

May 22, 2003

L-MT-03-039  
Technical Specification 6.8.K

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

**MONTICELLO NUCLEAR GENERATING PLANT**  
**DOCKET NO. 50-263**  
**LICENSE NO. DPR-22**  
**TECHNICAL SPECIFICATION BASES PAGES**

Using the Monticello Technical Specification Bases Control Program, Monticello Technical Specification Bases pages have been changed. The affected pages are designated with the amendment applicable at the time and the suffix "a." The changes are summarized in Attachment 1. Marked up pages applicable at the time the changes were made are provided in Attachment 2. A final typed copy of the changed pages that are applicable, for entry into the NRC authority copy, are provided in Attachment 3. The current copy of our list of effective pages and record of revision is attached for your information, as Attachment 4.

Please contact John Fields at 763-295-1663 with any questions.



David L. Wilson  
Vice President  
Monticello Nuclear Generating Plant

- Attachment 1 – Summary of Technical Specification Bases Changes (TSBC)
- Attachment 2 – Monticello Technical Specification Bases Pages Marked Up With Changes
- Attachment 3 – Revised Monticello Technical Specification Bases Pages
- Attachment 4 – Monticello Technical Specification List of Effective Pages and Record of Revision

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

**ATTACHMENT 1**

**NUCLEAR MANAGEMENT COMPANY, LLC  
MONTICELLO NUCLEAR GENERATING PLANT  
DOCKET 50-263**

**May 20, 2003**

**SUMMARY OF TECHNICAL SPECIFICATION BASES CHANGE (TSBC)**

**1 page follows**

## ATTACHMENT 1

### Summary of Technical Specification Bases Change (TSBC)

Following is a summary of the bases changes forwarded herein. The changes have been processed in accordance with the Monticello Technical Specification Bases Control Program described in Technical Specification 6.8.K.

#### **TSBC-133a**

Technical Specification Involved - 4.5.A.3 & 4.5.D.1

Pages affected – 111 & 114

Summary of Change: Modification of statement regarding adequate steam flow for the High Pressure Coolant Injection and Reactor Core Isolation Cooling system low and high pressure tests. The statement for each system test now contains a minimum turbine bypass valve open position. The Bases description was changed to be consistent with NUREG-1433, Rev. 2 language.

#### **TSBC-135a**

Technical Specification Involved – 3.2, Table 3.2.1

Page affected – 64

Summary of Change: This TSBC adds language to the Technical Specification Bases that clarifies that the head cooling function, although abandoned, still performs a containment isolation function for penetration X-17.

**ATTACHMENT 2**

**NUCLEAR MANAGEMENT COMPANY, LLC  
MONTICELLO NUCLEAR GENERATING PLANT  
DOCKET 50-263**

**May 20, 2003**

**MONTICELLO TECHNICAL SPECIFICATION BASES PAGES  
MARKED UP WITH CHANGES**

**4 pages follow**

## **ATTACHMENT 2**

### **Monticello Technical Specification Bases Pages Marked Up With Changes**

This attachment consists of Monticello Technical Specification bases page marked up with changes. The pages included are listed below:

#### **Page**

**64**

**111**

**114**

### Bases 3.2:

In addition to reactor protection instrumentation which initiates a reactor scram, protective instrumentation has been provided which initiates action to mitigate the consequences of accidents which are beyond the operators ability to control, or terminate a single operator error before it results in serious consequences. This set of specifications provides the limiting conditions of operation for the primary system isolation function, initiation of the emergency core cooling system, and other safety related functions. The objectives of the Specifications are (i) to assure the effectiveness of the protective instrumentation when required, and (ii) to prescribe the trip settings required to assure adequate performance. This set of Specifications also provides the limiting conditions of operation for the control rod block system.

Isolation valves are installed in those lines that penetrate the primary containment and must be isolated during a loss of coolant accident so that the radiation dose limits are not exceeded during an accident condition. Actuation of these valves is initiated by protective instrumentation shown in Table 3.2.1 which senses the conditions for which isolation is required. Such instrumentation must be available whenever primary containment integrity is required. The objective is to isolate the primary containment so that the guidelines of 10 CFR 100 are not exceeded during an accident.

The instrumentation which initiates primary system isolation is connected in a dual bus arrangement. Thus, the discussion given in the bases for Specification 3.1 is applicable here.

The low reactor water level instrumentation is set to trip when reactor water level is  $>7''$  on the instrument. This corresponds to a lower water level inside the shroud at 100% power due to the pressure drop across the dryer/separator. This has been accounted for in the affected transient analysis. This trip initiates closure of Group 2 primary containment isolation valves. Reference Section 7.7.2.2 FSAR. The trip setting provides assurance that the valves will be closed before perforation of the clad occurs even for the maximum break in that line and therefore the setting is adequate. The head cooling valves no longer function to provide head cooling, but continue to provide containment isolation for penetration X-17.

