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U.S. Nuclear Regulatory Commission  
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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

AD53

U.S. Nuclear Regulatory Commission

July 26, 2000

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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

RE: Catawba Nuclear Station  
Selected Licensee Commitments Manual  
Revision Date 07/22/00

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**

Page 2 of 8 dated 03/28/00  
Page 7 of 8 dated 09/20/99

Page 2 of 8 dated 07/22/00  
Page 7 of 8 dated 07/22/00

**TAB 16.7**

Chapter 16.7-10, page 4 of 6  
dated 01/17/00

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

**TAB 16.11**

Chapter 16.11-7, pages 1 & 2 of 9  
dated 01/16/99

Chapter 16.11-7, page 3 of 9  
dated 6/10/99

Chapter 16.11-7, pages 4 - 6 of 9  
dated 01/16/99

Chapter 16.11-7, pages 7 & 8 of 9  
dated 06/10/99

Chapter 16.11-7, page 9 of 9  
dated 9/20/99

Chapter 16.11-7, pages 1 - 10  
dated 07/22/00

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



Gary D. Gilbert  
Regulatory Compliance Manager

**CATAWBA NUCLEAR STATION  
SELECTED LICENSEE COMMITMENTS MANUAL**

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## 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.

### 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 one train of the Fuel Handling Ventilation Exhaust System (FHVES) is OPERABLE and in operation discharging through the HEPA filters and

**16.11      RADIOLOGICAL EFFLUENTS CONTROLS**

**16.11-7      RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION**

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**COMMITMENT**

The radioactive gaseous effluent monitoring instrumentation channels shown in Table 16.11-5 shall be OPERABLE with their Alarm/Trip Setpoints set to ensure that the limits of SLC 16.11-6 are not exceeded. The Alarm/Trip Setpoints of these channels meeting SLC 16.11-6 shall be determined and adjusted in accordance with the methodology and parameters in the ODCM.

**APPLICABILITY:**

As shown in Table 16.11-5.

**REMEDIAL ACTION:**

- a. With a radioactive gaseous effluent monitoring instrumentation channel Alarm/Trip Setpoint less conservative than required by the above specification, immediately suspend the release of radioactive gaseous effluents monitored by the affected channel, or declare the channel inoperable.
- b. With less than the minimum number of radioactive gaseous effluent monitoring instrumentation channels OPERABLE, take the ACTION shown in Table 16.11-5. Restore the inoperable instrumentation to OPERABLE status within the time specified in the ACTION, or explain in the next Radioactive Effluent Release Report pursuant to Technical Specification 5.6.3 why this inoperability was not corrected within the time specified.

**TESTING REQUIREMENTS:**

Each radioactive gaseous effluent monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK, SOURCE CHECK, CHANNEL CALIBRATION, and CHANNEL OPERATIONAL TEST operations at the frequencies shown in Table 16.11-6.

**REFERENCES:**

1. Catawba Offsite Dose Calculation Manual
2. 10 CFR Part 20

**BASES:**

The radioactive gaseous effluent instrumentation is provided to monitor and control, as applicable, the releases of radioactive materials in gaseous effluents during actual or potential releases of gaseous effluents. The Alarm/Trip Setpoints for these instruments shall be calculated and adjusted in accordance with the methodology and parameters in the ODCM to ensure that the alarm/trip will occur prior to exceeding the limits of 10 CFR Part 20. The OPERABILITY and use of this instrumentation is consistent with the requirements of General Design Criteria 60, 63, and 64 of Appendix A to 10 CFR Part 50. The sensitivity of any noble gas activity monitor used to show compliance with the gaseous effluent release requirements of SLC 16.11-8 shall be such that concentrations as low as  $1 \times 10^{-6}$   $\mu\text{Ci/cc}$  are measurable.

TABLE 16.11-5 (Page 1 of 5)

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

| <u>Instrument</u>   | <u>Minimum Channels<br/>Operable</u> | <u>Applicability</u> | <u>Action</u> |
|---|--------------------------------------|----------------------|---------------|
| 1. Waste Gas Holdup System  |                                      |                      |               |
| a. Noble Gas Activity Monitor – Providing Alarm and Automatic Termination of Release (Low Range – EMF-50) | 1 per station                        | *                    | C             |
| b. Effluent System Flow Rate Measuring Device   | 1 per station                        | *                    | D             |
| 2. Condenser Evacuation System Noble Gas Activity Monitor (Low Range – EMF-33)                            | 1                                    | 1,2,3,4,#            | H             |
| 3. Vent System  |                                      |                      |               |
| a. Noble Gas Activity Monitor (Low Range – EMF-36)  | 1                                    | **                   | E             |
| b. Iodine Sampler (EMF-37)  | 1                                    | **                   | G             |
| c. Particulate Sampler (EMF-35)   | 1                                    | **                   | G             |
| d. Unit Vent Stack Flow Rate Meter  | 1                                    | **                   | D             |
| e. Unit Vent Radiation Monitor Flow Meter   | 1                                    | **                   | G             |

