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L-08-175

10 CFR 50.90

ATTN: Document Control Desk
United States Nuclear Regulatory Commission
Washington, D. C. 20555-0001**SUBJECT:**

Davis-Besse Nuclear Power Station, Unit 1

Docket No. 50-346, License No. NPF-3

Response to Request for Additional Information and Supplemental Information
Regarding Application for License Amendment for Measurement Uncertainty Recapture
Power Uprate (TAC No. MD5240)

By letter dated April 12, 2007 as supplemented by letters dated September 18, 2007, October 8, 2007, October 19, 2007, January 15, 2008 (2 letters), February 14, 2008, February 20, 2008, and March 12, 2008, the FirstEnergy Nuclear Operating Company (FENOC) submitted an application for license amendment. The proposed amendment would revise the Operating License and Technical Specifications (TS) for Davis-Besse Nuclear Power Station (DBNPS), Unit No. 1, to accommodate an increase in the Rated Thermal Power from 2772 megawatts thermal (MWt) to 2817 MWt.

A teleconference was held with the NRC staff on April 14, 2008 to discuss the specific type of flow monitor installed at the Davis-Besse Nuclear Power Station. FENOC staff has reviewed vendor manual and procurement documentation and confirmed that venturi flow monitors are installed at DBNPS.

By letter dated May 5, 2008, the Nuclear Regulatory Commission (NRC) staff requested additional information necessary to complete the amendment application review. Attachment 1 provides responses to the NRC staff's questions contained in the information request. In order to address the issues in the request for additional information, FENOC has incorporated changes to the proposed Technical Specifications. Details of the proposed Technical Specifications, provided in the Enclosure, supplement the original application, as submitted by letter dated April 12, 2007 and supplemented by letter dated February 20, 2008. An evaluation of the No Significant Hazards Consideration and Environmental Consideration from the initial submittal confirms the conclusions previously drawn are not affected by the proposed additional changes.

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Davis-Besse Nuclear Power Station
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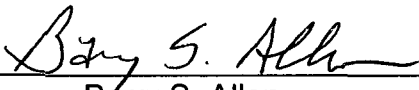
The changes proposed herein will also be reflected in the proposed conversion to Improved Standard Technical Specifications (ISTS), submitted to the NRC on August 3, 2007 and currently tracked under TAC MD6398. As necessary, FENOC will address any changes to the ISTS application under separate correspondence.

There are no regulatory commitments contained in this letter. If there are any questions or if additional information is required, please contact Mr. Thomas A. Lentz, Manager – Fleet Licensing, at (330) 761-6071.

I declare under penalty of perjury that the foregoing is true and correct. Executed on

May 16, 2008.

Sincerely,



Barry S. Allen

Attachment:

Response to Request for Additional Information Regarding Measurement Uncertainty
Recapture Power Uprate Amendment Application

Enclosure:

Davis-Besse Nuclear Power Station, Unit No. 1, Supplement to License Amendment
Application Dated April 12, 2007

cc: NRC Region III Administrator
NRC Resident Inspector
NRR Project Manager
Utility Radiological Safety Board
Executive Director, Ohio Emergency Management Agency,
State of Ohio (NRC Liaison)

**Response to Request for Additional Information Regarding Measurement
Uncertainty Recapture Power Uprate Amendment Application**

Page 1 of 1

To complete their review, the NRC staff has requested additional information regarding the license amendment application for the measurement uncertainty recapture power uprate. The staff request is provided below in bold type followed by the FENOC response for DBNPS.

- 1. Describe how the change to the current technical specification (TS) requirement, proposed in FENOC letter dated February 20, 2008, to perform a daily heat balance in accordance with Table 4.3-1, Notation (2), as modified by Insert 2 on page 3/4 3-8, contains agreement criteria that is equivalent to the agreement criteria in NUREG-1430, Surveillance Requirement (SR) 3.3.1.2, or provide another means acceptable to the NRC staff for meeting the requirement of Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.36.**

The TS requirement proposed in the letter dated February 20, 2008 did not contain agreement criteria for the daily heat balance. To address the NRC staff's concern, FENOC discussed another means to the NRC staff during a teleconference on May 5, 2008, which included an agreement criterion and requirement to adjust power range channel output. The evaluation of the proposed changes, including a revision to Note 2 of Table 4.3-1 and change to the associated TS Bases, is provided in the Enclosure to this correspondence.

