

REACTOR COOLANT SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

9) Preservice Inspection means an inspection of the full length of each tube in each steam generator performed by eddy current techniques prior to service to establish a baseline condition of the tubing. This inspection shall be performed prior to initial POWER OPERATION using the equipment and techniques expected to be used during subsequent inservice inspections.

10) Tube Roll Expansion is that portion of a tube which has been increased in diameter by a rolling process such that no crevice exists between the outside diameter of the tube and the tubesheet.

11) F\* Distance is the minimum length of the roll expanded portion of the tube which cannot contain any defects in order to ensure the tube does not pull out of the tubesheet. The F\* distance is 1.60 inches and is measured from the bottom of the roll expansion transition or the top of the tubesheet if the bottom of the roll expansion is above the top of the tubesheet. Included in this distance is a safety factor of 3 plus a 0.5 inch eddy current vertical measurement uncertainty.

12) Alternate tube plugging criteria does not require the tube to be removed from service or repaired when the tube degradation exceeds the repair limit so long as the degradation is in that portion of the tube from F\* to the bottom of the tubesheet. This definition does not apply to tubes with degradation (i.e., indications of cracking) in the F\* distance.

13) Not Used

b. The steam generator shall be determined OPERABLE after completing the corresponding actions (~~plug or repair~~ all tubes exceeding the repair limit and all tubes containing through-wall cracks) required by Table 4.4-2. plugging

4.4.5.5 Reports

a. Within 15 days following the completion of each inservice inspection of steam generator tubes, the number of tubes ~~repaired~~ <sup>plugged</sup> in each steam generator shall be reported to the Commission in a Special Report pursuant to Specification 6.9.2;

b. The complete results of the steam generator tube inservice inspection shall be submitted to the Commission in a Special Report pursuant to Specification 6.9.2 within 12 months following the completion of the inspection. This Special Report shall include:

REACTOR COOLANT SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

---

- 1) Number and extent of tubes inspected,
  - 2) Location and percent of wall-thickness penetration for each indication of an imperfection, and
  - 3) Identification of tubes <sup>plugged</sup> repaired.
- c. Results of steam generator tube inspections, which fall into Category C-3, shall be reported in a Special Report to the Commission pursuant to Specification 6.9.2 within 30 days and prior to resumption of plant operation. This report shall provide a description of investigations conducted to determine cause of the tube degradation and corrective measures taken to prevent recurrence.

~~d. Not Used~~  
~~e. Not Used~~

Table 4.4-1

MINIMUM NUMBER OF STEAM GENERATORS TO BE  
INSPECTED DURING INSERVICE INSPECTION

Preservice Inspection	No	Yes
No. of Steam Generators per Unit	Four	Four
First Inservice Inspection	All	Two
Second & Subsequent Inservice Inspections	One <sup>1</sup>	One <sup>2</sup>

TABLE NOTATIONS

- <sup>1</sup> The inservice inspection may be limited to one steam generator on a rotating schedule encompassing 3 N % of the tubes (where N is the number of steam generators in the plant) if the results of the first or previous inspections indicate that all steam generators are performing in a like manner. Note that under some circumstances, the operating conditions in one or more steam generators may be found to be more severe than those in other steam generators. Under such circumstances the sample sequence shall be modified to inspect the most severe conditions.
- <sup>2</sup> Each of the other two steam generators not inspected during the first inservice inspections shall be inspected during the second and third inspections. The fourth and subsequent inspections shall follow the instructions described in 1 above.

*No Change*

TABLE 4.4-2  
STEAM GENERATOR TUBE INSPECTION

*defective*

1ST SAMPLE INSPECTION			2ND SAMPLE INSPECTION		3RD SAMPLE INSPECTION	
Sample Size	Result	Action Required	Result	Action Required	Result	Action Required
A minimum of S Tubes per S.G.	C-1	None	N.A.	N.A.	N.A.	N.A.
	C-2	Plug defective tubes and inspect additional 2S tubes in this S.G.	C-1	None	N.A.	N.A.
			C-2	Plug <u>defective</u> tubes and inspect additional 4S tubes in this S.G.	C-1	None
					C-2	Plug defective tubes
					C-3	Perform action for C-3 result of first sample
			C-3	Perform action for C-3 result of first sample	N.A.	N.A.
	C-3	Inspect all tubes in this S.G., plug defective tubes and inspect 2S tubes in each other S.G.  Notification to NRC pursuant to §50.72(b)(2) of 10 CFR Part 50.	All other S.G.s are C-1	None	N.A.	N.A.
			Some S.G.s C-2 but no additional S.G. are C-3	Perform action for C-2 result of second sample	N.A.	N.A.
			Additional S.G.s are C-3	Inspect all tubes in each S.G. and plug defective tubes. Notification to NRC pursuant to §50.72(b)(2) of 10 CFR 50.	N.A.	N.A.