The low low reactor water level instrumentation is set to trip when reactor water level is  $\geq -48''$ . This trip initiates closure of the Group 1 and Group 3 Primary containment isolation valves, Reference Section 7.7.2.2 FSAR, and also activates the ECC systems and starts the emergency diesel generators.

#### Bases 3.5/4.5 (Continued):

The surveillance requirements provide adequate assurance that the LPCI system will be operable when required. Although all active components are testable and full flow can be demonstrated by recirculation through a test loop during reactor operation, a complete functional test requires reactor shutdown. The pump discharge piping is maintained full to prevent water hammer damage to piping and to start cooling at the earliest moment.

The high pressure coolant injection (HPCI) system is provided to assure that the reactor core is adequately cooled to limit fuel clad temperature in the event of a small break in the reactor coolant system and loss of coolant which does not result in rapid depressurization of the reactor vessel. The HPCI system permits the reactor to be shut down while maintaining sufficient reactor vessel water level inventory until the vessel is depressurized. The HPCI system continues to operate until reactor vessel pressure is below the pressure at which Core Spray system operation or LPCI mode of the RHR system operation maintains core cooling.

The flow tests for the HPCI System are performed at two different pressure ranges such that the system capability to provide rated flow is tested at both the higher and lower operating ranges of the system. Additionally, adequate steam flow must be passing through the main turbine or turbine bypass valves to continue to control reactor pressure when the HPCI System diverts steam flow. Reactor steam pressure must be  $\geq 950$  psig to perform SR 4.5.A.3.a and  $\leq 165$  psig to perform SR 4.5.A.3.b. Adequate steam flow is represented by at least 0.8 turbine bypass valves open total steam flow  $\geq 10^6$  lb/hr. Reactor startup, and pressure increase to  $\leq 165$  psig, is allowed prior to performing the low pressure surveillance test because the reactor pressure is low and the time allowed to satisfactorily perform the surveillance test is short. Therefore, pressure may be raised above 150 psig, but  $\leq 165$  psig to perform this surveillance without entering an LCO for the HPCI System. The reactor pressure is allowed to be increased to normal operating pressure once the low pressure test has been satisfactorily completed since there would be no indication or reason to believe that HPCI is inoperable.

Sufficient time is needed after adequate pressure and flow are achieved to perform these tests. Therefore, SR 4.5.A.3.a and SR 4.5.A.3.b are modified by a note which states that the surveillances are not required to be performed until 12 hours after the reactor steam pressure and flow are adequate to perform the test.

With the HPCI system inoperable, adequate core cooling is assured by the operability of the redundant and diversified automatic depressurization system and both the Core Spray and LPCI systems. In addition, the reactor core isolation cooling (RCIC) system, a system for which no credit is taken in the safety analysis, will automatically provide makeup at reactor operating pressures on a reactor low water level condition. The HPCI out-of-service period of 14 days is based on the verified operability of the RCIC system and the redundant and diversified low pressure core cooling systems. Verification of RCIC operability may be performed as an administrative check by examining logs or other information to determine if RCIC is out of service for maintenance or other reasons. It does not mean to perform the surveillance needed to demonstrate the operability of the RCIC system.

Bases 3.5/4.5 (Continued):

~~at least 0.8 turbine bypass valves open~~ ~~total steam flow  $\geq 10^6$  lb/hr.~~ Reactor startup, and pressure increase to  $\leq 165$  psig, is allowed prior to performing the low pressure surveillance test because the reactor pressure is low and the time allowed to satisfactorily perform the surveillance test is short. Therefore, pressure may be raised above 150 psig, but  $\leq 165$  psig to perform this surveillance without entering an LCO for the RCIC System. The reactor pressure is allowed to be increased to normal operating pressure once the low pressure test has been satisfactorily completed since there would be no indication or reason to believe that RCIC is inoperable.

Sufficient time is needed after adequate pressure and flow are achieved to perform these tests. Therefore, SR 4.5.D.1.a and SR 4.5.D.1.b are modified by a note which states that the surveillances are not required to be performed until 12 hours after the reactor steam pressure and flow are adequate to perform the test.

The surveillance requirements provide adequate assurance that the RCIC system will be operable when required. All active components are testable and full flow can be demonstrated by recirculation through a test loop during reactor operation. The pump discharge piping is maintained full to prevent water hammer damage and to provide cooling at the earliest moment.

E. Cold Shutdown and Refueling Requirements

The purpose of Specification 3.5.E is to assure that sufficient core cooling equipment is available at all times. It is during refueling outages that major maintenance is performed and during such time that all core and containment spray/cooling subsystems may be out of service. This specification allows all core and containment spray/cooling subsystems to be inoperable provided no work is being done which has the potential for draining the reactor vessel. Thus events requiring core cooling are precluded.

Specification 3.5.E.2 recognizes that concurrent with control rod drive maintenance during the refueling outage, it may be necessary to drain the suppression chamber for maintenance or for the inspection required by Specification 4.7.A.1. In this situation, a sufficient inventory of water is maintained to assure adequate core cooling in the unlikely event of loss of control rod drive housing or instrument thimble seal integrity.



