



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

August 4, 2000

LICENSEES: DUKE ENERGY CORPORATION

FACILITIES: MCGUIRE NUCLEAR STATION, UNITS 1 AND 2  
CATAWBA NUCLEAR STATION, UNITS 1 AND 2

SUBJECT: SUMMARY OF MEETING TO DISCUSS SUBMITTAL OF FUTURE LICENSE  
RENEWAL APPLICATIONS

On July 25, 2000, representatives of Duke Energy Corporation (Duke) met with the Nuclear Regulatory Commission (NRC) staff to discuss its planned June 2001 submittal of concurrent license renewal applications for the McGuire and Catawba Nuclear Stations. Duke presented examples of the current format being considered for the applications which continues the dialogue begun with the staff at a meeting on January 12, 2000. The goal is to identify a format that will achieve efficiencies both for the applicant's preparation and the NRC staff's review of the renewal applications. Attendees at the meeting are listed in Attachment 1. Duke presentation materials are contained in Attachment 2.

Duke's approach is to build on its experience from the Oconee license renewal application. A number of the aging management programs and activities at McGuire and Catawba are also generic to Oconee. The application will follow the standard format established between the NRC staff and the Nuclear Energy Institute (NEI) (as contained in the industry implementation guideline, NEI 95-10). Duke will also use the license renewal standard review plan and generic aging lessons learned (GALL) report (scheduled for final issuance in March 2001) to the extent practical with a June 2001 submittal of the applications. With significant commonality between McGuire and Catawba, Duke intends to submit one document supporting the safety review, describing differences between the two plants where necessary. However, because of the two sites involved, separate environmental reports, scoping meetings, reviews, and environmental impact statement supplements will be needed.

As shown in Attachment 2, Duke is currently considering an application format with each page having a column for McGuire and one for Catawba. With a large amount of the information expected to be same for both sites, the information in each column would be the same with site-specific differences noted where necessary. An approach where one common description is provided covering both plants, with differences noted when necessary, was discussed. Duke intends to test its current approach further as it develops the application.

The last two pages of Attachment 2 contain a proposed Duke renewal licensing plan. To facilitate coordination and communications, Duke proposes that the NRC correspond to its approach and use one project manager for the safety review of both plants and one for the environmental review. One set of safety and environmental reviewers would be used for both plants and one safety evaluation report would be issued. However, as previously discussed, separate environmental impact statement supplements would be issued. The Advisory Committee on Reactor Safeguards would review both sites at the same time and the Commission briefing regarding issuance of the renewed licenses would address both plants. The staff responded that it would take Duke's proposals into consideration.

August 4, 2000

Duke is monitoring the NRC's progress towards all electronic submittals before deciding on the form of its submittal. If the NRC's rulemaking allowing all electronic submittal is not complete in time, Duke may request an exception to allow submittal of one signed paper copy and the remainder of the copies on CD-ROM. With an estimated 500 scoping drawings, Duke would prefer to submit the drawings electronically in place of paper. Duke is currently considering use of Microsoft Microstation for preparing the drawings. Representatives from the Office of the Chief Information Officer indicated that they would evaluate the information Duke presented and provide comments. Duke was provided a copy of draft procedures being prepared by the staff for submitting documents electronically to the NRC (publicly available in ADAMS - *Accession No. ML003735104*).

During the meeting, a representative from the Nuclear Control Institute asked questions regarding risk analyses performed for McGuire and Catawba and Duke's plans for use of mixed oxide fuel and its impact on license renewal. Responses to his questions were provided by Duke and the staff.



Stephen T. Hoffman, Senior Project Manager  
License Renewal and Standardization Branch  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation

Docket Nos: 50-369, 50-370, 50-413, and 50-414

Attachments: As stated

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/RA/

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JULY 25, 2000

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9. Kevin R. Shaw	NRC/OCIO/IMD
10. Jeff Bartlett	NRC/OCIO/IMD
11. John Skoczlas	NRC/OCIO/ADD
12. Chandu Patel	NRC/NRR/DLPM
13. G. Galletti	NRC/NRR/DIPM/IQMB
14. Anne Cottingham	Winston & Strawn
15. Edwin Lyman	Nuclear Control Institute
16. Allen Hiser	NRC/NRR/DE/EMCB
17. Bart Fu	NRC/NRR/DE/EMCB
18. Jim Medoff	NRC/NRR/DE/EMCB
19. Jim Davis	NRC/NRR/DE/EMCB
20. Bill Corbin	Virginia Power
21. Roger Newton	WEPCO
22. Greg Robison	Duke Energy
23. Bob Gill	Duke Energy
24. Chris Gratton	NRC/NRR/DSSA/SPLB
25. Janice Moore	NRC/OGC
26. Chris Grimes	NRC/NRR/DRIP/RLSB