S = 3 (N/n)% Where N is the number of steam generators in the unit, and n is the number of steam generators inspected during an inspection.

## REACTOR COOLANT SYSTEM

### BASES

#### RELIEF VALVES (Continued)

of PORVs to control reactor coolant system pressure except for limited periods where the PORV has been isolated due to excessive seat leakage and except for limited periods where the PORV and/or block valve is closed because of testing and is fully capable of being returned to its normal alignment at any time, provided that this evolution is covered by an approved procedure. This is a function that reduces challenges to the code safety valves for overpressurization events. 5) Manual control of a block valve to isolate a stuck-open PORV. Testing of the PORVs includes the emergency N<sub>2</sub> supply from the Cold Leg Accumulators. This test demonstrates that the valves in the supply line operate satisfactorily and that the nonsafety portion of the instrument air system is not necessary for proper PORV operation.

#### 3/4.4.5 STEAM GENERATORS

The Surveillance Requirements for inspection of the steam generator tubes ensure that the structural integrity of this portion of the Reactor Coolant System will be maintained. The program for inservice inspection of steam generator tubes is based on a modification of Regulatory Guide 1.83, Revision 1. Inservice inspection of steam generator tubing is essential in order to maintain surveillance of the conditions of the tubes in the event that there is evidence of mechanical damage or progressive degradation due to design, manufacturing errors, or inservice conditions that lead to corrosion. Inservice inspection of steam generator tubing also provides a means of characterizing the nature and cause of any tube degradation so that corrective measures can be taken.

The B&W process (or method equivalent) to the inspection method described in Topical Report BAW-2045(P)-A, Rev. 1, will be used. Inservice inspection of steam generator sleeves is also required to ensure RCS integrity. Because the sleeves introduce changes in the wall thickness and diameter, they reduce the sensitivity of eddy current testing, therefore, special inspection methods must be used. A method is described in Topical Report BAW-2045(P)-A, Rev. 1 with supporting validation data that demonstrates the inspectability of the sleeve and underlying tube. As required by NRC for licensees authorized to use this repair process, Catawba commits to validate the adequacy of any system that is used for periodic inservice inspections of the sleeves, and will evaluate and, as deemed appropriate by Duke Power Company, implement testing methods as better methods are developed and validated for commercial use.

The plant is expected to be operated in a manner such that the secondary coolant will be maintained within those chemistry limits found to result in negligible corrosion of the steam generator tubes. If the secondary coolant chemistry is not maintained within these limits, localized corrosion may likely result in stress corrosion cracking. The extent of cracking during plant operation would be limited by the limitation of steam generator tube leakage between the Reactor Coolant System and the Secondary Coolant System (reactor-to-secondary leakage = 150 gallons per day per steam generator).

## REACTOR COOLANT SYSTEM

### BASES

#### STEAM GENERATORS (Continued)

Cracks having a reactor-to-secondary leakage less than this limit during operation will have an adequate margin of safety to withstand the loads imposed during normal operation and by postulated accidents. Operating plants have demonstrated that reactor-to-secondary leakage of 150 gallons per day per steam generator can readily be detected. Leakage in excess of this limit will require plant shutdown and an unscheduled inspection, during which the leaking tubes will be located and repaired.

*Plugging*  
Wastage-type defects are unlikely with proper chemistry treatment of the secondary coolant. However, even if a defect should develop in service, it will be found during scheduled inservice steam generator tube examinations. *plugging*  
Repair will be required for all tubes with imperfections exceeding the ~~repair~~ limit of 40% of the tube nominal wall thickness. ~~Defective steam generator tubes can be repaired by the installation of sleeves which span the area of degradation, and serve as a replacement pressure boundary for the degraded portion of the tube, allowing the tube to remain in service.~~ Steam generator tube inspections of operating plants have demonstrated the capability to reliably detect wastage type degradation that has penetrated 20% of the original tube wall thickness.