**ATTACHMENT 3**

**NUCLEAR MANAGEMENT COMPANY, LLC  
MONTICELLO NUCLEAR GENERATING PLANT  
DOCKET 50-263**

**May 20, 2003**

**REVISED MONTICELLO TECHNICAL SPECIFICATION BASES PAGES**

**4 pages follow**

## ATTACHMENT 3

### Revised Monticello Technical Specification Bases Pages

This attachment consists of the revised Monticello Technical Specification Bases pages that incorporate the change. These pages should be entered into the NRC Authority copies of Technical Specifications. The pages included are listed below:

Page

64

111

114

### Bases 3.2:

In addition to reactor protection instrumentation which initiates a reactor scram, protective instrumentation has been provided which initiates action to mitigate the consequences of accidents which are beyond the operators ability to control, or terminate a single operator error before it results in serious consequences. This set of specifications provides the limiting conditions of operation for the primary system isolation function, initiation of the emergency core cooling system, and other safety related functions. The objectives of the Specifications are (i) to assure the effectiveness of the protective instrumentation when required, and (ii) to prescribe the trip settings required to assure adequate performance. This set of Specifications also provides the limiting conditions of operation for the control rod block system.

Isolation valves are installed in those lines that penetrate the primary containment and must be isolated during a loss of coolant accident so that the radiation dose limits are not exceeded during an accident condition. Actuation of these valves is initiated by protective instrumentation shown in Table 3.2.1 which senses the conditions for which isolation is required. Such instrumentation must be available whenever primary containment integrity is required. The objective is to isolate the primary containment so that the guidelines of 10 CFR 100 are not exceeded during an accident.

The instrumentation which initiates primary system isolation is connected in a dual bus arrangement. Thus, the discussion given in the bases for Specification 3.1 is applicable here.

The low reactor water level instrumentation is set to trip when reactor water level is  $> 7''$  on the instrument. This corresponds to a lower water level inside the shroud at 100% power due to the pressure drop across the dryer/separator. This has been accounted for in the affected transient analysis. This trip initiates closure of Group 2 primary containment isolation valves. Reference Section 7.7.2.2 FSAR. The trip setting provides assurance that the valves will be closed before perforation of the clad occurs even for the maximum break in that line and therefore the setting is adequate. The head cooling valves no longer function to provide head cooling, but continue to provide containment isolation for penetration X-17.

The low low reactor water level instrumentation is set to trip when reactor water level is  $\geq -48''$ . This trip initiates closure of the Group 1 and Group 3 Primary containment isolation valves, Reference Section 7.7.2.2 FSAR, and also activates the ECC systems and starts the emergency diesel generators.

Bases 3.5/4.5 (Continued):

The surveillance requirements provide adequate assurance that the LPCI system will be operable when required. Although all active components are testable and full flow can be demonstrated by recirculation through a test loop during reactor operation, a complete functional test requires reactor shutdown. The pump discharge piping is maintained full to prevent water hammer damage to piping and to start cooling at the earliest moment.

The high pressure coolant injection (HPCI) system is provided to assure that the reactor core is adequately cooled to limit fuel clad temperature in the event of a small break in the reactor coolant system and loss of coolant which does not result in rapid depressurization of the reactor vessel. The HPCI system permits the reactor to be shut down while maintaining sufficient reactor vessel water level inventory until the vessel is depressurized. The HPCI system continues to operate until reactor vessel pressure is below the pressure at which Core Spray system operation or LPCI mode of the RHR system operation maintains core cooling.

The flow tests for the HPCI System are performed at two different pressure ranges such that the system capability to provide rated flow is tested at both the higher and lower operating ranges of the system. Additionally, adequate steam flow must be passing through the main turbine or turbine bypass valves to continue to control reactor pressure when the HPCI System diverts steam flow. Reactor steam pressure must be  $\geq 950$  psig to perform SR 4.5.A.3.a and  $\leq 165$  psig to perform SR 4.5.A.3.b. Adequate steam flow is represented by at least 0.8 turbine bypass valves open. Reactor startup, and pressure increase to  $\leq 165$  psig, is allowed prior to performing the low pressure surveillance test because the reactor pressure is low and the time allowed to satisfactorily perform the surveillance test is short. Therefore, pressure may be raised above 150 psig, but  $\leq 165$  psig to perform this surveillance without entering an LCO for the HPCI System. The reactor pressure is allowed to be increased to normal operating pressure once the low pressure test has been satisfactorily completed since there would be no indication or reason to believe that HPCI is inoperable.

Sufficient time is needed after adequate pressure and flow are achieved to perform these tests. Therefore, SR 4.5.A.3.a and SR 4.5.A.3.b are modified by a note which states that the surveillances are not required to be performed until 12 hours after the reactor steam pressure and flow are adequate to perform the test.

