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June 9, 2006

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555-0001

Subject: Duke Power Company LLC d/b/a
Duke Energy Carolinas, LLC (Duke)
McGuire Nuclear Station - Units 1 & 2
Docket Nos. 50-369, 50-370
Inservice Testing Program
Request for Additional Information (RAI)
Relief Request Nos. MC-GRP-01

Reference: (1) Letter from Mr. G.R. Peterson of Duke Power to NRC, dated August 12, 2004, (2) Letter from Mr. G.R. Peterson of Duke Power to NRC, dated November 18, 2004, (3) Letter from Mr. James J. Shea of the NRC to Mr. G.R. Peterson of Duke Power, dated April 8, 2005, and (4) Letter from Mr. G.R. Peterson of Duke Power to NRC, dated June 9, 2005.

Per guidance from the NRC staff, Duke is submitting specific relief requests for each individual pump group by system in place of the previously submitted generic relief request concerning pump vibration acceptance criteria. The new relief requests also revise the vibration threshold from 0.075 in/sec to 0.05 in/sec. Therefore, Relief Request No. MC-GRP-01 is being withdrawn.

Attachment No. 1 includes tables that identify inservice testing program relief requests requiring NRC approval. These tables provide information pertaining to pump description, test type, testing frequency, ASME class, etc. Attachments Nos. 2 through 13 are the new relief requests being submitted for approval.

Questions with respect to this matter should be directed to Norman T. Simms of Regulatory Compliance at 704-875-4685.

Sincerely,

G.R. Peterson

Attachments

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xc:

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ATTACHMENT 1

TABLES

Equipment ID	Description	Flow Diagram	Pump Group	Pump Type	ASME Class	Test Type	Freq	Relief Request
CA - Auxiliary Feedwater								
1CAPU0001	Motor Driven Auxiliary Feedwater Pump 1A	MC-1592-1.1	B	CT	3	Flow/Differential Pressure Test	Q	None
						Vibration Test	2Y	MC-SRP-CA-02
						Comprehensive Test	2Y	None
1CAPU0002	Motor Driven Auxiliary Feedwater Pump 1B	MC-1592-1.1	B	CT	3	Flow/Differential Pressure Test	Q	None
						Vibration Test	2Y	MC-SRP-CA-02
						Comprehensive Test	2Y	None
1CAPU0003	Turbine Driven Auxiliary Feedwater Pump #1	MC-1592-1.1	B	CT	3	Flow/Differential Pressure Test	Q	None
						Vibration Test	2Y	MC-SRP-CA-03
						Comprehensive Test	2Y	None
2CAPU0001	Motor Driven Auxiliary Feedwater Pump 2A	MC-2592-1.1	B	CT	3	Flow/Differential Pressure Test	Q	None
						Vibration Test	2Y	MC-SRP-CA-02
						Comprehensive Test	2Y	None
2CAPU0002	Motor Driven Auxiliary Feedwater Pump 2B	MC-2592-1.1	B	CT	3	Flow/Differential Pressure Test	Q	None
						Vibration Test	2Y	MC-SRP-CA-02
						Comprehensive Test	2Y	None
2CAPU0003	Turbine Driven Auxiliary Feedwater Pump #2	MC-2592-1.1	B	CT	3	Flow/Differential Pressure Test	Q	None
						Vibration Test	2Y	MC-SRP-CA-03
						Comprehensive Test	2Y	None

Equipment ID	Description	Flow Diagram	Pump Group	Pump Type	ASME Class	Test Type	Freq	Relief Request
KC - Component Cooling								
1KCPU0001	Component Cooling Water Pump 1A1	MC-1573-1.0	A	CT	3	Flow/Differential Pressure Test	Q	MC-SRP-KC-01
						Vibration Test	Q	MC-SRP-KC-02
						Comprehensive Test	2Y	None
1KCPU0002	Component Cooling Water Pump 1A2	MC-1573-1.0	A	CT	3	Flow/Differential Pressure Test	Q	MC-SRP-KC-01
						Vibration Test	Q	MC-SRP-KC-02
						Comprehensive Test	2Y	None
1KCPU0003	Component Cooling Water Pump 1B1	MC-1573-1.0	A	CT	3	Flow/Differential Pressure Test	Q	MC-SRP-KC-01
						Vibration Test	Q	MC-SRP-KC-02
						Comprehensive Test	2Y	None
1KCPU0004	Component Cooling Water Pump 1B2	MC-1573-1.0	A	CT	3	Flow/Differential Pressure Test	Q	MC-SRP-KC-01
						Vibration Test	Q	MC-SRP-KC-02
						Comprehensive Test	2Y	None
2KCPU0001	Component Cooling Water Pump 2A1	MC-2573-1.0	A	CT	3	Flow/Differential Pressure Test	Q	MC-SRP-KC-01
						Vibration Test	Q	MC-SRP-KC-02
						Comprehensive Test	2Y	None
2KCPU0002	Component Cooling Water Pump 2A2	MC-2573-1.0	A	CT	3	Flow/Differential Pressure Test	Q	MC-SRP-KC-01
						Vibration Test	Q	MC-SRP-KC-02
						Comprehensive Test	2Y	None
2KCPU0003	Component Cooling Water Pump 2B1	MC-2573-1.0	A	CT	3	Flow/Differential Pressure Test	Q	MC-SRP-KC-01
						Vibration Test	Q	MC-SRP-KC-02
						Comprehensive Test	2Y	None
2KCPU0004	Component Cooling Water Pump 2B2	MC-2573-1.0	A	CT	3	Flow/Differential Pressure Test	Q	MC-SRP-KC-01
						Vibration Test	Q	MC-SRP-KC-02
						Comprehensive Test	2Y	None

Equipment ID	Description	Flow Diagram	Pump Group	Pump Type	ASME Class	Test Type	Freq	Relief Request
ND-Residual Heat Removal and Low Head Safety Injection								
1NDPU0001	Residual Heat Removal Pump 1A	MC-1561-1.0	A	CT	2	Flow/Differential Pressure Test	Q	MC-SRP-ND-01
						Vibration Test	Q	MC-SRP-ND-02
						Comprehensive Test	2Y	None
1NDPU0002	Residual Heat Removal Pump 1B	MC-1561-1.0	A	CT	2	Flow/Differential Pressure Test	Q	MC-SRP-ND-01
						Vibration Test	Q	MC-SRP-ND-02
						Comprehensive Test	2Y	None
2NDPU0001	Residual Heat Removal Pump 2A	MC-2561-1.0	A	CT	2	Flow/Differential Pressure Test	Q	MC-SRP-ND-01
						Vibration Test	Q	MC-SRP-ND-02
						Comprehensive Test	2Y	None
2NDPU0002	Residual Heat Removal Pump 2B	MC-2561-1.0	A	CT	2	Flow/Differential Pressure Test	Q	MC-SRP-ND-01
						Vibration Test	Q	MC-SRP-ND-02
						Comprehensive Test	2Y	None

Equipment ID	Description	Flow Diagram	Pump Group	Pump Type	ASME Class	Test Type	Freq	Relief Request
NI-Medium Head Safety Injection								
1NIPU0009	Safety Injection Pump 1A	MC-1562-3.0	A	CT	2	Flow/Differential Pressure Test	Q	None
						Vibration Test	Q	MC-SRP-NI-02
						Comprehensive Test	2Y	None
1NIPU0010	Safety Injection Pump 1B	MC-1562-3.0	A	CT	2	Flow/Differential Pressure Test	Q	None
						Vibration Test	Q	MC-SRP-NI-02
						Comprehensive Test	2Y	None
2NIPU0009	Safety Injection Pump 2A	MC-2562-3.0	A	CT	2	Flow/Differential Pressure Test	Q	None
						Vibration Test	Q	MC-SRP-NI-02
						Comprehensive Test	2Y	None
2NIPU0010	Safety Injection Pump 2B	MC-2562-3.0	A	CT	2	Flow/Differential Pressure Test	Q	None
						Vibration Test	Q	MC-SRP-NI-02
						Comprehensive Test	2Y	None

