

## 3.2 POWER DISTRIBUTION LIMITS

### 3.2.1 Linear Power Density (LPD)

LCO 3.2.1 The LPD shall not exceed the limits specified in the COLR.

APPLICABILITY: MODE 1 with THERMAL POWER > 10% RTP.

#### ACTIONS

| CONDITION  | REQUIRED ACTION   | COMPLETION TIME |
|--|---|-----------------|
| A. LPD not within limits.  | A.1 Restore LPD to within limits.                               | 1 hour          |
| B. LPD not within region of acceptable operation when the RCSL System is out of service. | B.1 Initiate action to reduce power until LPD is within limits. | Immediately     |
| C. Required Action and associated Completion Time not met.                               | C.1 Reduce THERMAL POWER to $\leq$ 10% RTP.                     | 6 hours         |

**SURVEILLANCE REQUIREMENTS**

| SURVEILLANCE |   | FREQUENCY  |
|--------------|---|--|
| SR 3.2.1.1   | Verify LPD is within limits specified in the COLR.  | 12 hours   |
| SR 3.2.1.2   | <p>-----NOTE-----<br/>Only required to be met when the RCSL System monitoring of the LPD channel is out of service. With RCSL in service, this parameter is continuously monitored.</p> <p>-----</p> <p>Verify LPD, as indicated on the most limiting reading protection system LPD channel, is within its limit.</p> | <p>Within 1 hour</p> <p><u>AND</u></p> <p>Once per hour thereafter</p> |

Nuclear Enthalpy Rise Hot Channel Factor ( $F_{\Delta H}^N$ )  
3.2.2

### 3.2 POWER DISTRIBUTION LIMITS

#### 3.2.2 Nuclear Enthalpy Rise Hot Channel Factor ( $F_{\Delta H}^N$ )

LCO 3.2.2  $F_{\Delta H}^N$  shall be within the limits specified in the COLR.

APPLICABILITY: MODE 1 with THERMAL POWER > 10% RTP.

#### ACTIONS

| CONDITION  | REQUIRED ACTION  | COMPLETION TIME       |
|--|--|-----------------------|
| A. $F_{\Delta H}^N$ not within limits.                     | A.1 Reduce THERMAL POWER by 1% for each 1% that $F_{\Delta H}^N$ exceeds the limits.<br><br><u>AND</u><br><br>A.2 Restore $F_{\Delta H}^N$ to within limits. | 1 hour<br><br>4 hours |
| B. Required Action and associated Completion Time not met. | B.1 Be in MODE 2.  | 6 hours               |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE   | FREQUENCY   |
|--|---|
| <p>SR 3.2.2.1</p> <p>-----NOTE-----</p> <p>Not required to be performed until 24 hours after exceeding 40% power.</p> <p>-----</p> <p>Verify <math>F_{\Delta H}^N</math> is within limits specified in the COLR.</p> | <p>Once after each refueling outage prior to exceeding 70% RTP</p> <p><u>AND</u></p> <p>31 effective full power days thereafter</p> |

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#### 3.2.3 Departure From Nucleate Boiling Ratio (DNBR)

LCO 3.2.3 The DNBR shall not exceed the limits specified in the COLR.

APPLICABILITY: MODE 1 with THERMAL POWER > 10% RTP.

#### ACTIONS

| CONDITION   | REQUIRED ACTION  | COMPLETION TIME |
|---|--|-----------------|
| A. DNBR not within limits.  | A.1 Restore DNBR to within limits.                               | 1 hour          |
| B. DNBR not within region of acceptable operation when the RCSL System is out of service. | B.1 Initiate action to reduce power until DNBR is within limits. | Immediately     |
| C. Required Action and associated Completion Time not met.                                | C.1 Reduce THERMAL POWER to $\leq$ 10% RTP.                      | 6 hours         |

**SURVEILLANCE REQUIREMENTS**

| SURVEILLANCE  | FREQUENCY   |
|---|---|
| SR 3.2.3.1      Verify DNBR is within limits specified in the COLR.   | 12 hours  |
| SR 3.2.3.2      -----NOTE-----<br>Only required to be met when the RCSL System monitoring of the DNBR channel is out of service.<br>With RCSL in service, this parameter is continuously monitored.<br><br>-----<br><br>Verify DNBR, as indicated on the most limiting reading protection system DNBR channel, is within its limit. | Within 1 hour<br><br><u>AND</u><br><br>Once per hour thereafter |

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#### 3.2.4 AXIAL OFFSET (AO)

LCO 3.2.4 The AO shall not exceed the limits specified in the COLR.

APPLICABILITY: MODE 1 with THERMAL POWER  $\geq$  50% RTP.

#### ACTIONS

| CONDITION   | REQUIRED ACTION  | COMPLETION TIME |
|---|--|-----------------|
| A. AO not within limits.  | A.1 Restore AO to within limits.                               | 1 hour          |
| B. AO not within region of acceptable operation when the RCSL System is out of service. | B.1 Initiate action to reduce power until AO is within limits. | Immediately     |
| C. Required Action and associated Completion Time not met.                              | C.1 Reduce THERMAL POWER to < 50% RTP.                         | 4 hours         |

**SURVEILLANCE REQUIREMENTS**

| SURVEILLANCE |  | FREQUENCY  |
|--------------|--|--|
| SR 3.2.4.1   | Verify AO is within the limits specified in the COLR.  | 12 hours   |
| SR 3.2.4.2   | Determine target AO in conjunction with a full core flux map.  | 31 effective full power days                                     |
| SR 3.2.4.3   | <p>-----NOTE-----<br/>Only required to be met when the RCSL System monitoring of the AO is out of service. With RCSL in service, this parameter is continuously monitored.<br/>-----</p> <p>Verify AO is within its limit.</p> | <p>Within 1 hour<br/><u>AND</u><br/>Once per hour thereafter</p> |

### 3.2 POWER DISTRIBUTION LIMITS

#### 3.2.5 AZIMUTHAL POWER IMBALANCE (AZI)

LCO 3.2.5 The AZI shall be maintained  $\leq \text{AZI}_{\text{LIMIT}}$  in the COLR.

APPLICABILITY: MODE 1 with THERMAL POWER  $\geq 50\%$  RTP.

#### ACTIONS

| CONDITION  | REQUIRED ACTION                           | COMPLETION TIME |
|--|---|-----------------|
| A. AZI not within limit.                                   | A.1 Restore AZI to within limit.          | 2 hours         |
| B. Required Action and associated Completion Time not met. | B.1 Reduce THERMAL POWER to $< 50\%$ RTP. | 4 hours         |

#### SURVEILLANCE REQUIREMENTS

| SURVEILLANCE                           | FREQUENCY  |
|--|--|
| SR 3.2.5.1 Verify AZI is within limit. | 12 hours<br><u>OR</u><br>1 hour if the RCSL System is out of service |