

Exhibit 3

Prairie Island Nuclear Generating Plant

License Amendment Request Dated September 24, 1996

Proposed Changes Marked Up
On Existing Technical Specification Pages

Exhibit B consists of existing Technical Specification pages with the proposed changes highlighted on those pages. The pages affected by this License Amendment Request are listed below:

TS.4.12-2
TS.4.12-3
TS.4.12-4
TS.4.12-5
Table TS.4.12-1
B.4.12-2

2. The first sample of tubes selected for each in-service inspection (subsequent to the preservice inspection) of each steam generator shall include:
 - (a) All tubes that previously had detectable wall penetrations (>20%) that have not been plugged or sleeve repaired in the affected area.
 - (b) Tubes in those areas where experienced has indicated potential problems.
 - (c) A tube inspection (pursuant to Specification 4.12.D.1.(h)) 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.
3. In addition to the sample required in Specification 4.12.B.2.a through c, all tubes which have had the F* or EF* criteria applied will be inspected in the F* and EF* regions of the roll expanded regions. The ~~roll expanded~~ region of these tubes below the F* and EF* regions may be excluded from the requirements of 4.12.B.2.a.
4. The tubes selected as the second and third samples (if required by Table TS.4.12-1) during each inservice inspection may be subjected to a partial tube inspection provided:
 - (a) The tubes selected for these samples include the tubes from those areas of the tube sheet array where tubes with imperfections were previously found.
 - (b) 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:

Category	Inspection Results
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 that 1% of the inspected tubes are defective.
Note:	In all inspections, previously degraded tubes must exhibit significant (>10%) further wall penetrations to be included in the above percentage calculations.

C. Inspection Frequencies-The above required in-service inspections of steam generator tubes shall be performed at the following frequencies:

1. In-service inspections shall be performed at intervals of not less than 12 not more than 24 calendar months after the previous inspection. If two consecutive inspections following service under AVT condition, 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.
2. If the results of the inservice inspection of a steam generator conducted in accordance with Table TS.4.12-1 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 4.12.C.1; the interval may then be extended to a maximum of once per 40 months.
3. Additional, unscheduled inservice inspections shall be performed on each steam generator in accordance with the first sample inspection specified in Table TS.4.12-1 during the shutdown subsequent to any of the following conditions.
 - (a) Primary-to-secondary tube leaks (not including leaks originating from tube-to-tube sheet welds) in excess of the limits of Specification 3.1.C.6.
 - (b) A seismic occurrence greater than the Operating Basis Earthquake.
 - (c) A loss-of-coolant accident requiring actuation of the engineered safeguards.
 - (d) A main steam line or feedwater line break.

D. Acceptance Criteria

1. As used in this Specification:
 - (a) 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.
 - (b) Degradation means a service-induced cracking, wastage wear or general corrosion occurring on either inside or outside of a tube.
 - (c) Degraded Tube means a tube containing imperfections $\geq 20\%$ of the nominal wall thickness caused by degradation.
 - (d) % Degradation means the percentage of the tube wall thickness affected or removed by degradation.

- (e) Defect means an imperfection depth at or beyond exceeds the repair limit. A tube containing a defect is defective.
 - (f) Repair Limit means the imperfection depth at or beyond which the tube shall be removed from service by plugging or repaired by sleeving because it may become unserviceable prior to the next inspection and is equal to 50% of the nominal tube wall thickness. If significant general tube thinning occurs, this criteria will be reduced to 40% wall penetration. This definition does not apply to the portion of the tube in the tubesheet below the F* or EF* distance provided the tube is not degraded (i.e., no indications of cracks) within the F* or EF* distance for F* or EF* tubes.
 - (g) 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.
 - (h) 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.
 - (i) Sleeving means that tube sleeving is permitted only in areas where the sleeve spans the tubesheet area and whose lower joint is at the primary fluid tubesheet face.
 - (j) F* Distance is the distance from the bottom of the hardroll transition toward the bottom of the tubesheet that has been conservatively determined to be 1.07 inches (not including eddy current uncertainty). The F* distance applies to roll expanded regions below the midplane of the tubesheet.
 - (k) F* Tube is a tube with degradation, below the F* distance, equal to or greater than 40%, and not degraded (i.e., no indications of cracking) within the F* distance.
 - (l) EF* distance is the distance from the bottom of the upper hardroll transition toward the bottom of the tubesheet that has been conservatively determined to be 1.62 inches (not including eddy current uncertainty). EF* distance applies to roll expanded regions when the top of the additional roll expansion is 2.0 inches or greater down from the top of the tubesheet.
 - (m) EF* tube is a tube with degradation, below the EF* distance, equal to or greater than 40%, and not degraded (i.e., no indications of cracking) within the EF* distance.
2. The steam generator shall be determined OPERABLE after completing the corresponding actions (plug or repair by sleeving all tubes exceeding the repair limit and all tubes containing through-wall cracks or classify as F* or EF* tubes) required by Table TS.4.12-1.

