



Northern States Power Company

Monticello Nuclear Generating Plant  
2807 West County Road 75  
Monticello, MN 55362

May 4, 2000

10 CFR Part 50  
Section 50.90

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

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

Revision to Technical Specification Administrative Controls  
and Other Miscellaneous Changes

Attached is a request for a change in the Technical Specifications, Appendix A of the Operating License for the Monticello Nuclear Generating Plant. This request is submitted in accordance with the provisions of 10 CFR Part 50, Section 50.90.

This License Amendment Request proposes to make several changes. It requests the addition of new sections from Standard Technical Specifications (NUREG-1433), Section SR 3.0.3 addressing missed surveillance test requirements, and Section 5.5.11 establishing a Bases Control Program. It will revise Chapter 6 "Administrative Controls" of Monticello's Technical Specifications to allow use of generic titles in lieu of plant-specific titles and to allow an alternative when the radiation protection manager does not meet the qualifications of RG 1.8. In addition, sections of Chapter 6 pertaining to onsite and offsite review and special inspections have been relocated to the Operational Quality Assurance Plan (OQAP). A revision to the OQAP incorporating these changes was submitted to the NRC in accordance with 10 CFR 50.54(a)(3) on November 30, 1999. Two typographical errors are also being corrected.

Exhibit A contains a description of the proposed changes, the reasons for requesting the changes, a Safety Evaluation, a Determination of No Significant Hazards Consideration, and an Environmental Assessment. Exhibit B contains the current Technical Specification pages marked up with the proposed changes. Exhibit C contains revised Monticello Technical Specification pages.

This submittal does not contain any new NRC commitments and does not modify any prior commitments. Please contact Sam Shirey, Sr. Licensing Engineer, at (763) 295-1449 if you require additional information related to this request.

Q004

This letter contains no restricted or other defense information.

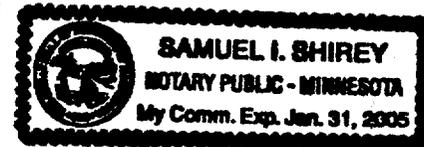
NSP requests a period of up to 45 days following receipt of this license amendment to implement the changes.

by Byron D. Day  
Byron D. Day  
Plant Manager  
Monticello Nuclear Generating Plant

On this 5<sup>TH</sup> day of May 2000 before me a notary public in and for said County, personally appeared Byron D. Day, Plant Manager, Monticello Nuclear Generating Plant, and being first duly sworn acknowledged that he is authorized to execute this document on behalf of Northern States Power Company, that he knows the contents thereof, and that to the best of his knowledge, information, and belief the statements made in it are true and that it is not interposed for delay.

Samuel I. Shirey

Samuel I. Shirey  
Notary Public - Minnesota  
Sherburne County  
My Commission Expires January 31, 2005



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

Attachments: Exhibit A - Evaluation of Proposed Changes to the Technical Specifications  
Exhibit B - Current Technical Specification Pages Marked Up with Proposed Changes  
Exhibit C - Revised Technical Specification Pages

## EXHIBIT A

### Evaluation of Proposed Changes to the Technical Specifications

#### Revision to Technical Specification Administrative Controls and Other Miscellaneous Changes

Pursuant to 10 CFR Part 50, Section 50.59 and 50.90, Northern States Power Company hereby proposes the following changes to Appendix A of facility operating license DPR-22, Technical Specifications and Bases for Monticello Nuclear Generating Plant.

#### **References**

- 1) Letter from NSP to US Nuclear Regulatory Commission, "Submittal of Revision 22 to the Operational Quality Assurance Plan (OQAP)" November 30, 1999

#### **Summary**

While missed surveillance tests have been an infrequent event at Monticello, a section similar to that found in NUREG-1433, SR 3.0.3, is proposed as Sections 4.0.D and 4.0.E to clearly specify what actions would be required should a surveillance test be missed.

A recent organizational change at Monticello necessitates personnel title changes in Chapter 6, "Administrative Controls." Title changes are common and each change to a specific title requires a License Amendment Request (LAR) to change the Technical Specifications (TS), placing an unnecessary burden on both the NRC and NSP. This LAR proposes to convert all specific titles to generic titles. Specific titles and job descriptions will continue to be utilized and given in Monticello site instructions.

In the area of radiation protection, it is proposed to allow an alternative when the radiation protection manager does not meet the qualifications of RG 1.8.

Sections of Chapter 6 pertaining to onsite and offsite plant review committees and special inspections and audits have been relocated to the Operational Quality Assurance Plan (OQAP). In addition, a new Bases Control Program is being added as Section 6.8. This new section is patterned after Section 5.5.11 of NUREG-1433 and will provide guidance for TS Bases changes without prior NRC approval.

A clarification is made to the point of origin for distance measurements to sample locations in the radiological environmental monitoring program.

Exhibit A  
Revision to Technical Specification Administrative Controls  
and Other Miscellaneous Changes

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Two typographical errors are also being corrected and the Table of Contents is being revised in accordance with the above changes.

This amendment will bring the Monticello Technical Specifications into conformance with the BWR-4 industry standard of NUREG-1433 in the areas of individual titles, missed surveillance tests, and the Bases Control Program.

**Proposed Changes**

Change 1 - Update Table of Contents (page iv)

Revise page iv of the Table of Contents:

Change:	"6.2	Review and Audit	237
	6.3	Special Inspections and Audits	237"
To:	"6.2	(Deleted)	243
	6.3	(Deleted)	243"
Add:	"6.8	Programs	253"

Change 2 - Add Section 4.0.D (page 25a)

On page 25a, add Section 4.0.D and 4.0.E, with modified wording from NUREG-1433 Section SR 3.0.3 as follows:

- D. *If it is discovered that a surveillance was not performed within its specified frequency, then the affected equipment shall be declared inoperable.*
  
- E. *Compliance with 4.0.D may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified frequency, whichever is less. This delay period is permitted to allow performance of the surveillance.*

Change 3 - Title Changes

The following table lists titles being changed from specific titles to generic titles and their location in Chapter 6:

Exhibit A  
Revision to Technical Specification Administrative Controls  
and Other Miscellaneous Changes

Specific Title	Generic Title	Page	Section
Plant Manager	plant manager	232	6.1.A (2 places)
		235	6.1.F.2
		244	6.5
		244a	6.5.B.1.a(2)
		244a	6.5.B.1.c
		246b	6.5.F
		246b	6.5.G
President, NSP Nuclear Generation	corporate officer with direct responsibility for the plant	232	6.1.B.2
		243	6.4 (2 places)
		250	6.7.B.b
General Superintendent Operations	operations manager	233	6.1.C.7
		233	6.1.D
Superintendent, Security	security manager	246b	6.5.F
		246b	6.5.G
General Superintendent Radiation Services	radiation protection manager	233	6.1.D
		244a	6.5.B.1.a(2)
		246b	6.5.G

Also, on page 232, Specification 6.1.B.1 - Add:

*“...including the plant-specific titles of those personnel fulfilling the responsibilities of the positions delineated in these Technical Specifications.”*

Change 4 - Relocate Section 6.2 - Review and Audit and 6.3 – Special Inspections and Audits (pages 236 to 243)

At the bottom of page 236, add:

“NEXT PAGE IS 243”

On pages 237 through 242 - delete all of Sections 6.2 and 6.3.

At the top of page 243, replace with:

“6.2 (Deleted)

6.3 (Deleted)”

Change 5 - Correct Two Typographical Errors (pages 246b and 249)

On page 246b, Section 6.5.E.1 - Change “Shall by” to “Shall be.”

On page 249, Section 6.7.A.2 - Change “totalling” to “totaling.”

Exhibit A  
Revision to Technical Specification Administrative Controls  
and Other Miscellaneous Changes

---

Change 6 - Add Section 6.8 Programs (new page 253)

6.8 *Programs*

A. *Technical Specifications (TS) Bases Control Program*

*This program provides a means for processing changes to the Bases of these Technical Specifications.*

1. *Changes to the Bases of the TS shall be made under appropriate administrative controls and reviews.*
2. *Changes to Bases may be made without prior NRC approval provided the changes do not involve either of the following:*
  - a. *a change in the TS incorporated in the license; or*
  - b. *a change to the USAR or Bases that requires a license amendment pursuant to 10 CFR 50.59.*
3. *The Bases Control Program shall contain provisions to ensure that the Bases are maintained consistent with the USAR.*
4. *Proposed changes to the Bases that involve changes as described in a. or b. of Specification 6.8.A.2 above shall be reviewed and approved by the NRC prior to implementation. Changes to the Bases implemented without prior NRC approval shall be provided to the NRC on a frequency consistent with 10 CFR 50.71(e).*

Change 7 – Change Environmental Monitoring Origin (page 251)

On page 251, Section 6.7.C.1.d – Change “reactor” to “plant site.”