**Overview of the  
Application to Renew the Operating Licenses of  
McGuire Nuclear Station and Catawba Nuclear Station**

**Presentation to the NRC Staff**

**July 25, 2000**

**Bob Gill  
Duke Energy Corporation**

Attachment 2

**Application to Renew the Operating Licenses of  
McGuire Nuclear Station and Catawba Nuclear Station**

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**Topics**

- Background
  
- Publishing Considerations
  
- Guiding Principles for the Format and Content
  
- Environmental Review Considerations
  
- Examples –
  - Chapter 1 – Administrative Information, Table of Contents
  
  - Chapter 2 – Structures and Components Subject to Aging Management Review, Table of Contents and example pages
  
  - Chapter 3 – Aging Management Review Results, Table of Contents and example pages
  
  - Chapter 4 – Time-Limited Aging Analyses, Table of Contents and example pages
  
- Appendices – Summary descriptions
  
- Proposed Licensing Plan

**Application to Renew the Operating Licenses of  
McGuire Nuclear Station and Catawba Nuclear Station**

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**Background**

- Exemption to the requirements of §54.17(c) was approved for McGuire Unit 2 and Catawba Units 1 & 2 on October 1, 1999
  
- Exemption is based on the similarity between McGuire and Catawba and the combined operating experience that is available
  
- Staff encouraged interaction as Duke developed the form and contents of the application
  
- The Duke goal is to maximize efficiencies in the review process of the combined McGuire and Catawba license renewal application

**Application to Renew the Operating Licenses of  
McGuire Nuclear Station and Catawba Nuclear Station**

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**Publishing Considerations**

**Application**

Word Processing Software – Microsoft Word

Paper Copies – 3-Ring Binders

Electronic Copies – CD-ROM with Adobe Acrobat reader/browser files

Original to DCD/PDR – (1) Signed letter with paper copy attached or  
(2) Signed letter with a CD-ROM attached  
(3) All electronic submittal

Copies for reviewers (and others) – Paper copy and/or CD-ROM

**Flow Diagrams**

Flow Diagram software – Microsoft Microstation

Paper Copies – Printed from diagram files

Electronic Copies – CD-ROM with diagram files and copy of  
viewing/printing software

Submittal to DCD/PDR – (1) Signed letter plus ~500 drawings attached,  
(2) Signed letter with a CD-ROM attached, or  
(3) All electronic submittal

Copies for staff reviewers – Paper copy and/ or CD-ROM

# **Application to Renew the Operating Licenses of McGuire Nuclear Station and Catawba Nuclear Station**

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## **GUIDING PRINCIPLES FOR THE FORMAT AND CONTENT**

1. The methodologies and results described in the composite application are considered to be generically applicable to both McGuire Nuclear Station and Catawba Nuclear Station unless otherwise stated.
2. Site specific information includes:
  - Some system descriptions
  - References to specific UFSAR Sections
  - References to marked flow diagrams
  - UFSAR Supplement
  - Technical Specification changes
  - Environmental Report
  - Update required by §54.37(b)
3. The scoping and screening methodologies, the aging management review process, including identification of aging effects requiring management, and the TLAA identification and evaluation processes utilized during the course of the Oconee license renewal effort are being used for the McGuire and Catawba review processes.
4. Current plans are to use the standard format as contained in NEI 95-01, Table 6.2-1. Information in the application will be provided consistent with the guidance contained in Table 6.2-2.
5. Aging management programs and activities that are generic to McGuire and Catawba will build on the Oconee success to the maximum extent possible.
6. Operating experience will include Oconee, McGuire and Catawba as well as industry-wide experience, as applicable.
7. Duke plans to assess these final versions of GALL/SRP when they are published and, to the extent practical, make adjustments to the MNS/CNS application prior to submittal in the summer of 2001.