Equipment ID	Description	Flow Diagram	Pump Group	Pump Type	ASME Class	Test Type	Freq	Relief Request
NS - Containment Spray								
1NSPU0001	Containment Spray Pump 1A	MC-1563-1.0	B	CT	2	Flow/Differential Pressure Test	Q	None
						Vibration Test	2Y	MC-SRP-NS-02
						Comprehensive Test	2Y	None
1NSPU0002	Containment Spray Pump 1B	MC-1563-1.0	B	CT	2	Flow/Differential Pressure Test	Q	None
						Vibration Test	2Y	MC-SRP-NS-02
						Comprehensive Test	2Y	None
2NSPU0001	Containment Spray Pump 2A	MC-2563-1.0	B	CT	2	Flow/Differential Pressure Test	Q	None
						Vibration Test	2Y	MC-SRP-NS-02
						Comprehensive Test	2Y	None
2NSPU0002	Containment Spray Pump 2B	MC-2563-1.0	B	CT	2	Flow/Differential Pressure Test	Q	None
						Vibration Test	2Y	MC-SRP-NS-02
						Comprehensive Test	2Y	None

Equipment ID	Description	Flow Diagram	Pump Group	Pump Type	ASME Class	Test Type	Freq	Relief Request
NV - Chemical & Volume Control								
1NVPU0015	Centrifugal Charging Pump 1A	MC-1554-1.0	A	CT	2	Flow/Differential Pressure Test	Q	None
						Vibration Test	Q	MC-SRP-NV-02
						Comprehensive Test	2Y	None
1NVPU0016	Centrifugal Charging Pump 1B	MC-1554-1.0	A	CT	2	Flow/Differential Pressure Test	Q	None
						Vibration Test	Q	MC-SRP-NV-02
						Comprehensive Test	2Y	None
1NVPU0027	Boric Acid Transfer Pump 1A	MC-1554-5.0	A	CT	3	Flow/Differential Pressure Test	Q	None
						Vibration Test	Q	MC-SRP-NV-03
						Comprehensive Test	2Y	None
1NVPU0028	Boric Acid Transfer Pump 1B	MC-1554-5.0	A	CT	3	Flow/Differential Pressure Test	Q	None
						Vibration Test	Q	MC-SRP-NV-03
						Comprehensive Test	2Y	None
2NVPU0015	Centrifugal Charging Pump 2A	MC-2554-1.0	A	CT	2	Flow/Differential Pressure Test	Q	None
						Vibration Test	Q	MC-SRP-NV-02
						Comprehensive Test	2Y	None
2NVPU0016	Centrifugal Charging Pump 2B	MC-2554-1.0	A	CT	2	Flow/Differential Pressure Test	Q	None
						Vibration Test	Q	MC-SRP-NV-02
						Comprehensive Test	2Y	None
2NVPU0027	Boric Acid Transfer Pump 2A	MC-2554-5.0	A	CT	3	Flow/Differential Pressure Test	Q	None
						Vibration Test	Q	MC-SRP-NV-03
						Comprehensive Test	2Y	None
2NVPU0028	Boric Acid Transfer Pump 2B	MC-2554-5.0	A	CT	3	Flow/Differential Pressure Test	Q	None
						Vibration Test	Q	MC-SRP-NV-03
						Comprehensive Test	2Y	None

Equipment ID	Description	Flow Diagram	Pump Group	Pump Type	ASME Class	Test Type	Freq	Relief Request
RN - Nuclear Service Water								
1RNPU0003	Nuclear Service Water Pump 1A	MC-1574-1.1	A	CT	3	Flow/Differential Pressure Test	Q	None
						Vibration Test	Q	MC-SRP-RN-02
						Comprehensive Test	2Y	None
1RNPU0004	Nuclear Service Water Pump 1B	MC-1574-1.1	A	CT	3	Flow/Differential Pressure Test	Q	None
						Vibration Test	Q	MC-SRP-RN-02
						Comprehensive Test	2Y	None
2RNPU0003	Nuclear Service Water Pump 2A	MC-2574-1.1	A	CT	3	Flow/Differential Pressure Test	Q	None
						Vibration Test	Q	MC-SRP-RN-02
						Comprehensive Test	2Y	None
2RNPU0004	Nuclear Service Water Pump 2B	MC-2574-1.1	A	CT	3	Flow/Differential Pressure Test	Q	None
						Vibration Test	Q	MC-SRP-RN-02
						Comprehensive Test	2Y	None

Equipment ID	Description	Flow Diagram	Pump Group	Pump Type	ASME Class	Test Type	Freq	Relief Request
WN - Diesel Generator Room Sump Pump								
1WNPU0094	Diesel Generator Sump Pump 1A2	MC-1609-7.0	B	CT	3	Vibration Test	2Y	MC-SRP-WN-01
						Comprehensive Test	2Y	None
1WNPU0095	Diesel Generator Sump Pump 1B2	MC-1609-7.0	B	CT	3	Vibration Test	2Y	MC-SRP-WN-01
						Comprehensive Test	2Y	None
1WNPU0096	Diesel Generator Sump Pump 1A3	MC-1609-7.0	B	CT	3	Vibration Test	2Y	MC-SRP-WN-01
						Comprehensive Test	2Y	None
1WNPU0097	Diesel Generator Sump Pump 1B3	MC-1609-7.0	B	CT	3	Vibration Test	2Y	MC-SRP-WN-01
						Comprehensive Test	2Y	None
2WNPU0094	Diesel Generator Sump Pump 2A2	MC-2609-7.0	B	CT	3	Vibration Test	2Y	MC-SRP-WN-01
						Comprehensive Test	2Y	None
2WNPU0095	Diesel Generator Sump Pump 2B2	MC-2609-7.0	B	CT	3	Vibration Test	2Y	MC-SRP-WN-01
						Comprehensive Test	2Y	None
2WNPU0096	Diesel Generator Sump Pump 2A3	MC-2609-7.0	B	CT	3	Vibration Test	2Y	MC-SRP-WN-01
						Comprehensive Test	2Y	None
2WNPU0097	Diesel Generator Sump Pump 2B3	MC-2609-7.0	B	CT	3	Vibration Test	2Y	MC-SRP-WN-01
						Comprehensive Test	2Y	None

Equipment ID	Description	Flow Diagram	Pump Group	Pump Type	ASME Class	Test Type	Freq	Relief Request
WZ - Groundwater Monitoring and Sump								
0WZPU0001	Groundwater Drainage Sump A Pump A	MC-1581-1.0	A	CT	3	Flow/Differential Pressure Test	Q	None
						Vibration Test	Q	MC-SRP-WZ-01
						Comprehensive Test	2Y	None
0WZPU0002	Groundwater Drainage Sump A Pump B	MC-1581-1.0	A	CT	3	Flow/Differential Pressure Test	Q	None
						Vibration Test	Q	MC-SRP-WZ-01
						Comprehensive Test	2Y	None
0WZPU0003	Groundwater Drainage Sump B Pump A	MC-1581-1.0	A	CT	3	Flow/Differential Pressure Test	Q	None
						Vibration Test	Q	MC-SRP-WZ-01
						Comprehensive Test	2Y	None
0WZPU0004	Groundwater Drainage Sump B Pump B	MC-1581-1.0	A	CT	3	Flow/Differential Pressure Test	Q	None
						Vibration Test	Q	MC-SRP-WZ-01
						Comprehensive Test	2Y	None
0WZPU0005	Groundwater Drainage Sump C Pump A	MC-1581-1.0	A	CT	3	Flow/Differential Pressure Test	Q	None
						Vibration Test	Q	MC-SRP-WZ-01
						Comprehensive Test	2Y	None
0WZPU0006	Groundwater Drainage Sump C Pump B	MC-1581-1.0	A	CT	3	Flow/Differential Pressure Test	Q	None
						Vibration Test	Q	MC-SRP-WZ-01
						Comprehensive Test	2Y	None

