

ENCLOSURE 1

SUBJECT: Safety-Related Hydraulic Snubbers

APPLICABILITY: Brunswick-1

DESCRIPTION OF TECHNICAL SPECIFICATION (TS) CHANGE: Revise TS Table 3.7.5-1 to reflect snubbers being deleted due to control rod drive return line capping and removal.

DISCUSSION:

By letter dated October 7, 1981 (Serial No. NO-81-1653), CP&L provided a schedule for implementing NUREG-0619 requirements for the Brunswick Plant. Item 3 of that schedule dealt with the cutting and capping of control rod drive (CRD) return lines. CP&L's letter dated February 24, 1983 (Serial No. LAP-83-34) revised the schedule for this work due to our inability to totally defuel Brunswick-1 during the current refueling outage.

Our letter dated June 16, 1982 submitted proposed TS revisions to delete all the CRD system drywell snubbers listed on page 3/4 7-12 of TS Table 3.7.5-1. These deletions were based on our previous schedule for capping and removing the Brunswick-1 CRD return line during the Reload 3 outage. Due to the scheduler revision for this work, a temporary cap has been installed and the CRD return line has been only partially removed. The enclosed TS revisions reflect the deletion of only those snubbers associated with those portions of the CRD return line that have been removed. These TS revisions supersede those provided for page 3/4 7-12 of Attachment 2 to the June 16, 1982 submittal.

TABLE 3.7.5-1 (Continued)

SAFETY-RELATED HYDRAULIC SNUBBERS\*

<u>SNUBBER NO.</u>	<u>SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION</u>	<u>ACCESSIBLE OR INACCESSIBLE</u>	<u>HIGH RADIATION ZONE**</u>	<u>ESPECIALLY DIFFICULT TO REMOVE</u>
<u>Condensate Drain System</u>				
1B21-51SS103	<u>Drywell</u> 29'	I	No	No
51SS105	29'	I	No	No
51SS106	26'	I	No	No
50SS109	18'	I	No	No
50SS111	31'	I	No	No
51SS113	28'	I	No	No
51SS115	23'	I	No	No
51SS118	24'	I	No	No
<u>Control Rod Drive System</u>				
1C11-16SS11	<u>Drywell</u> 72'	I	No	No
16SS12	72'	I	No	No
<u>High Pressure Coolant Injection System</u>				
1E41-4SS44	<u>Drywell</u> 40'	I	No	No
4SS45	35'	I	No	No
4SS47	40'	I	No	No
4SS49	37'	I	No	No
4SS50	50'	I	No	No
4SS51	30'	I	No	No
60SS9	<u>Reactor Building</u> 4'	A	No	No
6SS27	-5'	A	No	No
6SS28	1'	A	No	No
6SS30	-1'	A	No	No
6SS32	-5'	A	No	No
6SS33	1'	A	No	No
6SS35	-1'	A	No	No
6SS36	-5'	A	No	No

## ENCLOSURE 2

SUBJECT: Post-accident Monitoring Instrumentation

APPLICABILITY: Brunswick-1

DESCRIPTION OF TECHNICAL SPECIFICATION (TS) CHANGE: Revise TS Tables 3.3.5.3-1 and 4.3.5.3-1 to incorporate post-accident monitoring instrumentation installed to comply with NUREG-0737 requirements.

### DISCUSSION:

#### Off-gas Ventilation Monitor

NUREG-0737 Items II.F.1.1 and II.F.1.2 concern the installation of high range noble gas effluent monitors and provisions for sampling/analysis of plant effluents. The proposed revisions to TS Tables 3.3.5.3-1 and 4.3.5.3-1 provided herein incorporate instrumentation being installed on Brunswick-1 and Brunswick-2 pursuant to these requirements. The proposed revisions will add an item 13, off-gas ventilation monitor, to the list of post-accident monitoring instrumentation in TS Tables 3.3.5.3-1 and 4.3.5.3-1. The revisions are based on NRC Staff guidance provided by a letter dated January 21, 1982 from Mr. D. B. Vassallo (NRC) to Mr. J. A. Jones (CP&L) and CP&L's letters dated March 31, 1982; October 7, 1981 (Serial No. NO-81-1651); and March 3, 1981 (Serial No. NO-81-376).

