SECTION 13

PLANT OPERATIONS

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SECTION 13 PLANT OPERATIONS

13.1 SUMMARY DESCRIPTION

Plant personnel are qualified and experienced to perform plant operations and plant maintenance that are necessary for safe operation of the plant. 98166

Training programs are scheduled to maintain sufficient licensed operators and a competent supporting technical staff. Plant activities are conducted in accordance with Quality Assurance, Emergency, and Security Plans and written procedures implemented in response to regulatory requirements. Inspection and testing are conducted in accordance with a program which meets regulatory requirements.

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13.2 ORGANIZATION, RESPONSIBILITIES, AND QUALIFICATIONS

13.2.1 Organization

The Prairie Island Nuclear Generating Plant site management and organization, including the plant-specific titles of those personnel fulfilling the responsibilities of the positions delineated in the Technical Specifications are described in NSPM-1, "Quality Assurance Topical Report". 01320659

By license amendment, dated September 22, 2008, the NRC made NSPM the licensee authorized to use and operate Prairie Island Nuclear Generating Plant Units 1 and 2.

In support of the individual responsibilities of plant personnel an onsite Plant Operating Review Committee provides multi-discipline review of various plant activities. 01317095

The onsite organization includes the technically trained personnel necessary to support all aspects of plant operations.

13.2.2 Duties and Responsibilities of the Operating Staff Personnel

The responsibilities and duties of key headquarter and site personnel are described in NSPM-1 as is allowed by Technical Specification 5.2.1.

13.2.3 Qualification of Plant Personnel 01320659

The minimum qualifications of plant technical and operating personnel are specified in Technical Specifications Section 5.3, Plant Staff Qualifications.

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13.3 PERSONNEL EXPERIENCE AND TRAINING

13.3.1 General

The minimum qualifications of plant technical and operating personnel are specified in Technical Specifications Section 5.3, Plant Staff Qualifications.

13.3.2 Training and Retraining Program

NSPM is a member of the National Academy for Nuclear Training. Training and retraining programs, based on a systems approach to training, have been accredited by the Institute of Nuclear Power Operations (INPO) (Reference 5). 01197632

By letter dated April 8, 1988, NSP committed to conduct STA training in accordance with the National Academy for Nuclear Training accredited STA training program. Item I.A.2.1, titled "Immediate Upgrading of Reactor Operator and Senior Reactor Operator Training and Qualifications", and item II.B.4, titled "Training for Mitigating Core Damage", were resolved with the NRC in correspondence dated 12/30/80, 8/21/81, 4/16/82 and 12/14/82.

The Plant Manager is responsible for the overall conduct and administration of the plant training program. Implementation responsibilities are delegated as follows. The Training Process Manager is responsible for ensuring that training processes follow the systematic approach to training as described in the INPO accreditation criteria. General Superintendents of the major disciplines are responsible for the development and implementation of the training programs. Included in these programs is a simulator certification program, which meets 10CFR55 and Regulatory Guide 1.149; and operation, maintenance and modification of a site specific simulator.

13.3.3 Promotion of Personnel

NSPM management is responsible for training and maintaining a qualified staff of technical and operations personnel. Every effort is made to promote plant personnel from within the plant organization consistent with the training and experience requirements of the assigned position. 01197632

13.3.4 Personnel Behavior

The "Fitness for Duty Program" applies to all nuclear generation personnel, including all badged contract workers and craft union personnel hired by NSPM or its contractors or its agents. 01197632

It recognizes that fatigue, stress, illness and temporary physical impairments, as well as drug and alcohol abuse, can have a negative effect on a worker's fitness and jeopardize safe operations.

All personnel badged for unescorted access to the plant are subject to random drug and alcohol testing and are trained to be observant of co-worker or visitor behavior that may indicate a fitness for duty concern. Supervisors are trained to be observant of employee behavior that might indicate excessive fatigue or unhealthy behavior patterns and to bar employees from working if they appear unfit for duty.

As of January 3, 1991 Northern States Power Company certified implementation of the fitness for duty program in accordance with the requirements of 10 CFR Part 26 (Reference 7).