Equipment ID	Description	Flow Diagram	Pump Group	Pump Type	ASME Class	Test Type	Freq	Relief Request
YC - Control Area Chilled Water								
0YCPU0003	Control Area Chilled Water Pump Train A	MC-1618-1	A	CT	3	Flow/Differential Pressure Test	Q	None
						Vibration Test	Q	MC-SRP-YC-01
						Comprehensive Test	2Y	None
0YCPU0004	Control Area Chilled Water Pump Train B	MC-1618-1	A	CT	3	Flow/Differential Pressure Test	Q	None
						Vibration Test	Q	MC-SRP-YC-01
						Comprehensive Test	2Y	None

5.1 PUMP GENERIC RELIEF REQUESTS

Relief Request	Applicability	Status
none		

5.2 PUMP SPECIFIC RELIEF REQUESTS

Relief Request	Applicability	Status
MC-SRP-CA-01	Auxiliary Feedwater Pumps	Deleted Revision 26
MC-SRP-CA-02	Motor Driven Auxiliary Feedwater Pumps	Added-Revision 27
MC-SRP-CA-03	Turbine Driven Auxiliary Feedwater Pumps	Added-Revision 27
MC-SRP-FD-01	Diesel Generator Fuel Oil Pumps	DELETED-Revision 27
MC-SRP-KC-01	Component Cooling Pumps	Revised-Revision 27
MC-SRP-KC-02	Component Cooling Pumps	Added-Revision 27
MC-SRP-ND-01	Residual Heat Removal Pumps	Revised-Revision 27
MC-SRP-ND-02	Residual Heat Removal Pumps	Added-Revision 27
MC-SRP-NI-01	Safety Injection Pumps	DELETED-Revision 27
MC-SRP-NI-02	Safety Injection Pumps	Added-Revision 27
MC-SPR-NS-02	Containment Spray Pumps	Added-Revision 27
MC-SRP-NV-01	Chemical & Volume Control Pumps	DELETED-Revision 27
MC-SRP-NV-02	Centrifugal Charging Pumps	Added-Revision 27
MC-SRP-NV-03	Boric Acid Transfer Pumps	Added-Revision 27
MC-SRP-RN-01	Nuclear Service Water Pumps	Deleted-Revision 22
MC-SRP-RN-02	Nuclear Service Water Pumps	Added Revision 27
MC-SRP-WN-01	Diesel Generator Sump Pumps	Added Revision 27
MC-SRP-WZ-01	Groundwater Drainage Sump Pumps	Added Revision 27
MC-SRP-YC-01	Control Room Chilled Water Pumps	Added Revision 27

ATTACHMENT 2

MC-SRP-CA-02

10 CFR 50.55a Request Number MC-SRP-CA-02

Proposed Alternative
in Accordance with 10 CFR 50.55a(a)(3)(i)
--Alternative Provides Acceptable Level of Quality and Safety--

1. ASME Code Components Affected

1CAPU0001, 1A CA (Auxiliary Feedwater) Pump
1CAPU0002, 1B CA Pump
2CAPU0001, 2A CA Pump
2CAPU0002, 2B CA Pump

2. Applicable Code Edition and Addenda

ASME Code for Operation and Maintenance of Nuclear Power Plants, 1998 Edition through 2000 Addenda (OMB 2000).

3. Applicable Code Requirement

Section IST, Subsection ISTB, Paragraph ISTB-5123(e). All deviations from the reference values shall be compared with the ranges of Table ISTB-5100-1 and corrective action taken as specified in ISTB-6200.

Table ISTB-5100-1 Centrifugal Pump Test Acceptance Criteria (applicable vibration ranges only):

Comprehensive Tests
>600 rpm
Acceptable Range $<2.5V_r$
Alert Range $>2.5V_r$ to $6 V_r$
Required Action Range High $>6V_r$.

4. Reason for Request

Experience has shown that smooth operating pumps with $V_r \leq 0.05$ in/sec often fall in the alert range of vibration measurement of Table ISTB-5100-1. This is not an indication of degraded pump operation but rather a function of multiplying a very small number (<0.05) by 2.5 which results in another small number for the acceptance criteria. The required actions for exceeding the existing acceptance criteria for these pumps are of no value since there is no adverse condition to correct.

5. Proposed Alternative and Basis for Use

Anytime $V_r \leq 0.05$ in/sec the following acceptance criteria shall be used:

Acceptable Range <0.125 in/sec
Alert Range >0.125 to ≤ 0.300 in/sec
Required Action Range High > 0.300 in/sec

For $V_r > 0.05$ in/sec the existing acceptance criteria of Table ISTB-5200-1 shall be used.

By applying the above alternative criteria to only those pumps with vibration references <0.05 in/sec the scope is bounded and will not effect the criteria or corrective actions for any non smooth operating pumps. Also this alternative vibration criteria has been shown by experience to provide an acceptable level for ensuring that pump degradation will be detected and appropriate actions initiated to correct the condition. The affected pumps are also in the Predictive Maintenance Program which provides supplemental information to assure detection of pump degradation. This program provides additional monitoring for these pumps including advanced vibration monitoring techniques (bearing high frequency detection and spectral analysis for the pump as well as the driver). In addition, lubricant analysis for wear debris, chemical composition and cleanliness is performed on these pumps. This alternative provides an acceptable level of quality and safety to that of the existing Code requirement.

6. Duration of Proposed Alternative

This alternative will be used for the entire 3rd 10 year interval for McGuire.

7. Precedents (Optional)

Oconee Nuclear Station, (DOC NOs 50-269,-270,-287) submitted generic relief request ON-GRP-01 with identical test alternatives which was approved by NRC (TAC NOs MB6602, MB6603, and MB6604). Palo Verde Nuclear Generating Station (DOC NOs 50-528,-529,-530) also submitted generic relief request PRR-08 with similar test alternatives which was approved by NRC (TAC NOs MA0757, MA0758, and MA0759).

Similar generic relief request MC-GRP-01 was granted by NRC under the previous McGuire submittal with a threshold of 0.075 in/sec. However, during a July 7, 2005 NRC/Duke conversation via phone, NRC advised they would not approve a threshold of greater than 0.05 in/sec nor would they approve a generic relief request.

8. References (Optional)

n/a

ATTACHMENT 3

MC-SRP-CA-03

10 CFR 50.55a Request Number MC-SRP-CA-03

Proposed Alternative
in Accordance with 10 CFR 50.55a(a)(3)(i)
--Alternative Provides Acceptable Level of Quality and Safety--

1. ASME Code Components Affected

1CAPU0003, Unit 1 Turbine Driven CA (Auxiliary Feedwater) Pump
2CAPU0003, Unit 2 Turbine Driven CA Pump

2. Applicable Code Edition and Addenda

ASME Code for Operation and Maintenance of Nuclear Power Plants, 1998 Edition through 2000 Addenda (OMB 2000).

3. Applicable Code Requirement

Section IST, Subsection ISTB, Paragraph ISTB-5123(e). All deviations from the reference values shall be compared with the ranges of Table ISTB-5100-1 and corrective action taken as specified in ISTB-6200.

Table ISTB-5100-1 Centrifugal Pump Test Acceptance Criteria (applicable vibration ranges only):

Comprehensive Tests
>600 rpm
Acceptable Range $<2.5V_r$
Alert Range $>2.5V_r$ to $6 V_r$
Required Action Range High $>6V_r$.