Change 8 - Add “or designated health physicist” to Section 6.1.D (page 233)

On page 233, Section 6.1.D – In conjunction with changing title of “General Superintendent Radiation Services” to “radiation protection manager,” add “or designated health physicist.”

Exhibit A  
Revision to Technical Specification Administrative Controls  
and Other Miscellaneous Changes

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**Reasons for Changes**

Change 1 - Update Table of Contents (page iv)

This change updates the Table of Contents to reflect the relocation of Sections 6.2 and 6.3, (Change 4) and addition of Section 6.8 (Change 6).

Change 2 - Add Section 4.0.D and 4.0.E (page 25a)

While missed surveillance tests have been an infrequent event at Monticello, a section similar to that found in NUREG-1433, SR 3.0.3, is proposed to clearly specify what actions would be required should a surveillance test be missed.

Wording changes have been made to better integrate the NUREG requirements and format into the older Custom Tech Spec (CTS) wording and format. The intent of the wording remains the same.

Change 3 - Title Changes

Specifying management positions by title within the TS creates an unnecessary NRC and licensee burden with no increase in safety when titles are changed. The intent of revising Section 6.1.B.1 is to allow NSP to make title changes and provide appropriate documentation in the USAR or OQAP.

Change 4 - Relocate Section 6.2 - Review and Audit and 6.3 – Special Inspections and Audits (pages 236 to 243)

Section 6.2 contains requirements for the Safety Audit Committee (offsite review function including independent auditing), and the Operations Committee (onsite review function). Section 6.3 contains requirements for special inspections and audits for the fire protection program. In conformance with the guidance of Generic Letter 95-06 and the Standard Technical Specifications (NUREG-1433), these sections were relocated in their entirety to the NSP Operational Quality Assurance Plan (OQAP) in Revision 22 of the OQAP (Reference 1).

10 CFR 50.54(a)(3) allows changes to the OQAP as long as the changes do not reduce commitments previously accepted by the NRC. We believe that this change to the OQAP does not reduce commitments.

There are several minor differences in the existing wording of TS Sections 6.2 and 6.3 and the proposed OQAP wording in Reference 1. Refer to Appendix D of Reference 1 for a detailed description of these differences. None of these differences are judged to affect the meaning or intent of the original requirements in TS Sections 6.2 and 6.3.

Change 5 - Correct Two Typographical Errors (pages 246b and 249)

Spelling errors are editorial changes that have no technical effect on the specifications themselves and should be corrected.

Exhibit A  
Revision to Technical Specification Administrative Controls  
and Other Miscellaneous Changes

---

Change 6 - Add Section 6.8 Programs (new page 253)

This change proposes to add TS Section 6.8, "Programs." This section will include a Technical Specification Bases Control Program, which will specifically delineate the appropriate guidance, methods, and reviews necessary for a change to the Monticello TS Bases. TS Bases are not considered part of TS as documented in 10 CFR 50.36 which states:

*"...bases....shall not become part of the technical specifications."*

This proposed program is identical to NUREG-1433, Section 5.5.11 except for minor rewording and plant specific differences.

The phrase "a change to the **USAR** or Bases that **requires a license amendment pursuant to** 10 CFR 50.59" being proposed as TS Section 6.8.A.2.b, differs from NUREG-1433 to conform with revisions to 10 CFR 50.59 in progress. (See Volume 64, Number 191 of the Federal Register dated October 4, 1999 for the revisions and the implementation schedule.) The revised 10 CFR 50.59 scheduled to become effective will no longer use the phrase "unreviewed safety question" which appears in NUREG-1433. The wording proposed for 6.8.A.2.b is consistent with both the current and the soon-to-be-effective wording of 10 CFR 50.59.

Change 7 – Change Environmental Monitoring Origin (page 251)

Actual release points are the plant stack and the reactor building vent and not the reactor. Plant site is a more generic phrase that encompasses both. The data is unaffected by this difference and the Environmental Monitoring Report provides specific details on release points.

Change 8 - Add "or designated health physicist" to Section 6.1.D (page 233)

Section 6.1.D. of the Monticello TS requires the radiation protection manager to meet the requirements of Regulatory Guide 1.8, September 1975, (radiation protection manager qualifications). The purpose of change 8 is to allow a senior staff position to fulfill the radiation protection manager qualification requirements. NSP therefore proposes that the radiation protection manager or designated health physicist meet the Regulatory Guide 1.8 criteria. Similar wording exists in the Braidwood plant technical specifications.

**Safety Evaluation**

Changes 1, 5

Updating the Table of Contents and correcting two typographical errors are editorial changes and as such have no effect on safety.

Exhibit A  
Revision to Technical Specification Administrative Controls  
and Other Miscellaneous Changes

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Change 2

The addition of Section 4.0.D and 4.0.E (SR 3.0.3 from NUREG-1433) states the allowable delay time and required actions should a surveillance test be missed, thereby providing a defined timeframe and sequence of actions required should it be discovered a surveillance test has been missed. Although wording changes have been made to better integrate the NUREG requirements and format into the older Custom Tech Spec (CTS) wording and format, the intent of the wording remains the same.

The basis for this delay period includes consideration of unit conditions, adequate planning, availability of personnel, the time required to perform the surveillance test, the safety significance of the delay in completing the required surveillance test, and the recognition that the most probable result of any particular surveillance test being performed is the verification of conformance with the requirements. The NRC has generically determined these actions and timeframes to be safe and acceptable as part of NUREG-1433.

Change 3

This change does not affect any of the qualifications, responsibilities or requirements for personnel filling these positions. Therefore, this change has no effect on safety.

Change 4

Monticello will continue to maintain offsite and onsite review functions as well as independent inspections and auditing in accordance with the requirements of ANSI N18.7-1976 (with the exceptions stated in the OQAP), the Operational Quality Assurance Plan (OQAP), the Updated Safety Analysis Report and licensee controlled procedures. NRC control over these requirements will continue to be maintained through the provisions of 10 CFR 50.54(a)(3) and 10 CFR 50.59. Relocating Sections 6.2 and 6.3 provides consistency with no loss of control or reduction in safety.

Changes 6

The addition of the Bases Control Program is an administrative change. This change does not revise any safety limits, limiting conditions for operation or surveillance test requirements for the plant. It is therefore concluded that the administrative change requested by this amendment does not adversely affect public health and safety.

Change 7

The distance of several hundred feet between the reactor and the plant stack or reactor building vent is inconsequential compared to the much greater distance

Exhibit A  
Revision to Technical Specification Administrative Controls  
and Other Miscellaneous Changes

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between the plant site and sample locations reported in the annual report. Changing the TS stated point of reference has no effect on actual releases or on calculated offsite accident doses. This change is therefore administrative.

Change 8

Section 6.1.D requires that the radiation protection manager meet the qualifications of Regulatory Guide 1.8, September 1975. It is proposed that this section be revised to allow an alternative when the radiation protection manager (RPM) does not meet the qualifications of RG 1.8. The alternative requires that a designated health physicist meeting the qualifications of RG 1.8 report directly to the RPM. Input from the designated health physicist is an integral part of the radiation protection manager decision-making process. The designated health physicist will supplement the expertise of the radiation protection manager who will remain responsible for the radiation protection program at all times.

At all times, either the radiation protection manager or the health physicist will meet the requirements of Regulatory Guide 1.8 as required by TS.

There are no plant modifications required to implement the changes requested in this License Amendment Request. Section 6 of the Technical Specifications addresses administrative controls required to assure that the plant is operated in a safe manner. Any changes to plant procedures, the Updated Safety Analysis Report, or the Operational Quality Assurance Plan which are necessary to support the changes requested by this License Amendment Request will likewise not result in any plant modifications.

**Determination of No Significant Hazards Considerations**

The proposed changes to the Operating License have been evaluated to determine whether they constitute a significant hazards consideration as required by 10 CFR Part 50, Section 50.91, using the standards provided in Section 50.92. This analysis is provided below:

1. The proposed amendment will not involve a significant increase in the probability or consequences of an accident previously evaluated.