13.4 OPERATIONAL PROCEDURES

13.4.1 General

A preoperational test program was conducted to assure that all systems and equipment function properly. The initial preoperational and startup test programs are described in Appendix J. Westinghouse and Pioneer Service and Engineering (PS&E) provided written procedures and technical direction for these programs. The plant operating staff participated in the preparation and execution of these tests.

Detailed written procedures, including the applicable check-off sheets and instructions have been prepared in accordance with the Technical Specifications and ANSI N18.7-1976. Subsequent to implementation of NSPM-1, Quality Assurance Topical Report, such procedures are prepared in accordance with the Technical Specification and NSPM-1. Plant operations are conducted in accordance with these procedures.

13.4.2 Procedure Development

The original operations procedures were written by members of the plant staff with the technical assistance of Westinghouse and were reviewed by the Operations Committee.

Procedures are periodically updated to reflect plant modifications and improvements in methods of operation as operating experience accumulates.

Detailed written plant operating procedures and special written one-of-a-kind plant operating procedures covering areas listed in accordance with Technical Specifications Plant Operating Procedures are periodically necessary. These are prepared by qualified personnel and are reviewed by the Plant Operating Review Committee.

Maintenance and test procedures, checklists, and other necessary records to satisfy routine inspections, preventive maintenance programs, and license requirements, have been and will continue to be developed by qualified personnel.

13.4.3 Emergency Plan

The Emergency Plan for the plant consists of a document referred to as the Prairie Island Generating Plant Emergency Plan. This Plan was submitted according to 10CFR50 emergency planning regulations. Subsequent revisions to the plan are issued and reported to the NRC in accordance with 10CFR Part 50.54(q).

The NRC has concluded that onsite and offsite emergency preparedness is adequate and that the emergency plans have been upgraded in accordance with NUREG-0737 Item III.A.2.1 (Reference 2).

The Emergency Plan identifies the location of primary and backup Emergency Operations Facilities (EOF). The location of the EOFs was found acceptable by the NRC in a letter dated October 27, 1983.

The Emergency Plan is dependent upon the Emergency Plan Implementing Procedures for implementation. Revisions to procedures are issued and reported to the NRC in accordance with 10CFR50 Appendix E, Section V.

13.4.4 Security Plans

The security plans for the plant consists of documents referred to as the Prairie Island Nuclear Generating Plant Security Plan and Prairie Island Nuclear Generating Plant Cyber Security Plan as approved by the NRC.

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The security plans are periodically revised to meet changing requirements and the current revision is maintained on file on site. Revisions to the security plans, not requiring prior NRC approval, are issued and reported to the NRC in accordance with 10CFR50.54(p).

13.4.5 Quality Assurance Plan

NSPM nuclear plant operational and support activities are conducted under the NSPM Quality Assurance Topical Report (QATR). QATR NSPM-1 superseded QATR NMC-1 on 3/31/09. NSPM-1 is the top-level policy document that establishes the manner in which quality is to be achieved and presents NSPM's overall philosophy regarding achievement and assurance of quality. NSPM-1 responds to and satisfied the requirements of Appendix B of 10 CFR Part 50. NSPM-1 is periodically revised to meet changing requirements. Revisions are submitted for NRC review according to 10 CFR 50.54(a).

NMC-1, Revision 0 was submitted for NRC review on October 31, 2003 and received NRC approval via Safety Evaluation Reports dated January 13, 2005 and March 24, 2005.

13.4.6 Inservice Inspection and Testing Program

The Prairie Island Inservice Inspection and Testing Program (for system pressure retaining components, pumps and valves) are established in accordance with Section XI of the ASME Code in compliance with 10CFR50.55a(g). Where it is not practical or possible to meet the requirements of the Code, relief requests are submitted for NRC review.

13.5 OPERATIONAL RECORDS AND REPORTING REQUIREMENTS

13.5.1 Records of Initial Tests

All preoperational procedures, test data, and reports are kept on file at the plant site.

Complete records of the plant startup tests (submitted to the NRC for Units1 and 2 on 10/31/74 and 5/15/75 respectively) are kept at the plant site in the test file. These records include:

a. Startup test procedures. This is the final, as run, test procedure, including approvals and data sheets.

b. Pertinent recorder charts and log sheets.

c. Test reports - This includes any reports prepared by NSP, Westinghouse or PS&E.

