



April 15, 2002

10 CFR Part 50  
Section 50.73

US Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555

MONTICELLO NUCLEAR GENERATING PLANT  
Docket No. 50-263 License No. DPR-22

**LER 2002-002**  
**Application of Instrument Deviation Acceptance Criteria**  
**Allowed As-Found Settings to be Outside Technical Specification Value**

A Licensee Event Report for this occurrence is attached. This report contains no new NRC commitments.

Contact Douglas Neve, Licensing Manager, at (763) 295-1353 if you require further information.

Jeffrey S. Forbes  
Site Vice President  
Monticello Nuclear Generating Plant

Enclosure

c: Regional Administrator - III NRC  
NRR Project Manager, NRC  
Sr. Resident Inspector, NRC  
Minnesota Department of Commerce

IE22

<b>NRC FORM 366</b> (7-2001)		<b>U.S. NUCLEAR REGULATORY COMMISSION</b>		<b>APPROVED BY OMB NO. 3150-0104</b> <small>Estimated burden per response to comply with this mandatory information collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records Management Branch (T-6 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to bjs1@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202 (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.</small>		<b>EXPIRES 7-31-2004</b>						
<b>LICENSEE EVENT REPORT (LER)</b> (See reverse for required number of digits/characters for each block)												
<b>1. FACILITY NAME</b> Monticello Nuclear Generating Plant				<b>2. DOCKET NUMBER</b> 05000263		<b>3. PAGE</b> 1 OF 5						
<b>4. TITLE</b> Application of Instrument Deviation Acceptance Criteria Allowed As-Found Settings to be Outside Technical Specification Value												
<b>5. EVENT DATE</b>			<b>6. LER NUMBER</b>			<b>7. REPORT DATE</b>			<b>8. OTHER FACILITIES INVOLVED</b>			
MO	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MO	DAY	YEAR	FACILITY NAME	DOCKET NUMBER		
02	13	2002	2002 - 002 - 00			04	15	2002	FACILITY NAME	DOCKET NUMBER		
										05000		
										05000		
<b>9. OPERATING MODE</b>		N	<b>11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)</b>									
			20.2201(b)			20.2203(a)(3)(ii)			50.73(a)(2)(ii)(B)		50.73(a)(2)(ix)(A)	
<b>10. POWER LEVEL</b>		100	20.2201(d)			20.2203(a)(4)			50.73(a)(2)(iii)		50.73(a)(2)(x)	
			20.2203(a)(1)			50.36(c)(1)(i)(A)			50.73(a)(2)(iv)(A)		73.71(a)(4)	
			20.2203(a)(2)(i)			50.36(c)(1)(ii)(A)			50.73(a)(2)(v)(A)		73.71(a)(5)	
			20.2203(a)(2)(ii)			50.36(c)(2)			50.73(a)(2)(v)(B)		OTHER Specify in Abstract below or in NRC Form 366A	
			20.2203(a)(2)(iii)			50.46(a)(3)(ii)			50.73(a)(2)(v)(C)			
			20.2203(a)(2)(iv)			50.73(a)(2)(i)(A)			50.73(a)(2)(v)(D)			
			20.2203(a)(2)(v)			50.73(a)(2)(i)(B)		X	50.73(a)(2)(vii)			
			20.2203(a)(2)(vi)			50.73(a)(2)(i)(C)			50.73(a)(2)(viii)(A)			
			20.2203(a)(3)(i)			50.73(a)(2)(ii)(A)			50.73(a)(2)(viii)(B)			
<b>12. LICENSEE CONTACT FOR THIS LER</b>												
<b>NAME</b> Douglas Neve								<b>TELEPHONE NUMBER (Include Area Code)</b> 763-295-1353				
<b>13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT</b>												
CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE		SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX		
X	None	None	None	none								
<b>14. SUPPLEMENTAL REPORT EXPECTED</b>								<b>15. EXPECTED SUBMISSION DATE</b>		MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE).				X	NO							
<b>16. ABSTRACT</b> (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)  A Licensee Event Report is being submitted because it was identified that in the past, multiple instrument setpoints exceeded plant Technical Specifications (TS) during a given calibration period due to a common cause. The "cause or condition" is that the calibration procedure used the allowable deviation in the TS Bases to allow the as-found condition to exceed a TS trip setting. The condenser low vacuum scram instruments were found to have exceeded TS settings. The instrumentation was able to fulfill its safety related function.												