~~Tubes experiencing outer diameter stress corrosion cracking within the thickness of the tube support plates are plugged or repaired by the criteria of 4.4.5.4.a.13.~~

Whenever the results of any steam generator tubing inservice inspection fall into Category C-3, these results will be reported to the Commission pursuant to Specification 6.9.2 prior to resumption of plant operation. Such cases will be considered by the Commission on a case-by-case basis and may result in a requirement for analysis, laboratory examinations, tests, additional eddy-current inspection, and revision of the Technical Specifications, if necessary. ~~If a tube is sleeved due to degradation in the F\* distance, then any defects in the tube below the sleeve will remain in service without repair.~~

#### 3/4.4.6 REACTOR COOLANT SYSTEM LEAKAGE

##### 3/4.4.6.1 LEAKAGE DETECTION SYSTEMS

The Leakage Detection Systems required by this specification are provided to monitor and detect leakage from the reactor coolant pressure boundary. These Detection Systems are consistent with the recommendations of Regulatory Guide 1.45, "Reactor Coolant Pressure Boundary Leakage Detection Systems," May 1973.

Typed Clean Pages

REACTOR COOLANT SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

---

- 1) All nonplugged tubes that previously had detectable wall penetrations (greater than 20%),
  - 2) Tubes in those areas where experience has indicated potential problems, and
  - 3) A tube inspection (pursuant to Specification 4.4.5.4a.8) shall be performed on each selected tube. If any selected tube does not permit the passage of the eddy current probe for a tube inspection, this shall be recorded and an adjacent tube shall be selected and subjected to a tube inspection.
- c. The tubes selected as the second and third samples (if required by Table 4.4-2) during each inservice inspection may be subjected to a partial tube inspection provided:
- 1) The tubes selected for these samples include the tubes from those areas of the tube sheet array where tubes with imperfections were previously found, and
  - 2) The inspections include those portions of the tubes where imperfections were previously found.

The results of each sample inspection shall be classified into one of the following three categories:

<u>Category</u>	<u>Inspection Results</u>
C-1	Less than 5% of the total tubes inspected are degraded tubes and none of the inspected tubes are defective.
C-2	One or more tubes, but not more than 1% of the total tubes inspected are defective, or between 5% and 10% of the total tubes inspected are degraded tubes.
C-3	More than 10% of the total tubes inspected are degraded tubes or more than 1% of the inspected tubes are defective.

Note: In all inspections, previously degraded tubes must exhibit significant (greater than 10%) further wall penetrations to be included in the above percentage calculations.

## REACTOR COOLANT SYSTEM

### SURVEILLANCE REQUIREMENTS (Continued)

---

#### 4.4.5.4 Acceptance Criteria

a. As used in this specification:

- 1) Imperfection means an exception to the dimensions, finish or contour of a tube from that required by fabrication drawings or specifications. Eddy-current testing indications below 20% of the nominal tube wall thickness, if detectable, may be considered as imperfections;
- 2) Degradation means a service-induced cracking, wastage, wear or general corrosion occurring on either inside or outside of a tube;
- 3) Degraded Tube means a tube containing imperfections greater than or equal to 20% of the nominal tube wall thickness caused by degradation;
- 4) % Degradation means the percentage of the tube wall thickness affected or removed by degradation;
- 5) Defect means an imperfection of such severity that it exceeds the plugging limit. A tube containing a defect is defective;
- 6) Plugging Limit means the imperfection depth at or beyond which the tube shall be removed from service by plugging. The plugging limit is equal to 40% of the nominal tube wall thickness.
- 7) Unserviceable describes the condition of a tube if it leaks or contains a defect large enough to affect its structural integrity in the event of an Operating Basis Earthquake, a loss-of-coolant accident, or a steam line or feedwater line break as specified in 4.4.5.3c., above;
- 8) Tube Inspection means an inspection of the steam generator tube from the point of entry (hot leg side) completely around the U-bend to the top support of the cold leg;

REACTOR COOLANT SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

---

9) Preservice inspection means an inspection of the full length of each tube in each steam generator performed by eddy current techniques prior to service to establish a baseline condition of the tubing. This inspection shall be performed prior to initial POWER OPERATION using the equipment and techniques expected to be used during subsequent inservice inspections.

b. The steam generator shall be determined OPERABLE after completing the corresponding actions (plug all tubes exceeding the plugging limit and all tubes containing through-wall cracks) required by Table 4.4-2.

4.4.5.5 Reports

a. Within 15 days following the completion of each inservice inspection of steam generator tubes, the number of tubes plugged in each steam generator shall be reported to the Commission in a Special Report pursuant to Specification 6.9.2;

b. The complete results of the steam generator tube inservice inspection shall be submitted to the Commission in a Special Report pursuant to Specification 6.9.2 within 12 months following the completion of the inspection. This Special Report shall include:

REACTOR COOLANT SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

---

- 1) Number and extent of tubes inspected,
  - 2) Location and percent of wall-thickness penetration for each indication of an imperfection, and
  - 3) Identification of tubes plugged.
- c. Results of steam generator tube inspections, which fall into Category C-3, shall be reported in a Special Report to the Commission pursuant to Specification 6.9.2 within 30 days and prior to resumption of plant operation. This report shall provide a description of investigations conducted to determine cause of the tube degradation and corrective measures taken to prevent recurrence.