#### Drywell Area Radiation Monitor

NUREG-0737 Item II.F.1.3 concerns containment high-range radiation monitors. The proposed revisions to TS Tables 3.3.5.3-1 and 4.3.5.3-1 provided herein incorporate a new instrument (Item 8 in both TS Tables) being installed on Brunswick-1 pursuant to the requirements of NUREG-0737 Item II.F.1.3. By letter dated November 22, 1982, the NRC Staff informed CP&L of the approval of CP&L's technical basis for this action item. These proposed TS revisions are based on the NRC Staff guidance provided in the January 21, 1982 letter referenced above.

#### Drywell Hydrogen/Oxygen Concentration Monitors

NUREG-0737 Item II.F.1.6 concerns containment hydrogen monitoring. The proposed revisions to TS Tables 3.3.5.3-1 and 4.3.5.3-1 provided herein incorporate revised instrument numbers associated with the new drywell hydrogen and oxygen monitoring system. This modification involves the replacement of the existing drywell hydrogen/oxygen monitoring system with a new wide-range monitoring system; therefore, the only revisions necessary to TS Tables 3.3.5.3-1 and 4.3.5.3-1 are the inclusion of new instrument numbers for item 9, drywell oxygen concentration, and item 10, drywell hydrogen concentration analyzer and monitor.

### Turbine Building Ventilation Monitor

NUREG-0737 Items II.F.1.1 and II.F.1.2 concern the installation of high range noble gas effluent monitors and provisions for sampling/analysis of plant effluents. The proposed revisions to TS Tables 3.3.5.3-1 and 4.3.5.3-1 provided herein also incorporate instrumentation being installed on Brunswick-1 for monitoring the turbine building ventilation effluent pursuant to the NUREG-0737 requirements. The proposed revisions will add an item 14, turbine building ventilation monitor, to the list of post-accident monitoring instrumentation in TS Tables 3.3.5.3-1 and 4.3.5.3-1. The revisions are based on NRC Staff guidance provided by a letter dated January 21, 1982 from Mr. D. B. Vassallo (NRC) to Mr. J. A. Jones (CP&L) and CP&L's letters dated March 31, 1982 and March 3, 1981 (Serial No. NO-81-376).

### Suppression Chamber Water Level

NUREG-0737 Item II.F.1.5 concerns wide-range containment water level monitoring. The proposed revisions to TS Tables 3.3.5.3-1 and 4.3.5.3-1 provided herein incorporate new instrument tag numbers due to the installation of modifications to the existing containment (suppression chamber) water level monitors. The existing suppression chamber water level monitoring system consists of two redundant channels of narrow-range and wide-range (-6 to +6 feet) levels; however, only one loop of instrumentation in each division is designated as safety-related. The new instrumentation will provide two channels of wide-range level measurement, the span of which exceeds that of the existing wide-range channel.

## INSTRUMENTATION

### POST-ACCIDENT MONITORING INSTRUMENTATION

#### LIMITING CONDITION FOR OPERATION

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3.3.5.3 The post-accident monitoring instrumentation channels shown in Table 3.3.5.3-1 shall be OPERABLE.

APPLICABILITY: OPERATIONAL CONDITIONS 1 and 2.

#### ACTION:

- a. With the number of OPERABLE post-accident monitoring channels less than required by Table 3.3.5.3-1, either restore the inoperable channels to OPERABLE status within 31 days or be in at least HOT SHUTDOWN within the next 12 hours.
- b. The provisions of Specification 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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4.3.5.3 Each of the above required post-accident monitoring instrumentation channels shall be demonstrated OPERABLE by performance of the CHANNEL CHECK and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3.5.3-1.