**TABLE 16.11-5 (Page 2 of 5)**

**RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION**

| <b><u>Instrument</u></b>   | <b><u>Minimum Channels<br/>Operable</u></b> | <b><u>Applicability</u></b> | <b><u>Action</u></b> |
|--|---|-----------------------------|----------------------|
| 4. Containment Purge System  |   |                             |                      |
| Noble Gas Activity Monitor – Providing Alarm and Automatic Termination of Release (Low Range – EMF-39) | 1   | **                          | F                    |
| 5. Containment Air Release and Addition System   |   |                             |                      |
| Noble Gas Activity Monitor – Providing Alarm (Low Range – EMF-39)                                      | 1   | *                           | I                    |
| 6. Monitor Tank Building HVAC  |   |                             |                      |
| a. Noble Gas Activity Monitor – Providing Alarm (EMF-58)   | 1 per station                               | **                          | E                    |
| b. Monitor Tank Building Effluent Flow Rate Measuring Device   | 1 per station                               | **                          | D                    |

**TABLE 16.11-5 (Page 3 of 5)**

**TABLE NOTATIONS**

- \* At all times except when the isolation valve is closed and locked.
- \*\* At all times.
- # Apply Action Hb in Modes 5 and 6

**ACTION STATEMENTS**

ACTION C - With the number of channels OPERABLE less than required the Minimum Channels OPERABLE requirement, the contents of the tank(s) may be released to the environment for up to 14 days provided that prior to initiating the release either:

- a. Vent system noble gas activity monitor providing alarm and automatic termination of release (Low Range – EMF-36) has at least one channel OPERABLE; or,
- b. At least two independent samples of the tank's contents are analyzed, and at least two technically qualified members of the facility staff independently verify:
  - 1. The discharge valve lineup; and
  - 2. The manual portion of the computer input for the release rate calculations performed on the computer, or the entire release rate calculations if such calculations are performed manually.

Otherwise, suspend release of radioactive effluents via this pathway.

ACTION D - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue for up to 30 days provided the flow rate is estimated at least once per 4 hours.

ACTION E - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue for up to 30 days provided grab samples

**TABLE 16.11-5 (Page 4 of 5)**

**TABLE NOTATIONS**

are taken at least once per 12 hours and these samples are analyzed for radioactivity within 24 hours.

**ACTION F -** With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, immediately suspend PURGING of radioactive effluents via this pathway.

**ACTION G -** With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via the affected pathway may continue for up to 30 days provided samples are continuously collected with auxiliary sampling equipment as required in Table 16.11-4.

**ACTION H -** With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement:

- a. Effluent release via the CSAE System (ZJ) may continue for up to 30 days provided grab samples are taken at least once per 12 hours and these samples are analyzed for radioactivity within 24 hours, and
- b. Gaseous effluent releases via the BB system atmospheric vent valve (BB27) in the off normal mode may continue for up to 30 days provided grab samples of steam generator water are analyzed for radioactivity at a lower limit of detection of no more than  $1E-7$  microCurie/ml:
  1. At least once per 12 hours when the specific activity of the secondary coolant is greater than 0.01: microCurie/gram DOSE EQUIVALENT I-131, or
  2. At least once per 24 hours when the specific activity of the secondary coolant is less than or equal to 0.01 microCurie/gram DOSE EQUIVALENT I-131.

**TABLE 16.11-5 (Page 5 of 5)**

**TABLE NOTATIONS**

ACTION I - With the number of channels OPERABLE less than the Minimum Channels OPERABLE requirement, containment releases to the environment through this pathway may continue for up to 30 days provided that prior to initiating the release:

- a. Vent system noble gas activity monitor providing alarm and automatic termination of release (Low Range – EMF-36) has at least one channel OPERABLE; or,
- b. At least two independent samples of the containment atmosphere are analyzed, and at least two technically qualified members of the facility independently verify:
  1. The discharge valve lineup; and
  2. The manual portion of the computer input for the release rate calculations performed on the computer, or the entire release rate calculations if such calculations are performed manually.