# LICENSEE EVENT REPORT (LER)

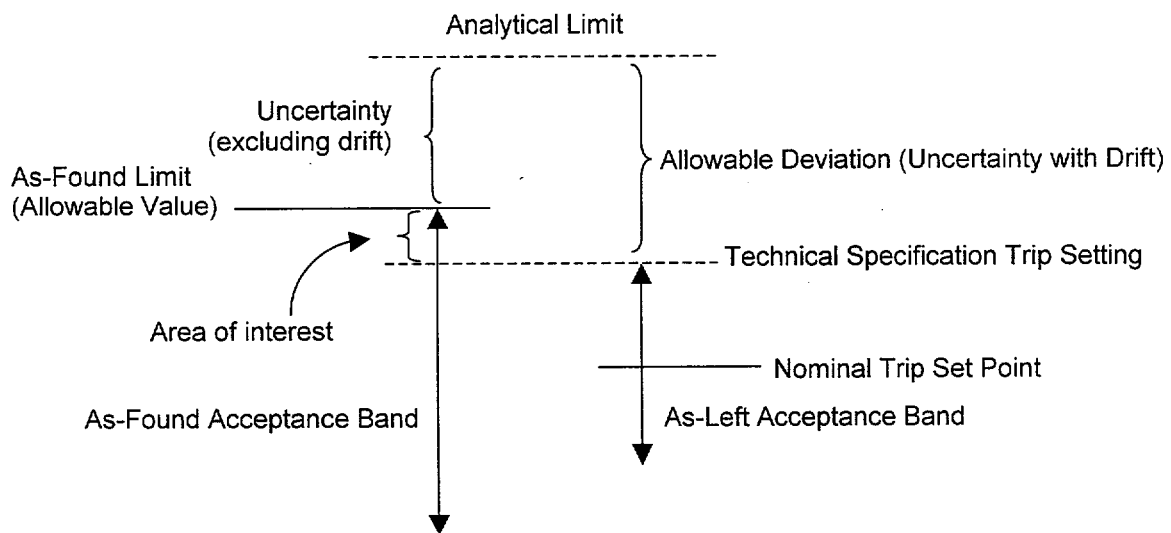
FACILITY NAME (1)	DOCKET (2)	LER NUMBER (6)			PAGE (3)
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		2002	002	00	

NARRATIVE (If more space is required, use additional copies of NRC Form 366A) (17)

## Description

During an observation of a Rod Block Monitor Functional Test and Calibration, it was noted that the instrument calibration As-Found Acceptance Band criteria allowed exceeding the Technical Specification (TS) value (see "Area of Interest" below). The actual As-Found calibration data was within TS values for the observed procedure. The As-Found Acceptance Band criteria is based on an allowable deviation from the TS trip setting which takes into account drift and uncertainty to assure that analytical limits of the safety analyses are not exceeded. However, the allowable deviations are contained in tables in the Bases of the TS and should not be construed as an allowance to deviate from the TS. It should be noted that the following statement was included in the original TS Bases and was never removed: "A violation of this specification is assumed to occur only when a device is knowingly set outside the limiting trip settings, or, when a sufficient number of devices have been affected by any means such that the automatic function is incapable of operating within the allowable deviation while in a reactor mode in which the specified function must be operable or when actions specified are not initiated as specified."

The application of the Allowable Deviations (from the Bases) to the Trip Settings (in the TS) is illustrated below.



During review of past instrument calibration data on February 13, 2002, the following occurrences were discovered in which two channels in the same division of an instrument function were found to be outside the TS trip setting but within the drift included in the allowable value:

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NARRATIVE (If more space is required, use additional copies of NRC Form 366A) (17)

Date	Instrument	Function	TS Trip Setting	As-Found Data	As-Found Accept. Band
11/27/00	PS-5-11A	Low Vacuum Scram	≥22 in. Hg	21.95	21.65 to 22.85
11/27/00	PS-5-11B	Low Vacuum Scram	≥22 in. Hg	21.80	21.65 to 22.85
11/27/00	PS-5-11C	Low Vacuum Scram	≥22 in. Hg	21.90	21.65 to 22.85
03/05/01	PS-5-11C	Low Vacuum Scram	≥22 in. Hg	21.90	21.65 to 22.85
03/05/01	PS-5-11D	Low Vacuum Scram	≥22 in. Hg	21.90	21.65 to 22.85

In all cases, the as-found value was within the allowed drift, and as-left settings were within the TS trip setting. Since the as-found condition was within the allowed drift, the safety function of each channel was not affected since an analytical limit could not have been exceeded. Therefore, while the as-found condition did not meet TS requirements, the safety function of the instruments was not affected.