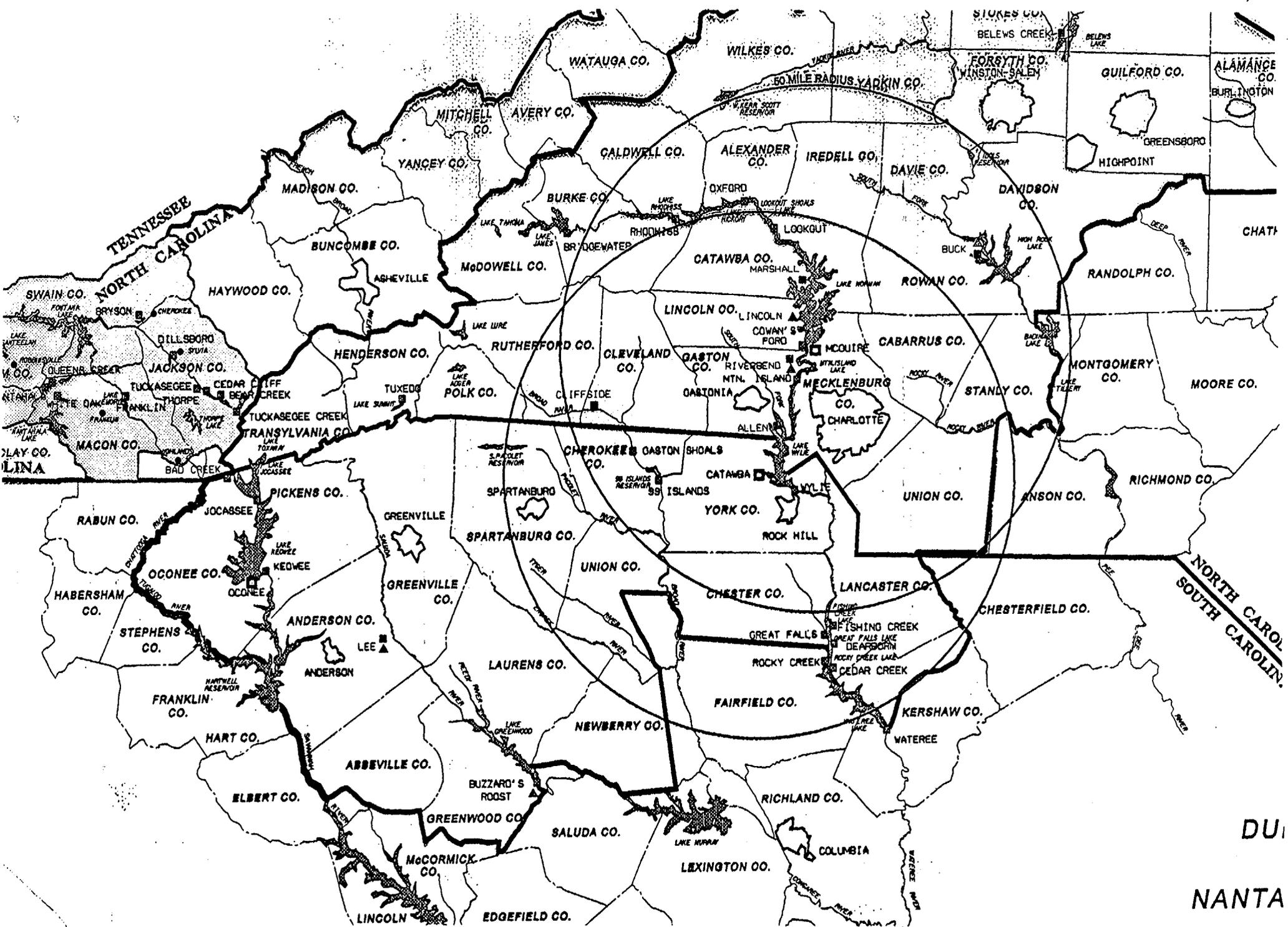
**Application to Renew the Operating Licenses of  
McGuire Nuclear Station and Catawba Nuclear Station**

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**Environmental Review Considerations**