Operation of the Monticello plant in accordance with the proposed changes does not involve a significant increase in the probability or consequences of an accident previously evaluated. None of the proposed changes involves a physical modification to the plant, a new mode of operation or a change to the Updated Safety Analysis Report transient analysis. These proposed

Exhibit A  
Revision to Technical Specification Administrative Controls  
and Other Miscellaneous Changes

---

amendments conform to the guidance of NUREG-1433, Revision 1, which was previously issued by the NRC.

The proposed changes do not reduce the level of qualification or training and the aggregate knowledge of the plant staff remains intact. In total, these changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. The proposed amendment will not create the possibility of a new or different kind of accident from any accident previously analyzed.

The proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated because the proposed changes do not introduce a new mode of plant operation, surveillance test requirement or involve a physical modification to the plant. These proposed amendments generally conform to the guidance of NUREG-1433, Revision 1, which was previously issued by the NRC.

The proposed changes are administrative in nature. The changes propose to relocate specifications from the Technical Specifications to the Operational Quality Assurance Plan through which adequate control is maintained.

The proposed changes do not alter the design, function or operation of any plant component and therefore no new accident scenarios are created. Therefore, the possibility of a new or different kind of accident from any accident previously evaluated would not be created by these amendments.

3. The proposed amendment will not involve a significant reduction in the margin of safety.

The proposed changes do not involve a significant reduction in a margin of safety because the current Technical Specification requirements for safe operation of the Monticello plant are maintained. The proposed changes are administrative in nature and do not involve a physical modification to the plant, a new mode of operation or a change to the Updated Safety Analysis Report transient analyses. The proposed changes do not alter the scope of equipment currently required to be operable or subject to surveillance testing nor does the proposed change affect any instrument setpoints or equipment safety functions.

Therefore, a significant reduction in the margin of safety would not be involved with these proposed changes.

Exhibit A  
Revision to Technical Specification Administrative Controls  
and Other Miscellaneous Changes

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Based on the evaluation described above and pursuant to 10 CFR Part 50, Section 50.91, Northern States Power Company has determined that operation of the Monticello Nuclear Generating Plant in accordance with the proposed license amendment request does not involve any significant hazards considerations as defined by Nuclear Regulatory Commission regulations in 10 CFR Part 50, Section 50.92.

**Environmental Assessment**

Northern States Power Company has evaluated the proposed changes and determined that:

1. The changes do not involve a significant hazards consideration, or
2. The changes do not involve a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or
3. The changes do not involve a significant increase in individual or cumulative occupational radiation exposure.

Exhibit B

MONTICELLO NUCLEAR GENERATING PLANT

Revision to Technical Specification Administrative Controls  
and Other Miscellaneous Changes

Current Technical Specification Pages Marked Up with Proposed Changes

=====

Page

iv

25a

232

233

235

236

237

238

239

240

241

242

243

244

244a

246b

249

250

251

253 (New page based on Section 5.5.11 of NUREG-1433.)

## TABLE OF CONTENTS (Cont'd)

	<u>Page</u>
3.13 and 4.13 Fire Detection Protection Systems	223
A. Fire Detection Instrumentation	223
B. Fire Suppression Water System	224
C. Hose Stations	226
D. Yard Hydrant Hose Houses	227
E. Sprinkler Systems	227a
F. Halon Systems	227b
G. Penetration Fire Barriers	227b
H. Alternate Shutdown System	227c
3.13 Bases	228
4.13 Bases	228b
3.14 and 4.14 Accident Monitoring Instrumentation	229a
3.14 and 4.14 Bases	229e
3.15 and 4.15 Inservice Inspection and Testing	229f
3.15 and 4.15 Bases	229g
3.16 and 4.16 Radiation Environmental Monitoring Program	229h
A. Sample Collection & Analysis	229h
B. Land Use Census	229j
C. Interlaboratory Comparison Program	229k
3.16 and 4.16 Bases	229t
3.17 and 4.17 Control Room Habitability	229u
A. Control Room Ventilation System	229u
B. Control Room Emergency Filtration System	229v
3.17 Bases	229y
4.17 Bases	229z
<b>5.0 DESIGN FEATURES</b>	230
5.1 Site	230
5.2 Reactor	230
5.3 Reactor Vessel	230
5.4 Containment	230
5.5 Fuel Storage	231
5.6 Seismic Designs	231
<b>6.0 ADMINISTRATIVE CONTROLS</b>	232
6.1 Organization	232
<del>6.2 Review and Audit</del> (Deleted) <span style="float: right;">243</span>	<del>237</del>
<del>6.3 Special Inspection and Audits</del> (Deleted)	243
6.4 Action to be taken if a Safety Limit is Exceeded	243
6.5 Plant Operating Procedures	244
6.6 Plant Operating Records	246c
6.7 Reporting Requirements	248
6.8 Programs	253

Change ①

①

### 3.0 LIMITING CONDITIONS FOR OPERATION

### 4.0 SURVEILLANCE REQUIREMENTS

#### 4.0 SURVEILLANCE REQUIREMENTS

- A. The surveillance requirements of this section shall be met. Each surveillance requirement shall be performed at the specified times except as allowed in B and C below.
- B. Specific time intervals between tests may be extended up to 25% of the surveillance interval to accommodate normal test schedules with the exception that, the intervals between tests scheduled for refueling shutdowns shall not exceed two years.
- C. Whenever the plant condition is such that a system or component is not required to be operable the surveillance testing associated with that system or component may be discontinued. Discontinued surveillance tests shall be resumed less than one test interval before establishing plant conditions requiring operability of the associated system or component.

- D. *If it is discovered that a surveillance was not performed within its specified frequency, then the affected equipment shall be declared inoperable.*
- E. *Compliance with 4.0.D may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified frequency, whichever is less. This delay period is permitted to allow performance of the surveillance.*

③ including the plant-specific titles of those personnel fulfilling the responsibilities of the positions delineated in these Technical Specifications

## 6.0 ADMINISTRATIVE CONTROLS

### 6.1 Organization

- A. The Plant Manager shall be responsible for overall unit safe operation and shall have control over those onsite activities necessary for the safe operation and maintenance of the plant. During periods when the Plant Manager is unavailable, this responsibility may be delegated to other qualified supervisory personnel.

The Shift Supervisor (or, a designated individual during periods of absence from the control room and shift supervisor's office) shall be responsible for the control room command function.

#### B. Offsite and Onsite Organizations

Onsite and offsite organizations shall be established for plant operation and corporate management, respectively. The onsite and offsite organizations shall include positions for activities affecting plant safety.

1. Lines of authority, responsibility and communication shall be established and defined for the highest management levels through intermediate levels to and including all operating organization positions. These relationships shall be documented and updated, as appropriate, in the form of organization charts, function descriptions of department responsibilities and relationships, and job descriptions for key personnel positions, or in equivalent forms of documentation. These requirements are documented in corporate and plant procedures, or the Updated Safety Analysis Report or the Operational Quality Assurance Plan.

- ③ A corporate officer with direct responsibility for the plant
2. The President, NSP Nuclear Generation shall have corporate responsibility for overall plant nuclear safety and shall take any measures needed to ensure acceptable performance of the staff in operating, maintaining and providing technical support to the plant to ensure nuclear safety. This position has the responsibility for the Fire Protection Program.

3. The individuals who train the operating staff and those who carry out health physics and quality assurance functions may report to the appropriate onsite manager; however, they shall have sufficient organizational freedom to ensure their independence from operating pressures.

C. Plant Staff

1. Each on duty shift shall be composed of at least the minimum shift crew composition shown in Table 6.1.1.
2. At least one licensed operator shall be in the control room when fuel is in the reactor.
3. At least two licensed operators shall be present in the control room during cold startup, scheduled reactor shutdown, and during recovery from reactor trips.
4. An individual qualified in radiation protection procedures shall be onsite when fuel is in the reactor.
5. All alterations of the reactor core shall be directly supervised by a licensed Senior Reactor Operator or Senior Reactor Operator Limited to Fuel Handling who has no other concurrent responsibilities during this operation.
6. A fire brigade of at least five members shall be maintained onsite at all times.\* The fire brigade shall not include the three members of the shift organization required for safe shutdown of the reactor from outside the control room.
7. The ~~General Superintendent, Operations~~ <sup>operations manager</sup> shall be formerly licensed as a Senior Reactor Operator or hold a current Senior Reactor Operator License.
8. At least one member of plant management holding a current Senior Reactor Operator License shall be assigned to the plant operations group on a long term basis (approximately two years). This individual will not be assigned to a rotating shift.