Otherwise, suspend release of radioactive effluents via this pathway.

**TABLE 16.11-6 (Page 1 of 3)**

**RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS**

| <u>Instrument</u>   | <u>Channel Check</u> | <u>Source Check</u> | <u>Channel Calibration</u> | <u>Channel Operational Test</u> | <u>Modes For Which Surveillance Is Required</u> |
|---|----------------------|---------------------|----------------------------|---------------------------------|---|
| 1. Waste Gas Holdup System  |                      |                     |                            |                                 |   |
| a. Noble Gas Activity Monitor – Providing Alarm and Automatic Termination of Release (Low Range – EMF-50) | P                    | P(4)                | R(3)                       | Q(1)                            | *   |
| b. Effluent System Flow Rate Measuring Device   | P                    | N.A.                | R                          | N.A.                            | *   |
| 2. Condenser Evacuation System  |                      |                     |                            |                                 |   |
| Noble Gas Activity Monitor (Low Range – EMF-33)   | D                    | M(4)                | R(3)                       | Q(1)                            | 1,2,3,4   |
| 3. Vent System  |                      |                     |                            |                                 |   |
| a. Noble Gas Activity Monitor (Low Range – EMF-36)  | D                    | M(4)                | R(3)                       | Q(2)                            | **  |
| b. Iodine Sampler (EMF-37)  | W                    | N.A.                | N.A.                       | N.A.                            | **  |
| c. Particulate Sampler (EMF-35)   | W                    | N.A.                | N.A.                       | N.A.                            | **  |
| d. Unit Vent Stack Flow Rate Meter  | D                    | N.A.                | R                          | N.A.                            | **  |

**TABLE 16.11-6 (Page 2 of 3)**

**RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS**

| <u>Instrument</u>  | <u>Channel Check</u> | <u>Source Check</u> | <u>Channel Calibration</u> | <u>Channel Operational Test</u> | <u>Modes For Which Surveillance Is Required</u> |
|--|----------------------|---------------------|----------------------------|---------------------------------|---|
| e. Unit Vent Radiation Monitor Flow Meter  | D                    | N.A.                | R                          | N.A.                            | **  |
| 4. Containment Purge System  |                      |                     |                            |                                 |   |
| Noble Gas activity Monitor – Providing Alarm and Automatic Termination of Release (Low Range – EMF-39) | D                    | P(4)                | R(3)                       | Q(1)                            | **  |
| 5. Containment Air Release and Addition System   |                      |                     |                            |                                 |   |
| Noble Gas Activity Monitor – Providing Alarm (Low Range – EMF-39)                                      | D                    | P(4)                | R(3)                       | Q(1)                            | *   |
| 6. Monitor Tank Building HVAC  |                      |                     |                            |                                 |   |
| a. Noble Gas Activity Monitor – Providing Alarm (EMF-58)   | D                    | M                   | R(3)                       | Q(2)                            | **  |
| b. Discharge Flow Instrumentation  | D                    | N.A.                | R                          | N.A.                            | **  |

**TABLE 16.11-6 (Page 3 of 3)**

**TABLE NOTATIONS**

- \* At all times except when the isolation valve is closed and locked.
- \*\* At all times.

1. The CHANNEL OPERATIONAL TEST shall also demonstrate that automatic isolation of this pathway and control room alarm annunciation occur if any of the following conditions exists:
  - a. Instrument indicates measured levels above the Alarm/Trip Setpoint; or,
  - b. Circuit failure/Instrument downscale failure (Alarm only)
2. The CHANNEL OPERATIONAL TEST shall also demonstrate that control room alarm annunciation<sup>#</sup> occurs if any of the following conditions exists:
  - a. Instrument indicates measured levels above the Alarm Setpoint; or,
  - b. Circuit failure/Instrument downscale failure
3. The initial CHANNEL CALIBRATION shall be performed using one or more of the reference standards certified by the National Bureau of Standards (NBS) or using standards that have been obtained from suppliers that participate in measurement assurance activities with NBS. These standards shall permit calibrating the system over its intended range of energy and measurement range. For subsequent CHANNEL CALIBRATION, sources that have been related to the initial calibration shall be used.
4. A source check for these channels shall be the qualitative assessment of channel response when the channel sensor is exposed to a light emitting diode.

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<sup>#</sup> For EMF-58, the alarm annunciation is in the Monitor Tank Building Control Room and on the MTB Control Panel Remote Annunciator Panel.