4. Reason for Request

Experience has shown that smooth operating pumps with $V_r \leq 0.05$ in/sec often fall in the alert range of vibration measurement of Table ISTB-5100-1. This is not an indication of degraded pump operation but rather a function of multiplying a very small number (<0.05) by 2.5 which results in another small number for the acceptance criteria. The required actions for exceeding the existing acceptance criteria for these pumps are of no value since there is no adverse condition to correct.

5. Proposed Alternative and Basis for Use

Anytime $V_r \leq 0.05$ in/sec the following acceptance criteria shall be used:

Acceptable Range <0.125 in/sec
Alert Range >0.125 to ≤ 0.300 in/sec
Required Action Range High > 0.300 in/sec

For $V_r > 0.05$ in/sec the existing acceptance criteria of Table ISTB-5200-1 shall be used.

By applying the above alternative criteria to only those pumps with vibration references <0.05 in/sec the scope is bounded and will not effect the criteria or corrective actions for

any non smooth operating pumps. Also this alternative vibration criteria has been shown by experience to provide an acceptable level for ensuring that pump degradation will be detected and appropriate actions initiated to correct the condition. The affected pumps are also in the Predictive Maintenance Program which provides supplemental information to assure detection of pump degradation. This program provides additional monitoring for these pumps including advanced vibration monitoring techniques (bearing high frequency detection and spectral analysis for the pump as well as the driver). In addition, lubricant analysis for wear debris, chemical composition and cleanliness is performed on these pumps. This alternative provides an acceptable level of quality and safety to that of the existing Code requirement.

6. Duration of Proposed Alternative

This alternative will be used for the entire 3rd 10 year interval for McGuire.

7. Precedents (Optional)

Oconee Nuclear Station, (DOC NOs 50-269,-270,-287) submitted generic relief request ON-GRP-01 with identical test alternatives which was approved by NRC (TAC NOs MB6602, MB6603, and MB6604). Palo Verde Nuclear Generating Station (DOC NOs 50-528,-529,-530) also submitted generic relief request PRR-08 with similar test alternatives which was approved by NRC (TAC NOs MA0757, MA0758, and MA0759).

Similar generic relief request MC-GRP-01 was granted by NRC under the previous McGuire submittal with a threshold of 0.075 in/sec. However, during a July 7, 2005 NRC/Duke conversation via phone, NRC advised they would not approve a threshold of greater than 0.05 in/sec nor would they approve a generic relief request.

8. References (Optional)

n/a

ATTACHMENT 4

MC-SRP-KC-02

10 CFR 50.55a Request Number MC-SRP-KC-02

Proposed Alternative
in Accordance with 10 CFR 50.55a(a)(3)(i)
 --Alternative Provides Acceptable Level of Quality and Safety--

1. ASME Code Components Affected

1KCPU0001, KC (Component Cooling Water) Pump 1A1
 1KCPU0002, KC Pump 1A2
 1KCPU0003, KC Pump 1B1
 1KCPU0004, KC Pump 1B2
 2KCPU0001, KC Pump 2A1
 2KCPU0002, KC Pump 2A2
 2KCPU0003, KC Pump 2B1
 2KCPU0004, KC Pump 2B2

2. Applicable Code Edition and Addenda

ASME Code for Operation and Maintenance of Nuclear Power Plants, 1998 Edition through 2000 Addenda (OMB 2000).

3. Applicable Code Requirement

Section IST, Subsection ISTB, Paragraphs ISTB-5121(e) and 5123(e). All deviations from the reference values shall be compared with the ranges of Table ISTB-5100-1 and corrective action taken as specified in ISTB-6200.

Table ISTB-5100-1 Centrifugal Pump Test Acceptance Criteria (applicable vibration ranges only):

Group A and Comprehensive Tests
 >600 rpm
 Acceptable Range $<2.5V_r$
 Alert Range $>2.5V_r$ to $6V_r$
 Required Action Range High $>6V_r$.

4. Reason for Request

Experience has shown that smooth operating pumps with $V_r \leq 0.05$ in/sec often fall in the alert range of vibration measurement of Table ISTB-5100-1. This is not an indication of degraded pump operation but rather a function of multiplying a very small number (<0.05) by 2.5 which results in another small number for the acceptance criteria. The required actions for exceeding the existing acceptance criteria for these pumps are of no value since there is no adverse condition to correct.

5. Proposed Alternative and Basis for Use

Anytime $V_r \leq 0.05$ in/sec the following acceptance criteria shall be used:

Acceptable Range <0.125 in/sec

Alert Range >0.125 to ≤ 0.300 in/sec

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Section 5.1

Required Action Range High > 0.300 in/sec

For $V_r > 0.05$ in/sec the existing acceptance criteria of Table ISTB-5200-1 shall be used.

By applying the above alternative criteria to only those pumps with vibration references <0.05 in/sec the scope is bounded and will not effect the criteria or corrective actions for any non smooth operating pumps. Also this alternative vibration criteria has been shown by experience to provide an acceptable level for ensuring that pump degradation will be detected and appropriate actions initiated to correct the condition. The affected pumps are also in the Predictive Maintenance Program which provides supplemental information to assure detection of pump degradation. This program provides additional monitoring for these pumps including advanced vibration monitoring techniques (bearing high frequency detection and spectral analysis for the pump as well as the driver). In addition, lubricant analysis for wear debris, chemical composition and cleanliness is performed on these pumps. This alternative provides an acceptable level of quality and safety to that of the existing Code requirement.

6. Duration of Proposed Alternative

This alternative will be used for the entire 3rd 10 year interval for McGuire.

7. Precedents (Optional)

Oconee Nuclear Station, (DOC NOs 50-269,-270,-287) submitted generic relief request ON-GRP-01 with identical test alternatives which was approved by NRC (TAC NOs MB6602, MB6603, and MB6604). Palo Verde Nuclear Generating Station (DOC NOs 50-528,-529,-530) also submitted generic relief request PRR-08 with similar test alternatives which was approved by NRC (TAC NOs MA0757, MA0758, and MA0759).

Similar generic relief request MC-GRP-01 was granted by NRC under the previous McGuire submittal with a threshold of 0.075 in/sec. However, during a July 7, 2005 NRC/Duke conversation via phone, NRC advised they would not approve a threshold of greater than 0.05 in/sec nor would they approve a generic relief request.

8. References (Optional)

n/a

ATTACHMENT 5

MC-SRP-ND-02

10 CFR 50.55a Request Number MC-SRP-ND-02

Proposed Alternative
in Accordance with 10 CFR 50.55a(a)(3)(i)
--Alternative Provides Acceptable Level of Quality and Safety--

1. ASME Code Components Affected

1NDPU0001, ND (Residual Heat Removal) Pump 1A
1NDPU0002, ND Pump 1B
2NDPU0001, ND Pump 2A
2NDPU0002, ND Pump 2B

2. Applicable Code Edition and Addenda

ASME Code for Operation and Maintenance of Nuclear Power Plants, 1998 Edition through 2000 Addenda (OMB 2000).

3. Applicable Code Requirement

Section IST, Subsection ISTB, Paragraphs ISTB-5121(e) and 5123(e). All deviations from the reference values shall be compared with the ranges of Table ISTB-5100-1 and corrective action taken as specified in ISTB-6200.

Table ISTB-5100-1 Centrifugal Pump Test Acceptance Criteria (applicable vibration ranges only):

Group A and Comprehensive Tests
>600 rpm
Acceptable Range $<2.5V_r$
Alert Range $>2.5V_r$ to $6 V_r$
Required Action Range High $>6V_r$.

4. Reason for Request

Experience has shown that smooth operating pumps with $V_r \leq 0.05$ in/sec often fall in the alert range of vibration measurement of Table ISTB-5100-1. This is not an indication of degraded pump operation but rather a function of multiplying a very small number (<0.05) by 2.5 which results in another small number for the acceptance criteria. The required actions for exceeding the existing acceptance criteria for these pumps are of no value since there is no adverse condition to correct.