③

- D. Each member of the unit staff shall meet or exceed the minimum qualifications of ANSI N18.1-1971 for comparable positions, except for (1) the ~~General Superintendent, Radiation Services~~ who shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975, (2) the Shift Technical Advisor who shall have a bachelor's degree or equivalent in a scientific or engineering discipline with specific training in plant design, and response and analysis of the plant for transients and accidents, and (3) the ~~General Superintendent, Operations~~ who shall meet the requirement of ANSI N18.1-1971 except that NRC license requirements are as specified in Specification 6.1.C.7. The training program shall be under the direction of a designated member of Northern States Power management.

\* Fire Brigade composition may be less than the minimum requirements for a period of time not to exceed 2 hours in order to accommodate unexpected absence of Fire Brigade members provided immediate action is taken to restore the Fire Brigade to within the minimum requirements.

- e. Shift Technical Advisor (STA) and Shift Emergency Coordinator (SEC) onsite rest time periods shall not be considered as hours worked when determining the total work time for which the above limitations apply.
2. Any deviation from the above guidelines shall be authorized by the <sup>3</sup>Plant Manager or designee, or higher levels of management, in accordance with established procedures and with documentation of the basis for granting the deviation. During plant emergencies the Emergency Director shall have this authority. Controls shall be included in the procedures such that individual overtime shall be reviewed monthly to assure that excessive hours have not been assigned. Routine deviation from the above guidelines is not allowed.

TABLE 6.1.1  
MINIMUM SHIFT CREW COMPOSITION (Note 1)

CATEGORY	APPLICABLE PLANT CONDITIONS	
	SHUTDOWN OR REFUELING MODE AND <212°F	STARTUP OR RUN MODE (Note 4) OR ≥212°F*
No. Licensed Senior Operators (LSO)	1 (Note 2)	2 (Note 3, 5)
Total No. Licensed Operators (LSO & LO)	2	4
Total No. Licensed and Unlicensed Operators	3	6

Notes:

- Shift crew composition may be one less than the minimum requirements for a period of time not to exceed two hours in order to accommodate an unexpected absence of one duty shift crew member provided immediate action is taken to restore the shift crew composition to within the minimum requirements specified.
- Does not include the licensed Senior Reactor Operator, or Senior Reactor Operator Limited to Fuel Handling, supervising alterations of the reactor core.
- One LSO shall be in the control room or the shift supervisor's office at all times when the reactor is in the Startup or Run Mode or reactor coolant temperature is greater than or equal to 212°F. At least 50% of the time, an LSO shall actually be in the control room proper when the reactor is in the Startup or Run Mode or reactor coolant temperature is greater than or equal to 212°F.
- Except for momentary switching to Startup Mode for testing.
- One LSO position shall be filled by an individual who meets the qualifications of a Shift Technical Advisor as defined in Section 6.1.D(2). If a qualified individual to staff the combined LSO/STA position is not available, a dedicated Shift Technical Advisor shall be on duty, in addition to two licensed senior operators.

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Add  
Next page is 243

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~~6.2 Review and Audit~~

Organizational units for the review and audit of facility operations shall be constituted and have the responsibilities and authorities outlined below:

A. Safety Audit Committee (SAC)

The Safety Audit Committee provides the independent review of plant operations from a nuclear safety standpoint. Audits of plant operation are conducted under the cognizance of the SAC.

1. Membership

- a. The SAC shall consist of at least five (5) persons.
- b. The SAC Chairman shall be an NSP representative, not having line responsibility for operation of the plant, appointed by the President, NSP Nuclear Generation. Other members shall be appointed by the President, NSP Nuclear Generation or by such other person as he may designate. The Chairman shall appoint a Vice Chairman from the SAC membership to act in his absence.
- c. No more than two members of the SAC shall be from groups holding line responsibility for operation of the plant.
- d. A SAC member may appoint an alternate to serve in his absence, with concurrence of the Chairman. No more than one alternate shall serve on the SAC at any one time. The alternate member shall have voting rights.

2. Qualifications

- a. The SAC members should collectively have the capability required to review activities in the following areas: nuclear power plant operations, nuclear engineering, chemistry and radiochemistry, metallurgy, instrumentation and control, radiological safety, mechanical and electrical engineering, quality assurance practices, and other appropriate fields associated with the unique characteristics of the nuclear power plant.

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- b. When the nature of a particular problem dictates, special consultants will be utilized, as necessary, to provide expert advice to the SAC.

3. Meeting Frequency

The SAC shall meet on call by the Chairman but not less frequently than twice a year.

4. Quorum

- a. No less than a majority of the permanent members or their alternates, including the SAC Chairman or Vice Chairman.
- b. No more than a minority of the quorum shall be from groups holding line responsibility for the operation of the plant.

5. Responsibilities - The following subjects should be reported to or reviewed by the SAC:

- a. Written safety evaluations of (1) changes in the facility, (2) changes to procedures, and (3) tests or experiments completed without prior Commission approval under the provisions of 10 CFR 50.59 to verify that such changes, tests or experiments did not involve a change in the Appendix A Technical Specifications or an unreviewed safety question as defined in 10 CFR 50.59.
- b. Proposed changes to procedures, changes in the facility, and tests and experiments which may involve a change in the Appendix A Technical Specifications or an unreviewed safety question as defined in 10 CFR 50.59. Matters of this kind shall be referred to the SAC following their review by the onsite operating organization.
- c. Proposed changes in Appendix A Technical Specifications or proposed license amendments relating to nuclear safety.
- d. Violations of applicable codes, regulations, orders, Appendix A Technical Specifications, and license requirements or internal procedures or instructions having nuclear safety significance.
- e. Significant operating abnormalities or deviations from normal and expected performance of plant safety-related structures, systems, or components.

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- f. Investigation of all Reportable Events and Events requiring Special Reports to the Commission.
  - g. Revisions to the Facility Emergency Plan, the Facility Security Plan, and the Fire Protection Program.
  - h. Operations Committee minutes to determine if matters considered by that Committee involve unreviewed or unresolved safety questions.
  - i. Other nuclear safety matters referred to the SAC by the Operations Committee, plant management or company management.
  - j. All recognized indications of an unanticipated deficiency in some aspect of design or operation of safety-related structures, systems, or components.
  - k. Reports of special inspections and audits conducted in accordance with specification 6.3.
  - l. Changes to the Offsite Dose Calculation Manual (ODCM).
  - m. Review of investigative reports of unplanned releases of radioactive material to the environs.
6. Audit - The operation of the nuclear power plant shall be audited formally under the cognizance of the SAC to assure safe facility operation.
- a. Audits of selected aspects of plant operation, as delineated in ANSI N18.7-1976 as modified by the Operational Quality Assurance Plan, shall be performed with a frequency commensurate with their nuclear safety significance and in a manner to assure that an audit of all nuclear safety-related activities is completed within a period of two years. The audits shall be performed in accordance with appropriate written instructions and procedures.
  - b. Audits of aspects of plant radioactive effluent treatment and radiological environmental monitoring shall be performed as follows:
    - 1. Implementation of the Offsite Dose Calculation Manual and quality controls for effluent monitoring at least once every two years.
    - 2. Implementation of the Process Control Program for solidification of radioactive waste at least once every two years.
    - 3. The Radiological Environmental Monitoring Program and the results thereof, including quality controls, at least once every year.
  - c. Periodic review of the audit program should be performed by the SAC at least twice a year to assure its adequacy.
  - d. Written reports of the audits shall be reviewed by the President, NSP Nuclear Generation, by the SAC at a scheduled meeting, and by members of Management having responsibility in the areas audited.

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7. Authority

The SAC shall be advisory to the President, NSP Nuclear Generation.

8. Records

Minutes shall be prepared and retained for all scheduled meetings of the Safety Audit Committee. The minutes shall be distributed within one month of the meeting to the President, NSP Nuclear Generation, the Plant Manager, each member of the SAC, and others designated by the Chairman or Vice Chairman. There shall be a formal approval of the minutes.

