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December 13, 2000

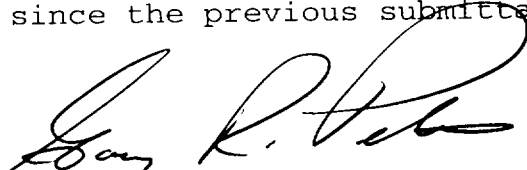
U.S. Nuclear Regulatory Commission  
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Washington, DC 20555-0001

Subject: Duke Energy Corporation  
Catawba Nuclear Station  
Docket Nos. 50-413 and 50-414  
UFSAR/Selected Licensee Commitment Changes

Pursuant to 10CFR 50.71(e), please find attached changes to the Catawba Nuclear Station Selected Licensee Commitments Manual. This document constitutes Chapter 16 of the Updated Final Safety Analysis Report (UFSAR).

Any questions regarding this information should be directed to L. J. Rudy, Regulatory Compliance, at (803) 831-3084.

I certify that I am a duly authorized officer of Duke Energy Corporation, and that the information contained herein accurately represents changes made to Chapter 16 of the UFSAR since the previous submittal.



Gary R. Peterson

Attachment

A053

U.S. Nuclear Regulatory Commission  
December 13, 2000  
Page 2

xc:L. A. Reyes, Regional Administrator  
U. S. Nuclear Regulatory Commission, Region II

C. P. Patel, Project Manager  
U.S. Nuclear Regulatory Commission  
Office of Nuclear Reactor Regulation, Mail Stop 0-8 H12

D. J. Roberts  
Senior Resident Inspector  
Catawba Nuclear Station



**Duke Power**

Catawba Nuclear Station  
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December 13, 2000

RE: Catawba Nuclear Station  
Selected Licensee Commitments Manual  
Revision Date 11/30/00

Attached are revisions to the Catawba Nuclear Station Selected Licensee Commitments Manual.  
Please remove and replace the following pages:

**REMOVE**

**INSERT**

**LIST OF EFFECTIVE PAGES**

Pages 1-5 & 8 of 8

Pages 1-5 & 8 of 8

**TAB 16.0**

Chapter 16.0, pages 1-4  
dated 09/11/00

Chapter 16.0, pages 1-4  
dated 11/30/00

**TAB 16.7**

Chapter 16.7-10, pages 1-3 of 6  
dated 01/17/00

Chapter 16.7-10, pages 1-3 of 7  
dated 11/30/00

Chapter 16.7-10, page 4 of 6  
dated 07/22/00

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Chapter 16.7-10, pages 5 & 6 of 6  
dated 01/17/00

Chapter 16.7-10, pages 5 & 6 of 7  
dated 11/30/00

**TAB 16.8**

Chapter 16.8-1, pages 24 & 25 of 51  
dated 01/17/00

Chapter 16.8-1, pages 24 & 25 of 51  
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Chapter 16.8-1, pages 48 & 49 of 51  
dated 01/17/00

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**TAB 16.9**

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Page Two

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dated 11/30/00

**TAB 16.13**

Chapter 16.13-4, pages 1-6 of 6  
dated 11/30/00

If you have any questions concerning the contents of this package update, contact Toni  
Pasour at (803) 831-3566.

A handwritten signature in black ink, appearing to read "Gary D. Gilbert". The signature is stylized with a large, sweeping "G" and "D".

Gary D. Gilbert  
Regulatory Compliance Manager

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## **16.7**        **INSTRUMENTATION**

### **16.7-10**        **RADIATION MONITORING FOR PLANT OPERATIONS**

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#### **COMMITMENT:**

The radiation monitoring instrumentation channels for plant operations shown in Table 16.7-10A shall be OPERABLE with their Alarm/Trip Setpoints within the specified limits.

