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Facility: CATAWBA NUCLEAR STATION
SUBJECT
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Remarks:

*ADD
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Remove and Insert

Replace the following page(s) of Catawba Nuclear Station Selected Licensee Commitments (SLC) Manual with the attached revised page(s). The revised page(s) are identified by Section number and contains marginal lines indicating the areas of change.

REMOVE THESE PAGES

INSERT THESE PAGES

LIST OF EFFECTIVE SECTIONS

Pages 1-5
Revision 99

Pages 1-5
Revision 100

TAB 16.11

16.11-2, Pages 1-9
Revision 5

16.11-2, Pages 1-9
Revision 6

If you have any questions concerning the contents of this Catawba Nuclear Station Selected Licensee Commitments (SLC) Manual update, please contact Nicole Edwards (704) 591-3907.

16.11 RADIOLOGICAL EFFLUENTS CONTROLS

16.11-2 Radioactive Liquid Effluent Monitoring Instrumentation

COMMITMENT The Radioactive Liquid Effluent Monitoring Instrumentation channels shown in Table 16.11-2-1 shall be FUNCTIONAL with their Alarm/Trip Setpoints set to ensure that the limits of SLC 16.11-1 are not exceeded.

AND

The Alarm/Trip Setpoints of these channels shall be determined and adjusted in accordance with the methodology and parameters in the OFFSITE DOSE CALCULATION MANUAL (ODCM).

APPLICABILITY: Conditions A, B, and G are applicable at all times. Conditions C, D, E, and F are applicable at all times, except when the effluent pathway is mechanically isolated; thus a release to the environment is not possible.

REMEDIAL ACTIONS

-----NOTE-----

Separate Condition entry is allowed for each Function.

Radioactive Liquid Effluent Monitoring Instrumentation
16.11-2

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>A. One or more Radioactive Liquid Effluent Monitoring Instrumentation channel(s) Alarm/Trip Setpoint less conservative than required.</p>	<p>A.1 Suspend the release of radioactive liquid effluents monitored by the affected channel(s).</p>	<p>Immediately</p>
	<p style="text-align: center;"><u>OR</u></p> <p>A.2 Declare the channel(s) non-functional.</p>	
<p>B. One or more Radioactive Liquid Effluent Monitoring Instrumentation channel(s) non-functional.</p>	<p>B.1 Enter the applicable Conditions and Required Actions specified in Table 16.11-2-1 for the channel(s).</p>	<p>Immediately</p>
	<p style="text-align: center;"><u>AND</u></p> <p>B.2.1 Restore channel to FUNCTIONAL status.</p>	<p>14 Days (*Note 1)</p>
	<p style="text-align: center;"><u>OR</u></p> <p>B.2.2 Restore channel to FUNCTIONAL status.</p>	<p>30 Days (*Note 1)</p>

*Note 1 – Required Action B.2.1 Applies to Instruments 1.a and 1.c ONLY. (continued)
 Required Action B.2.2 Applies to the remainder of required Instruments listed in Table 16.11-2-1.

REMEDIAL ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>C. One channel non-functional.</p>	<p>C.1.1 Analyze two independent samples per Testing Requirement 16.11-1-1.</p> <p><u>AND</u></p>	<p>Prior to initiating a release</p>
	<p>C.1.2 Perform independent verification of the discharge line valving.</p> <p><u>AND</u></p>	<p>Prior to initiating a release</p>
	<p>C.1.3.1 Perform independent verification of manual portion of the computer input for release rate calculations performed by computer.</p> <p><u>OR</u></p>	<p>Prior to initiating a release</p>
	<p>C.1.3.2 Perform independent verification of entire calculations for release rate calculations performed manually.</p> <p><u>OR</u></p>	<p>Prior to initiating a release</p>
	<p>C.2 Suspend release of radioactive effluents via this pathway.</p>	<p>Immediately</p>

(continued)

REMEDIAL ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>D. One flow rate measurement device channel non-functional.</p>	<p>D.1 -----NOTE----- Pump performance curves generated in place may be used to estimate flow. ----- Estimate the flow rate of the release.</p>	<p>Once per 4 hours during releases</p>
<p>E. One channel non-functional.</p>	<p>E.1 Perform an analysis of grab samples for radioactivity at a lower limit of detection of 10^{-7} microCurie/ml.</p>	<p>Once per 12 hours during releases when secondary specific activity is > 0.01 microCurie/gm DOSE EQUIVALENT I-131 <u>AND</u> Once per 24 hours during releases when secondary specific activity is ≤ 0.01 microCurie/gm DOSE EQUIVALENT I-131</p>

(continued)

REMEDIAL ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
F. One channel non-functional.	F.1 Collect and analyze grab samples for principal gamma emitters (listed in Table 16.11-1-1, NOTE 3) at a lower limit of detection of no more than 5×10^{-7} microCurie/ml.	Once per 12 hours
G. Required Action and associated Completion Time of Condition B not met.	G.1 Explain why the non-functionality was not corrected within the specified Completion Time.	In the next scheduled Radioactive Effluent Release Report pursuant to Technical Specification 5.6.3

TESTING REQUIREMENTS

-----NOTE-----

Refer to Table 16.11-2-1 to determine which TRs apply for each Radioactive Liquid Effluent Monitoring Instrumentation channel.