TABLE 4.4-2  
STEAM GENERATOR TUBE INSPECTION

1ST SAMPLE INSPECTION			2ND SAMPLE INSPECTION		3RD SAMPLE INSPECTION	
Sample Size	Result	Action Required	Result	Action Required	Result	Action Required
A minimum of 5 Tubes per S.G.	C-1	None	N.A.	N.A.	N.A.	N.A.
	C-2	Plug defective tubes and inspect additional 2S tubes in this S.G.	C-1	None	N.A.	N.A.
			C-2	Plug defective tubes and inspect additional 4S tubes in this S.G.	C-1	None
			C-3	Perform action for C-3 result of first sample	C-2	Plug defective tubes
			C-3	Perform action for C-3 result of first sample	C-3	Perform action for C-3 result of first sample
	C-3	Inspect all tubes in this S.G., plug defective tubes and inspect 2S tubes in each other S.G.  Notification to NRC pursuant to §50.72(b)(2) of 10 CFR Part 50.	All other S.G.s are C-1	None	N.A.	N.A.
			Some S.G.s C-2 but no additional S.G. are C-3	Perform action for C-2 result of second sample	N.A.	N.A.
			Additional S.G.s are C-3	Inspect all tubes in each S.G. and plug defective tubes. Notification to NRC pursuant to §50.72(b)(2) of 10 CFR 50.	N.A.	N.A.

$S = 3 (N/n)\%$  Where N is the number of steam generators in the unit, and n is the number of steam generators inspected during an inspection.

## REACTOR COOLANT SYSTEM

### BASES

---

#### RELIEF VALVES (Continued)

of PORVs to control reactor coolant system pressure except for limited periods where the PORV has been isolated due to excessive seat leakage and except for limited periods where the PORV and/or block valve is closed because of testing and is fully capable of being returned to its normal alignment at any time, provided that this evolution is covered by an approved procedure. This is a function that reduces challenges to the code safety valves for overpressurization events. 5) Manual control of a block valve to isolate a stuck-open PORV. Testing of the PORVs includes the emergency N<sub>2</sub> supply from the Cold Leg Accumulators. This test demonstrates that the valves in the supply line operate satisfactorily and that the nonsafety portion of the instrument air system is not necessary for proper PORV operation.

#### 3/4.4.5 STEAM GENERATORS

The Surveillance Requirements for inspection of the steam generator tubes ensure that the structural integrity of this portion of the Reactor Coolant System will be maintained. The program for inservice inspection of steam generator tubes is based on a modification of Regulatory Guide 1.83, Revision 1. Inservice inspection of steam generator tubing is essential in order to maintain surveillance of the conditions of the tubes in the event that there is evidence of mechanical damage or progressive degradation due to design, manufacturing errors, or inservice conditions that lead to corrosion. Inservice inspection of steam generator tubing also provides a means of characterizing the nature and cause of any tube degradation so that corrective measures can be taken.

The plant is expected to be operated in a manner such that the secondary coolant will be maintained within those chemistry limits found to result in negligible corrosion of the steam generator tubes. If the secondary coolant chemistry is not maintained within these limits, localized corrosion may likely result in stress corrosion cracking. The extent of cracking during plant operation would be limited by the limitation of steam generator tube leakage between the Reactor Coolant System and the Secondary Coolant System (reactor-to-secondary leakage = 150 gallons per day per steam generator).

## REACTOR COOLANT SYSTEM

### BASES

---

#### STEAM GENERATORS (Continued)

Cracks having a reactor-to-secondary leakage less than this limit during operation will have an adequate margin of safety to withstand the loads imposed during normal operation and by postulated accidents. Operating plants have demonstrated that reactor-to-secondary leakage of 150 gallons per day per steam generator can readily be detected. Leakage in excess of this limit will require plant shutdown and an unscheduled inspection, during which the leaking tubes will be located and repaired.

Wastage-type defects are unlikely with proper chemistry treatment of the secondary coolant. However, even if a defect should develop in service, it will be found during scheduled inservice steam generator tube examinations. Plugging will be required for all tubes with imperfections exceeding the plugging limit of 40% of the tube nominal wall thickness. Steam generator tube inspections of operating plants have demonstrated the capability to reliably detect wastage type degradation that has penetrated 20% of the original tube wall thickness.