5. Proposed Alternative and Basis for Use

Anytime $V_r \leq 0.05$ in/sec the following acceptance criteria shall be used:

Acceptable Range <0.125 in/sec
Alert Range >0.125 to ≤ 0.300 in/sec
Required Action Range High > 0.300 in/sec

For $V_r > 0.05$ in/sec the existing acceptance criteria of Table ISTB-5200-1 shall be used.

By applying the above alternative criteria to only those pumps with vibration references <0.05 in/sec the scope is bounded and will not effect the criteria or corrective actions for any non smooth operating pumps. Also this alternative vibration criteria has been shown by experience to provide an acceptable level for ensuring that pump degradation will be detected and appropriate actions initiated to correct the condition. The affected pumps are also in the Predictive Maintenance Program which provides supplemental information to assure detection of pump degradation. This program provides additional monitoring for these pumps including advanced vibration monitoring techniques (bearing high frequency detection and spectral analysis for the pump as well as the driver). In addition, lubricant analysis for wear debris, chemical composition and cleanliness is performed on these pumps. This alternative provides an acceptable level of quality and safety to that of the existing Code requirement.

6. Duration of Proposed Alternative

This alternative will be used for the entire 3rd 10 year interval for McGuire.

7. Precedents (Optional)

Oconee Nuclear Station, (DOC NOs 50-269,-270,-287) submitted generic relief request ON-GRP-01 with identical test alternatives which was approved by NRC (TAC NOs MB6602, MB6603, and MB6604). Palo Verde Nuclear Generating Station (DOC NOs 50-528,-529,-530) also submitted generic relief request PRR-08 with similar test alternatives which was approved by NRC (TAC NOs MA0757, MA0758, and MA0759).

Similar generic relief request MC-GRP-01 was granted by NRC under the previous McGuire submittal with a threshold of 0.075 in/sec. However, during a July 7, 2005 NRC/Duke conversation via phone, NRC advised they would not approve a threshold of greater than 0.05 in/sec nor would they approve a generic relief request.

8. References (Optional)

n/a

ATTACHMENT 6

MC-SRP-NI-02

10 CFR 50.55a Request Number MC-SRP-NI-02

Proposed Alternative
in Accordance with 10 CFR 50.55a(a)(3)(i)
--Alternative Provides Acceptable Level of Quality and Safety--

1. ASME Code Components Affected

1NIPU0009, NI (Safety Injection) Pump 1A
1NIPU0010, NI Pump 1B
2NIPU0009, NI Pump 2A
2NIPU0010, NI Pump 2B

2. Applicable Code Edition and Addenda

ASME Code for Operation and Maintenance of Nuclear Power Plants, 1998 Edition through 2000 Addenda (OMB 2000).

3. Applicable Code Requirement

Section IST, Subsection ISTB, Paragraphs ISTB-5121(e) and 5123(e). All deviations from the reference values shall be compared with the ranges of Table ISTB-5100-1 and corrective action taken as specified in ISTB-6200.

Table ISTB-5100-1 Centrifugal Pump Test Acceptance Criteria (applicable vibration ranges only):

Group A and Comprehensive Tests
>600 rpm
Acceptable Range $<2.5V_r$
Alert Range $>2.5V_r$ to $6 V_r$
Required Action Range High $>6V_r$.

4. Reason for Request

Experience has shown that smooth operating pumps with $V_r \leq 0.05$ in/sec often fall in the alert range of vibration measurement of Table ISTB-5100-1. This is not an indication of degraded pump operation but rather a function of multiplying a very small number (<0.05) by 2.5 which results in another small number for the acceptance criteria. The required actions for exceeding the existing acceptance criteria for these pumps are of no value since there is no adverse condition to correct.

5. Proposed Alternative and Basis for Use

Anytime $V_r \leq 0.05$ in/sec the following acceptance criteria shall be used:
Acceptable Range <0.125 in/sec
Alert Range >0.125 to ≤ 0.300 in/sec
Required Action Range High > 0.300 in/sec

For $V_r > 0.05$ in/sec the existing acceptance criteria of Table ISTB-5200-1 shall be used.

By applying the above alternative criteria to only those pumps with vibration references <0.05 in/sec the scope is bounded and will not effect the criteria or corrective actions for any non smooth operating pumps. Also this alternative vibration criteria has been shown by experience to provide an acceptable level for ensuring that pump degradation will be detected and appropriate actions initiated to correct the condition. The affected pumps are also in the Predictive Maintenance Program which provides supplemental information to assure detection of pump degradation. This program provides additional monitoring for these pumps including advanced vibration monitoring techniques (bearing high frequency detection and spectral analysis for the pump as well as the driver). In addition, lubricant analysis for wear debris, chemical composition and cleanliness is performed on these pumps. This alternative provides an acceptable level of quality and safety to that of the existing Code requirement.

6. Duration of Proposed Alternative

This alternative will be used for the entire 3rd 10 year interval for McGuire.

7. Precedents (Optional)

Oconee Nuclear Station, (DOC NOs 50-269,-270,-287) submitted generic relief request ON-GRP-01 with identical test alternatives which was approved by NRC (TAC NOs MB6602, MB6603, and MB6604). Palo Verde Nuclear Generating Station (DOC NOs 50-528,-529,-530) also submitted generic relief request PRR-08 with similar test alternatives which was approved by NRC (TAC NOs MA0757, MA0758, and MA0759).

Similar generic relief request MC-GRP-01 was granted by NRC under the previous McGuire submittal with a threshold of 0.075 in/sec. However, during a July 7, 2005 NRC/Duke conversation via phone, NRC advised they would not approve a threshold of greater than 0.05 in/sec nor would they approve a generic relief request.

8. References (Optional)

n/a

ATTACHMENT 7

MC-SRP-NS-02

10 CFR 50.55a Request Number MC-SRP-NS-02

Proposed Alternative
in Accordance with 10 CFR 50.55a(a)(3)(i)
--Alternative Provides Acceptable Level of Quality and Safety--

1. ASME Code Components Affected

1NSPU0001, NS (Containment Spray) Pump 1A
1NSPU0002, NS Pump 1B
2NSPU0001, NS Pump 2A
2NSPU0002, NS Pump 2B

2. Applicable Code Edition and Addenda

ASME Code for Operation and Maintenance of Nuclear Power Plants, 1998 Edition through 2000 Addenda (OMB 2000).

3. Applicable Code Requirement

Section IST, Subsection ISTB, Paragraph ISTB-5123(e). All deviations from the reference values shall be compared with the ranges of Table ISTB-5100-1 and corrective action taken as specified in ISTB-6200.

Table ISTB-5100-1 Centrifugal Pump Test Acceptance Criteria (applicable vibration ranges only):

Comprehensive Tests
>600 rpm
Acceptable Range $<2.5V_r$
Alert Range $>2.5V_r$ to $6 V_r$
Required Action Range High $>6V_r$.

4. Reason for Request

Experience has shown that smooth operating pumps with $V_r \leq 0.05$ in/sec often fall in the alert range of vibration measurement of Table ISTB-5100-1. This is not an indication of degraded pump operation but rather a function of multiplying a very small number (<0.05) by 2.5 which results in another small number for the acceptance criteria. The required actions for exceeding the existing acceptance criteria for these pumps are of no value since there is no adverse condition to correct.

5. Proposed Alternative and Basis for Use

Anytime $V_r \leq 0.05$ in/sec the following acceptance criteria shall be used:

Acceptable Range <0.125 in/sec
Alert Range >0.125 to ≤ 0.300 in/sec
Required Action Range High > 0.300 in/sec

For $V_r > 0.05$ in/sec the existing acceptance criteria of Table ISTB-5200-1 shall be used.