## Event Analysis

### **Analysis of Reportability**

This report is being submitted in accordance with 10 CFR 50.73(a)(2)(vii): "Any event where a single cause or condition caused ...".

The "cause or condition" is that the calibration procedure used the allowable deviation in the TS Bases to allow the as-found condition to exceed a TS trip setting.

Each channel is calibrated separately and is returned to the nominal trip setpoint prior to calibrating the next channel. Thus, no two channels are allowed to remain outside the TS trip setting at the same time. However, for the purposes of 50.73(a)(2)(vii), both channels could probably be assumed to be outside the TS trip setting (i.e., inoperable) at the same time, since the channels are calibrated back to back.

Plant technical staff procedure review found that there were two occasions where multiple channels of the Turbine Condenser Low Vacuum trip were found to have exceeded TS settings during a single calibration period. In both occasions, the as-found data was within the As-Found Acceptance Band criteria. Channels were found to have exceeded their TS settings during instrument surveillance testing. The condition was not in compliance with the plant's TS because the setpoint methodology is based on information that is not located in the main body of the TS.

Future instances of common mode failures of instrument channels due to the use of deviation table information (e.g., two channels found between the TS setting and the as-found limit) will be reported as a supplement to this report. This does not relieve the responsibility to report failures associated with other causes as required by the reporting criteria.

This event does not constitute a safety system functional failure because all channels would have been able to perform their safety function.

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**Safety Significance**

This condition is not considered safety significant. While the as-found condition was outside the TS setting value, the instruments would have functioned within analytical limits in order to perform their safety function.

It was recognized that instrument setpoint drift, inherent instrument error, operator setting error, etc. cause deviations that could move instrument settings beyond TS setpoint. These deviations were accounted for in transient analyses. Instrument setpoint calculations and surveillance procedures were written based precisely upon preventing instrument settings from exceeding TS analytical limits. Acceptance criteria ensure that an analytical limit is not exceeded. The deviation tables were provided and described in the Bases section to clearly show that analytical limits would not be exceeded due to these effects.

All instrument as-left values were within the TS value specified in the main body of the TS. Although the instrument as-found values could exceed the TS values, they were not caused by a "knowingly set" condition. When accounting for the various uncertainties, the as-found criteria assures that the TS setting, as modified by deviation, is not exceeded. Therefore, the analytical limit is preserved and all potentially affected systems and components are operable and can fulfill their safety function.

This condition has been evaluated by the Monticello Plant Probability Risk Assessment (PRA) Group and found to have no effect on Core Damage Frequency because the instruments and the PRA model assumptions were not affected.

**Cause**

While the deviation tables were included in the originally issued TS Bases, including the statement quoted above, the TS Bases are not to be used to revise a TS requirement. The cause of the condition is failure to consider incorporating the deviation table information into the TS tables.

**Corrective Action**

As discussed above, plant staff determined that there was no effect on the safety function of plant instrumentation. The affected systems and components would have performed their safety functions. The TS Bases allowance to deviate from the TS is no longer considered to be valid.

The plant technical staff performed reviews and noted that several procedures contained instrumentation as-found acceptance criteria that permitted exceeding the TS value without a means of requiring the condition to be entered in the plant's Corrective Action Program. The plant technical staff will review all potentially affected procedures. If required, procedures will be revised to add a step requiring the initiation of a condition report to acknowledge and disposition conditions in which the as-found value exceeds the TS value. If it becomes apparent during the course of the review that the as-left condition should be revised to minimize the possibility of a future as-found value not meeting the TS, an appropriate procedure change will be made.

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A review will be performed to determine whether changes to the TS instrument tables are required to incorporate the Bases deviation table information into the TS.

**Failed Component Identification**

No components failed.

**Previous Similar Event**

None.