TABLE 3.3.5.3-1

POST-ACCIDENT MONITORING INSTRUMENTATION

<u>INSTRUMENT AND INSTRUMENT NUMBER</u>	<u>MINIMUM NO. OF OPERABLE INSTRUMENT CHANNELS</u>
1. Reactor Vessel Pressure (B21-PI-R004A,B; C32-LPR-R608; and C32-PT-N005A,B)	2
2. Reactor Vessel Water Level (B21-LITS-N026A,B; B21-LR-R615; B21-LI-R604A,B; B21-LT-N037; and B21-LTM-N037-1)	2
3. Suppression Chamber Water Level (CAC-LT-2601; CAC-LI-2601-1) (CAC-LT-2602; CAC-LR-2602)	2
4. Suppression Chamber Water Temperature (CAC-TR-1258-14, 21; and C91-P602)	2
5. Suppression Chamber Atmosphere Temperature (CAC-TR-1258-17 thru 20; and C91-P602)	2
6. Drywell Pressure (CAC-PI-4176; CAC-PT-4176; CAC-PR-1257-1; and CAC-PT-4175)	2
7. Drywell Temperature (CAC-TR-1258-1 thru 13, 22, 23, 24; and C91-P602)	2
8. Drywell Radiation (CAC-AR-1260; CAC-AQH-1260-1, 2, 3; CAC-AR-1261; CAC-AQH-1261-1, 2, 3; CAC-AR-1262; and CAC-AQH-1262-1, 2, 3)	2
9. Drywell Oxygen Concentration (CAC-AT-4409-37; CAC-AI-4409-40; CAC-X-XY-4348-2; CAC-X-XY-4349-2; CAC-AR-4409-41) (CAC-AT-4410-37; CAC-AI-4410-40; CAC-X-XY-4362-2; CAC-X-XY-4363-2; CAC-AR-4410-41)	2 <sup>(a)</sup>

TABLE 3.3.5.3-1 (Continued)

POST-ACCIDENT MONITORING INSTRUMENTATION

<u>INSTRUMENT AND INSTRUMENT NUMBER</u>	<u>MINIMUM NO. OF OPERABLE INSTRUMENT CHANNELS</u>
10. Drywell Hydrogen Concentration Analyzer and Monitor (CAC-AT-4409-38; CAC-AI-4409-32; CAC-X-XY-4348-1; CAC-X-XY-4349-1; CAC-AR-4409-42) (CAC-AT-4410-38; CAC-AI-4410-32; CAC-X-XY-4362-1; CAC-X-XY-4363-1; CAC-AR-4410-42)	2 <sup>(a)</sup>
11. Drywell Area Radiation Monitors (D22-RM-4195; D22-RI-4195) (D22-RM-4196; D22-RI-4196) (D22-RM-4197; D22-RI-4197) (D22-RM-4198; D22-RI-4198)	2
12. Safety Relief Valve Position Indication: a. Primary - Sonic (B21-FY-4157 thru 4167) b. Secondary - Temp. (B21-TR-R614, points 1-11)	1/valve
13. Off-gas Stack Ventilation Monitor (D12-RE-4982; D12-RE-4573; D12-RE-4574; D12-RM-805; D12-RR-4599; D12-RR-4600)	1
14. Turbine Building Ventilation Monitor (D12-RE-4561; D12-RE-4562; D12-RE-4563; D12-RR-4548)	1

(a) An OPERABLE instrument channel shall consist of the AT instrument and either the AI instrument or the XY-XY-AR instruments.



TABLE 4.3.5.3-1

## POST-ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

BRUNSWICK - UNIT 1

3/4 3-52

Amendment No.