#### **APPLICABILITY:**

As shown in Table 16.7-10A

#### **REMEDIAL ACTION:**

- a.     With a radiation monitoring channel Alarm/Trip Setpoint for plant operations exceeding the value shown in table 16.7-10A, adjust the Setpoint to within the limit within 4 hours or declare the channel inoperable.
- b.     With one or more radiation monitoring channels for plant operations inoperable, take the REMEDIAL ACTION shown in Table 16.7-10A.

#### **TESTING REQUIREMENTS:**

Each radiation monitoring instrumentation channel for plant operations shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL CALIBRATION and CHANNEL OPERATIONAL TEST operations for the MODES and at the frequencies shown in Table 16.7-10B.

#### **REFERENCES:**

1.     Letter from NRC to Gary R. Peterson, Duke, Issuance of Improved Technical Specifications Amendments for Catawba, September 30, 1998.

#### **BASES:**

The OPERABILITY of the radiation monitoring instrumentation for plant operations ensures that: (1) the associated action will be initiated when the radiation level monitored by each channel or combination thereof reaches its setpoint, (2) the specified coincidence logic is maintained, and (3) sufficient redundancy is maintained to permit a channel to be out-of-service for testing or maintenance. The radiation monitors for plant

## **BASES (con't)**

operations senses radiation levels in selected plant systems and locations and determines whether or not predetermined limits are being exceeded. The radiation monitors send actuation signals to initiate alarms or automatic isolation action and actuation of emergency exhaust or ventilation systems. Some of the final actuations are dependent on plant condition in addition to the actuation signals from the radiation monitors.

Operation of the Component Cooling Water System (KC) Train A with the Train A Radiation Monitoring System (EMF) monitor inoperable and relying on the Train B EMF monitor for detection of radioactivity is not permissible. Likewise, operation of the KC Train B with the Train B EMF monitor inoperable and relying on the Train A EMF monitor for detection of radioactivity is not permissible. This is due to the interlock between the EMF monitor low-flow alarm and the operation of the KC pump motors on the same train. The EMF monitor in the operating KC pump train must be OPERABLE, or the compensatory measures taken as specified on Table 16.7-10A, Remedial Action H.



**TABLE 16.7-10A**  
**RADIATION MONITORING INSTRUMENTATION FOR PLANT OPERATIONS**

<b><u>FUNCTIONAL UNIT</u></b>	<b><u>CHANNELS TO TRIP/ALARM</u></b>	<b><u>MINIMUM CHANNELS OPERABLE</u></b>	<b><u>APPLICABLE MODES</u></b>	<b><u>ALARM/TRIP SETPOINT</u></b>	<b><u>REMEDIAL ACTION</u></b>
1. Containment Atmosphere – High Gaseous Radioactivity (Low Range – EMF-39)	1	1	All	***	C
2. Fuel Storage Pool Areas					
a. High Gaseous Radioactivity (Low Range – EMF-42)	1	1	**	$\leq 1.7 \times 10^{-4} \mu\text{Ci/ml}$	F
b. Criticality-Radiation Level (Fuel Bridge – Low Range – 1EMF-15, 2EMF-4)	1	1	*	$\leq 15 \text{ mR/h}$	E
3. Control Room Air Intake- Radiation Level – High Gaseous Radioactivity (Low Range – EMF-43 A & B)	1/intake	2 (1/intake)	All	$\leq 1.7 \times 10^{-4} \mu\text{Ci/ml}$	D
4. Auxiliary Building Ventilation High Gaseous Radioactivity (Low Range – EMF-41)	1	1	1, 2, 3, 4	$\leq 1.7 \times 10^{-4} \mu\text{Ci/ml}$	G
5. Component Cooling Water System (EMF-46 A & B)	1****	1****	All	$\leq 1 \times 10^{-3} \mu\text{Ci/ml}$	H
6. N-16 Leakage Monitor (EMF-71, 72, 73, & 74)	1	4	1 (40-100% Reactor Power)	5 gpd#	I