E. Reports

1. Following each in-service inspection of steam generator tubes, if there are any tubes requiring plugging or sleeving, the number of tubes plugged or sleeved in each steam generator shall be reported to the Commission within 15 days.
2. The results of steam generator tube inservice inspections shall be included with the summary reports of ASME Code Section XI inspections submitted within 90 days of the end of each refueling outage. Results of steam generator tube inservice inspections not associated with a refueling outage shall be submitted within 90 days of the completion of the inspection. These reports shall include: (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 or sleeved.
3. Results of steam generator tube inspections which fall into Category C-3 require notification to the Commission prior to resumption of plant operation, and reporting as a special report to the Commission within 30 days. This special report shall provide a description of investigations conducted to determine cause of the tube degradation and corrective measures taken to prevent recurrence.
4. The results of inspections performed under Specification 4.12.B for all tubes that have defects below the F* or EF* distance, and were not plugged, shall be reported to the Commission within 15 days following the inspection. The report shall include:
 - a. Identification of F* and EF* tubes, and
 - b. Location and extent of degradation.

TABLE TS.4.12-1

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 S Tubes per S.G.	C-1	None	N/A	N/A	N/A	N/A
	C-2	Repair defective tubes and inspect additional 2S tubes in this S.G.	C-1	None	N/A	N/A
			C-2	Repair defective tubes and inspect additional 4S tubes in this S.G.	C-1	None
					C-2	Repair 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., Repair defective tubes and inspect 2S tubes in each other S.G. Prompt notification to NRC.	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. is C-3	Inspect all tubes in each S.G. and repair defective tubes. Prompt notification to NRC.	N/A	N/A

S=3%; When two steam generators are inspected during that outage.

S=6%; When one steam generator is inspected during that outage.

4.12 STEAM GENERATOR TUBE SURVEILLANCE

Bases continued

plants have demonstrated the capability to reliably detect wastage type defects that have penetrated 20% of the original 0.050-inch wall thickness (Reference 2).

Plugging or sleeving is not required for tubes meeting the F* or EF* criteria. Due to the variable effect of tubesheet bow with elevation, the F* criterion applies only below the tubesheet centerline and the EP* criterion is applied no higher than two inches down from the top of the tubesheet.

The F* and EF* distance will be controlled by a combination of eddy current inspection and/or process control. For a new additional roll expansion, the requirement will be at least 1.2 (1.8 inches for EF*) inches of new hard roll. This is controlled by the 1.25 inch (two inches for EF*) effective length of the rollers (1.25 inch effective length). The distance from the original roll transition zone is also controlled by the process in that the lower end of the new roll expansion is located one inch or greater above the original roll expansion. In the case of the new roll, eddy current examination will confirm there are no indications in the new roll region and that there is a new roll region with well defined upper and lower expansion transitions.

When eddy current examination, alone, must determine the F* or EF* distance, such as in the existing hard roll region, or when multiple lengths of additional hard rolls have been added, the eddy current uncertainty is qualified by testing against known standards. That value is expected to be 0.18 inches. Therefore, the F* distance measured by eddy current (sum of 1.07 and 0.18) will be conservatively set at 1.3 inches. The EF* distance measured by eddy current (sum of 1.62 and 0.18) will be conservatively set at 1.9 inches

When more than one Alternate Repair Criteria are used, the summation of leakage from all tubes left in service by all repair criteria must be less than the allowable leakage for the most limiting of those Alternate Repair Criteria.

Whenever the results of any steam generator tubing in-service inspection fall into Category C-3, these results will be promptly reported to the Commission 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.

Degraded steam generator tubes may be repaired by the installation of sleeves which span the section of degraded steam generator tubing. A steam generator tube with a sleeve installed meets the structural requirements of tubes which are not degraded.