INSTRUMENT AND INSTRUMENT NUMBER	CHANNEL CHECK	CHANNEL CALIBRATION
1. Reactor Vessel Pressure (B21-PI-R004A,B; C32-LPR-R608; and C32-PT-N005A,B)	M	R
2. Reactor Vessel Water Level (B21-LITS-N026A,B; B21-LR-R615; B21-LI-R604A,B; B21-LT-N037; and B21-LTM-N037-1)	M	R
3. Suppression Chamber Water Level (CAC-LT-2601; CAC-LI-2601-1; CAC-LT-2602; CAC-LR-2602)	M	R
4. Suppression Chamber Water Temperature (CAC-TR-1258-14, 21; and C91-P602)	M	R
5. Suppression Chamber Atmosphere Temperature (CAC-TR-1258-17 thru 20; and C91-P602)	M	R
6. Drywell Pressure (CAC-PI-4176; CAC-PT-4176; CAC-PR-1257-1; and CAC-PT-4175)	M	R
7. Drywell Temperature (CAC-TR-1258-1 thru 13, 22, 23, 24; and C91-P602)	M	R
8. Drywell Radiation (CAC-AR-1260; CAC-AQH-1260-1,2,3; CAC-AR-1261; CAC-AQH-1261-1,2,3; CAC-AR-1262; and CAC-AQH-1262-1,2,3)	M	R
9. Drywell Oxygen Concentration (CAC-AT-4409-37; CAC-AI-4409-40; CAC-X-XY-4348-2; CAC-X-XY-4349-2; CAC-AR-4409-41) (CAC-AT-4410-37; CAC-AI-4410-40; CAC-X-XY-4362-2; CAC-X-XY-4363-2; CAC-AR-4410-41)	M	R
10. Drywell Hydrogen Concentration Analyzer and Monitor (CAC-AT-4409-38; CAC-AI-4409-32; CAC-X-XY-4348-1; CAC-X-XY-4349-1; CAC-AR-4409-42) (CAC-AT-4410-38; CAC-AI-4410-32; CAC-X-XY-4362-1; CAC-X-XY-4363-1; CAC-AR-4410-42)	M	R



TABLE 4.3.5.3-1 (Continued)

POST-ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT AND INSTRUMENT NUMBER</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>
11. Drywell Area Radiation Monitor (D22-RM-4195; D22-RI-4195) (D22-RM-4196; D22-RI-4196) (D22-RM-4197; D22-RI-4197) (D22-RM-4198; D22-RI-4198)	M	R
12. Safety Relief Valve Position Indication a. Primary - Sonic (B21-FY-4157 thru 4167) b. Secondary - Temp. (B21-TR-R614, points 1-11)	M M	R R
13. Off-gas Stack Ventilation Monitor (D12-RE-4982; D12-RE-4573; D12-RE-4574; D12-RM-805; D12-RR-4599; D12-RR-4600)	M	R
14. Turbine Building Ventilation Monitor (D12-RE-4561; D12-RE-4562; D12-RE-4563; D12-RR-4548)	M	R

ENCLOSURE 3

SUBJECT: Gas Analyzer Systems

APPLICABILITY: Brunswick-1

DESCRIPTION OF TECHNICAL SPECIFICATION (TS) CHANGE: Revise TS 4.6.6.4 to reflect (1) new instrument numbers and (2) new standard gas samples for calibration of the drywell/suppression chamber gas analyzer systems.

DISCUSSION:

The existing Brunswick-1 gas analyzer systems are being modified to meet the requirements of NUREG-0737 Item II.F.1.6, Containment Hydrogen Monitors. The modification involves the replacement of the existing drywell hydrogen/oxygen monitoring system with a new wide-range monitoring system; therefore, the only revisions necessary to TS 4.6.6.4 are (1) the inclusion of revised instrument numbers for the new systems and (2) revised standard gas samples to be used in performing channel calibrations. Further details of the new hydrogen/oxygen monitoring systems are provided in Attachment 4 of CP&L's letter dated June 24, 1982.

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## CONTAINMENT SYSTEMS

### GAS ANALYZER SYSTEMS

#### LIMITING CONDITION FOR OPERATION

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3.6.6.4 Two independent gas analyzer systems for the drywell and suppression chamber shall be OPERABLE with each system consisting of an oxygen analyzer and a hydrogen analyzer.

APPLICABILITY: OPERATIONAL CONDITION 1.

#### ACTION:

- a. With one oxygen and/or one hydrogen analyzer inoperable, restore at least two oxygen and two hydrogen analyzers to OPERABLE status within 31 days or be in at least STARTUP within the next 8 hours. The provisions of Specification 3.0.4 are not applicable.
- b. With no gas analyzer OPERABLE for oxygen and/or hydrogen, be in at least STARTUP within 8 hours.