<b>Item</b>	<b>Proposed Licensing Plan</b>
Environmental Reports	One for each station
NRC Environmental Project Manager	One?
Environmental Scoping Meetings	Environmental Scoping Meetings – scoping meetings for each station (scoping meetings are afternoon and evening, prior to the draft SEIS and after the draft SEIS is issued – 4 total)
Environmental On-site Review Meetings	Two environmental on-site review meetings – one review meeting for each station
Environmental Reviewers	Prefer one set of environmental reviewers covering both stations – coordinated as much as possible to avoid a duplication of reviews of topics common to both stations.
Environmental RAIs	Two sets of Environmental RAI – one set for each station
Responses to Environmental RAIs	Two sets of responses to Environmental RAI – one for each station
Draft and Final Supplements to the GEIS	Two Supplements – one supplement for each station
Duke response to Draft SEISs	Two responses – one set of responses for each station

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TENNESSEE  
NORTH CAROLINA

NORTH CAROLINA  
SOUTH CAROLINA

DUI  
NANTA

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## **2. STRUCTURES AND COMPONENTS SUBJECT TO AGING MANAGEMENT REVIEW**

### **2.1 SCOPING AND SCREENING METHODOLOGY**

*Note: The Scoping and Screening Methodology described in Section 2.1 is considered to be generically applicable to both McGuire Nuclear Station and Catawba Nuclear Station.*

#### **2.1.1 SYSTEMS AND STRUCTURES SCOPING METHODOLOGY**

##### **2.1.1.1 Safety Related Systems and Structures**

2.1.1.1.1 SAFETY RELATED MECHANICAL SYSTEMS

2.1.1.1.2 SAFETY RELATED STRUCTURES

2.1.1.1.3 SAFETY RELATED ELECTRICAL SYSTEMS

##### **2.1.1.2 Nonsafety Related Systems and Structures**

2.1.1.2.1 NONSAFETY RELATED MECHANICAL SYSTEMS

2.1.1.2.2 NONSAFETY RELATED STRUCTURES

2.1.1.2.3 NONSAFETY RELATED ELECTRICAL SYSTEMS

##### **2.1.1.3 Regulatory Events**

2.1.1.3.1 FIRE PROTECTION

2.1.1.3.2 ENVIRONMENTAL QUALIFICATION

2.1.1.3.3 PRESSURIZED THERMAL SHOCK

2.1.1.3.4 ANTICIPATED TRANSIENTS WITHOUT SCRAM

**2.1.1.3.5 STATION BLACKOUT**

**2.1.2 SCREENING METHODOLOGY**

**2.1.2.1 Mechanical Component Screening Methodology**

**2.1.2.2 Structural Component Screening Methodology**

**2.1.2.3 Electrical Component Screening Methodology**

## 2.2 PLANT LEVEL SCOPING RESULTS

McGuire Nuclear Station	Catawba Nuclear Station
The McGuire systems, structures and components that are within the scope of license renewal (§54.4) are listed in Table 2-1.	The Catawba systems, structures and components that are within the scope of license renewal (§54.4) are listed in Table 2-2.

**Table 2-1 McGuire Systems, Structures and Components within the Scope of License  
Renewal**

**McGuire Mechanical Systems within the Scope of License Renewal**

Annulus Ventilation	Diesel Generator Room Sump Pump
Auxiliary Building Ventilation	Diesel Generator Starting Air
Auxiliary Feedwater	Equipment Decontamination
Auxiliary Steam	Feedwater
Boron Recycle	Feedwater Pump Turbine Hydraulic Oil
Breathing Air	Fire Protection
Chemical & Volume Control	Fuel Handling Building Ventilation
Component Cooling	Groundwater Drainage
Condenser Circulating Water	Heating Water
Containment Air Release & Addition System	Hydrogen Bulk Storage
Containment Air Return Exchange & Hydrogen Skimmer	Ice Condenser Refrigeration
Containment Purge Ventilation	Instrument Air
Containment Spray	Liquid Waste Monitor And Disposal
Containment Ventilation Cooling Water	Liquid Waste Recycle
Control Area Chilled Water	Lower Containment Ventilation
Control Area Ventilation	Main Steam
Conventional Chemical Addition	Main Steam Supply To Auxiliary Equipment
Conventional Waste Water Treatment	Main Steam Vent To Atmosphere
Demineralized Water	Main Turbine Hydraulic Oil (ATWS)
Diesel Building Ventilation	Miscellaneous Service Building HVAC
Diesel Generator Air Intake and Exhaust	Nitrogen
Diesel Generator Cooling Water	Nuclear Sampling
Diesel Generator Crankcase Vacuum	Nuclear Service Water
Diesel Generator Fuel Oil	Nuclear Solid Waste Disposal
Diesel Generator Lube Oil	Reactor Coolant