The following sleeve designs have been found acceptable by the NRC Staff:

- a. Westinghouse Mechanical Sleeves (WCAP 10757)
- b. Westinghouse Brazed Sleeves (WCAP-10820)
- c. Combustion Engineering Leak Tight Sleeves (CEN-294-P)

Exhibit C

Prairie Island Nuclear Generating Plant

License Amendment Request Dated September 24, 1996

Revised Technical Specification Pages

Exhibit C consists of revised pages for the Prairie Island Nuclear Generating Plant Technical Specifications with the proposed changes incorporated. The revised pages are listed below:

TS.4.12-2
TS.4.12-3
TS.4.12-4
TS.4.12-5
Table TS.4.12-1
B.4.12-2

2. The first sample of tubes selected for each in-service inspection (subsequent to the preservice inspection) of each steam generator shall include:
 - (a) All tubes that previously had detectable wall penetrations (>20%) that have not been plugged or sleeve repaired in the affected area.
 - (b) Tubes in those areas where experienced has indicated potential problems.
 - (c) A tube inspection (pursuant to Specification 4.12.D.1.(h)) 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.
3. In addition to the sample required in Specification 4.12.B.2.a through c, all tubes which have had the F* or EF* criteria applied will be inspected in the F* and EF* regions of the roll expanded regions. The region of these tubes below the F* and EF* regions may be excluded from the requirements of 4.12.B.2.a.
4. The tubes selected as the second and third samples (if required by Table TS.4.12-1) during each inservice inspection may be subjected to a partial tube inspection provided:
 - (a) The tubes selected for these samples include the tubes from those areas of the tube sheet array where tubes with imperfections were previously found.
 - (b) 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:

Category	Inspection Results
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 that 1% of the inspected tubes are defective.

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

C. Inspection Frequencies-The above required in-service inspections of steam generator tubes shall be performed at the following frequencies:

1. In-service inspections shall be performed at intervals of not less than 12 not more than 24 calendar months after the previous inspection. If two consecutive inspections following service under AVT condition, 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.
2. If the results of the inservice inspection of a steam generator conducted in accordance with Table TS.4.12-1 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 4.12.C.1; the interval may then be extended to a maximum of once per 40 months.
3. Additional, unscheduled inservice inspections shall be performed on each steam generator in accordance with the first sample inspection specified in Table TS.4.12-1 during the shutdown subsequent to any of the following conditions.
 - (a) Primary-to-secondary tube leaks (not including leaks originating from tube-to-tube sheet welds) in excess of the limits of Specification 3.1.C.6.
 - (b) A seismic occurrence greater than the Operating Basis Earthquake.
 - (c) A loss-of-coolant accident requiring actuation of the engineered safeguards.
 - (d) A main steam line or feedwater line break.

D. Acceptance Criteria

1. As used in this Specification:

- (a) 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.
- (b) Degradation means a service-induced cracking, wastage wear or general corrosion occurring on either inside or outside of a tube.
- (c) Degraded Tube means a tube containing imperfections $\geq 20\%$ of the nominal wall thickness caused by degradation.
- (d) % Degradation means the percentage of the tube wall thickness affected or removed by degradation.

- (e) Defect means an imperfection depth at or beyond exceeds the repair limit. A tube containing a defect is defective.
 - (f) Repair Limit means the imperfection depth at or beyond which the tube shall be removed from service by plugging or repaired by sleeving because it may become unserviceable prior to the next inspection and is equal to 50% of the nominal tube wall thickness. If significant general tube thinning occurs, this criteria will be reduced to 40% wall penetration. This definition does not apply to the portion of the tube in the tubesheet below the F* or EF* distance provided the tube is not degraded (i.e., no indications of cracks) within the F* or EF* distance for F* or EF* tubes.
 - (g) 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.
 - (h) 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.
 - (i) Sleeving means that tube sleeving is permitted only in areas where the sleeve spans the tubesheet area and whose lower joint is at the primary fluid tubesheet face.
 - (j) F* Distance is the distance from the bottom of the hardroll transition toward the bottom of the tubesheet that has been conservatively determined to be 1.07 inches (not including eddy current uncertainty). The F* distance applies to roll expanded regions below the midplane of the tubesheet.
 - (k) F* Tube is a tube with degradation, below the F* distance, equal to or greater than 40%, and not degraded (i.e., no indications of cracking) within the F* distance.
 - (l) EF* distance is the distance from the bottom of the upper hardroll transition toward the bottom of the tubesheet that has been conservatively determined to be 1.62 inches (not including eddy current uncertainty). EF* distance applies to roll expanded regions when the top of the additional roll expansion is 2.0 inches or greater down from the top of the tubesheet.
 - (m) EF* tube is a tube with degradation, below the EF* distance, equal to or greater than 40%, and not degraded (i.e., no indications of cracking) within the EF* distance.
2. The steam generator shall be determined OPERABLE after completing the corresponding actions (plug or repair by sleeving all tubes exceeding the repair limit and all tubes containing through-wall cracks or classify as F* or EF* tubes) required by Table TS.4.12-1.