## **TABLE 16.7-10A**

### **TABLE NOTATIONS**

- \* With fuel in the fuel storage pool areas.
- \*\* With irradiated fuel in the fuel storage pool areas.
- \*\*\* When venting or purging from containment to the atmosphere, the trip setpoint shall not exceed the equivalent limits of SLC 16.11-6 in accordance with the methodology and parameters in the ODCM. When not venting or purging in Modes 5 or 6, the alarm setpoint concentration ( $\mu\text{Ci/ml}$ ) shall be such that the actual submersion dose rate would not exceed 5mR/hr without alarm. When not venting or purging in Modes 1 through 4 the alarm setpoint shall be no more than 3 times the containment atmosphere activity as indicated by the radiation monitor.
- \*\*\*\* For EMF-46A and -46B: The EMF monitor associated with the operating Component Cooling Water System Train shall be OPERABLE. This requirement is based on the existence of an interlock which blocks the EMF loss of flow alarm from being received in the Control Room when the associated train pump motor(s) are not running.
- # The 5 gallon per day (gpd) setpoint is the primary-to-secondary leakage flow that, if exceeded, requires increased primary-to-secondary leakage monitoring.

### **REMEDIAL ACTION STATEMENTS**

- ACTION C - With less than the Minimum Channels OPERABLE requirement, operation may continue provided the Containment Purge and Exhaust Valves (VP) are maintained closed.
- ACTION D - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, within 1 hour initiate and maintain operation of one train of the Control Room Area Ventilation System (CRAVS) with flow through the HEPA filters and activated carbon adsorbers.
- ACTION E - With less than the Minimum Channels OPERABLE requirement, operation may continue for up to 30 days provided an appropriate portable continuous monitor with the same Alarm Setpoint is provided in the fuel storage pool area. Restore the inoperable monitors to OPERABLE status within 30 days or suspend all operations involving fuel movement in the fuel building.
- ACTION F - With the number of OPERABLE channels less than the Minimum Channels OPERABLE requirement, operation may continue provided

**TABLE 16.7-10A**

**REMEDIAL ACTION STATEMENTS (con't)**

one train of the Fuel Handling Ventilation Exhaust System (FHVES) is OPERABLE and in operation discharging through the HEPA filters and activated carbon adsorbers. Otherwise, suspend all operations involving fuel movement in the fuel building.

ACTION G - With the number of OPERABLE channels less than the Minimum Channels OPERABLE requirement, operation may continue provided one train of the Auxiliary Building Filtered Ventilation Exhaust System (ABFVES) is OPERABLE and in operation discharging through the HEPA filter and activated carbon adsorbers.

ACTION H - With the number of OPERABLE channels less than the Minimum Channels OPERABLE requirement, operation may continue for up to 30 days provided that, at least once per 12 hours, grab samples are collected and analyzed for principal gamma emitters (listed in Table 16.11-1, Table Notation (3)) at a lower limit of detection of no more than  $5 \times 10^{-7}$   $\mu\text{Ci/ml}$ .

ACTION I - With the number of OPERABLE channels less than the Minimum Channels OPERABLE requirement, ensure that:

- (a) the Condenser Evacuation System Noble Gas Activity Monitor (Low Range – EMF-33) is OPERABLE and in operation, or
- (b) REMEDIAL ACTIONS are in place per SLC 16.11-7, Table 16.11-5, Item 2, ACTION H.