With the HPCI system inoperable, adequate core cooling is assured by the operability of the redundant and diversified automatic depressurization system and both the Core Spray and LPCI systems. In addition, the reactor core isolation cooling (RCIC) system, a system for which no credit is taken in the safety analysis, will automatically provide makeup at reactor operating pressures on a reactor low water level condition. The HPCI out-of-service period of 14 days is based on the verified operability of the RCIC system and the redundant and diversified low pressure core cooling systems. Verification of RCIC operability may be performed as an administrative check by examining logs or other information to determine if RCIC is out of service for maintenance or other reasons. It does not mean to perform the surveillance needed to demonstrate the operability of the RCIC system.

Bases 3.5/4.5 (Continued):

at least 0.8 turbine bypass valves open. Reactor startup, and pressure increase to  $\leq 165$  psig, is allowed prior to performing the low pressure surveillance test because the reactor pressure is low and the time allowed to satisfactorily perform the surveillance test is short. Therefore, pressure may be raised above 150 psig, but  $\leq 165$  psig to perform this surveillance without entering an LCO for the RCIC System. The reactor pressure is allowed to be increased to normal operating pressure once the low pressure test has been satisfactorily completed since there would be no indication or reason to believe that RCIC is inoperable.

Sufficient time is needed after adequate pressure and flow are achieved to perform these tests. Therefore, SR 4.5.D.1.a and SR 4.5.D.1.b are modified by a note which states that the surveillances are not required to be performed until 12 hours after the reactor steam pressure and flow are adequate to perform the test.

The surveillance requirements provide adequate assurance that the RCIC system will be operable when required. All active components are testable and full flow can be demonstrated by recirculation through a test loop during reactor operation. The pump discharge piping is maintained full to prevent water hammer damage and to provide cooling at the earliest moment.

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The purpose of Specification 3.5.E is to assure that sufficient core cooling equipment is available at all times. It is during refueling outages that major maintenance is performed and during such time that all core and containment spray/cooling subsystems may be out of service. This specification allows all core and containment spray/cooling subsystems to be inoperable provided no work is being done which has the potential for draining the reactor vessel. Thus events requiring core cooling are precluded.

Specification 3.5.E.2 recognizes that concurrent with control rod drive maintenance during the refueling outage, it may be necessary to drain the suppression chamber for maintenance or for the inspection required by Specification 4.7.A.1. In this situation, a sufficient inventory of water is maintained to assure adequate core cooling in the unlikely event of loss of control rod drive housing or instrument thimble seal integrity.

**ATTACHMENT 4**

**NUCLEAR MANAGEMENT COMPANY, LLC  
MONTICELLO NUCLEAR GENERATING PLANT  
DOCKET 50-263**

**May 20, 2003**

**MONTICELLO TECHNICAL SPECIFICATION  
LIST OF EFFECTIVE PAGES AND RECORD OF REVISION**

**11 pages follow**

## ATTACHMENT 4

### Monticello Technical Specification List of Effective Pages and Record of Revision

This attachment consists of the current Monticello Technical Specification List of Effective Pages and Record of Revision. The pages included are listed below:

#### Page

A  
B  
C  
D  
E  
F  
G  
H  
I  
J

MONTICELLO NUCLEAR GENERATING PLANT  
APPENDIX A TECHNICAL SPECIFICATIONS RECORD OF REVISIONS

Page	Amend No.	Page	Amend No.	Page	Amend No.	Page	Amend No.
A	135a	36	128	71a	129b	122	135
B	134	37	128	72	104	123	117
C	115	38	128	76	0	124	121
D	115	39	129b	77	86	125	104
E	115	40	129b	78	0	126	104
F	115	42	103	79	0	126a	87
G	115	45	0	80	29	127	128
H	119	46	70	81	3	128	42
I	130	46a	37	82	123	129	122
J	135a	47	40	82a	63	130	82
i	128	48	89	83	24	131	122
ii	104	49	128	83a	24	132	39
iii	120	50	128	84	100a	132a	122
iv	128	50a	117	85	100a	133	106
v	120	51	117	86	100a	134	133
vi	121	51a	117	87	100a	135	133
vii	122	52	128	88	100a	136	133
1	119	53	128	89	104	137	0
2	70	54	128	90	100a	138	100a
3	21	55	103	91	123	145	118a
4	102	56	102	92	100a	146	135
5	120	57	70	93	122	147	107
5a	120	58	84	94	106	148	117
6	128	58a	29	95	77	149	100a
7	128	59	128	96	77	150	128
8	128	59a	103	97	57	151	128
9	128	60	128	98	56	153	100a
10	128	60a	31	99	104	154	129a
11	128	60b	62	100	100a	155	122
12	128	60c	30	101	122	156	93
25a	127	60d	128	102	122	157	130
25b	127	60e	89	103	122	158	132
25c	127	61	104	104	122	159	132
25d	127	62	117	105	122	160	132
26	5	63	117	106	79	163	130
27	81	63a	117	107	97	164	104
27a	81	64	135a	108	128	165	130
28	128	65	117	109	100a	166	130
29	128	66	119a	110	100a	167	112
30	103	67	117	111	133a	168	94
31	104	68	129b	112	130a	169	94
32	103	69	129b	113	130a	170	130
33	103	69a	129b	114	133a	171	130
34	83	70	117	115	130a	171a	130
35	100a	71	100a	121	0	172	71