TEST	FREQUENCY
TR 16.11-2-1 Perform CHANNEL CHECK.	24 hours
TR 16.11-2-2 -----NOTE----- The CHANNEL CHECK shall consist of verifying indication of flow. ----- Perform CHANNEL CHECK.	24 hours during periods of release
TR 16.11-2-3 Perform SOURCE CHECK.	Prior to each release
TR 16.11-2-4 Perform SOURCE CHECK.	31 days
TR 16.11-2-5 Perform COT.	182 days
TR 16.11-2-6 -----NOTE----- For Instrument 1, the COT shall also demonstrate that automatic isolation of this pathway and control room alarm annunciation (for EMF-57, alarm annunciation is in the Monitor Tank Building control room and on the Monitor Tank Building control panel remote annunciator panel) occur if any of the following conditions exist: a. Instrument indicates measured levels above the Alarm/Trip Setpoint, or b. Circuit failure/instrument downscale failure (alarm only) ----- Perform COT.	9 months

(continued)

TESTING REQUIREMENTS (continued)

TEST	FREQUENCY
<p>TR 16.11-2-7 -----NOTE----- For Instrument 1, 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. ----- Perform CHANNEL CALIBRATION.</p>	<p>18 months</p>

Radioactive Liquid Effluent Monitoring Instrumentation
16.11-2

Table 16.11-2-1

Radioactive Liquid Effluent Monitoring Instrumentation

INSTRUMENT	REQUIRED CHANNELS	CONDITIONS	TESTING REQUIREMENTS
1. Radioactivity Monitors Providing Alarm and Automatic Termination of Release			
1.a Waste Liquid Discharge Monitor (EMF-49 – Low Range)	1 per station	A, B, C, G	TR 16.11-2-1 TR 16.11-2-3 TR 16.11-2-6 TR 16.11-2-7
1.b Turbine Building Sump Monitor (EMF-31)	1	A, B, E, G	TR 16.11-2-1 TR 16.11-2-4 TR 16.11-2-6 TR 16.11-2-7
1.c Monitor Tank Building Liquid Discharge Monitor (EMF-57 – Low Range)	1 per station	A, B, C, G	TR 16.11-2-1 TR 16.11-2-3 TR 16.11-2-6 TR 16.11-2-7
2. Continuous Composite Samplers and Sampler Flow Monitor			
2.a Conventional Waste Water Treatment Line (no alarm/trip function)	1 per station	B, E, G	TR 16.11-2-2 TR 16.11-2-7
3. Flow Rate Measurement Devices			
3.a Waste Liquid Effluent Line (no alarm/trip function)	1 per station	B, D, G	TR 16.11-2-2 TR 16.11-2-7
3.b Conventional Waste Water Treatment Line (no alarm/trip function)	1 per station	B, D, G	TR 16.11-2-2 TR 16.11-2-7
3.c Low Pressure Service Water Minimum Flow Interlock	1 per station	B, D, G	TR 16.11-2-2 TR 16.11-2-5 TR 16.11-2-7
3.d Monitor Tank Building Waste Liquid Effluent Line (no alarm/trip function)	1 per station	B, D, G	TR 16.11-2-2 TR 16.11-2-7
4. Radioactivity Monitors Providing Alarm			
4.a Service Water Monitor on Containment Spray Heat Exchanger (EMF-45 A & B – Low Range)	1 per heat exchanger	A, B, F, G	TR 16.11-2-1 TR 16.11-2-4 TR 16.11-2-6 TR 16.11-2-7

BASES

The Radioactive Liquid Effluent Monitoring Instrumentation is provided to monitor and control, as applicable, the releases of radioactive materials in liquid effluents during actual or potential releases of liquid 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 FUNCTIONALITY 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.

Regarding the COMMITMENT APPLICABILITY, isolation of the effluent pathway is to be by mechanical means (e.g., valve closure). Electrical or pneumatic isolation is not required, unless the isolation is designed to receive an automatic signal to open.

REFERENCES

1. Catawba Offsite Dose Calculation Manual.
2. 10 CFR Part 20.
3. 10 CFR Part 50, Appendix A.

LIST OF EFFECTIVE SECTIONS

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