**TABLE 16.7-10B**  
**RADIATION MONITORING INSTRUMENTATION FOR PLANT**  
**OPERATIONS TESTING REQUIREMENTS**

<b><u>FUNCTIONAL UNIT</u></b>	<b><u>CHANNEL CHECK</u></b>	<b><u>CHANNEL CALIBRATION</u></b>	<b><u>CHANNEL OPERATIONAL TEST</u></b>	<b><u>MODES FOR WHICH SURVEILLANCE IS REQUIRED</u></b>
1. Containment Atmosphere – High Gaseous Radioactivity (Low Range – EMF-39)	12 hours	18 months	92 days	All
2. Fuel Storage Pool Areas				
a. High Gaseous Radioactivity (Low Range – EMF-42)	12 hours	18 months	92 days	**
b. Criticality-Radiation Level (Fuel Bridge – Low Range – 1EMF-15, 2EMF-4)	12 hours	18 months	92 days	*
3. Control Room Air Intake Radiation Level – High Gaseous Radioactivity – (Low Range – EMF-43 A & B)	12 hours	18 months	92 days	All
4. Auxiliary Building Ventilation High Gaseous Radioactivity (Low Range – EMF-41)	12 hours	18 months	92 days	1, 2, 3, 4
5. Component Cooling Water System (EMF-46 A & B)	12 hours	18 months	92 days	All
6. N-16 Leakage Monitor (EMF-71, 72, 73, & 74)	12 hours	18 months	92 days	1 (40-100% Reactor Power)

**TABLE 16.7-10B**

**TABLE NOTATIONS**

- \* With fuel in the fuel storage pool area.
- \*\* With Irradiated fuel in the fuel storage pool areas.

**TABLE 16.8-1A**  
**UNIT 1 CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES**

<b><u>DEVICE NUMBER &amp; LOCATION</u></b>	<b><u>SYSTEM POWERED</u></b>
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3. 600 VAC Pressurizer Heater Power Panels (Continued)

PHP1D-F02E Primary Bkr Backup Fuse	Pressurizer Heaters 43, 73 & 74
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4. 250 VDC Reactor Building Deadlight Panelboard

1DLD-2 Primary Bkr Backup Fuse	Lighting Panelboard No. 1LR1, 1LR2, 1LR3, 1LR4
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1DLD-3 Primary Bkr Backup Fuse	Lighting Panelboard No. 1LR13, 1LR14
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1DLD-4 Primary Bkr Backup Fuse	Lighting Panelboard No. 1LR5, 1LR6
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1DLD-5 Primary Bkr Backup Fuse	Lighting Panelboard No. 1LR10, 1LR11
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1DLD-10 Primary Bkr Backup Fuse	Lighting Panelboard No. 1LR8
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5. 120 VAC Panelboards

1ELB-5 Primary Bkr Backup Fuse	Emergency A.C. Lighting	
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1ELB-7 Primary Bkr Backup Fuse	Emergency A.C. Lighting	
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1ELB-13 Primary Bkr Backup Fuse	Emergency A.C. Lighting	
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1ELB-15 Primary Bkr Backup Fuse	Emergency A.C. Lighting	
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**TABLE 16.8-1A**  
**UNIT 1 CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES**

<b><u>DEVICE NUMBER &amp; LOCATION</u></b>	<b><u>SYSTEM POWERED</u></b>
5. 120 VAC Panelboards (Continued)	
1ELB-17 Primary Bkr Backup Fuse	Emergency A.C. Lighting
1KPM-1 Primary Bkr Backup Fuse	NC Pump Motor 1A Space Heater
1KPM-2 Primary Bkr Backup Fuse	NC Pump Motor 1C Space Heater
1KPM-7-1 Primary Bkr Backup Fuse	Lower Containment Vent Unit 1A Fan Motor Space Heater
1KPM-8-1 Primary Bkr Backup Fuse	Lower Containment Vent Unit 1C Fan Motor Space Heater
1KPM-24 Primary Bkr Backup Fuse	Control Rod Drive Vent Fan Motor 1A, 1B, 1C, 1D Space Heaters
1KPM-24-10 Primary Fuse Backup Fuse	Control Rod Drive Vent Fan Motor 1A Space Heaters
1KPM-24-11 Primary Fuse Backup Fuse	Control Rod Drive Vent Fan Motor 1B Space Heaters
1KPM-24-12 Primary Fuse Backup Fuse	Control Rod Drive Vent Fan Motor 1C Space Heaters
1KPM-24-13 Primary Fuse Backup Fuse	Control Rod Drive Vent Fan Motor 1D Space Heaters
1KPM-33 Primary Bkr Backup Fuse	NI Temperature Transmitters 1NITT5800, 1NITT5810, 1NITT5820, 1NITT5830
1KPM-33-04 Primary Fuse	NI Temperature Transmitter 1NITT5800