By applying the above alternative criteria to only those pumps with vibration references <0.05 in/sec the scope is bounded and will not effect the criteria or corrective actions for any non smooth operating pumps. Also this alternative vibration criteria has been shown by experience to provide an acceptable level for ensuring that pump degradation will be detected and appropriate actions initiated to correct the condition. The affected pumps are also in the Predictive Maintenance Program which provides supplemental information to assure detection of pump degradation. This program provides additional monitoring for these pumps including advanced vibration monitoring techniques (bearing high frequency detection and spectral analysis for the pump as well as the driver). In addition, lubricant analysis for wear debris, chemical composition and cleanliness is performed on these pumps. This alternative provides an acceptable level of quality and safety to that of the existing Code requirement.

6. Duration of Proposed Alternative

This alternative will be used for the entire 3rd 10 year interval for McGuire.

7. Precedents (Optional)

Oconee Nuclear Station, (DOC NOs 50-269,-270,-287) submitted generic relief request ON-GRP-01 with identical test alternatives which was approved by NRC (TAC NOs MB6602, MB6603, and MB6604). Palo Verde Nuclear Generating Station (DOC NOs 50-528,-529,-530) also submitted generic relief request PRR-08 with similar test alternatives which was approved by NRC (TAC NOs MA0757, MA0758, and MA0759).

Similar generic relief request MC-GRP-01 was granted by NRC under the previous McGuire submittal with a threshold of 0.075 in/sec. However, during a July 7, 2005 NRC/Duke conversation via phone, NRC advised they would not approve a threshold of greater than 0.05 in/sec nor would they approve a generic relief request.

8. References (Optional)

n/a

ATTACHMENT 8

MC-SRP-NV-02

10 CFR 50.55a Request Number MC-SRP-NV-02

Proposed Alternative
in Accordance with 10 CFR 50.55a(a)(3)(i)
--Alternative Provides Acceptable Level of Quality and Safety--

1. ASME Code Components Affected

1NVPU0015, NV (Centrifugal Charging) Pump 1A
1NVPU0016, NV Pump 1B
2NVPU0015, NV Pump 2A
2NVPU0016, NV Pump 2B

2. Applicable Code Edition and Addenda

ASME Code for Operation and Maintenance of Nuclear Power Plants, 1998 Edition through 2000 Addenda (OMB 2000).

3. Applicable Code Requirement

Section IST, Subsection ISTB, Paragraphs ISTB-5121(e) and 5123(e). All deviations from the reference values shall be compared with the ranges of Table ISTB-5100-1 and corrective action taken as specified in ISTB-6200.

Table ISTB-5100-1 Centrifugal Pump Test Acceptance Criteria (applicable vibration ranges only):

Group A and Comprehensive Tests
>600 rpm
Acceptable Range $<2.5V_r$
Alert Range $>2.5V_r$ to $6 V_r$
Required Action Range High $>6V_r$.

4. Reason for Request

Experience has shown that smooth operating pumps with $V_r \leq 0.05$ in/sec often fall in the alert range of vibration measurement of Table ISTB-5100-1. This is not an indication of degraded pump operation but rather a function of multiplying a very small number (<0.05) by 2.5 which results in another small number for the acceptance criteria. The required actions for exceeding the existing acceptance criteria for these pumps are of no value since there is no adverse condition to correct.

5. Proposed Alternative and Basis for Use

Anytime $V_r \leq 0.05$ in/sec the following acceptance criteria shall be used:

Acceptable Range <0.125 in/sec
Alert Range >0.125 to ≤ 0.300 in/sec
Required Action Range High > 0.300 in/sec

For $V_r > 0.05$ in/sec the existing acceptance criteria of Table ISTB-5200-1 shall be used.

By applying the above alternative criteria to only those pumps with vibration references <0.05 in/sec the scope is bounded and will not effect the criteria or corrective actions for any non smooth operating pumps. Also this alternative vibration criteria has been shown by experience to provide an acceptable level for ensuring that pump degradation will be detected and appropriate actions initiated to correct the condition. The affected pumps are also in the Predictive Maintenance Program which provides supplemental information to assure detection of pump degradation. This program provides additional monitoring for these pumps including advanced vibration monitoring techniques (bearing high frequency detection and spectral analysis for the pump as well as the driver). In addition, lubricant analysis for wear debris, chemical composition and cleanliness is performed on these pumps. This alternative provides an acceptable level of quality and safety to that of the existing Code requirement.

6. Duration of Proposed Alternative

This alternative will be used for the entire 3rd 10 year interval for McGuire.

7. Precedents (Optional)

Oconee Nuclear Station, (DOC NOs 50-269,-270,-287) submitted generic relief request ON-GRP-01 with identical test alternatives which was approved by NRC (TAC NOs MB6602, MB6603, and MB6604). Palo Verde Nuclear Generating Station (DOC NOs 50-528,-529,-530) also submitted generic relief request PRR-08 with similar test alternatives which was approved by NRC (TAC NOs MA0757, MA0758, and MA0759).

Similar generic relief request MC-GRP-01 was granted by NRC under the previous McGuire submittal with a threshold of 0.075 in/sec. However, during a July 7, 2005 NRC/Duke conversation via phone, NRC advised they would not approve a threshold of greater than 0.05 in/sec nor would they approve a generic relief request.

8. References (Optional)

n/a

ATTACHMENT 9

MC-SRP-NV-03

10 CFR 50.55a Request Number MC-SRP-NV-03

Proposed Alternative
in Accordance with 10 CFR 50.55a(a)(3)(i)
--Alternative Provides Acceptable Level of Quality and Safety--

1. ASME Code Components Affected

1NVPU0027, BAT (Boric Acid Transfer) Pump 1A
1NVPU0028, BAT Pump 1B
2NVPU0027, BAT Pump 2A
2NVPU0028, BAT Pump 2B

2. Applicable Code Edition and Addenda

ASME Code for Operation and Maintenance of Nuclear Power Plants, 1998 Edition through 2000 Addenda (OMB 2000).

3. Applicable Code Requirement

Section IST, Subsection ISTB, Paragraphs ISTB-5121(e) and 5123(e). All deviations from the reference values shall be compared with the ranges of Table ISTB-5100-1 and corrective action taken as specified in ISTB-6200.

Table ISTB-5100-1 Centrifugal Pump Test Acceptance Criteria (applicable vibration ranges only):

Group A and Comprehensive Tests
>600 rpm
Acceptable Range $<2.5V_r$
Alert Range $>2.5V_r$ to $6 V_r$
Required Action Range High $>6V_r$.

4. Reason for Request

Experience has shown that smooth operating pumps with $V_r \leq 0.05$ in/sec often fall in the alert range of vibration measurement of Table ISTB-5100-1. This is not an indication of degraded pump operation but rather a function of multiplying a very small number (<0.05) by 2.5 which results in another small number for the acceptance criteria. The required actions for exceeding the existing acceptance criteria for these pumps are of no value since there is no adverse condition to correct.

5. Proposed Alternative and Basis for Use

Anytime $V_r \leq 0.05$ in/sec the following acceptance criteria shall be used:

Acceptable Range <0.125 in/sec
Alert Range >0.125 to ≤ 0.300 in/sec
Required Action Range High > 0.300 in/sec

For $V_r > 0.05$ in/sec the existing acceptance criteria of Table ISTB-5200-1 shall be used.

By applying the above alternative criteria to only those pumps with vibration references <0.05 in/sec the scope is bounded and will not effect the criteria or corrective actions for any non smooth operating pumps. Also this alternative vibration criteria has been shown by experience to provide an acceptable level for ensuring that pump degradation will be detected and appropriate actions initiated to correct the condition. The affected pumps are also in the Predictive Maintenance Program which provides supplemental information to assure detection of pump degradation. This program provides additional monitoring for these pumps including advanced vibration monitoring techniques (bearing high frequency detection and spectral analysis for the pump as well as the driver). This alternative provides an acceptable level of quality and safety to that of the existing Code requirement.