MONTICELLO NUCLEAR GENERATING PLANT  
APPENDIX A TECHNICAL SPECIFICATIONS RECORD OF REVISIONS

Page	Amend No.	Page	Amend No.
175	107	225	119
175a	117	226	119
176	100a	229a	63
177	130	229b	104
178	100a	229c	104
179	123a	229d	63
180	128a	229e	122
181	130	229u	104
182	130	229v	112
182a	130	229v v	112
183	117	229w	112
184	100a	229ww	112
185	134	229x	112
188	104	229y	115a
189	130	229z	112
190	130	230	54
191	0	231	34
192	121	232	119
193	121	233	124
196	126a	234	119
197	121	235	115
198	121	236	115
199	51	243	128
200	129	244	124
201	129	248	59
202	129	249	120
203	41	250	128
204	129	251	124
204a	129	252	120
205	129	253	120
206	0	254	120
207	123	255	120
208	63	256	122
209	123	257	122
209a	100a	258	134
210	100a	258a	132
211	131	259	120
212	109	260	120
213	99	261	120
216	100a	262	120
217	128		
218	120		
223	119		
224	119		

MONTICELLO NUCLEAR GENERATING PLANT  
RECORD OF TECHNICAL SPECIFICATION CHANGES AND LICENSE AMENDMENTS

NSP Page Revision (REV) No.	License DPR-22 Amend No. & Date	AEC Tech Spec Change Issuance No. and date	Major Subject
Original	-	-	Appendix A Technical Specifications incorporated in DPR-22 on 9/8/70
-	1 1/19/71	Note 1	Removed 5 MWt restriction
-	Note 2	2 1/14/72	MOGS Technical Specification changes issued by AEC but never distributed or put into effect, superseded by TS Change 12 11/15/73
1	Note 2	3 10/31/72	RHR service water pump capability change
-	Note 2	4 12/8/72	Temporary surveillance test waiver
-	2 2/20/73	Note 1	Increase in U-235 allowed in fission chambers
2	Note 2	5 3/2/73	Miscellaneous Technical Specification changes,
3	Note 2	1 4/28/71& 6 4/3/73	Respiratory Protection, & Administrative Control Changes
4	Note 2	7 5/4/73	Respiratory Protection Changes
5	Note 2	8 7/2/73	Relief Valve and CRD Scram Time Changes
6	Note 2	9 8/24/73	Fuel Densification Limits
7	Note 2	10 10/2/73	Safety Valve Setpoint Change
8	Note 2	11 11/27/73& 12 11/15/73	Offgas Holdup System, RWM, and Miscellaneous Changes
9	Note 2	13 3/30/74	8x8 Fuel Load Authorization
10	3	14 5/14/74	8x8 Full Power authorization
-	4 6/17/74	Note 1	Changed byproduct material allowance
-	6 8/20/74	Note 1	Changed byproduct material allowance
11	Note 3	Note 3 10/24/74	Inverted Tube (CRD) Limits
12	5	15 1/15/75	REMP Changes
13	7	16 2/3/75	Reactor Vessel Surveillance Program Changes
14	8	17 2/26/75	Vacuum Breaker Test Changes
15	9	18 4/10/75	Corrects Errors & Provides Clarification
-	10 7/8/75	Note 1	Increased allowed quantity of U-235
16	12	20 9/15/75	Snubber Requirements
17	11	19 9/17/75	Removed byproduct material allowance
18	13	21 10/6/75	Suppression Pool Temperature Limits
19	14	22 10/30/75	Appendix K and GETAB Limits
20	15 1/22/76 NOTE 4		Reporting Requirements
21	16 2/3/76		CRD Collet Failure Surveillance
22	17 3/16/76		NSP Organization Changes
23	NOTE 3 4/13/76		Adoption of GETAB
24	18 4/14/76		Containment Isolation Valve Testing
25	21 5/20/76		Interim Appendix B, Section 2.4 Tech. Specs.