**TABLE 16.8-1B**  
**UNIT 2 CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES**

<b><u>DEVICE NUMBER &amp; LOCATION</u></b>	<b><u>SYSTEM POWERED</u></b>
3. 600 VAC Pressurizer Heater Power Panels (Continued)	
PHP2D-F02E Primary Bkr Backup Fuse	Pressurizer Heaters 43, 73 & 74
4. 250 VDC Reactor Building Deadlight Panelboard	
2DLD-2 Primary Bkr Backup Fuse	Lighting Panelboard No. 2LR1, 2LR2, 2LR3, 2LR4
2DLD-3 Primary Bkr Backup Fuse	Lighting Panelboard No. 2LR13, 2LR14
2DLD-4 Primary Bkr Backup Fuse	Lighting Panelboard No. 2LR5, 2LR6
2DLD-5 Primary Bkr Backup Fuse	Lighting Panelboard No. 2LR10, 2LR11
2DLD-10 Primary Bkr Backup Fuse	Lighting Panelboard No. 2LR8
5. 120 VAC Panelboards	
2ELB-5 Primary Bkr Backup Fuse	Emergency A.C. Lighting
2ELB-7 Primary Bkr Backup Fuse	Emergency A.C. Lighting
2ELB-13 Primary Bkr Backup Fuse	Emergency A.C. Lighting
2ELB-15 Primary Bkr Backup Fuse	Emergency A.C. Lighting



**TABLE 16.8-1B**  
**UNIT 2 CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES**

<b><u>DEVICE NUMBER &amp; LOCATION</u></b>	<b><u>SYSTEM POWERED</u></b>
5. 120 VAC Panelboards (Continued)	
2ELB-17 Primary Bkr Backup Fuse	Emergency A.C. Lighting
2KPM-1 Primary Bkr Backup Fuse	NC Pump Motor 2A Space Heater
2KPM-2 Primary Bkr Backup Fuse	NC Pump Motor 2C Space Heater
2KPM-7-1 Primary Bkr Backup Fuse	Lower Containment Vent Unit 2A Fan Motor Space Heater
2KPM-8-1 Primary Bkr Backup Fuse	Lower Containment Vent Unit 2C Fan Motor Space Heater
2KPM-24 Primary Bkr Backup Fuse	Control Rod Drive Vent Fan Motor 2A, 2B, 2C, 2D Space Heaters
2KPM-24-10 Primary Fuse Backup Fuse	Control Rod Drive Vent Fan Motor 2A Space Heaters
2KPM-24-11 Primary Fuse Backup Fuse	Control Rod Drive Vent Fan Motor 2B Space Heaters
2KPM-24-12 Primary Fuse Backup Fuse	Control Rod Drive Vent Fan Motor 2C Space Heaters
2KPM-24-13 Primary Fuse Backup Fuse	Control Rod Drive Vent Fan Motor 2D Space Heaters
2KPM-33 Primary Bkr Backup Fuse	NI Temperature Transmitters 2NITT5800, 2NITT5810 2NITT5820, 2NITT5830
2KPM-33-06 Primary Fuse	NI Temperature Transmitter 2NITT5800