13.5.2 Routine Operation

Operating, maintenance and testing records and logs are kept on file in accordance with the Federal Regulations and NSPM policy.

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13.5.3 Abnormal Operation

In the event of any unusual, unexplained, or potentially unsafe occurrence, appropriate members of the plant staff are assigned to conduct an investigation and prepare a report. Instructions for conducting investigation and the report format are outlined in plant directives. A complete file of investigation reports is maintained.

13.5.4 Reporting Requirements

Reports are submitted to the Commission to satisfy the requirements of Title 10, Code of Federal Regulation, and the Prairie Island Technical Specifications.

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13.6 OPERATIONAL REVIEW AND AUDITS

Review and audit of facility operations are performed according to the NSPM Quality Assurance Topical Report, NSPM-1. NSPM-1 is the top-level policy document that establishes the manner in which quality is to be achieved and presents NSPM's overall philosophy regarding achievement and assurance of quality.

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13.7 EMERGENCY PROCEDURES

After the Three Mile Island accident, Westinghouse and the Owners Group developed Emergency Response Guidelines to improve plant specific Emergency Procedures. These guidelines were submitted to, reviewed by and approved by the NRC Staff (References 3 and 4). Completion of the NRC Staff review of the Procedure Generation Package (PGP) for the Prairie Island Emergency Operating Procedures (EOP) was documented in a NRC Safety Evaluation transmitted by Reference 6.

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13.8 MAINTENANCE PROCEDURES

Maintenance work requests and their associated procedures shall be reviewed as required by the Quality Assurance Topical Report, NSPM-1.

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13.9 TECHNICAL REQUIREMENTS MANUAL

The Technical Requirements Manual (TRM) is a licensee-controlled document that provides a location for items removed from the Technical Specifications because they do not meet the criteria of 10CFR50.36.

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For purposes of making changes to the TRM: (1) evaluation of the changes follow a similar process as changes to the USAR itself, i.e., non-editorial changes are evaluated against the criteria of 10CFR50.59, (2) summaries of 50.59 evaluations will be submitted to the NRC, and (3) the changed pages will not be submitted to the NRC.

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13.10 REFERENCES

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1. Deleted

2. Letter, R A Clark (NRC) to D M Musolf (NSP), “NUREG-0737 Item III.A.2.1 Emergency Plan Upgrade to Meet Rule”, May 13, 1983. (18349/1377)

3. Letter, D G Eisenhut (NRC) to D M Musolf (NSP), “Safety Evaluation of Emergency Response Guidelines (Generic Letter 83-22)”, June 3, 1983. (18349/1626)

4. Letter, T M Novak (NRC) to D B Butterfield (WOG), “Supplemental Safety Evaluation Report by the Office of Nuclear Reactor Regulation in the Matter of Westinghouse Owners Group Emergency Response Guidelines”, December 26, 1985.

5. Letter, D M Musolf (NSP) to the Director of NRR (NRC), “NRC Licensed Operator Training Program and Licensed Operator Requalification Program”, March 21, 1988. (30405/0752)

6. Letter, D C Dilanni (NRC) to T M Parker (NSP), “Safety Evaluation for the Prairie Island Nuclear Generating Plant Units 1 and 2 Procedure Generating Package”, February 14, 1990. (30814/0234)

7. Letter, C E Larson (NSP) to the Director of NRR (NRC), “Certification of Compliance to 10 CFR 26 Fitness for Duty Program”, January 3, 1990. (30814/0007)

8. Deleted

9. Letter, C F Lyon (NRC) to M D Wadley (NSP), “Order Approving the Transfer of Operating Authority Under Facility Operating Licenses for Prairie Island Nuclear Generating Plant...”, May 15, 2000. (3726/2758)

10. Letter, T J Kim (NRC) to M B Sellman (NMC), “Prairie Island Nuclear Generating Plant, Units 1 & 2, and Prairie Island Independent Spent Fuel Storage Installation - Issuance of Conforming Amendments re: Transfer of Operating Authority Under the Facility Operating Licenses and Materials License from Northern States Power Company to Nuclear Management Company, LLC (TAC Nos. MA7275 and MA7276), August 7, 2000. (3752/2124)

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FIGURE 13.2-2

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