**Table 2-1 McGuire Systems, Structures and Components within the Scope of License  
Renewal**

**(continued)**

**McGuire Mechanical Systems within the Scope of License Renewal**

Recirculated Cooling Water	Steam Generator Blowdown Recycle
Refueling Water	Steam Generator Wet Lay-Up Recirculation
Residual Heat Removal	Turbine Building Ventilation
Safety Injection	Turbine Exhaust
Spent Fuel Cooling	Upper Containment Ventilation
Standby Shutdown Diesel	Waste Gas
Station Air	

**Table 2-1 McGuire Systems, Structures and Components within the Scope of License  
 Renewal  
 (continued)**

**McGuire Structures Within the Scope of License Renewal**

Auxiliary Building	Reactor Makeup Water Storage Tank (RMWST) Foundation
Control Building (within Auxiliary Building Structure)	Refueling Water Storage Tank (RWST) Foundation
Diesel Generator Building Unit 1 (within Auxiliary Building Structure)	Refueling Water Storage Tank (RWST) Missile Wall
Diesel Generator Building Unit 2 (within Auxiliary Building Structure)	Service Building / South Personnel Access Portal [North Wall ONLY – credited for FP]
Main Steam Doghouses Unit 1 (within Auxiliary Building Structure)	Standby Nuclear Service Water Pond Dam
Main Steam Doghouses Unit 2 (within Auxiliary Building Structure)	Standby Nuclear Service Water Pond Discharge Structure (Nuclear Service Water Discharge Structure)
New Fuel Storage Building Unit 1 (within Auxiliary Building Structure)	Standby Nuclear Service Water Pond Intake Structure (Nuclear Service Water Intake Structure)
New Fuel Storage Building Unit 2 (within Auxiliary Building Structure)	Spent Fuel Building Unit 1 (within Auxiliary Building Structure)
New Fuel Storage Vault Unit 1 (within Auxiliary Building Structure)	Spent Fuel Building Unit 2 (within Auxiliary Building Structure)
New Fuel Storage Vault Unit 2 (within Auxiliary Building Structure)	Standby Shutdown Facility
Pipe Trenches	Station Vent
Reactor Building Unit 1	Turbine Building Unit 1
Reactor Building Unit 2	Turbine Building Unit 2

**Table 2-1 McGuire Systems, Structures and Components within the Scope of License  
Renewal  
(continued)**

**McGuire Electrical Systems Within the Scope of License Renewal**

120 VAC Vital I&C Power System	Electrical Penetrations
125 VDC Class 1E Diesel Aux. Power System	Electrically Operated Cranes & Hoists — Electrical Components
125 VDC Vital Instr. & Control Pwr. Sys.	Emergency Diesel Generator
208/120 VAC Essential Aux. Pwr. Sys.	Emergency Lighting System (DC)
208/120 VAC Normal Aux. Pwr. Sys.	Fire Detection
240/120 AC Aux. Control Power System	Grounding (All)
240/120 VAC Normal Aux. Power	HVAC Control Panel
250V DC/125 VDC Standby Shutdown Facility — Auxiliary Power	In-Core Instrumentation System
4.16kV Essential Aux. Power System	Main Control Room Board System
6.9kV Normal Auxiliary Power System	Main Turbine Instr. & Control System (Includes DEH Control. & Supervisory Sys.)
600/208/120V AC Standby Shutdown Facility — Auxiliary Power	Miscellaneous Instrumentation
600V AC Essential Aux. Power System	Out-of-Core Instrumentation System (includes ENC - Wide Range Neutron Flux)
600V Normal Aux. Power System	Pressurizer Pressure & Level Control System
Annunciator Alarm System (Station)	Process Instrumentation & Control System
Annunciator Alarm System (Unit)	Radiation Monitoring System
Auxiliary Shutdown Panel (2 Cabinets)	RCP Voltage & Frequency System
Class 1E DG Protective Relaying & Monitoring	Reactor Protection System (includes ISE – Engineered Safety Features Actuation System)
Communications	Rod Control System
Containment Personnel Air Lock System	Safeguards Test Systems – Electrical
Diesel Controls System	Standby Shutdown Control Panel
Diesel Load Sequencing System	Standby Shutdown Diesel Control
	Trace Heating System