9. Procedures

A written charter for the SAC shall be prepared that contains:

- a. Subjects within the purview of the group.
- b. Responsibility and authority of the group.
- c. Mechanisms for convening meetings.
- d. Provisions of use of specialists or subgroups.
- e. Authority to obtain access to the nuclear power plant operating record files and operating personnel when assigned audit functions.
- f. Requirements for distribution of reports and minutes prepared by the group to others in the NSP Organization.

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B. Operations Committee (OC)

1. Membership

The Operations Committee shall consist of at least six (6) regular members drawn from the key supervisors of the onsite supervisory staff. The Plant Manager shall serve as Chairman of the OC and shall appoint a regular member to act as Vice Chairman in his absence. Alternates to the regular members shall be designated in writing by the Chairman, or Vice Chairman in the Chairman's absence, to serve on a temporary basis. No more than two alternates shall participate as voting members of the Operations Committee at any one time.

2. Meeting Frequency

The Operations Committee will meet on call by the Chairman or as requested by individual members and at least monthly.

3. Quorum

A quorum shall include a majority of the membership, including the Chairman or Vice Chairman.

4. Responsibilities - The following subjects shall be reviewed by the Operations Committee:

- a. Proposed tests and experiments and their results.
- b. Modifications to plant systems or equipment as described in the Updated Safety Analysis Report and having nuclear safety significance or which involve an unreviewed safety question as defined in 10 CFR 50.59.
- c. Proposals which would effect permanent changes to normal and emergency operating procedures and any other proposed changes or procedures that are determined by the Plant Manager to affect nuclear safety.
- d. Proposed changes to the Technical Specifications or operating license.
- e. All reported or suspected violations of Technical Specifications, operating license requirements, administrative procedures, or operating procedures. Results of investigations, including evaluation and recommendations to prevent recurrence, will be reported, in writing, to the President, NSP Nuclear Generation and to the Chairman of the Safety Audit Committee.

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- f. Investigation of all Reportable Events and Events requiring Special Reports to the Commission.
- g. Drills on emergency procedures (including plant evacuation) and adequacy of communication with off-site support groups.
- h. All procedures required by these Technical Specifications, including implementing procedures of the Emergency Plan and the Security Plan (except as exempted in Section 6.5.F), shall be reviewed with a frequency commensurate with their safety significance but at an interval of not more than two years.
- i. Perform special reviews and investigations, as requested by the Safety Audit Committee.
- j. Review of investigative reports of unplanned releases of radioactive material to the environs.
- k. All changes to the Process Control Program (PCP) and the Offsite Dose Calculation Manual (ODCM).

5. Authority

The OC Shall be advisory to the Plant Manager. In the event of disagreement between the recommendations of the OC and the Plant Manager, the course determined by the Plant Manager to be the more conservative will be followed. A written summary of the disagreement will be sent to the President, NSP Nuclear Generation and the Chairman of the SAC for review.

6. Records

Minutes shall be recorded for all meetings of the OC and shall identify all documentary material reviewed. The minutes shall be distributed to each member of the OC, the Chairman and each member of the Safety Audit Committee, the President, NSP Nuclear Generation and others designated by OC Chairman or Vice Chairman.

7. Procedures

A written charter for the OC shall be prepared that contains:

- a. Responsibility and authority of the group.
- b. Content and method of submission of presentations to the Operations Committee.

6.2 (Deleted)

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- c. Mechanism for scheduling meetings
- d. Meeting agenda
- e. Use of subcommittee
- f. Review and approval, by members, of OC actions
- g. Distribution of minutes

6.3 ~~Special Inspections and Audits~~

(Deleted)

- A. An independent fire protection and loss prevention inspection and audit shall be performed annually utilizing either qualified offsite Northern States Power Company personnel or an outside fire protection consultant.
- B. An inspection and audit by an outside qualified fire protection consultant shall be performed at intervals no greater than three years.

6.4 Action to be Taken if a Safety Limit is Exceeded

If a Safety Limit is exceeded, the reactor shall be shut down immediately. An immediate report shall be made to the Commission and to the ~~President, NSP Nuclear Generation~~ or his designated alternate in his absence. A complete analysis of the circumstances leading up to and resulting from the situation, together with recommendations by the Operations Committee, shall also be prepared. This report shall be submitted to the Commission, to the ~~President, NSP Nuclear Generation~~ and the Chairman of the Safety Audit Committee within 14 days of the occurrence.

Reactor operation shall not be resumed until authorized by the U.S. Nuclear Regulatory Commission.

Corporate officer with direct responsibility for the plant

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6.5 Plant Operating Procedures

Detailed written procedures, including the applicable check-off lists and instructions, covering areas listed below shall be prepared and followed. These procedures and changes thereto, except as specified in 6.5.G shall be reviewed by the Operations Committee and approved by a member of plant management designated by the Plant Manager.

A. Plant Operations

1. Integrated and system procedures for normal startup, operation and shutdown of the reactor and all systems and components involving nuclear safety of the facility.
2. Fuel handling operations.
3. Actions to be taken to correct specific and foreseen potential or actual malfunction of systems or components including responses to alarms, primary system leaks and abnormal reactivity changes and including follow-up actions required after plant protective system actions have initiated.
4. Surveillance and testing requirements that could have an effect on nuclear safety.
5. Implementing procedures of the emergency plan, including procedures for coping with emergency conditions involving potential or actual releases of radioactivity.
6. Implementing procedures of the fire protection program.
7. Implementing procedures for the Process Control Program and Offsite Dose Calculation Manual including quality control measures.

Drills on the procedures specified in A.3 above shall be conducted as a part of the retraining program. Drills on the procedures specified in A.5 above shall be conducted at least semi-annually, including a check of communications with offsite support groups.

B. Radiological

1.a. A Radiation Protection Program, consistent with the requirements of 10 CFR 20, shall be developed and followed. The Radiation Protection Program shall consist of the following:

- (1) A Radiation Protection Plan, which shall be a complete definition of radiation protection policy and program
- (2) Procedures which implement the requirements of the Radiation Protection Plan

The Radiation Protection Plan and implementing procedures, with the exception of those non-safety related procedures governing work activities exclusively applicable to or performed by health physics personnel, shall be reviewed by the Operations Committee and approved by a member of plant management designated by the Plant Manager. Health physics procedures not reviewed by the Operations Committee shall be reviewed and approved by the ~~General Superintendent~~

~~Radiation Services manager.~~ <sup>3</sup>  
~~Protection~~

b. In lieu of the "control device" or "alarm signal" required by paragraph 20.203(c)(2) of 10 CFR 20, each high radiation area in which the intensity of radiation is greater than 100 mrem/hr but less than 1000 mrem/hr shall be barricaded and conspicuously posted as a high radiation area and entrance thereto shall be controlled by requiring issuance of a Radiation Work Permit.<sup>1</sup> Any individual or group of individuals permitted to enter such areas shall be provided with or accompanied by one or more of the following:

- (1) A radiation monitoring device that continuously indicates the radiation dose rate in the area.
- (2) A radiation monitoring device that continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. Entry into such areas with this monitoring device may be made after the dose rates in the area have been determined and personnel have been made knowledgeable of them.
- (3) An individual qualified in radiation protection procedures with a radiation dose rate monitoring device. This individual is responsible for providing positive radiation protection control over the activities within the area and shall perform periodic radiation surveillance at the frequency specified in the radiation protection procedures or the applicable Radiation Work Permit.

c. The above procedure shall also apply to each high radiation area in which the intensity of radiation is greater than 1000 mrem/hr. In addition doors shall be locked or attended, to prevent unauthorized entry into these areas and the keys or key devices for locked doors shall be maintained under the administrative control of the ~~Plant Manager~~.

1. Health Physics personnel or personnel escorted by Health Physics personnel shall be exempt from the Radiation Work Permit issuance requirement during the performance of their assigned radiation protection duties, provided they comply with approved radiation protection procedures for entry into high radiation areas. This footnote applies only to high radiation areas of 1000 mrem/hr or less.

E. Offsite Dose Calculation Manual (ODCM)

The ODCM shall be approved by the Commission prior to initial implementation. Changes to the ODCM shall satisfy the following requirements:

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be

1. Shall ~~be~~ submitted to the Commission with the Semi-Annual Radioactive Effluent release report for the period in which the change(s) were made effective. This submittal shall contain:
  - a. sufficiently detailed information to totally support the rationale for the change without benefit of additional or supplemental information. Information submitted should consist of a package of those pages of the ODCM to be changed with each page numbered and provided with a revision date, together with appropriate analyses or evaluations justifying the change(s).
  - b. a determination that the change will not reduce the accuracy or reliability of dose calculations or setpoint determinations; and
  - c. documentation of the fact that the change has been reviewed and found acceptable by the Operations Committee.
2. Shall become effective upon review and acceptance by the Operations Committee.