- 2. Reconcile the discrepancy in the DBNPS TS Table 2.2-1 on pages 2-5 and 2-6 regarding the application of Note * for table Allowable values. Note * specifies values to be: "Allowable Value for CHANNEL FUNCTIONAL TEST". The note is applied to the High Flux allowable values which are identified as not requiring a CHANNEL FUNCTIONAL TEST ("N.A.") in DBNPS TS Table 4.3-1 on page 3/4 3-7.**

As communicated in the NRC request for additional information, the subject Note (*) appears to reference an allowable value to a CHANNEL FUNCTIONAL TEST that is not explicitly required in Table 4.3-1. By TS definition, however, a CHANNEL FUNCTIONAL TEST is included when a CHANNEL CALIBRATION is performed. Therefore, the Note (*) is applicable to the identified CHANNEL FUNCTIONAL TEST, whether explicitly identified or embedded in the CHANNEL CALIBRATION in Table 4.3-1.

FENOC has reviewed the existing TS requirements to confirm that the Note (*) is appropriately applied; therefore, no TS change is needed to address this item.

DAVIS-BESSE NUCLEAR POWER STATION, UNIT NO. 1,
SUPPLEMENT TO LICENSE AMENDMENT APPLICATION
DATED APRIL 12, 2007

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1.0 DESCRIPTION

In response to an NRC request for additional information, FENOC proposes additional changes to the DBNPS TS to provide agreement criterion for the daily heat balance Surveillance Requirements.

The proposed change would revise the proposed Davis-Besse Nuclear Power Station, Unit No. 1 (DBNPS), Technical Specifications (TS) originally submitted by letter dated April 12, 2007, and supplemented by letter dated February 20, 2008. The proposed change revises Note 2 of Table 4.3-1 to incorporate agreement criteria for the daily heat balance surveillance requirement and action to be taken if exceeded. The proposed agreement criterion would require adjustment of the power range channel if thermal power calculated by heat balance calorimetric measurement exceeds power range channel output by greater than 2% of Rated Thermal Power (RTP). This value and action are consistent with requirements specified in the current DBNPS Updated Final Safety Analysis Report.

A proposed mark-up of the affected TS pages is provided as Attachment 1. The proposed changes are incorporated in final typed format in Attachment 2. Technical Specification Bases changes are included for information only as Attachment 3. No changes are being made to the proposed Technical Requirements Manual page previously submitted.

2.0 BACKGROUND

By letter dated April 12, 2007, FirstEnergy Nuclear Operating Company (FENOC) submitted an application for amendment to the DBNPS Operating License to allow an increase in Rated Thermal Power, based on improved instrumentation accuracy for the heat balance calorimetric measurement. The application was subsequently modified by supplemental TS changes proposed in FENOC letter dated February 20, 2008. By letter dated May 5, 2008, the Nuclear Regulatory Commission (NRC) staff requested additional information regarding the provision of agreement criteria for the daily heat balance surveillance requirement.

The DBNPS Operating License and Technical Specifications do not currently include an agreement criterion or a requirement for power range channel adjustment if a criterion is exceeded. However, such controls are addressed in the Davis-Besse UFSAR, and accordingly, are under licensee control subject to the requirements of 10CFR 50.59. This approach has been identified to be inconsistent with NUREG-1430, Standard Technical Specifications Babcock and Wilcox Plants, which specifies an agreement criterion and action to be taken for the heat balance calculation and subsequent comparison to power range channel output.

3.0 TECHNICAL ANALYSIS

FENOC has evaluated the proposed revision to the subject application for amendment to the DBNPS Operating License to determine if the additional changes to the TS would impact the response of the plant or personnel to anticipated transients or accidents.

The proposed changes would incorporate into the TS requirements for heat balance agreement criterion that are currently specified in the DBNPS' Updated Final Safety Analysis Report. The proposed two percent agreement criterion corresponds to the assumed two percent error for neutron measurement and long-term reactivity changes, as addressed in Enclosure 1 to the April 12, 2007 amendment application. Specifically, the proposed allowable value for the Reactor Protection System high flux trip function is evaluated on pages seven and eight of the enclosure. Included in the evaluation is an assumed two percent error for neutron measurement and long-term reactivity changes. Because the proposed heat balance calibration allowable value was evaluated in the previous submittal as part of the combined error calculation, the proposed additional changes to the TSs are bounded by the analysis submitted in the initial application.