#### SURVEILLANCE REQUIREMENTS

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4.6.6.4 Each gas analyzer system (CAC-AT-4409, Division I and CAC-AT-4410, Division II) shall be demonstrated OPERABLE at least once per 92 days by performing a CHANNEL CALIBRATION using standard gas samples containing a nominal:

- a. Zero volume percent hydrogen, balance nitrogen.
- b. Seven to ten volume percent hydrogen, balance nitrogen.
- c. Twenty-five to thirty volume percent hydrogen, balance nitrogen.
- d. Zero volume percent oxygen, balance nitrogen.
- e. Seven to ten volume percent oxygen, balance nitrogen.
- f. Twenty to twenty-five volume percent oxygen, balance nitrogen.

## ENCLOSURE 4

SUBJECT: Reactor Coolant Leakage Detection Systems

APPLICABILITY: Brunswick-1 and Brunswick-2

DESCRIPTION OF TECHNICAL SPECIFICATION (TS) CHANGE: TS 4.4.3.1.b and TS 4.4.3.2.a: Revise the primary containment sump flow monitoring system instrument number references to reflect (1) plant modifications and (2) editorial corrections.

### DISCUSSION

The proposed revisions to TS 4.4.3.1.b and 4.4.3.2.a consist of (1) changes to reflect modifications to the drywell floor equipment drain leakage detection system, and (2) an editorial correction to the instrument number references.

The present integrated drywell floor equipment drain leakage detection system is being replaced with a system consisting of two separate components. Separate instrument numbers are required for each component, which results in a new instrument number to be added to TS 4.4.3.1.b and TS 4.4.3.2.a. This TS revision is needed for Brunswick-1 prior to startup from the refueling outage currently in progress. Carolina Power & Light Company will notify the NRC at a later date as to when issuance of the change for Brunswick-2 is needed.

In addition to the revision above, the instrument number "G16-FY-K601" is incorrect and should actually be "G16-FY-K600" in TS 4.4.3.1.b and TS 4.4.3.2.a for both Brunswick-1 and Brunswick-2. Several other editorial revisions are also included which will provide for more consistent nomenclature for the subject Limiting Conditions for Operation and Surveillance Requirements.

## REACTOR COOLANT SYSTEM

### 3/4.4.3 REACTOR COOLANT SYSTEM LEAKAGE

#### LEAKAGE DETECTION SYSTEMS

#### LIMITING CONDITION FOR OPERATION

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3.4.3.1 The following reactor coolant system leakage detection systems shall be OPERABLE:

- a. The primary containment atmosphere particulate radioactivity monitoring system,\*
- b. The primary containment sump flow integrating system, and
- c. The primary containment gaseous radioactivity monitoring system.\*

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

#### ACTION:

With only two of the above required leakage detection systems OPERABLE, operation may continue for up to 31 days provided grab samples of the containment atmosphere are obtained and analyzed at least once per 24 hours when the required gaseous and/or particulate radioactive monitoring system is inoperable; otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

#### SURVEILLANCE REQUIREMENTS

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4.4.3.1 The reactor coolant system leakage detection systems shall be demonstrated OPERABLE by:

- a. Primary containment atmosphere particulate and gaseous radioactivity monitoring systems-performance of a CHANNEL CHECK at least once per 12 hours, a CHANNEL FUNCTIONAL TEST at least once per 31 days, and a CHANNEL CALIBRATION at least once per 18 months. (CAC-AQH-1260-1,2,3; CAC-AQH-1262-1,2,3; CAC-AQH-1261-1,2,3)
- b. Containment sump flow integrating systems-performance of a CHANNEL FUNCTIONAL TEST at least once per 31 days and of a CHANNEL CALIBRATION at least once per 18 months. (G16-FQ-K603; G16-FYQ-K603; G16-FQ-K601; G16-FYQ-K601; G16-FY-K602; G16-FY-K600; G16-FT-N013; G16-FT-N003)

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\* The system is OPERABLE if one channel is OPERABLE.