F. Security

Procedures shall be developed to implement the requirements of the Security Plan and the Security Contingency Plan. These implementing procedures, with the exception of those non-safety related procedures governing work activities exclusively applicable to or performed by security personnel, shall be reviewed by the Operations Committee and approved by a member of plant management designated by the Plant Manager. Security procedures not reviewed by the Operations Committee shall be reviewed and approved by the ~~Superintendent, Security~~.

G. Temporary Changes to Procedures

Temporary changes to those procedures which are required to be reviewed by the Operations Committee described in A, B, C, D, E and F above, which do not change the intent of the original procedures may be made with the concurrence of two members of the unit management staff, at least one of whom holds a Senior Operator License. Such changes should be documented, reviewed by the Operations Committee and approved by a member of plant management designated by the Plant Manager within one month. Temporary changes to health physics and security procedures not reviewed by the Operations Committee shall be reviewed by the ~~General Superintendent, Radiation Services~~ for health physics procedures and the ~~Superintendent, Security~~ for security procedures.

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manager

3  
X

3  
protection manager

3  
manager

2. Occupational Exposure Report. (1) An annual report of occupational exposure covering the previous calendar year shall be submitted prior to March 1 of each year.

The report should tabulate on an annual basis the number of station, utility and other personnel (including contractors) receiving exposures greater than 100 mrem/yr and their associated man-rem exposure according to work and job functions, e.g., reactor operations and surveillance, inservice inspection, routine maintenance, special maintenance (describe maintenance), waste processing, and refueling. The dose assignment to various duty functions may be estimates based on pocket dosimeter, TLD, or film badge measurements. Small exposures totalling less than 20% of the individual total dose need not to be accounted for. In the aggregate, at least 80% of the total whole body dose received from external sources shall be assigned to specific major work functions.

3. Monthly Operating Report. A monthly report of operating statistics and shutdown experience covering the previous month shall be submitted by the 15th of the following month.
4. Semiannual Radioactive Effluent Release Report. Routine radioactive effluent release reports covering the operation of the unit during the previous six months of operation shall be submitted within 60 days after January 1st and July 1st of each year.

The radioactive effluent release reports shall include a summary of the quantities of radioactive liquid and gaseous effluents as outlined in Appendix B of Regulatory Guide 1.21, Revision 1, June, 1974, with data summarized on a quarterly basis.

The report to be submitted 60 days after January 1st of each year shall include an assessment of the radiation doses from radioactive effluents released from the plant during the previous calendar year. This same report shall also include an assessment of the radiation doses from radioactive liquid and gaseous effluents to individuals due to their activities inside the site boundary (Figures 3.8.1 and 3.8.2) during the report period. All assumptions used in making these assessments (i.e., specific activity, exposure time and location) shall be included in these reports. The assessment of radiation doses shall be performed in accordance with the Offsite Dose Calculation Manual (ODCM) or standard NRC computer codes.

- 
1. This report supplements the requirements of 10 CFR 20, Section 20.407. If 10 CFR 20, Section 20.407 is revised to include such information, this Specification is unnecessary.

B. Reportable Events

The following actions shall be taken for Reportable Events:

- a. The Commission shall be notified by a report submitted pursuant to the requirements of Section 50.73 to 10 CFR Part 50 and,
- b. Each Reportable Event shall be reviewed by the Operations Committee and the results of this review shall be submitted to the Safety Audit Committee and the ~~President, NSP Nuclear Generation.~~

③  
Corporate officer with direct responsibility for the plant.

C. Environmental Reports

1. Annual Radiation Environmental Monitoring Report

- a. Annual Radiation Environmental Monitoring Reports covering the operation of the program during the previous calendar year shall be submitted prior to May 1 of each year.
- b. The Annual Radiation Environmental Monitoring Reports shall include summaries, interpretations, and an analysis of trends of the results of the radiological environmental surveillance activities for the report period, including a comparison with preoperational studies, operational controls (as appropriate), and previous environmental surveillance reports and an assessment of the observed impacts of the plant operation on the environment. The reports shall also include the results of land use census required by Specification 4.16.B.1. If harmful effects or evidence of irreversible damage are detected by the monitoring, the report shall provide an analysis of the problem and a planned course of action to alleviate the problem.
- c. The Annual Radiation Environmental Monitoring Reports shall include summarized and tabulated results in the format of Regulatory Guide 4.8, December 1975 of all radiological environmental samples taken during the report period. In the event that some results are not available for inclusion with the report, the report shall be submitted noting and explaining the reasons for the missing results. The missing data shall be submitted as soon as possible in the supplementary report.
- d. The reports shall also include the following: a summary description of the radiological environmental monitoring program; a map of all sampling locations keyed to a table giving distances and directions from the reactor and the results of licensee participation in the Interlaboratory Comparison Program, required by Specification 4.16.C.1.

plant site 7

## 6.8 Programs

~~5.5.11~~

A

### Technical Specifications (TS) Bases Control Program

This program provides a means for processing changes to the Bases of these Technical Specifications.

1. ~~+~~ Changes to the Bases of the TS shall be made under appropriate administrative controls and reviews.
2. ~~+~~ ~~Licensees may make~~ Changes to Bases <sup>may be made</sup> without prior NRC approval provided the changes do not involve either of the following:
  - a. ~~+~~ a change in the TS incorporated in the license; or
  - b. ~~+~~ a change to the <sup>LSAR</sup> updated ~~FSAR~~ or Bases that <sup>requires a</sup> ~~involves an~~ ~~unreviewed safety question as defined in~~ 10 CFR 50.59. license amendment pursuant to
3. ~~+~~ The Bases Control Program shall contain provisions to ensure that the Bases are maintained consistent with the ~~FSAR~~ <sup>LSAR</sup>.
4. ~~+~~ Proposed changes <sup>to the Bases</sup> that meet the ~~criteria~~ <sup>a, or b,</sup> of Specification ~~5.5.11b~~ above shall be reviewed and approved by the NRC prior to implementation. Changes to the Bases implemented without prior NRC approval shall be provided to the NRC on a frequency consistent with 10 CFR 50.71(e).

6.8.A.2

involve changes as described in

Exhibit C

MONTICELLO NUCLEAR GENERATING PLANT

Revision to Technical Specification Administrative Controls  
and Other Miscellaneous Changes

Revised Technical Specification Pages

=====

<u>Page</u>
iv
25a
232
233
235
236
243
244
244a
246b
249
250
251
253 (new page)

## TABLE OF CONTENTS (Cont'd)

	<u>Page</u>
3.13 and 4.13 Fire Detection Protection Systems	223
A. Fire Detection Instrumentation	223
B. Fire Suppression Water System	224
C. Hose Stations	226
D. Yard Hydrant Hose Houses	227
E. Sprinkler Systems	227a
F. Halon Systems	227b
G. Penetration Fire Barriers	227b
H. Alternate Shutdown System	227c
3.13 Bases	228
4.13 Bases	228b
3.14 and 4.14 Accident Monitoring Instrumentation	229a
3.14 and 4.14 Bases	229e
3.15 and 4.15 Inservice Inspection and Testing	229f
3.15 and 4.15 Bases	229g
3.16 and 4.16 Radiation Environmental Monitoring Program	229h
A. Sample Collection & Analysis	229h
B. Land Use Census	229j
C. Interlaboratory Comparison Program	229k
3.16 and 4.16 Bases	229t
3.17 and 4.17 Control Room Habitability	229u
A. Control Room Ventilation System	229u
B. Control Room Emergency Filtration System	229v
3.17 Bases	229y
4.17 Bases	229z
5.0 DESIGN FEATURES	230
5.1 Site	230
5.2 Reactor	230
5.3 Reactor Vessel	230
5.4 Containment	230
5.5 Fuel Storage	231
5.6 Seismic Designs	231
6.0 ADMINISTRATIVE CONTROLS	232
6.1 Organization	232
6.2 (Deleted)	243
6.3 (Deleted)	243
6.4 Action to be taken if a Safety Limit is Exceeded	243
6.5 Plant Operating Procedures	244
6.6 Plant Operating Records	246c
6.7 Reporting Requirements	248
6.8 Programs	253

**3.0 LIMITING CONDITIONS FOR OPERATION**

**4.0 SURVEILLANCE REQUIREMENTS**

**4.0 SURVEILLANCE REQUIREMENTS**

- A. The surveillance requirements of this section shall be met. Each surveillance requirement shall be performed at the specified times except as allowed in B and C below.
- B. Specific time intervals between tests may be extended up to 25% of the surveillance interval to accommodate normal test schedules with the exception that, the intervals between tests scheduled for refueling shutdowns shall not exceed two years.
- C. Whenever the plant condition is such that a system or component is not required to be operable the surveillance testing associated with that system or component may be discontinued. Discontinued surveillance tests shall be resumed less than one test interval before establishing plant conditions requiring operability of the associated system or component.
- D. If it is discovered that a surveillance was not performed within its specified frequency, then the affected equipment shall be declared inoperable.
- E. Compliance with 4.0.D. may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified frequency, whichever is less. This delay period is permitted to allow performance of the surveillance.