Based on the evaluation of the Operating License (OL) and TS changes, it is concluded that the proposed changes will have no adverse effect on nuclear safety.

4.0 NO SIGNIFICANT HAZARDS CONSIDERATION

FENOC has evaluated the proposed revision to the License Amendment Application for Measurement Uncertainty Recapture Power Uprate, dated April 12, 2007 as supplemented by correspondence dated February 20, 2008, to determine if the additional changes to the TS will impact the no significant hazards consideration determination submitted in the initial application. The proposed changes to the TS are bounded by the analysis submitted in the initial application. Based on the initial no significant hazards consideration determination bounding the TS revision in this supplement, it is concluded that the proposed license amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is acceptable.

5.0 ENVIRONMENTAL CONSIDERATION

Section 10 CFR 51.22(c)(9) provides criteria for and identification of licensing and regulatory actions eligible for categorical exclusion from performing an environmental assessment. A proposed amendment to an operating license for a facility requires no environmental assessment if operation of the facility in accordance with the proposed amendment would not: (i) involve a significant hazards consideration, (ii) result in a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or (iii) result in a significant increase in individual or cumulative occupational radiation exposure.

FENOC has reviewed this license amendment application supplement and has determined that it meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(c), no environmental impact statement or environmental assessment needs to be prepared in connection with the issuance of the proposed license amendment.

6.0 PRECEDENT

A license amendment application based on the use of the Caldon Inc. LEFM CheckPlus™ System was approved for Crystal River, Unit 3 (Reference 4). Because Crystal River TSs already had an agreement criterion listed for the heat balance calorimetric calibration, additional specification of agreement criterion or related adjustment requirements was unnecessary. As proposed for the DBNPS, both the agreement criterion and adjustment requirements are consistent with those approved by the NRC for Crystal River.

7.0 REFERENCES

1. FirstEnergy Nuclear Operating Company Letter to NRC, "Davis-Besse Nuclear Power Station License Amendment Application for Measurement Uncertainty Recapture Power Uprate," dated April 12, 2007.
2. FirstEnergy Nuclear Operating Company Letter to NRC, "Response to Request for Additional Information Regarding Application for License Amendment for Measurement Uncertainty Recapture Power Uprate," dated February 20, 2008.
3. NRC Letter to FirstEnergy Nuclear Operating Company, "Davis-Besse Nuclear Power Station, Unit 1 – Request for Additional Information Related to Measurement Uncertainty Recapture Uprate," dated May 5, 2008.
4. NRC Letter to Florida Power Corporation, "Crystal River Unit 3 – Issuance of Amendment Regarding Measurement Uncertainty Power Uprate (TAC No. MD5500)," dated December 26, 2007.

8.0 ATTACHMENTS

1. Proposed Mark-Up of Technical Specification Pages
2. Proposed Retyped Technical Specification Pages
3. Proposed Mark-Up of Technical Specification Bases Pages

Docket Number 50-346
License Number NPF-3
Revised TS Supplement
Attachment 1

Revised Proposed Technical Specifications for Measurement Uncertainty Recapture Power Uprate

Contained in this attachment are replacement pages for the amendment application previously submitted to the NRC on April 12, 2007, as supplemented by correspondence dated February 20, 2008. The pages contained in this attachment replace or supplement specific pages from the February 20, 2008 submittal. The specific revised pages are intended to take the place of the relevant pages as indicated below.

Page to be Removed
Insert 2 text

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TABLE 4.3-1

REACTOR PROTECTION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
1. Manual Reactor Trip	N.A.	N.A.	S/U(1)	N.A.
2. High Flux	S	D(2), and Q(6,9,10)	N.A.	1, 2
3. RC High Temperature	S	R	SA(9)	1, 2
4. Flux - Δ Flux - Flow	S(4)	M(3) and Q(6,7,9)	N.A.	1, 2
5. RC Low Pressure	S	R	SA(9)	1, 2
6. RC High Pressure	S	R	SA(9)	1, 2
7. RC Pressure-Temperature	S	R(10)	SA(9,10)	1, 2
8. High Flux/Number of Reactor Coolant Pumps On	S	Q(6,9)	N.A.	1, 2
9. Containment High Pressure	S	E	SA(9)	1, 2
10. Intermediate Range, Neutron Flux and Rate	S	E(6)	N.A.(5)	1, 2 and *
11. Source Range, Neutron Flux and Rate	S	E(6)	N.A.(5)	2, 3, 4 and 5
12. Control Rod Drive Trip Breakers	N.A.	N.A.	Q(8,9) and S/U(1)(8)	1, 2 and *
13. Reactor Trip Module Logic	N.A.	N.A.	Q(9)	1, 2 and *
14. Shutdown Bypass High Pressure	S	R	SA(9)	2**, 3**, 4**, 5**
15. SCR Relays	N.A.	N.A.	R	1, 2 and *

No change from April 12, 2007 submittal. Page included for context only.