## 2.3.4 STEAM AND POWER CONVERSION SYSTEMS

McGuire Nuclear Station	Catawba Nuclear Station
<p data-bbox="225 598 808 630"><b>2.3.4.1 Auxiliary Feedwater System</b></p> <p data-bbox="225 659 808 1199">The Auxiliary Feedwater System is a Nuclear Safety Related System which serves as a backup to the Feedwater System to ensure the safety of the plant and protection of equipment. The Auxiliary Feedwater System is essential to prevent an unacceptable decrease in the steam generator water levels, to reverse the rise in reactor coolant temperature, to prevent the pressurizer from filling to a water solid condition, and to establish stable hot standby conditions. The Auxiliary Feedwater System can be used during an emergency as well as during normal startup and shutdown operations.</p> <p data-bbox="225 1220 808 1325">Section 10.4.10 of the McGuire UFSAR provides additional information concerning to the Auxiliary Feedwater System.</p> <p data-bbox="225 1346 808 1442">The mechanical components, component functions, and materials of construction are summarized in Table 3.5-1.</p>	<p data-bbox="837 598 1227 630"><b>Auxiliary Feedwater System</b></p>

<b>McGuire Nuclear Station</b>	<b>Catawba Nuclear Station</b>
<p>The following is a list of the McGuire flow diagrams that have been marked to indicate the license renewal evaluation boundary for the Auxiliary Feedwater System:</p> <ul style="list-style-type: none"><li>MCFD-1574-02.00</li><li>MCFD-1574-03.00</li><li>MCFD-1584-01.00</li><li>MCFD-1591-01.01</li><li>MCFD-1592-01.00</li><li>MCFD-1592-01.01</li><li>MCFD-1617-01.00</li><li>MCFD-2574-02.00</li><li>MCFD-2574-03.00</li><li>MCFD-2584-01.00</li><li>MCFD-2591-01.01</li><li>MCFD-2592-01.00</li><li>MCFD-2592-01.01</li><li>MCFD-2617-01.00</li></ul>	<p>System description</p>
<p>These flow diagrams are contained in Reference YY.</p>	
<p><b>2.3.4.2 Auxiliary Steam System (Class F Portions)</b></p>	<p><b>Auxiliary Steam System (Class F Portions)</b></p>
<p>System description</p>	<p>System description</p>
	<p><b>2.3.4.3 Condensate (Class F Portions) (Catawba Only)</b></p> <p>System description</p>

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### **3.5 STEAM AND POWER CONVERSION SYSTEMS**

*Note: The aging management reviews for all steam and power conversion systems are considered to be generically applicable to both McGuire Nuclear Station and Catawba Nuclear Station unless otherwise stated.*

#### **3.5.1 AUXILIARY FEEDWATER SYSTEM**

The Auxiliary Feedwater System is a Nuclear Safety Related System which serves as a backup to the Feedwater System to ensure the safety of the plant and protection of equipment. The Auxiliary Feedwater System is essential to prevent an unacceptable decrease in the steam generator water levels, to reverse the rise in reactor coolant temperature, to prevent the pressurizer from filling to a water solid condition, and to establish stable hot standby conditions. The Auxiliary Feedwater System can be used during an emergency as well as during normal startup and shutdown operations. A summary of the aging management review of the Auxiliary Feedwater System is provided in Table 3.5-1.

*The contents of this section of the application is on hold pending completion of the regulatory implementing guidance.*

**Table 3.5-1 Aging Management Review Summary – Auxiliary Feedwater System  
 (Applicable to McGuire and Catawba)**

Component Type	Component Function (Note 1)	Material (Note 2)	Environment	Aging Effects	Programs
			Internal (External)		
Flow Orifices	PB, TH	SS	Treated Water		
			(Sheltered)		
Flow Orifices	PB	SS	Treated Water		
			(Sheltered)		
Motor-Driven CA Pump Casings	PB	CS	Treated Water		
			(Sheltered)		
Piping	PB	CS	Treated Water		
			(Reactor Building)		
Piping	PB	CS	Treated Water		
			(Sheltered)		
Piping	PB	SS	Treated Water		
			(Sheltered)		
Tubing	PB	SS	Treated Water		
			(Sheltered)		
Tubing	PB	SS	Lubricating Oil		
			(Sheltered)		
Turbine-Driven CA Pump Casings	PB	CS	Treated Water		
			(Sheltered)		