## 6.0 ADMINISTRATIVE CONTROLS

### 6.1 Organization

- A. The plant manager shall be responsible for overall unit safe operation and shall have control over those onsite activities necessary for the safe operation and maintenance of the plant. During periods when the plant manager is unavailable, this responsibility may be delegated to other qualified supervisory personnel.

The Shift Supervisor (or, a designated individual during periods of absence from the control room and shift supervisor's office) shall be responsible for the control room command function.

B. Offsite and Onsite Organizations

Onsite and offsite organizations shall be established for plant operation and corporate management, respectively. The onsite and offsite organizations shall include positions for activities affecting plant safety.

1. Lines of authority, responsibility and communication shall be established and defined for the highest management levels through intermediate levels to and including all operating organization positions. These relationships shall be documented and updated, as appropriate, in the form of organization charts, function descriptions of department responsibilities and relationships, and job descriptions for key personnel positions, or in equivalent forms of documentation. These requirements including the plant-specific titles of those personnel fulfilling the responsibilities of the positions delineated in these Technical Specifications are documented in corporate and plant procedures, or the Updated Safety Analysis Report or the Operational Quality Assurance Plan.
2. A corporate officer with direct responsibility for the plant shall have corporate responsibility for overall plant nuclear safety and shall take any measures needed to ensure acceptable performance of the staff in operating, maintaining and providing technical support to the plant to ensure nuclear safety. This position has the responsibility for the Fire Protection Program.
3. The individuals who train the operating staff and those who carry out health physics and quality assurance functions may report to the appropriate onsite manager; however, they shall have sufficient organizational freedom to ensure their independence from operating pressures.

C. Plant Staff

1. Each on duty shift shall be composed of at least the minimum shift crew composition shown in Table 6.1.1.
2. At least one licensed operator shall be in the control room when fuel is in the reactor.
3. At least two licensed operators shall be present in the control room during cold startup, scheduled reactor shutdown, and during recovery from reactor trips.
4. An individual qualified in radiation protection procedures shall be onsite when fuel is in the reactor.
5. All alterations of the reactor core shall be directly supervised by a licensed Senior Reactor Operator or Senior Reactor Operator Limited to Fuel Handling who has no other concurrent responsibilities during this operation.
6. A fire brigade of at least five members shall be maintained onsite at all times.\* The fire brigade shall not include the three members of the shift organization required for safe shutdown of the reactor from outside the control room.
7. The operations manager shall be formerly licensed as a Senior Reactor Operator or hold a current Senior Reactor Operator License.
8. At least one member of plant management holding a current Senior Reactor Operator License shall be assigned to the plant operations group on a long term basis (approximately two years). This individual will not be assigned to a rotating shift.

- D. Each member of the unit staff shall meet or exceed the minimum qualifications of ANSI N18.1-1971 for comparable positions, except for (1) the radiation protection manager or designated health physicist who shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975, (2) the Shift Technical Advisor who shall have a bachelor's degree or equivalent in a scientific or engineering discipline with specific training in plant design, and response and analysis of the plant for transients and accidents, and (3) the operations manager who shall meet the requirement of ANSI N18.1-1971 except that NRC license requirements are as specified in Specification 6.1.C.7. The training program shall be under the direction of a designated member of Northern States Power management.

\* Fire Brigade composition may be less than the minimum requirements for a period of time not to exceed 2 hours in order to accommodate unexpected absence of Fire Brigade members provided immediate action is taken to restore the Fire Brigade to within the minimum requirements.

- e. Shift Technical Advisor (STA) and Shift Emergency Coordinator (SEC) onsite rest time periods shall not be considered as hours worked when determining the total work time for which the above limitations apply.
2. Any deviation from the above guidelines shall be authorized by the plant manager or designee, or higher levels of management, in accordance with established procedures and with documentation of the basis for granting the deviation. During plant emergencies the Emergency Director shall have this authority. Controls shall be included in the procedures such that individual overtime shall be reviewed monthly to assure that excessive hours have not been assigned. Routine deviation from the above guidelines is not allowed.

TABLE 6.1.1  
MINIMUM SHIFT CREW COMPOSITION (Note 1)

CATEGORY	APPLICABLE PLANT CONDITIONS	
	SHUTDOWN OR REFUELING MODE AND <212°F	STARTUP OR RUN MODE (Note 4) OR ≥212°F
No. Licensed Senior Operators (LSO)	1 (Note 2)	2 (Note 3, 5)
Total No. Licensed Operators (LSO & LO)	2	4
Total No. Licensed and Unlicensed Operators	3	6

Notes:

1. Shift crew composition may be one less than the minimum requirements for a period of time not to exceed two hours in order to accommodate an unexpected absence of one duty shift crew member provided immediate action is taken to restore the shift crew composition to within the minimum requirements specified.
2. Does not include the licensed Senior Reactor Operator, or Senior Reactor Operator Limited to Fuel Handling, supervising alterations of the reactor core.
3. One LSO shall be in the control room or the shift supervisor's office at all times when the reactor is in the Startup or Run Mode or reactor coolant temperature is greater than or equal to 212°F. At least 50% of the time, an LSO shall actually be in the control room proper when the reactor is in the Startup or Run Mode or reactor coolant temperature is greater than or equal to 212°F.
4. Except for momentary switching to Startup Mode for testing.
5. One LSO position shall be filled by an individual who meets the qualifications of a Shift Technical Advisor as defined in Section 6.1.D(2). If a qualified individual to staff the combined LSO/STA position is not available, a dedicated Shift Technical Advisor shall be on duty, in addition to two licensed senior operators.

6.2 (Deleted)

6.3 (Deleted)

6.4 Action to be Taken if a Safety Limit is Exceeded

If a Safety Limit is exceeded, the reactor shall be shut down immediately. An immediate report shall be made to the Commission and to the corporate officer with direct responsibility for the plant or his designated alternate in his absence. A complete analysis of the circumstances leading up to and resulting from the situation, together with recommendations by the Operations Committee, shall also be prepared. This report shall be submitted to the Commission, to the corporate officer with direct responsibility for the plant and the Chairman of the Safety Audit Committee within 14 days of the occurrence.

Reactor operation shall not be resumed until authorized by the U.S. Nuclear Regulatory Commission.

## 6.5 Plant Operating Procedures

Detailed written procedures, including the applicable check-off lists and instructions, covering areas listed below shall be prepared and followed. These procedures and changes thereto, except as specified in 6.5.G shall be reviewed by the Operations Committee and approved by a member of plant management designated by the plant manager.

### A. Plant Operations

1. Integrated and system procedures for normal startup, operation and shutdown of the reactor and all systems and components involving nuclear safety of the facility.
2. Fuel handling operations.
3. Actions to be taken to correct specific and foreseen potential or actual malfunction of systems or components including responses to alarms, primary system leaks and abnormal reactivity changes and including follow-up actions required after plant protective system actions have initiated.
4. Surveillance and testing requirements that could have an effect on nuclear safety.
5. Implementing procedures of the emergency plan, including procedures for coping with emergency conditions involving potential or actual releases of radioactivity.
6. Implementing procedures of the fire protection program.
7. Implementing procedures for the Process Control Program and Offsite Dose Calculation Manual including quality control measures.

Drills on the procedures specified in A.3 above shall be conducted as a part of the retraining program. Drills on the procedures specified in A.5 above shall be conducted at least semi-annually, including a check of communications with offsite support groups.