F Reports

1. Following each in-service inspection of steam generator tubes, if there are any tubes requiring plugging or sleeving, the number of tubes plugged or sleeved in each steam generator shall be reported to the Commission within 15 days.
2. The results of steam generator tube inservice inspections shall be included with the summary reports of ASME Code Section XI inspections submitted within 90 days of the end of each refueling outage. Results of steam generator tube inservice inspections not associated with a refueling outage shall be submitted within 90 days of the completion of the inspection. These reports shall include: (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 or sleeved.
3. Results of steam generator tube inspections which fall into Category C-3 require notification to the Commission prior to resumption of plant operation, and reporting as a special report to the Commission within 30 days. This special report shall include a description of investigations conducted to determine cause of the tube degradation and corrective measures taken to prevent recurrence.
4. The results of inspections performed under Specification 4.12.B for all tubes that have defects below the F* or EF* distance, and were not plugged, shall be reported to the Commission within 15 days following the inspection. The report shall include:
 - a. Identification of F* and EF* tubes, and
 - b. Location and extent of degradation.

TABLE TS.4.12-1

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 S Tubes per S.G.	C-1	None	N/A	N/A	N/A	N/A
	C-2	Repair defective tubes and inspect additional 2S tubes in this S.G.	C-1	None	N/A	N/A
			C-2	Repair defective tubes and inspect additional 4S tubes in this S.G.	C-1	None
					C-2	Repair 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., Repair defective tubes and inspect 2S tubes in each other S.G. Prompt notification to NRC.	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. is C-3	Inspect all tubes in each S.G. and repair defective tubes. Prompt notification to NRC.	N/A	N/A

TABLE TS.4.12-1

S=3%; When two steam generators are inspected during that outage.

S=6%; When one steam generator is inspected during that outage.

4.12 STEAM GENERATOR TUBE SURVEILLANCEBases continued

plants have demonstrated the capability to reliably detect wastage type defects that have penetrated 20% of the original 0.050-inch wall thickness (Reference 2).

Plugging or sleeving is not required for tubes meeting the F* or EF* criteria. Due to the variable effect of tubesheet bow with elevation, the F* criterion applies only below the tubesheet centerline and the EF* criterion is applied no higher than two inches down from the top of the tubesheet.

The F* and EF* distance will be controlled by a combination of eddy current inspection and/or process control. For a new additional roll expansion, the requirement will be at least 1.2 (1.8 inches for EF*) inches of new hard roll. This is controlled by the 1.25 inch (two inches for EF*) effective length of the rollers. The distance from the original roll transition zone is also controlled by the process in that the lower end of the new roll expansion is located one inch or greater above the original roll expansion. In the case of the new roll, eddy current examination will confirm there are no indications in the new roll region and that there is a new roll region with well defined upper and lower expansion transitions.

When eddy current examination, alone, must determine the F* or EF* distance, such as in the existing hard roll region, or when multiple lengths of additional hard rolls have been added, the eddy current uncertainty is qualified by testing against known standards. That value is expected to be 0.18 inches. Therefore, the F* distance measured by eddy current (sum of 1.07 and 0.18) will be conservatively set at 1.3 inches. The EF* distance measured by eddy current (sum of 1.62 and 0.18) will be conservatively set at 1.9 inches.

When more than one Alternate Repair Criteria are used, the summation of leakage from all tubes left in service by all repair criteria must be less than the allowable leakage for the most limiting of those Alternate Repair Criteria.

Whenever the results of any steam generator tubing in-service inspection fall into Category C-3, these results will be promptly reported to the Commission 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.

Degraded steam generator tubes may be repaired by the installation of sleeves which span the section of degraded steam generator tubing. A steam generator tube with a sleeve installed meets the structural requirements of tubes which are not degraded.

The following sleeve designs have been found acceptable by the NRC Staff:

- a. Westinghouse Mechanical Sleeves (WCAP 10757)
- b. Westinghouse Brazed Sleeves (WCAP-10820)
- c. Combustion Engineering Leak Tight Sleeves (CEN-294-P)

Exhibit E

Prairie Island Nuclear Generating Plant

License Amendment Request Dated September 24, 1996

WCAP-14225

Revision 1

F* and Elevated F* Tube Plugging Criteria For Tubes
With Degradation in the Tubesheet Region of the
Prairie Island Units 1 and 2 Steam Generators

NON-PROPRIETARY

Prepared By
Westinghouse Electric Corporation

September 1996