6. Duration of Proposed Alternative

This alternative will be used for the entire 3rd 10 year interval for McGuire.

7. Precedents (Optional)

Oconee Nuclear Station, (DOC NOs 50-269,-270,-287) submitted generic relief request ON-GRP-01 with identical test alternatives which was approved by NRC (TAC NOs MB6602, MB6603, and MB6604). Palo Verde Nuclear Generating Station (DOC NOs 50-528,-529,-530) also submitted generic relief request PRR-08 with similar test alternatives which was approved by NRC (TAC NOs MA0757, MA0758, and MA0759).

Similar generic relief request MC-GRP-01 was granted by NRC under the previous McGuire submittal with a threshold of 0.075 in/sec. However, during a July 7, 2005 NRC/Duke conversation via phone, NRC advised they would not approve a threshold of greater than 0.05 in/sec nor would they approve a generic relief request.

8. References (Optional)

n/a

ATTACHMENT 10

MC-SRP-RN-02

10 CFR 50.55a Request Number MC-SRP-RN-02

Proposed Alternative
in Accordance with 10 CFR 50.55a(a)(3)(i)
--Alternative Provides Acceptable Level of Quality and Safety--

1. ASME Code Components Affected

1RNPU0003, RN (Nuclear Service Water) Pump 1A
1RNPU0004, RN Pump 1B
2RNPU0003, RN Pump 2A
2RNPU0004, RN Pump 2B

2. Applicable Code Edition and Addenda

ASME Code for Operation and Maintenance of Nuclear Power Plants, 1998 Edition through 2000 Addenda (OMB 2000).

3. Applicable Code Requirement

Section IST, Subsection ISTB, Paragraphs ISTB-5121(e) and 5123(e). All deviations from the reference values shall be compared with the ranges of Table ISTB-5100-1 and corrective action taken as specified in ISTB-6200.

Table ISTB-5100-1 Centrifugal Pump Test Acceptance Criteria (applicable vibration ranges only):

Group A and Comprehensive Tests
>600 rpm
Acceptable Range $<2.5V_r$
Alert Range $>2.5V_r$ to $6 V_r$
Required Action Range High $>6V_r$.

4. Reason for Request

Experience has shown that smooth operating pumps with $V_r \leq 0.05$ in/sec often fall in the alert range of vibration measurement of Table ISTB-5100-1. This is not an indication of degraded pump operation but rather a function of multiplying a very small number (<0.05) by 2.5 which results in another small number for the acceptance criteria. The required actions for exceeding the existing acceptance criteria for these pumps are of no value since there is no adverse condition to correct.

5. Proposed Alternative and Basis for Use

Anytime $V_r \leq 0.05$ in/sec the following acceptance criteria shall be used:

Acceptable Range <0.125 in/sec
Alert Range >0.125 to ≤ 0.300 in/sec
Required Action Range High > 0.300 in/sec

For $V_r > 0.05$ in/sec the existing acceptance criteria of Table ISTB-5200-1 shall be used.

By applying the above alternative criteria to only those pumps with vibration references <0.05 in/sec the scope is bounded and will not effect the criteria or corrective actions for any non smooth operating pumps. Also this alternative vibration criteria has been shown by experience to provide an acceptable level for ensuring that pump degradation will be detected and appropriate actions initiated to correct the condition. The affected pumps are also in the Predictive Maintenance Program which provides supplemental information to assure detection of pump degradation. This program provides additional monitoring for these pumps including advanced vibration monitoring techniques (bearing high frequency detection and spectral analysis for the pump as well as the driver). In addition, lubricant analysis for wear debris, chemical composition and cleanliness is performed on these pumps. This alternative provides an acceptable level of quality and safety to that of the existing Code requirement.

6. Duration of Proposed Alternative

This alternative will be used for the entire 3rd 10 year interval for McGuire.

7. Precedents (Optional)

Oconee Nuclear Station, (DOC NOs 50-269,-270,-287) submitted generic relief request ON-GRP-01 with identical test alternatives which was approved by NRC (TAC NOs MB6602, MB6603, and MB6604). Palo Verde Nuclear Generating Station (DOC NOs 50-528,-529,-530) also submitted generic relief request PRR-08 with similar test alternatives which was approved by NRC (TAC NOs MA0757, MA0758, and MA0759).

Similar generic relief request MC-GRP-01 was granted by NRC under the previous McGuire submittal with a threshold of 0.075 in/sec. However, during a July 7, 2005 NRC/Duke conversation via phone, NRC advised they would not approve a threshold of greater than 0.05 in/sec nor would they approve a generic relief request.

8. References (Optional)

n/a

ATTACHMENT 11

MC-SRP-WN-01

10 CFR 50.55a Request Number MC-SRP-WN-01

Proposed Alternative
in Accordance with 10 CFR 50.55a(a)(3)(i)
--Alternative Provides Acceptable Level of Quality and Safety--

1. ASME Code Components Affected

1WNPU0094, WN (Diesel Generator Sump) Pump 1A2
1WNPU0095, WN Pump 1B2
1WNPU0096, WN Pump 1A3
1WNPU0097, WN Pump 1B3
2WNPU0094, WN Pump 2A2
2WNPU0095, WN Pump 2B2
2WNPU0095, WN Pump 2A3
2WNPU0095, WN Pump 2B3

2. Applicable Code Edition and Addenda

ASME Code for Operation and Maintenance of Nuclear Power Plants, 1998 Edition through 2000 Addenda (OMB 2000).

3. Applicable Code Requirement

Section IST, Subsection ISTB, Paragraph ISTB-5123(e). All deviations from the reference values shall be compared with the ranges of Table ISTB-5100-1 and corrective action taken as specified in ISTB-6200.

Table ISTB-5100-1 Centrifugal Pump Test Acceptance Criteria (applicable vibration ranges only):

Comprehensive Tests
>600 rpm
Acceptable Range $<2.5V_r$
Alert Range $>2.5V_r$ to $6 V_r$
Required Action Range High $>6V_r$.

4. Reason for Request

Experience has shown that smooth operating pumps with $V_r \leq 0.05$ in/sec often fall in the alert range of vibration measurement of Table ISTB-5100-1. This is not an indication of degraded pump operation but rather a function of multiplying a very small number (<0.05) by 2.5 which results in another small number for the acceptance criteria. The required actions for exceeding the existing acceptance criteria for these pumps are of no value since there is no adverse condition to correct.

5. Proposed Alternative and Basis for Use

Anytime $V_r \leq 0.05$ in/sec the following acceptance criteria shall be used:

Acceptable Range <0.125 in/sec

Alert Range >0.125 to ≤ 0.300 in/sec

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Required Action Range High > 0.300 in/sec

For $V_r > 0.05$ in/sec the existing acceptance criteria of Table ISTB-5200-1 shall be used.

By applying the above alternative criteria to only those pumps with vibration references <0.05 in/sec the scope is bounded and will not effect the criteria or corrective actions for any non smooth operating pumps. Also this alternative vibration criteria has been shown by experience to provide an acceptable level for ensuring that pump degradation will be detected and appropriate actions initiated to correct the condition. The affected pumps are also in the Predictive Maintenance Program which provides supplemental information to assure detection of pump degradation. This program provides additional monitoring for these pumps including advanced vibration monitoring techniques (bearing high frequency detection and spectral analysis for the pump as well as the driver). This alternative provides an acceptable level of quality and safety to that of the existing Code requirement.

6. Duration of Proposed Alternative

This alternative will be used for the entire 3rd 10 year interval for McGuire.

7. Precedents (Optional)

Oconee Nuclear Station, (DOC NOs 50-269,-270,-287) submitted generic relief request ON-GRP-01 with identical test alternatives which was approved by NRC (TAC NOs MB6602, MB6603, and MB6604). Palo Verde Nuclear Generating Station (DOC NOs 50-528,-529,-530) also submitted generic relief request PRR-08 with similar test alternatives which was approved by NRC (TAC NOs MA0757, MA0758, and MA0759).