**TABLE 16.9-3  
FIRE DETECTION INSTRUMENTS**

FIRE	DESCRIPTION		LOCATION	<u>MINIMUM INSTRUMENTS OPERABLE *</u>			
ZONE				SMOKE	FLAME	HEAT	
53	Swgr Equip Room	AA-49	El.577 + 0	7	0	0	
54	Aisles/Cables	CC-50	El.577 + 0	10	0	0	
55	Aisles/Cables	NN-52	El.577 + 0	8	0	0	See Bases
56	Aisles/Cables	PP-55	El.577 + 0	13	0	0	See Bases
57	Aisles/Cables	LL-55	El.577 + 0	11	0	0	
58	Aisles/Cables	HH-55	El.577 + 0	19	0	0	See Bases
59	Motor Control Center	EE-54	El.577 + 0	2	0	0	
60	Cable Room	CC-56	El.574 + 0	18	0	0	
62	Swgr Equip Room	AA-64	El.577 + 0	7	0	0	
63	Elect Pen Room	CC-64	El.577 + 0	10	0	0	
64	Aisles/Cables	PP-62	El.577 + 0	8	0	0	See Bases
65	Aisles/Cables	PP-59	El.577 + 0	13	0	0	See Bases
66	Aisles/Cables	LL-59	El.577 + 0	11	0	0	
67	Aisles/Cables	HH-59	El.577 + 0	19	0	0	See Bases
68	Motor Control Center	FF-60	El.577 + 0	2	0	0	
69	Cable Room	CC-59	El.577 + 0	18	0	0	
71	Elect Pen Room	CC-51	El.594 + 0	10	0	0	
72	Control Room	CC-56	El.594 + 0	25	0	0	
73	Vent Equip Room	FF-56	El.594 + 0	9	0	0	
74	Aisles/Cables	LL-56	El.594 + 0	25	0	0	
76	Aisles/Cables	PP-54	El.594 + 0	15	0	0	
79	Elect Pen Room	BB-63	El.594 + 0	11	0	0	
80	Control Room	BB-59	El.594 + 0	22	0	0	
81	Vent Equip Room	FF-58	El.594 + 0	12	0	0	
82	Aisles/Cables	KK-58	El.594 + 0	27	0	0	

## **16.9            AUXILIARY SYSTEMS**

### **16.9-24        ALTERNATE COOLING FOR CHARGING PUMPS**

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#### **COMMITMENT:**

The station Drinking Water System (YD) shall be in its normal alignment and capable of supplying 60 psig at the station supply header.

#### **APPLICABILITY:**

MODES 1, 2, 3,  
MODE 4 with all RCS cold leg temperatures > 285°F.

#### **REMEDIAL ACTION:**

Return the station Drinking Water System to normal commitment alignment and service in accordance with Risk Assessment Matrix priorities.

#### **TESTING REQUIREMENTS:**

At least once per 18 months, verify adequate YD flow through the charging pump.

#### **REFERENCES:**

1. 10 CFR 50.65, Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants.
2. WPM 607, Maintenance Rule Assessment of Equipment Out of Service.
3. CNC-1535.00-00-0008, Severe Accident Analysis Report, CNS PRA Risk Significant SSCs for the Maintenance Rule.
4. CNS-1554.NV-00-0001, Chemical and Volume Control Design Basis Specification.
5. SLC 16.9-9, Boration Systems Pumps – Shutdown.
6. SLC 16.9-10, Boration Systems Charging Pumps – Operating.
7. CNC-1223.04-00-0054, Unit 1 CNS YD CALC.
8. CNC-1223.04-00-0055, Unit 2 CNS YD CALC.

**BASES:**

Effective implementation of the Maintenance Rule, 10 CFR 50.65, requires the continuous assessment of systems determined to be risk significant in the protection against core damage or radiation release. It has been determined through PRA numerical methods that the Chemical and Volume Control System (NV) is risk significant from the standpoint of supplying seal water to the reactor coolant pumps during a loss of Component Cooling (KC) event. This SLC serves two purposes. It defines the risk significance of the YD System and provides a method of tracking the Drinking Water System for the purposes of supporting 10 CFR 50.65 and WPM 607.

## **16.13        CONDUCT OF OPERATIONS**

### **16.13-4        MINIMUM STATION STAFFING REQUIREMENTS**

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#### **COMMITMENT:**

Minimum station staffing shall be as indicated in Table 16.13-1.

#### **APPLICABILITY:**

At all times.