## REACTOR COOLANT SYSTEM

### OPERATIONAL LEAKAGE

#### LIMITING CONDITION FOR OPERATION

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3.4.3.2 Reactor coolant system leakage shall be limited to:

- a. No PRESSURE BOUNDARY LEAKAGE.
- b. 5 gpm UNIDENTIFIED LEAKAGE averaged over any 24-hour period.
- c. 25 gpm total leakage averaged over any 24-hour period.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

#### ACTION:

- a. With any PRESSURE BOUNDARY LEAKAGE, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.
- b. With any reactor coolant system leakage greater than any one of the above limits, excluding PRESSURE BOUNDARY LEAKAGE, reduce the leakage rate to within the limits within 8 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

#### SURVEILLANCE REQUIREMENTS

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4.4.3.2 The reactor coolant system leakage shall be demonstrated to be within each of the above limits by:

- a. Monitoring the drywell and equipment drain sump flow rates at least once per 24 hours. (G16-FQ-K603; G16-FYQ-K603; G16-FQ-K601; G16-FYQ-K601; G16-FY-K602; G16-FY-K600; G16-FT-N013; G16-FT-N003)
- b. Monitoring the primary containment atmospheric particulate and gaseous radioactivity at least once per 24 hours. (CAC-AQH-1260-1,2,3; CAC-AQH-1262-1,2,3 and CAC-AQH-1261-1,2,3).

## REACTOR COOLANT SYSTEM

### 3/4.4.3 REACTOR COOLANT SYSTEM LEAKAGE

#### LEAKAGE DETECTION SYSTEMS

#### LIMITING CONDITION FOR OPERATION

3.4.3.1 The following reactor coolant system leakage detection systems shall be OPERABLE:

- a. The primary containment atmosphere particulate radioactivity monitoring system,\*
- b. The primary containment sump flow integrating system, and
- c. The primary containment gaseous radioactivity monitoring system.\*

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

#### ACTION:

With only two of the above required leakage detection systems OPERABLE, operation may continue for up to 31 days provided grab samples of the containment atmosphere are obtained and analyzed at least once per 24 hours when the required gaseous and/or particulate radioactive monitoring system is inoperable; otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

#### SURVEILLANCE REQUIREMENTS

4.4.3.1 The reactor coolant system leakage detection systems shall be demonstrated OPERABLE by:

- a. Primary containment atmosphere particulate and gaseous radioactivity monitoring systems-performance of a CHANNEL CHECK at least once per 12 hours, a CHANNEL FUNCTIONAL TEST at least once per 31 days, and a CHANNEL CALIBRATION at least once per 18 months. (CAC-AQH-1260-1,2,3; CAC-AQH-1262-1,2,3; CAC-AQH-1261-1,2,3)
- b. Containment sump flow integrating systems-performance of a CHANNEL FUNCTIONAL TEST at least once per 31 days and of a CHANNEL CALIBRATION at least once per 18 months. (G16-FQ-K603; G16-FYQ-K603; G16-FQ-K601; G16-FYQ-K601; G16-FY-K602; G16-FY-K600; G16-FT-N013; G16-FT-N003)

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\* The system is OPERABLE if one channel is OPERABLE.



## REACTOR COOLANT SYSTEM

### OPERATIONAL LEAKAGE

#### LIMITING CONDITION FOR OPERATION

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3.4.3.2 Reactor coolant system leakage shall be limited to:

- a. No PRESSURE BOUNDARY LEAKAGE.
- b. 5 gpm UNIDENTIFIED LEAKAGE averaged over any 24-hour period.
- c. 25 gpm total leakage averaged over any 24-hour period.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

#### ACTION:

- a. With any PRESSURE BOUNDARY LEAKAGE, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.
- b. With any reactor coolant system leakage greater than any one of the above limits, excluding PRESSURE BOUNDARY LEAKAGE, reduce the leakage rate to within the limits within 8 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

#### SURVEILLANCE REQUIREMENTS

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4.4.3.2 The reactor coolant system leakage shall be demonstrated to be within each of the above limits by:

- a. Monitoring the drywell and equipment drain sump flow rates at least once per 24 hours. (G16-FQ-K603; G16-FYQ-K603; G16-FQ-K601; G16-FYQ-K601; G16-FY-K602; G16-FY-K600; G16-FT-N013; G16-FT-N003)
- b. Monitoring the primary containment atmospheric particulate and gaseous radioactivity at least once per 24 hours. (CAC-AQH-1260-1,2,3; CAC-AQH-1262-1,2,3 and CAC-AQH-1261-1,2,3).