**Table 3.5-1 Aging Management Review Summary – Auxiliary Feedwater System  
(Applicable to McGuire and Catawba)  
(Continued)**

Component Type	Component Function (Note 1)	Material (Note 2)	Environment	Aging Effects	Programs
			Internal (External)		
TDCAP Bearing Oil Cooler (Tubes)	PB, HT	SS	Treated Water		
			(Lubricating Oil)		
TDCAP Bearing Oil Cooler (Tube Sheet)	PB	SS	Treated Water		
			(Lubricating Oil)		
TDCAP Bearing Oil Cooler (End Caps)	PB	SS	Treated Water		
			(Sheltered)		
TDCAP Bearing Oil Cooler (Shell-Side)	PB	SS	Treated Water		
			(Sheltered)		
Valve Bodies	PB	CS	Treated Water		
			(Sheltered)		
Valve Bodies	PB	SS	Treated Water		
			(Sheltered )		

**Notes:**

**(1) Component Function**

- HT Provide heat transfer so that system and/or component operating temperatures are maintained.
- PB Maintain mechanical pressure boundary integrity so that sufficient flow and/or sufficient pressure are delivered.
- TH Provide throttling so that sufficient flow and/or sufficient pressure is delivered, to provide backpressure, to provide pressure reduction, or to provide differential pressure.

**(2) Material**

- CS Carbon Steel
- SS Stainless Steel

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Table 3. Summary of Aging Management Programs for Engineered Safety Features Evaluated in Chapter V of the GALL Report

Component	Aging Effect/ Mechanism	Aging Management Programs	Further Evaluation Recommended	Item Number in GALL
BWR emergency core cooling system and containment isolation components; PWR containment spray and emergency core cooling system components in contact with primary coolant	Crack initiation and growth from SCC	Inservice inspection; materials selection and processing to reduce susceptibility to sensitization; water chemistry	No	V.A.1.1, V.A.1.5, V.A.3.1, V.A.4.1, V.A.5.1, V.C.8.1, V.C.8.2, V.C.9.1, V.C.9.2, V.D1.1.1 - V.D1.1.6, V.D1.2.1, V.D1.4.1, V.D2.1.1 - V.D2.1.7, V.D2.3.1
PWR containment spray chemical addition storage tank; PWR emergency core cooling safety injection tank and refueling water tank penetrations and nozzles	Crack initiation and growth from SCC	Inservice inspection; materials selection and processing to reduce susceptibility to sensitization	Yes; one-time inspection and appropriate follow-up actions recommended	V.A.3.2, V.D1.7.3, V.D1.8.3
BWR standby gas treatment system electric heater housing	Crack initiation and growth from SCC	Plant Technical Specifications	Yes; plant-specific AMP	V.B.2
Containment isolation coated carbon steel components	Loss of material from general corrosion	Inservice inspection; coatings program	No	V.C.1.1-V.C.1.3, V.C.2.1, V.C.2.2, V.C.3.1, V.C.3.3-V.C.3.5, V.C.4.1, V.C.4.2, V.C.4.4, V.C.5.1-V.C.5.3, V.C.7.1, V.C.7.2

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## **4. TIME-LIMITED AGING ANALYSES**

### **4.1 IDENTIFICATION OF TIME-LIMITED AGING ANALYSES**

*Note: The methodology to identify time-limited aging analyses described in Section 4.1 is considered to be generically applicable to both McGuire Nuclear Station and Catawba Nuclear Station.*