#### **REMEDIAL ACTIONS:**

With the requirements for minimum station staffing not met, restore the minimum station staffing levels within 2 hours.

#### **TESTING REQUIREMENTS:**

Not Applicable

#### **BASES:**

The requirements of this SLC consolidate Catawba station staffing requirements into one document. This SLC includes the unit staff requirements of the Catawba Facility Operating Licenses, Technical Specification (TS) 5.2.2, 10 CFR 50.54(m), applicable Operations Management Procedures (OMPs), Nuclear System Directive (NSD) 112, "Fire Brigade Organization, Training and Responsibilities," the Catawba Fire Protection Program, the Catawba Emergency Plan, and SLC 16.13-1, "Fire Brigade." The total requirement for each position was obtained by summing the various individual requirements for that position. The bases for the numbers in the first column of Table 16.13-1 are as follows:

1 OSM (active SRO) – Required by 10 CFR 50.54(m)(2)(ii) and implemented via OMP.

1 STA (active or inactive SRO) – Required by TS 5.2.2g, which indicates that the individual fulfilling the STA position is the Shift Work Manager, and implemented via OMP. Note that old TS (pre-Improved TS) Table 6.2-1, which implemented the requirements of NUREG-0737, "Clarification of TMI Action Plan Requirements," did not require an STA on shift when both units were in MODE 5, 6, or defueled. Table 16.13-1 is more restrictive in that it requires an STA on shift at all times.

**TABLE 16.13-1****MINIMUM STATION STAFFING REQUIREMENTS**

<b>Position</b>	<b>Both Units in MODES 1-4</b>	<b>One Unit in MODES 1-4</b>	<b>Both Units in MODES 5, 6, or No MODE</b>
Operations Shift Manager (OSM)	1	1	1
Shift Technical Advisor (STA)	1	1	1
Senior Reactor Operator (SRO) (Notes 1, 2, 3)	2	2	1
Reactor Operator (RO) (Notes 1, 4)	3	3	2
Non-Licensed Operator (NLO) (Note 1)	5	5	4
Chemistry Technician	1	1	1
Radiation Protection Technician	3	3	3
Mechanical Maintenance Technician	1	1	1
Instrumentation and Electrical Technician	2	2	2
Medical Emergency Response Team (MERT)	2	2	2
Security Personnel		Per Security Plan	

**TABLE 16.13-1**

**MINIMUM STATION STAFFING REQUIREMENTS (con't)**

- Note 1: Either a SRO (active or inactive), RO, or other designated personnel (NLO) may be designated as the fire brigade leader. The totals for the appropriate position shall be increased by one, depending upon which position is being used to fulfill the role of fire brigade leader.
- Note 2: In addition to these requirements, during CORE ALTERATIONS (including fuel loading or transfer), a SRO or SRO limited to fuel handling shall be present to directly supervise the activity. During this time, no other duties shall be assigned to this person.
- Note 3: With any unit in MODES 1-4, a SRO shall be present in the control room at all times.
- Note 4: For each fueled unit, a RO shall be present at the controls at all times.

## **BASES (con't)**

2 SROs (active SRO) – Required by 10 CFR 50.54(m)(2)(i). Per TS 5.2.2b and 10 CFR 50.54(m)(2)(iii), at least 1 SRO must be in the control room.

3 ROs – Required by 10 CFR 50.54(m)(2)(i).

3 NLOs – Required by TS 5.2.2a and Section B, Figure B-1 of the Emergency Plan and implemented via OMP.

2 NLOs – Required by the Fire Protection Program and implemented via NSD and OMP.

Fire Brigade Leader – Required by the Catawba Facility Operating Licenses and Fire Protection Program and implemented via NSD and OMP. The individual fulfilling this position shall be a SRO, RO, or other designated personnel (NLO) who is qualified to be a fire brigade leader. This individual functions as the fire brigade leader and is not available for other activities when directing the fire brigade. No regulations explicitly specify that the fire brigade leader be a SRO or RO. However, the fire brigade leader shall have sufficient training in or knowledge of plant safety related systems to understand the effects of a fire and fire suppression systems on safe shutdown capability.