B. Radiological

1.a. A Radiation Protection Program, consistent with the requirements of 10 CFR 20, shall be developed and followed. The Radiation Protection Program shall consist of the following:

- (1) A Radiation Protection Plan, which shall be a complete definition of radiation protection policy and program
- (2) Procedures which implement the requirements of the Radiation Protection Plan

The Radiation Protection Plan and implementing procedures, with the exception of those non-safety related procedures governing work activities exclusively applicable to or performed by health physics personnel, shall be reviewed by the Operations Committee and approved by a member of plant management designated by the plant manager. Health physics procedures not reviewed by the Operations Committee shall be reviewed and approved by the radiation protection manager.

b. In lieu of the "control device" or "alarm signal" required by paragraph 20.203(c)(2) of 10 CFR 20, each high radiation area in which the intensity of radiation is greater than 100 mrem/hr but less than 1000 mrem/hr shall be barricaded and conspicuously posted as a high radiation area and entrance thereto shall be controlled by requiring issuance of a Radiation Work Permit.<sup>1</sup> Any individual or group of individuals permitted to enter such areas shall be provided with or accompanied by one or more of the following:

- (1) A radiation monitoring device that continuously indicates the radiation dose rate in the area.
- (2) A radiation monitoring device that continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. Entry into such areas with this monitoring device may be made after the dose rates in the area have been determined and personnel have been made knowledgeable of them.
- (3) An individual qualified in radiation protection procedures with a radiation dose rate monitoring device. This individual is responsible for providing positive radiation protection control over the activities within the area and shall perform periodic radiation surveillance at the frequency specified in the radiation protection procedures or the applicable Radiation Work Permit.

c. The above procedure shall also apply to each high radiation area in which the intensity of radiation is greater than 1000 mrem/hr. In addition doors shall be locked or attended, to prevent unauthorized entry into these areas and the keys or key devices for locked doors shall be maintained under the administrative control of the plant manager.

1. Health Physics personnel or personnel escorted by Health Physics personnel shall be exempt from the Radiation Work Permit issuance requirement during the performance of their assigned radiation protection duties, provided they comply with approved radiation protection procedures for entry into high radiation areas. This footnote applies only to high radiation areas of 1000 mrem/hr or less.

E. Offsite Dose Calculation Manual (ODCM)

The ODCM shall be approved by the Commission prior to initial implementation. Changes to the ODCM shall satisfy the following requirements:

1. Shall be submitted to the Commission with the Semi-Annual Radioactive Effluent release report for the period in which the change(s) were made effective. This submittal shall contain:
  - a. sufficiently detailed information to totally support the rationale for the change without benefit of additional or supplemental information. Information submitted should consist of a package of those pages of the ODCM to be changed with each page numbered and provided with a revision date, together with appropriate analyses or evaluations justifying the change(s).
  - b. a determination that the change will not reduce the accuracy or reliability of dose calculations or setpoint determinations; and
  - c. documentation of the fact that the change has been reviewed and found acceptable by the Operations Committee.
2. Shall become effective upon review and acceptance by the Operations Committee.

F. Security

Procedures shall be developed to implement the requirements of the Security Plan and the Security Contingency Plan. These implementing procedures, with the exception of those non-safety related procedures governing work activities exclusively applicable to or performed by security personnel, shall be reviewed by the Operations Committee and approved by a member of plant management designated by the plant manager. Security procedures not reviewed by the Operations Committee shall be reviewed and approved by the security manager.

G. Temporary Changes to Procedures

Temporary changes to those procedures which are required to be reviewed by the Operations Committee described in A, B, C, D, E and F above, which do not change the intent of the original procedures may be made with the concurrence of two members of the unit management staff, at least one of whom holds a Senior Operator License. Such changes should be documented, reviewed by the Operations Committee and approved by a member of plant management designated by the plant manager within one month. Temporary changes to health physics and security procedures not reviewed by the Operations Committee shall be reviewed by the radiation protection manager for health physics procedures and the security manager for security procedures.

2. Occupational Exposure Report.(1) An annual report of occupational exposure covering the previous calendar year shall be submitted prior to March 1 of each year.

The report should tabulate on an annual basis the number of station, utility and other personnel (including contractors) receiving exposures greater than 100 mrem/yr and their associated man-rem exposure according to work and job functions, e.g., reactor operations and surveillance, inservice inspection, routine maintenance, special maintenance (describe maintenance), waste processing, and refueling. The dose assignment to various duty functions may be estimates based on pocket dosimeter, TLD, or film badge measurements. Small exposures totaling less than 20% of the individual total dose need not to be accounted for. In the aggregate, at least 80% of the total whole body dose received from external sources shall be assigned to specific major work functions.

3. Monthly Operating Report. A monthly report of operating statistics and shutdown experience covering the previous month shall be submitted by the 15th of the following month.
4. Semiannual Radioactive Effluent Release Report. Routine radioactive effluent release reports covering the operation of the unit during the previous six months of operation shall be submitted within 60 days after January 1st and July 1st of each year.

The radioactive effluent release reports shall include a summary of the quantities of radioactive liquid and gaseous effluents as outlined in Appendix B of Regulatory Guide 1.21, Revision 1, June, 1974, with data summarized on a quarterly basis.

The report to be submitted 60 days after January 1st of each year shall include an assessment of the radiation doses from radioactive effluents released from the plant during the previous calendar year. This same report shall also include an assessment of the radiation doses from radioactive liquid and gaseous effluents to individuals due to their activities inside the site boundary (Figures 3.8.1 and 3.8.2) during the report period. All assumptions used in making these assessments (i.e., specific activity, exposure time and location) shall be included in these reports. The assessment of radiation doses shall be performed in accordance with the Offsite Dose Calculation Manual (ODCM) or standard NRC computer codes.

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1. This report supplements the requirements of 10 CFR 20, Section 20.407. If 10 CFR 20, Section 20.407 is revised to include such information, this Specification is unnecessary.

B. Reportable Events

The following actions shall be taken for Reportable Events:

- a. The Commission shall be notified by a report submitted pursuant to the requirements of Section 50.73 to 10 CFR Part 50 and,
- b. Each Reportable Event shall be reviewed by the Operations Committee and the results of this review shall be submitted to the Safety Audit Committee and the corporate officer with direct responsibility for the plant.

**C. Environmental Reports**

**1. Annual Radiation Environmental Monitoring Report**

- a. Annual Radiation Environmental Monitoring Reports covering the operation of the program during the previous calendar year shall be submitted prior to May 1 of each year.
- b. The Annual Radiation Environmental Monitoring Reports shall include summaries, interpretations, and an analysis of trends of the results of the radiological environmental surveillance activities for the report period, including a comparison with preoperational studies, operational controls (as appropriate), and previous environmental surveillance reports and an assessment of the observed impacts of the plant operation on the environment. The reports shall also include the results of land use census required by Specification 4.16.B.1. If harmful effects or evidence of irreversible damage are detected by the monitoring, the report shall provide an analysis of the problem and a planned course of action to alleviate the problem.
- c. The Annual Radiation Environmental Monitoring Reports shall include summarized and tabulated results in the format of Regulatory Guide 4.8, December 1975 of all radiological environmental samples taken during the report period. In the event that some results are not available for inclusion with the report, the report shall be submitted noting and explaining the reasons for the missing results. The missing data shall be submitted as soon as possible in the supplementary report.
- d. The reports shall also include the following: a summary description of the radiological environmental monitoring program; a map of all sampling locations keyed to a table giving distances and directions from the plant site; and the results of licensee participation in the Interlaboratory Comparison Program, required by Specification 4.16.C.1.

## 6.8 PROGRAMS

### A. Technical Specifications (TS) Bases Control Program

This program provides a means for processing changes to the Bases of these Technical Specifications.

1. Changes to the Bases of the TS shall be made under appropriate administrative controls and reviews.
2. Changes to Bases may be made without prior NRC approval provided the changes do not involve either of the following:
  - a. a change in the TS incorporated in the license; or
  - b. a change to the USAR or Bases that requires a license amendment pursuant to 10 CFR 50.59.
3. The Bases Control Program shall contain provisions to ensure that the Bases are maintained consistent with the USAR.
4. Proposed changes to the Bases that involve changes as described in a. or b. of Specification 6.8.A.2 above shall be reviewed and approved by the NRC prior to implementation. Changes to the Bases implemented without prior NRC approval shall be provided to the NRC on a frequency consistent with 10 CFR 50.71(e).