Whenever the results of any steam generator tubing inservice inspection fall into Category C-3, these results will be reported to the Commission pursuant to Specification 6.9.2 prior to resumption of plant operation. Such cases will be considered by the Commission on a case-by-case basis and may result in a requirement for analysis, laboratory examinations, tests, additional eddy-current inspection, and revision of the Technical Specifications, if necessary.

#### 3/4.4.6 REACTOR COOLANT SYSTEM LEAKAGE

##### 3/4.4.6.1 LEAKAGE DETECTION SYSTEMS

The Leakage Detection Systems required by this specification are provided to monitor and detect leakage from the reactor coolant pressure boundary. These Detection Systems are consistent with the recommendations of Regulatory Guide 1.45, "Reactor Coolant Pressure Boundary Leakage Detection Systems," May 1973.

Attachment 2

#### **Proposed Revision to Technical Specification 4.4.5.**

The surveillance Requirements are changed to delete repair methods that are not applicable to the Westinghouse Model D5 Steam Generators used in Unit 2 and will not be used as repair methods. References to F\*, sleeving and alternate tube plugging criteria are deleted. Unused paragraph numbers and one miss-spelled word in Table 4.4-2 will also be corrected.

#### **Technical Justification**

This proposed change to the Technical Specifications deletes repair criteria (F\* and Alternate Tube Plugging) and repair methods (sleeving) that are not applicable to the Catawba Unit 2 steam generators. These criteria have not been used and are not applicable to the Westinghouse Model D5 steam generators in use in Catawba Unit 2. The repair methods were applicable to Catawba Unit 1 only prior to steam generator replacement. At the time of the Technical Specification split (Amendment No. 142) it was not recognized that these repair methods were applicable to Catawba Unit 1 only and should not have been included in the Catawba Unit 2 Technical Specifications. These changes will make the Unit 2 steam generator surveillance requirements consistent with the Standard Technical Specifications, NUREG -0452, Rev. 4. Deletion of unused paragraph numbers and correction of a typographical error are administrative and not technical changes.

The proposed changes are consistent with Catawba's planned implementation of the new Improved Standard Technical Specifications (ISTS). Duke is pursuing this amendment request separately and prior to Catawba's ISTS submittal date in order to correct identified errors in the Catawba Technical Specifications in a more timely manner.

#### **NO SIGNIFICANT HAZARDS EVALUATION**

Pursuant to 10CFR50.92, Duke Power Company has determined that this license amendment request involves No Significant Hazards Considerations. The changes proposed in this amendment apply to the Technical Specification surveillance requirements for the steam generators. The surveillance requirements are changed to delete repair criteria (F\* and Alternate Tube Plugging) and repair methods (sleeving) that are not applicable to the Catawba Unit 2 steam generators. These

criteria have not been used and are not applicable to the Westinghouse Model D5 steam generators in use in Catawba Unit 2. The proposed changes also delete unused paragraph numbers and corrects one typographical error (these are considered administrative changes).

The determination of no significant hazards was made by applying the NRC established standards contained in regulation 10CFR50.92. These standards assure that any changes to the operation of Catawba Nuclear Station in accordance with this amendment consider the following:

**1) Will the change involve a significant increase in the probability or consequences of an accident previously evaluated?**

No. This amendment to the Catawba Unit 2 Technical Specifications will have no impact on operation of the facility since the change will delete steam generator repair methods that are not applicable to the Catawba Unit 2 steam generators and have not been used to repair the Catawba Unit 2 steam generators.

**2) Will the change create the possibility of a new or different type of accident from any accident previously evaluated?**

No. This amendment will delete steam generator repair methods that are not applicable and have not been used. Therefore, the proposed changes will not create the possibility of a new or different accident.

**3) Will the change involve a significant reduction in the margin of safety?**

No. This amendment will delete steam generator repair methods that are not applicable and have not been used. There will be no impact on safety margins as a result of these changes.

### **Environmental Impact Assessment**

This change to the Technical Specifications will delete steam generator surveillance requirements that are not applicable and not being used. It has been determined that this amendment will not involve a significant hazards consideration, there is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite, and that there is no significant increase in the individual or cumulative occupational radiation exposure. This amendment request therefore meets the criteria of 10 CFR 51.22.(c)(9) for categorical exclusion from an environmental impact statement.

### **Committee Reviews**

This proposed change to the Technical Specifications has been reviewed and approved by the Catawba Plant Operations Review Committee and the Nuclear Safety Review Board.