1 Chemistry Technician (ERO) – Required by Section B, Figure B-1 of the Emergency Plan. Implemented via EP Group Manual Guideline 5.1.3. Any technician who is qualified may be credited towards fulfilling the ERO requirement.

3 Radiation Protection Technicians (2 technicians and 1 off-site dose assessor) (ERO) – Required by Section B, Figure B-1 of the Emergency Plan. Implemented via EP Group Manual Guideline 5.1.3. 1 is required by TS 5.2.2d and may be counted towards fulfilling the ERO requirement. Any technician who is qualified may be credited towards fulfilling the ERO requirement. In the event of a fire, the technician will respond to the fire for radiological monitoring purposes until directed otherwise.

1 Mechanical Maintenance Technician (ERO) – Required by Section B, Figure B-1 of the Emergency Plan. Implemented via EP Group Manual Guideline 5.1.3. Any technician who is fire brigade qualified may be credited towards fulfilling the ERO requirement and the fire brigade requirement. In the event of a fire, the technician will respond to the fire until directed otherwise.

2 Instrumentation and Electrical Technicians (ERO) – Required by Section B, Figure B-1 of the Emergency Plan. Implemented via EP Group Manual Guideline 5.1.3. Any technician who is fire brigade qualified may be credited towards fulfilling the ERO requirement and the fire brigade requirement. In the event of a fire, the technician will respond to the fire until directed otherwise.



## **BASES (con't)**

2 MERT (ERO) – Required by Section B, Figure B-1 of the Emergency Plan. Implemented via EP Group Manual Guideline 5.1.3. Any technician who is qualified may be credited towards fulfilling the ERO requirement. In the event of a fire, the technician will respond to the fire for security purposes until directed otherwise.

Minimum station staffing totals for the SRO and RO positions in Table 16.13-1 are a function of the number of units in MODES 1-4. The totals for the remaining positions in Table 16.13-1 are not a function of the operational MODES of the units.

10 CFR 50.54(m)(2)(i) requires 2 SROs when both units are in MODES 1-4, 2 SROs when one unit is in MODES 1-4, and 1 SRO when no units are in MODES 1-4.

10 CFR 50.54(m)(2)(i) requires 3 ROs when both units are in MODES 1-4, 3 ROs when one unit is in MODES 1-4, and 2 ROs when no units are in MODES 1-4.

The primary purpose of the Fire Protection Program is to minimize both the probability and consequence of postulated fires. Despite designed active and passive fire protection systems installed throughout the plant, a properly trained and equipped fire brigade organization of at least 5 members is required to provide immediate response to fires that may occur at the site. The fire brigade requirement is met by using personnel from Operations and SPOC. 3 personnel from Operations are required (including the fire brigade leader) and the other 2 personnel are from SPOC.

The 2-hour remedial action for restoring minimum station staffing levels is consistent with TS 5.2.2c and 5.2.2d, which allow 2 hours to accommodate unexpected absence of on-duty shift crew members provided immediate action is taken to restore the shift crew composition to within the minimum requirements.

## **REFERENCES:**

1. Catawba Facility Operating Licenses for Units 1 and 2, NPF-35 and NPF-52.
2. Catawba TS 5.2.2.
3. 10 CFR 50.54(m).
4. OMP 1-10, "Shift Manning and Overtime Requirements."
5. NSD 112, "Fire Brigade Organization, Training and Responsibilities."
6. CNS-1465.00-00-0006, "Plant Design Basis Specification for Fire Protection."
7. Catawba Emergency Plan.

## **REFERENCES (con't)**

8. SLC 16.13-1, "Fire Brigade."
9. NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports For Nuclear Power Plants, LWR Edition," Section 9.5.1C3.
10. EP Group Manual Guideline 5.1.3.