ENCLOSURE 5

SUBJECT: Remote Shutdown Monitoring Instrumentation

APPLICABILITY: Brunswick-1

DESCRIPTION OF TECHNICAL SPECIFICATION (TS) CHANGE: Revise TS Tables 3.3.5.2-1 and 4.3.5.2-1 by deleting item 7, drywell oxygen concentration.

DISCUSSION:

The proposed change to TS Tables 3.3.5.3-1 and 4.3.5.3-1 is to delete item 7, drywell oxygen concentration, and renumber items 8, 9, and 10. The deletion of item 7 from these TS tables is the result of plant modifications relating to NUREG-0737 Item II.F.1.6, containment hydrogen monitoring. The drywell oxygen concentration indication on the remote shutdown panel is being removed as part of the replacement of the existing drywell hydrogen/oxygen monitoring system with a new wide-range monitoring system. The proposed change is consistent with GE/BWR-4 Standard Technical Specification (STS) guidance which does not require drywell oxygen concentration indication as part of the remote shutdown monitoring instrumentation. The revision does not adversely impact plant safety since drywell oxygen concentration monitoring is available as part of the plant post-accident monitoring instrumentation listed in TS Tables 3.3.5.3-1 and 4.3.5.3-1.

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TABLE 3.3.5.2-1

REMOTE SHUTDOWN MONITORING INSTRUMENTATION

<u>FUNCTIONAL UNIT AND INSTRUMENT NUMBER</u>	<u>READOUT LOCATION</u>	<u>MINIMUM CHANNELS OPERABLE</u>
1. Reactor Vessel Pressure (C32-PI-3332 and C32-PT-3332)	RSP*	1
2. Reactor Vessel Water Level (B21-LI-3331, B21-LI-R604AX, B21-LT-3331, B21-LT-NO26A, B21-LT-NO17D-3, and B21-LSH-NO17D-3)	RSP*	1
3. Suppression Chamber Water Level (CAC-LI-3342 and CAC-LT-3342)	RSP*	1
4. Suppression Chamber Water Temperature (CAC-TR-778-7)	RSP*	1
5. Drywell Pressure (CAC-PI-3341 and CAC-PT-3341)	RSP*	1
6. Drywell Temperature (CAC-TR-778-1,3,4)	RSP*	1
7. Residual Heat Removal Head Spray Flow (E11-FT-3339 and E11-FI-3339)	RSP*	1
8. Residual Heat Removal System Flow (E11-FT-3338, E11-FI-3338, and E11-FY-3338)	RSP*	1
9. Residual Heat Removal Service Water Discharge Differential Pressure (E11-PDT-NO02BX and E11-PDI-3344)	RSP*	1

\*Remote Shutdown Panel, Reactor Building 20' Elevation

TABLE 4.3.5.2-1

REMOTE SHUTDOWN MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT AND INSTRUMENT NUMBER</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>
1. Reactor Vessel Pressure (C32-PI-3332 and C32-PT-3332)	M	Q
2. Reactor Vessel Water Level (B21-LI-3331, B21-LI-R604AX, B21-LT-3331, B21-LT-NO26A, B21-NO17D-3, and B21-LSH-NO17D-3)	M	Q
3. Suppression Chamber Water Level (CAC-LI-3342 and CAC-LT-3342)	M	R
4. Suppression Chamber Water Temperature (CAC-TR-778-7)	M	R
5. Drywell Pressure (CAC-PI-3341 and CAC-PT-3341)	M	Q
6. Drywell Temperature (CAC-TR-778-1,3,4)	M	R
7. Residual Heat Removal Head Spray Flow (E11-FT-3339 and E11-FI-3339)	M	Q
8. Residual Heat Removal System Flow (E11-FT-3338, E11-FI-3338, and E11-FY-3338)	M	Q
9. Residual Heat Removal Service Water Discharge Differential Pressure (E11-PDT-NO02BX and E11-PDI-3344)	M	Q