MONTICELLO NUCLEAR GENERATING PLANT  
RECORD OF TECHNICAL SPECIFICATION CHANGES AND LICENSE AMENDMENTS

NSP Revision (REV) No.	License DPR-22 Amend No. & Date	Major Subject
26	19 5/27/76	Low Steamline Pressure Setpoint and MCPR Changes
27	20 6/18/76	APLHGR, LHGR, MCPR Limits
28	22 7/13/76	Correction of Errors and Environmental Reporting
29	23 9/27/76	Standby Gas Treatment System Surveillance
30	24 10/15/76	CRD Test Frequency
31	25 10/27/76	Snubber Testing Changes
32	26 4/1/77	APRS Test Method
33	27 5/24/77	MAPLHGR Clamp at Reduced Flow
34	28 6/10/77	Radiation Protection Supervisor Qualification
35	29 9/16/77	REMP Changes
36	30 9/28/77	More Restrictive MCPR
37	31 10/14/77	Inservice Inspection Changes
38	32 12/9/77	Reporting Requirements
39	33 1/25/78	Fire Protection Requirements
NOTE 1	34 4/14/78	Increase in spent fuel storage capacity
40	35 9/15/78	RPT Requirements
41	36 10/30/78	Suppression Pool Surveillance
42	37 11/6/78	8x8R Authorization, MCPR Limits & SRV Setpoints
43	NOTE 3 11/24/78	Corrected Downcomer Submergence
44	38 3/15/79	Incorporation of Physical Security Plan into License
45	39 5/15/79	Revised LPCI Flow Capability
46	40 6/5/79	Respiratory Protection Program Changes
47	41 8/29/79	Fire Protection Safety Evaluation Report
48	42 12/28/79	MAPLHGR vs. Exposure Table
49	43 2/12/80	MCPR & MAPLHGR Changes for Cycle 8 and Extended Core Burnup
50	44 2/29/80	ILRT Requirements
NOTE 1	- 8/29/80	Order for Modification of License-Environmental Qualification
NOTE 1	- 9/19/80	Revised Order for Modification of License-Environmental Qualification
51	- 10/24/80	Order for Modification of License-Environmental Qualification Records
52	- 1/9/81	Issuance of Facility Operating License (FTOL)
NOTE 1	- 1/9/81	Order for Modification of License Concerning BWR Scram Discharge Systems (License conditions removed per Amendment No. 11 dated 10/8/82)

MONTICELLO NUCLEAR GENERATING PLANT  
RECORD OF TECHNICAL SPECIFICATION CHANGES AND LICENSE AMENDMENTS

NSP Revision (REV) No.	License DPR-22 Amend No. & Date	Major Subject
NOTE 1	- 1/13/81	Order for Modification Mark I Containment
-	1 2/12/81	Revision of License Conditions Relating to Fire Protection Modifications
53	2 3/2/81	TMI Lessons Learned & Safety - Related Hydraulic Snubber Additions
54	3 3/27/81	Low voltage protection, organization and miscellaneous
NOTE 1	4 3/27/81	Incorporation of Safeguards Contingency Plan and Security Force Qualification and Training Plan into License
55	5 5/4/81	Cycle 9 - OLYN Changes, New MAPLHGR's, RPS Response time change
56	6 6/3/81	Inservice Inspection Program
57	7 6/30/81	Fire Protection Technical Specification Changes
58	8 11/5/81	Mark I Containment Modifications
59	9 12/28/81	Inservice Surveillance Requirements for Snubbers
NOTE 1	- 1/19/82	Revised Order for Modification Mark I Containment
60	10 5/20/82	Scram Discharge Volume
61	11 10/8/82	New Scram Discharge Volumes
62	12 11/30/82	RPS Power Monitor
63	13 12/6/82	Cycle 10
64	14 12/10/82	Recirc Piping and Coolant Leak Detection
65	15 12/17/82	Appendix I Technical Specifications (removed App. B)
66	16 4/18/83	Organizational Changes
67	17 4/17/83	Miscellaneous Changes
68	18 11/28/83	Steam Line Temperature Switch Setpoint
69	19 12/30/83	Radiation Protection Program
70	20 1/16/84	SRM Count Rate
71	21 1/23/84	Definition of Operability
72	22 2/2/84	Miscellaneous Technical Specification Changes
73	23 4/3/84	RPS Electrical Protection Assembly Time Delay
74	24 5/1/84	Scram Discharge Volume Vent and Drain Valves
75	25 8/15/84	Miscellaneous Technical Specification Changes
76	26 9/24/84	Cycle 11
77	27 10/31/84	RHR Intertie Line Addition
78	28 11/2/84	Hybrid I Control Rod Assembly
79	29 11/16/84	ARTS
80	30 11/16/84	Low Low Set Logic
81	31 11/27/84	Degraded Voltage Protection Logic

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<u>NSP Revision (REV) No.</u>	<u>License DPR-22 Amend No. &amp; Date</u>	<u>Major Subject</u>
82	32 5/28/85	Surveillance Requirements
83	33 10/7/85	Screen Wash/Fire Pump (Partial)
84	34 10/8/85	Fuel Enrichment Limits
85	35 12/3/85	Combustible Gas Control System
86	36 12/23/85	Vacuum Breaker Cycling
87	37 1/22/86	NUREG-0737 Technical Specifications
88	38 2/12/86	Environmental Technical Specifications
89	39 3/13/86	Administrative Changes
90	40 3/18/86	Clarification of Radiation Monitor Requirements
91	41 3/24/86	250 Volt Battery
92	42 3/27/86	Jet Pump Surveillance
93	43 4/8/86	Simmer Margin Improvement
94	44 5/27/86	Cycle 12 Operation
95	45 7/1/86	Miscellaneous Changes
96	46 7/1/86	LER Reporting and Miscellaneous Changes
97	47 10/22/86	Single Loop Operation
98	48 12/1/86	Offgas System Trip
99	49 8/26/87	Rod Block Monitor
100	50 8/26/87	APRM and IRM Scram Requirements
101	51 10/16/87	2R Transformer
102	52 11/18/87	Surveillance Intervals - ILRT Schedule
103	53 11/19/87	Extension of Operating License
104	54 11/25/87	Cycle 13 and Misc Changes
105	55 11/25/87	Appendix J Testing
106	56 12/11/87	ATWS - Enriched Boron
107	57 9/23/88	Increased Boron Enrichment
108	58 12/13/88	Physical Security Plan
109	59 2/16/89	Miscellaneous Administrative Changes
110	60 2/28/89	Miscellaneous Administrative Changes
111	61 3/29/89	Fire Protection and Detection System
112	62 3/31/89	ADS Logic and S/RV Discharge Pipe Pressure
113	63 4/18/89	Miscellaneous Technical Specification Improvements
114	64 5/10/89	Containment Vent and Purge Valves
115	65 5/30/89	NUREG-0737 - Generic Letter 83-36
116	66 5/30/89	Reactor Vessel Level Instrumentation