Similar generic relief request MC-GRP-01 was granted by NRC under the previous McGuire submittal with a threshold of 0.075 in/sec. However, during a July 7, 2005 NRC/Duke conversation via phone, NRC advised they would not approve a threshold of greater than 0.05 in/sec nor would they approve a generic relief request.

8. References (Optional)

n/a

ATTACHMENT 12

MC-SRP-WZ-01

10 CFR 50.55a Request Number MC-SRP-WZ-01

Proposed Alternative
in Accordance with 10 CFR 50.55a(a)(3)(i)
--Alternative Provides Acceptable Level of Quality and Safety--

1. ASME Code Components Affected

1WZPU0001, WZ (Groundwater Drainage) Sump A Pump A
1WZPU0002, WZ Sump A Pump B
1WZPU0003, WZ Sump B Pump A
1WZPU0004, WZ Sump B Pump B
1WZPU0005, WZ Sump C Pump A
1WZPU0006, WZ Sump C Pump B

2. Applicable Code Edition and Addenda

ASME Code for Operation and Maintenance of Nuclear Power Plants, 1998 Edition through 2000 Addenda (OMB 2000).

3. Applicable Code Requirement

Section IST, Subsection ISTB, Paragraphs ISTB-5121(e) and 5123(e). All deviations from the reference values shall be compared with the ranges of Table ISTB-5100-1 and corrective action taken as specified in ISTB-6200.

Table ISTB-5100-1 Centrifugal Pump Test Acceptance Criteria (applicable vibration ranges only):

Group A and Comprehensive Tests
>600 rpm
Acceptable Range $<2.5V_r$
Alert Range $>2.5V_r$ to $6V_r$
Required Action Range High $>6V_r$.

4. Reason for Request

Experience has shown that smooth operating pumps with $V_r \leq 0.05$ in/sec often fall in the alert range of vibration measurement of Table ISTB-5100-1. This is not an indication of degraded pump operation but rather a function of multiplying a very small number (<0.05) by 2.5 which results in another small number for the acceptance criteria. The required actions for exceeding the existing acceptance criteria for these pumps are of no value since there is no adverse condition to correct.

5. Proposed Alternative and Basis for Use

Anytime $V_r \leq 0.05$ in/sec the following acceptance criteria shall be used:

Acceptable Range <0.125 in/sec

Alert Range >0.125 to ≤ 0.300 in/sec

Required Action Range High > 0.300 in/sec

For $V_r > 0.05$ in/sec the existing acceptance criteria of Table ISTB-5200-1 shall be used.

By applying the above alternative criteria to only those pumps with vibration references < 0.05 in/sec the scope is bounded and will not effect the criteria or corrective actions for any non smooth operating pumps. Also this alternative vibration criteria has been shown by experience to provide an acceptable level for ensuring that pump degradation will be detected and appropriate actions initiated to correct the condition. The affected pumps are also in the Predictive Maintenance Program which provides supplemental information to assure detection of pump degradation. This program provides additional monitoring for these pumps including advanced vibration monitoring techniques (bearing high frequency detection and spectral analysis for the pump as well as the driver). This alternative provides an acceptable level of quality and safety to that of the existing Code requirement.

6. Duration of Proposed Alternative

This alternative will be used for the entire 3rd 10 year interval for McGuire.

7. Precedents (Optional)

Oconee Nuclear Station, (DOC NOs 50-269,-270,-287) submitted generic relief request ON-GRP-01 with identical test alternatives which was approved by NRC (TAC NOs MB6602, MB6603, and MB6604). Palo Verde Nuclear Generating Station (DOC NOs 50-528,-529,-530) also submitted generic relief request PRR-08 with similar test alternatives which was approved by NRC (TAC NOs MA0757, MA0758, and MA0759).

Similar generic relief request MC-GRP-01 was granted by NRC under the previous McGuire submittal with a threshold of 0.075 in/sec. However, during a July 7, 2005 NRC/Duke conversation via phone, NRC advised they would not approve a threshold of greater than 0.05 in/sec nor would they approve a generic relief request.

8. References (Optional)

n/a

ATTACHMENT 13

MC-SRP-YC-01

10 CFR 50.55a Request Number MC-SRP-YC-01

Proposed Alternative
in Accordance with 10 CFR 50.55a(a)(3)(i)
--Alternative Provides Acceptable Level of Quality and Safety--

1. ASME Code Components Affected

0YCPU0001, YC (Control Room Chilled Water) Pump A
0YCPU0002, YC Pump B

2. Applicable Code Edition and Addenda

ASME Code for Operation and Maintenance of Nuclear Power Plants, 1998 Edition through 2000 Addenda (OMB 2000).

3. Applicable Code Requirement

Section IST, Subsection ISTB, Paragraphs ISTB-5121(e) and 5123(e). All deviations from the reference values shall be compared with the ranges of Table ISTB-5100-1 and corrective action taken as specified in ISTB-6200.

Table ISTB-5100-1 Centrifugal Pump Test Acceptance Criteria (applicable vibration ranges only):

Group A and Comprehensive Tests
>600 rpm
Acceptable Range $<2.5V_r$
Alert Range $>2.5V_r$ to $6 V_r$
Required Action Range High $>6V_r$.

4. Reason for Request

Experience has shown that smooth operating pumps with $V_r \leq 0.05$ in/sec often fall in the alert range of vibration measurement of Table ISTB-5100-1. This is not an indication of degraded pump operation but rather a function of multiplying a very small number (<0.05) by 2.5 which results in another small number for the acceptance criteria. The required actions for exceeding the existing acceptance criteria for these pumps are of no value since there is no adverse condition to correct.

5. Proposed Alternative and Basis for Use

Anytime $V_r \leq 0.05$ in/sec the following acceptance criteria shall be used:

Acceptable Range <0.125 in/sec

Alert Range >0.125 to ≤ 0.300 in/sec

Required Action Range High > 0.300 in/sec

For $V_r > 0.05$ in/sec the existing acceptance criteria of Table ISTB-5200-1 shall be used.

By applying the above alternative criteria to only those pumps with vibration references <0.05 in/sec the scope is bounded and will not effect the criteria or corrective actions for

any non smooth operating pumps. Also this alternative vibration criteria has been shown by experience to provide an acceptable level for ensuring that pump degradation will be detected and appropriate actions initiated to correct the condition. The affected pumps are also in the Predictive Maintenance Program which provides supplemental information to assure detection of pump degradation. This program provides additional monitoring for these pumps including advanced vibration monitoring techniques (bearing high frequency detection and spectral analysis for the pump as well as the driver). In addition, lubricant analysis for wear debris, chemical composition and cleanliness is performed on these pumps. This alternative provides an acceptable level of quality and safety to that of the existing Code requirement.

6. Duration of Proposed Alternative

This alternative will be used for the entire 3rd 10 year interval for McGuire.

7. Precedents (Optional)

Oconee Nuclear Station, (DOC NOs 50-269,-270,-287) submitted generic relief request ON-GRP-01 with identical test alternatives which was approved by NRC (TAC NOs MB6602, MB6603, and MB6604). Palo Verde Nuclear Generating Station (DOC NOs 50-528,-529,-530) also submitted generic relief request PRR-08 with similar test alternatives which was approved by NRC (TAC NOs MA0757, MA0758, and MA0759).

Similar generic relief request MC-GRP-01 was granted by NRC under the previous McGuire submittal with a threshold of 0.075 in/sec. However, during a July 7, 2005 NRC/Duke conversation via phone, NRC advised they would not approve a threshold of greater than 0.05 in/sec nor would they approve a generic relief request.

8. References (Optional)

n/a