DAVIS-BESSE, UNIT 1

3/4 3-7

Amendment No. 7, 39, 43, 108, 135, 185, 218, 230, 274,

TABLE 4.3-1 (Continued)

Notation

- (1) - If not performed in previous 7 days.
- (2) - Heat balance only, above 15% of RATED THERMAL POWER. Insert 2
- (3) - When THERMAL POWER [TP] is above 50% of RATED THERMAL POWER [RTP], and at a steady state, compare out-of-core measured AXIAL POWER IMBALANCE [API_O] to incore measured AXIAL POWER IMBALANCE [API_I] as follows:

$$\frac{RTP}{TP} [API_O - API_I] = \text{Offset Error}$$

Recalibrate if the absolute value of the Offset Error is $\geq 2.5\%$

- (4) - AXIAL POWER IMBALANCE and loop flow indications only.
- (5) - CHANNEL FUNCTIONAL TEST is not applicable. Verify at least one decade overlap prior to each reactor startup if not verified in previous 7 days.
- (6) - Neutron detectors may be excluded from CHANNEL CALIBRATION.
- (7) - Flow rate measurement sensors may be excluded from CHANNEL CALIBRATION. However, each flow measurement sensor shall be calibrated at least once each REFUELING INTERVAL.
- (8) - The CHANNEL FUNCTIONAL TEST shall independently verify the OPERABILITY of both the undervoltage and shunt trip devices of the Reactor Trip Breakers.
- (9) - Performed on a STAGGERED TEST BASIS.
- (10) - If the as-found channel setpoint is conservative with respect to the Allowable Value but outside its predefined as-found acceptance criteria band, then the channel shall be evaluated to verify that it is functioning as required before returning the channel to service. If the as-found instrument channel setpoint is not conservative with respect to the Allowable Value, the channel shall be declared inoperable.

The instrument channel setpoint shall be reset to a value that is within the as-left tolerance of the Limiting Trip Setpoint, or a value that is more conservative than the Limiting Trip Setpoint; otherwise, the channel shall be declared inoperable. The Limiting Trip Setpoint and the methodology used to determine the Limiting Trip Setpoint, the predefined as-found acceptance criteria band, and the as-left setpoint tolerance band are specified in a document incorporated by reference into the Updated Safety Analysis Report.

- * - With any control rod drive trip breaker closed.
- ** - When Shutdown Bypass is actuated.

Insert 2

When > 50% RATED THERMAL POWER, ultrasonic flow meter instrumentation is required to be utilized when performing secondary calorimetric heat balance unless ACTION 11 of Table 3.3-1 is entered. Adjust power range channel output if calorimetric heat balance calculation results exceed power range channel output by greater than 2% RATED THERMAL POWER.

Proposed Retyped Technical Specifications Pages

Contained in this attachment are replacement pages for the amendment application previously submitted to the NRC on April 12, 2007, as supplemented by correspondence dated February 20, 2008. The pages contained in this attachment replace or supplement specific pages from the February 20, 2008 submittal. The specific revised pages are intended to take the place of the relevant pages as indicated below.

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3/4 3-8

Page to be Inserted

3/4 3-8

TABLE 4.3-1 (Continued)

Notation

- (1) - If not performed in previous 7 days.
- (2) - Heat balance only, above 15% of RATED THERMAL POWER. When > 50% RATED THERMAL POWER, ultrasonic flow meter instrumentation is required to be utilized when performing secondary calorimetric heat balance unless ACTION 11 of Table 3.3-1 is entered. Adjust power range channel output if calorimetric heat balance calculation results exceed power range channel output by greater than 2% RATED THERMAL POWER.
- (3) - When THERMAL POWER [TP] is above 50% of RATED THERMAL POWER [RTP], and at a steady state, compare out-of-core measured AXIAL POWER IMBALANCE [API_O] to incore measured AXIAL POWER IMBALANCE [API_I] as follows:

$$\frac{RTP}{TP} [API_O - API_I] = \text{Offset Error}$$

Recalibrate if the absolute value of the Offset Error is $\geq 2.5\%$

- (4) - AXIAL POWER IMBALANCE and loop flow indications only.
- (5) - CHANNEL FUNCTIONAL TEST is not applicable. Verify at least one decade overlap prior to each reactor startup if not verified in previous 7 days.
- (6) - Neutron detectors may be excluded from CHANNEL CALIBRATION.
- (7) - Flow rate measurement sensors may be excluded from CHANNEL CALIBRATION. However, each flow measurement sensor shall be calibrated at least once each REFUELING INTERVAL.
- (8) - The CHANNEL FUNCTIONAL TEST shall independently verify the OPERABILITY of both the undervoltage and shunt trip devices of the Reactor Trip Breakers.
- (9) - Performed on a STAGGERED TEST BASIS.
- (10) - If the as-found channel setpoint is conservative with respect to the Allowable Value but outside its predefined as-found acceptance criteria band, then the channel shall be evaluated to verify that it is functioning as required before returning the channel to service. If the as-found instrument channel setpoint is not conservative with respect to the Allowable Value, the channel shall be declared inoperable.

The instrument channel setpoint shall be reset to a value that is within the as-left tolerance of the Limiting Trip Setpoint, or a value that is more conservative than the Limiting Trip Setpoint; otherwise, the channel shall be declared inoperable. The Limiting Trip Setpoint and the methodology used to determine the Limiting Trip Setpoint, the predefined as-found acceptance criteria band, and the as-left setpoint tolerance band are specified in a document incorporated by reference into the Updated Safety Analysis Report.

* - With any control rod drive trip breaker closed.

** - When Shutdown Bypass is actuated.

Proposed Mark-Up of Technical Specification Bases Pages

Contained in this attachment are replacement and supplemental pages for the amendment application previously submitted to the NRC on April 12, 2007, as supplemented by correspondence dated February 20, 2008. The pages contained in this attachment replace or supplement specific pages from the February 20, 2008 submittal. The affected changes from the February 20, 2008 submittal to the TS Bases are limited to the Insert 4 text. Changes to this text are noted with a revision bar. The specific revised pages are intended to take the place of the relevant pages as indicated below.

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3/4.3 INSTRUMENTATION

BASES

3/4.3.1 and 3/4.3.2 REACTOR PROTECTION SYSTEM AND SAFETY SYSTEM INSTRUMENTATION (Continued)

An SFRCS channel consists of 1) the sensing device(s), 2) associated logic and output relays, and 3) power sources. The SFRCS output signals that close the Main Feedwater Block Valves (FW-779 and FW-780) and trip the Anticipatory Reactor Trip System (ARTS) are not required to mitigate any accident and are not credited in any safety analysis. Therefore, LCO 3.3.2.2 does not apply to these functions.

Safety-grade anticipatory reactor trip is initiated by a turbine trip (above 45 percent of RATED THERMAL POWER) or trip of both main feedwater pump turbines. This anticipatory trip will operate in advance of the reactor coolant system high pressure reactor trip to reduce the peak reactor coolant system pressure and thus reduce challenges to the pilot operated relief valve. This anticipatory reactor trip system was installed to satisfy Item II.K.2.10 of NUREG-0737.

Insert 4

3/4.3.3 MONITORING INSTRUMENTATION

3/4.3.3.1 RADIATION MONITORING INSTRUMENTATION

OPERABILITY of the radiation monitoring channels ensures that 1) the radiation levels are continually measured in the areas served by the individual channels and 2) the alarm or automatic action is initiated when the radiation level trip setpoint is exceeded.

There are two redundant Fuel Storage Pool Area EVS Area Monitors. With one channel of Fuel Storage Pool Area EVS Area Monitors operable and one channel inoperable, the requirements of TS LCO 3.3.3.1 and TS Table 3.3-6 are satisfied without reliance on the associated actions. Therefore, entry into TS 3.3.3.1 Action b is not required. Appropriate actions with respect to TS 3.9.12 must still be taken.

With zero channels of Fuel Storage Pool Area EVS Area Monitors operable, the requirements of TS LCO 3.3.3.1 and TS Table 3.3-6 are not satisfied, so the TS 3.3.3.1 Action b must be entered. Therefore, Action 22 of Table 3.3-6 must be satisfied.