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<u>NSP Revision (REV) No.</u>	<u>License DPR-22 Amend No. &amp; Date</u>	<u>Major Subject</u>
117	67 6/19/89	Extension of MAPLHGR. Exposure for One Fuel Type
118	68 7/14/89	SRO Requirements & Organization Chart Removal
119	69 9/12/89	Operations Committee Quorum Requirements
120	70 9/28/89	Relocation of Cycle-Specific Thermal-Hydraulic Limits
121	71 10/19/89	Deletion of Primary Containment Isolation Valve Table
122	72 11/2/89	RG 1.99, Rev 2, ISI & ILRT
123	73 5/1/90	Combined STA/LSO Position
124	74 6/5/90	Removal of WRGM Automatic ESF Actuation
125	75 10/12/90	Diesel Fuel Oil Storage
126	76 12/20/90	Miscellaneous Administrative Changes
127	77 2/15/91	Redundant and IST Testing
128	78 3/28/91	Alarming Dosimetry
125	79 4/9/91	SAFER/GESTR
130	80 8/12/91	Torus Vacuum Breaker Test Switch/EDG Fuel Oil Tank Level
131	81 4/16/92	Surveillance Test Interval Extension - Part I
132	82 7/15/92	Alternate Snubber Visual Inspection Intervals
133	83 8/18/92	Revisions to Reactor Protection System Tech Specs
134	84 1/27/93	MELLIA and Increase Core Flow
135	85 6/29/93	Revision to Diesel Fire Pump Fuel Oil Sampling Requirements
136	86 7/12/93	Revisions to Control Rod Drive Testing Requirements
137	87 4/15/94	Revised Coolant Leakage Monitoring Frequency
138	88 6/30/94	Average Planar Linear Heat Generation Rate (APLHGR) Specification & Minimum Critical Power Ratio Bases Revisions
139	89 8/25/94	Removal of Chlorine Detection Requirements and Changes to Control Room Ventilation System Requirements
140	90 9/7/94	Revisions to Radiological Effluent Specifications
141	91 9/9/94	Secondary Containment System and Standby Gas Treatment System Water Level Setpoint Change
142	92 9/15/94	Change in Safety Relief Valves Testing Requirements
143	93 7/12/95	Revised Core Spray Pump Flow
144	94 10/2/95	Standby Gas Treatment and Secondary Containment Systems
145	95 4/3/96	MSIV Combined Leakrate, and Appendix J, Option B
146	96 4/9/96	Purge and Vent Valve Seal Replacement Interval
147	97 9/17/96	Implementation of BRWOG Option I-D core Stability Solution and re-issue of pages 11, 12, 82 and 231 to reflect pages issued by NRC amendments.

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NSP Revision (REV) No.	License DPR-22 Amend No. & Date	Major Subject
148	98 7/25/97	Bases changes on containment overpressure and number of RHR pumps required to be operable. Reissue pages 207, 209, 219, 229k, 229p, 230, 245 to reflect pages issued by NRC amendments.
149	99 10/29/97	SLMCPR for Cycle 18 and reissue pages vi, 155, 202, 207, 219, 229u
NOTE 5	11/25/97	Reissue pages a, b, g, iii, vi, 14, 25a, 155, 198y, 198z, 202, 207, 209, 219, 229k, 229p, 229r, 229u, 230, 245
150	100 4/20/98	SLMCPR for Cycle 19
NOTE 6	100a 4/30/98	Reissue all pages.
	101 8/28/98	Reactor Coolant Equivalent Radioiodine Concentration and Control Room Habitability
	102 9/16/98	Monticello Power Rerate
	103 12/23/98	Surveillance Test Interval/Allowed Outage Time Extension Program - Part 2
	104 12/24/98	Revision of Statement on Shift Length & other Misc Changes
	105 03/19/99	CST Low Level HPCI/RCIC Suction Transfer
	106 10/12/99	Revised RPV-PT Curves & remove SBLC RV setpoint
	107 11/24/99	Reactor Pressure Vessel Hydrostatic and Leakage Testing
	108 12/8/99	Testing Requirements for Control Room EFT Filters
	109 2/16/00	Safety Limit Minimum Critical Power Ratio for Cycle 20
	110 8/7/00	Transfer of Operating Authority from NSP to NMC
	111 8/18/00	Transfer of Operating License from NSP to a New Utility Operating Company
	112 8/18/00	Emergency Filtration Train Testing Exceptions and Technical Specification Revisions
	113 10/2/00	Alternate Shutdown System Operability Requirements
	114 11/30/00	Safety/Relief Valve Bellows Leak Detection System Test Frequency
	115 12/21/00	Administrative Controls and Other Miscellaneous Changes
	115a 02/13/01	Bases Change to Reflect Modification 98Q145 Installed Control Room Toxic Gas Air Supply
	116 03/01/01	Relocation of Inservice Inspection Requirements to a Licensee Program
	117 03/07/01	Reactor Water Cleanup (RWCU) System Automatic Isolation and Miscellaneous Instrumentation System Changes
	118 03/09/01	Revision of Standby Liquid Control System Surveillance Requirements
	118a 05/10/01	Bases Change - 50°F Loop Temperature, Bus Transfer & Rerate Correction