## **4.2 REACTOR VESSEL NEUTRON EMBRITTLEMENT**

### **4.2.1 UPPER-SHELF ENERGY**

<b>McGuire Nuclear Station</b>	<b>Catawba Nuclear Station</b>

### **4.2.2 PRESSURIZED THERMAL SHOCK**

<b>McGuire Nuclear Station</b>	<b>Catawba Nuclear Station</b>

### **4.2.3 PRESSURE-TEMPERATURE (P-T) LIMITS**

<b>McGuire Nuclear Station</b>	<b>Catawba Nuclear Station</b>

## **4.7 OTHER PLANT SPECIFIC TIME-LIMITED AGING ANALYSES**

### **4.7.1 REACTOR COOLANT PUMP FLYWHEEL**

<b>McGuire Nuclear Station</b>	<b>Catawba Nuclear Station</b>

### **4.7.2 DEPLETION OF NUCLEAR SERVICE WATER POND VOLUME DUE TO RUNOFF (CATAWBA ONLY)**

<b>McGuire Nuclear Station</b>	<b>Catawba Nuclear Station</b>
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The depletion of Nuclear Service Water Pond Volume due to runoff time-limited aging analysis is not applicable to McGuire.	
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# **Application to Renew the Operating Licenses of McGuire Nuclear Station and Catawba Nuclear Station**

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## **APPENDICES**

### **APPENDIX A: UFSAR SUPPLEMENTS**

Unless other guidance is available prior to submittal, the form and content of the Appendix A will follow the Oconee UFSAR Supplement submitted by Duke letter dated March 27, 2000.

Two UFSAR Supplements will be provided in the application, one for each plant – McGuire and Catawba.

### **APPENDIX B: AGING MANAGEMENT PROGRAMS AND ACTIVITIES**

One set of aging management program and activity descriptions that cover both McGuire and Catawba will be provided. A narrative style rather than two-column format of Chapter 2 of the Application will be used. If time permits prior to the finalization of the application, a comparison of the programs described in this appendix to those described in the March 2001 version of the GALL/SRP will be made and provided in Appendix B.

### **APPENDIX C: COMMODITY GROUPS (OPTIONAL)**

The contents of this Appendix is on hold pending the completion of regulatory implementation guidance.

### **APPENDIX D: TECHNICAL SPECIFICATION CHANGES**

No changes to ITS are expected to be required for either McGuire or Catawba.

### **APPENDIX E: ENVIRONMENTAL INFORMATION**

The required environmental information will be contained in this appendix consistent with that provided with the Oconee Application, modified as necessary by current regulatory guidance. Hardcopies of Appendix E will be in separate volumes to facilitate review by the NRC contractor.

Two Environmental Reports will be provided in the application, one for each plant – McGuire and Catawba.

## Application to Renew the Operating Licenses of McGuire Nuclear Station and Catawba Nuclear Station

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Item	Proposed Licensing Plan
Duke License Renewal Project Team	One team of experienced personnel covers both McGuire and Catawba license renewal reviews
Application	A single Application that covers both stations
NRC Safety Project Manager	One?
TAC Numbers	As assigned by NRC Project Manager – some may be unit specific while others are generic to both stations (all 4 units)
Milestone Schedule	One milestone schedule that covers both stations
Meetings – Safety, Periodic Management, any meetings other than environmental	Each meeting will cover both stations
NRC safety reviewers	One set of reviewers that cover both stations
Safety RAIs	One set of RAIs that cover both stations ( a set of RAIs includes many individual letters)
Responses to Safety RAIs	One set of responses to RAIs that cover both stations ( a set of responses includes several individual letters (less than many))
Regional Inspections	Each inspection will be site specific – coordinated as much as possible to avoid a duplication of reviews of topics common to both stations. One Regional inspection team that covers both stations is recommended
Draft SER	One draft SER that covers both stations
Response to draft SER	One Duke response that covers both stations
ACRS Review Meetings/Site Visits	Each review meeting covers both stations. ACRS site visits will be made to each station
Update required by §54.21(b)	Two updates provided – one for each station (changes to the plant after submittal of the Application are necessarily station specific)
Final SER	One SER covering both stations
Update to UFSAR Supplement	Two UFSAR Supplement updates provided – one for each station ( UFSAR Supplements are necessarily station specific)
SECY to the Commission	One SECY that covers both stations
Commission Briefing	One briefing that covers both stations

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**Application to Renew the Operating Licenses of  
McGuire Nuclear Station and Catawba Nuclear Station**

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<b>Item</b>	<b>Proposed Licensing Plan</b>
Commission Decision	Commission decision that addresses each station individually (because of the similarity between the two stations, it is hard to imagine approving a license for one and not the other)
Renewed Licenses Issued	Renewed licenses (if granted) will be issued on a unit specific basis