With one or more of the Containment Activity Monitors (either gaseous or particulate) operable, the requirements of TS LCO 3.3.3.1 and TS Table 3.3-6 are satisfied without reliance on the associated actions. Therefore, entry into TS 3.3.3.1 Action b is not required.

With no Containment Activity Monitors operable, the requirements of TS LCO 3.3.3.1 and TS Table 3.3-6 are not satisfied, so the TS 3.3.3.1 Action b must be entered. Action 21 of Table 3.3-6 must be satisfied.

3/4.3.3.2 INCORE DETECTORS - Deleted

DAVIS-BESSE, UNIT 1

B 3/4 3-7

Amendment No 73, 128, 135, 234, 246
LAR No. 01-0001, 04-0017, 05-0002

*No change from the 2-20-08
submittal. Page included for context
only.*

Information Only

Insert 4

Due to its higher accuracy, the use of Ultrasonic Flow Meter (Leading Edge Flow Meter (LEFM) CheckPlusTM System) instrumentation is preferred for the performance of daily heat balance calculations required by Technical Specification (TS) Surveillance Requirement (SR) 4.3.1.1.1 (Table 4.3-1, Functional Unit 2 - Reactor Protection System High Flux). The use of the LEFM instrumentation for the secondary-side feedwater flow and feedwater temperature inputs into the heat balance calculation provides an uncertainty of 0.37% above 50% of RATED THERMAL POWER (RTP). An uncertainty of 2% is assumed when non-LEFM instrumentation is used for the secondary-side feedwater flow and feedwater temperature inputs into the heat balance calculation. Below 50% of RTP, the heat balance is performed using primary-side instrumentation. Hence, this LCO is only applicable above 50% RTP. In addition, below 73.8% of RTP, the safety analyses have adequate margin to accommodate a 2% heat balance error either with or without the LEFM being used to perform the daily heat balance calculation.

If the LEFM is not available for use, the heat balance will be performed using inputs from less accurate installed instrumentation. Continued power operation is allowed; however, THERMAL POWER must be limited to $\leq 98.4\%$ of RTP with four reactor coolant pumps operating, or $\leq 73.8\%$ of RTP with three reactor coolant pumps operating. Given the larger heat balance uncertainty, these limits preserve the core power used in the USAR accident analysis and the initial conditions for DNB as required by the regulating group operating limits in the COLR.

Also, when operating with four reactor coolant pumps at the reduced power, the Reactor Protection System High Flux trip setpoint Allowable Value must be reduced from $\leq 104.9\%$ to $\leq 103.3\%$ within ten hours of completion of the heat balance calculation using the less accurate instrumentation, in accordance with the requirements of TS 2.2.1. This reduction ensures that when the increased uncertainty of the instrumentation is considered, the maximum analytical setpoint value of 110.2% of RTP will not be exceeded as required by the safety analyses.

Historical comparison of the two feedwater flow measurement systems used for secondary-side heat balance calculations above 50% RTP, LEFM-based and feedwater venturi-based, indicates that the two methods do not diverge significantly during power operations over short periods. The long-term fouling of the venturis results in a more conservative feedwater flow input to the heat balance calculation. Nuclear Instrumentation (NI) trend analysis indicates that the NI to heat balance comparison will not drift significantly over a three-week period, and surveillance data indicates essentially no drift of the high flux setpoints. Accordingly, the accuracy and conservatism of the RPS high flux trip is acceptable in the ten hour period provided for setpoint reduction after completion of the non-LEFM-based heat balance calculation.

The LEFM includes a flow meter measurement section in each of the two main feedwater flow headers. Each measurement section consists of sixteen ultrasonic transducers. With

*No change from the
2-20-08 submittal. Page
included for context only.*

Information Only

any transducer inoperable, the Ultrasonic Flow Meter instrumentation system is considered inoperable and the required actions are to be applied.

Table 4.3-1, Notation 2 requires a daily heat balance calibration for the power range channels when reactor power is $> 15\%$ RATED THERMAL POWER. The heat balance calibration consists of a comparison of the results of the calorimetric with the power range channel output. The outputs of the power range channels are normalized to the calorimetric. If the calorimetric heat balance calculation results exceed the power range channel output by more than 2% RATED THERMAL POWER, the power range channel is not declared inoperable but must be adjusted. If the power range channel output cannot be properly adjusted, the channel is declared inoperable.

Information Only