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NSP Revision (REV) No.	License DPR-22 <u>Amend No. &amp; Date</u>	<u>Major Subject</u>
	119 04/05/01	Fire Protection Technical Specification Changes
	119a 06/28/01	Bases Change - Added information on cooldown rate
	120 07/24/01	Relocation of Radiological Effluent Technical Specifications to a Licensee-Controlled Program
	121 07/25/01	Clarify air ejector offgas activity sample point and operability requirements
	122 08/01/01	Relocation of Inservice Testing Requirements to a Licensee-Controlled Program
	122a 10/22/01	Bases Change - Remove scram setpoints sentence and correct typo
	123 10/26/01	Control Rod Drive and Core Monitoring Technical Specification Changes
	123a 10/25/01	Bases Change - Change to reflect new operation of drywell to suppression chamber vacuum breaker valve position indicating lights
	124 10/30/01	Relocation of Technical Specification Administrative Controls Related to Quality Assurance Plan
	124a 12/05/01	Bases Change - Change to reflect revised Technical Specification definition of a containment spray/cooling subsystem
	125 12/06/01	Safety Limit Minimum Critical Power Ratio for Cycle 21
	126 01/18/02	Elimination of Local Suppression Pool Temperature Limits
	126a 02/15/02	Bases Change - Change reflects relocation of sample point for the offgas radiation monitor
	127 05/31/02	Missed Surveillance Requirement Technical Specification Changes
	128 06/11/02	Changes to the Technical Specifications Revised Reference Point for Reactor Vessel Level Setpoints, Simplification of Safety Limits, and Improvement to the Bases
	128a 07/11/02	Bases Change - Correct Drywell to Suppression Chamber Vacuum Breaker Indicating Light Description
	129 08/27/02	Revise Technical Specifications and Surveillance Requirements Relating to Standby Diesel Generators
	129a 09/12/02	Bases Change - Change to Snubber Operability Description
	129b 09/12/02	Bases Change - Remove Language That Implies Trip Settings Can Be Modified By Deviation Values
	130 09/23/02	Containment Systems Technical Specification Changes
	130a 09/26/02	Bases Change - HPCI - Change Wording / HPCI & RCIC - Enhance with Wording Consistent with NUREG-1433-Rev 1



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NSP Revision (REV) No.	License DPR-22 Amend No. & Date	Major Subject
	131 10/02/02	Update the Multiplier Values for Single Loop Operation Average Planar Linear Heat Generation Rate (APLHGR)
	132 02/04/03	Conversion to Option B for Containment Leak Rate Testing
	133 02/24/03	Revision to Pressure-Temperature Curves
	133a 03/28/03	Bases Change - Adequate Reactor Steam Flow for HPCI/RCIC Testing
	134 03/31/03	One-Time Extension of Containment Integrated Leak-Rate Test Interval
	135 04/22/03	Boiling Water Reactor Vessel and Internals Project Reactor Pressure Vessel Integrated Surveillance Program
	135a 04/24/03	Bases Change - Clarify description of head cooling Group 2 valves.

1. License Amendment or Order for Modification of License not affecting Technical Specifications.
2. Technical Specification change issued prior to 10 CFR revisions which require issuance of Technical Specification changes as License Amendments.
3. Modification to Bases. No Technical Specification change or License Amendment issued.
4. Technical Specification change numbers no longer assigned beginning with Amendment 15.
5. Pages reissued 11/25/97 to conform with NRC version. Revision number of effected pages not changed.
6. All pages reissued using INTERLEAF in different font. Using NRC Amendment Nos. and issue date. For Bases and Table of Contents, spelling errors corrected and editorial corrections made and all Amendment Nos. changed to 100a. For remaining Tech Spec pages, no other changes made and current Amendment Nos. used.