



Northern States Power Company

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February 11, 1997

10 CFR 50.54(f)

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

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

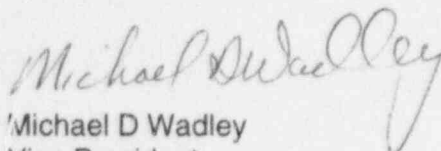
Response to Request for Information Pursuant to 10 CFR 50.54(f)
Regarding Adequacy and Availability of Design Basis Information

By letter dated October 9, 1996, entitled "Request for Information Pursuant to 10 CFR 50.54(f) Regarding Adequacy and Availability of Design Bases Information," the U.S. Nuclear Regulatory Commission (NRC) requested information pursuant to 10 CFR Part 50, Section 50.54(f) concerning facilities operated by the Northern States Power Company (NSP) and licensed by the NRC. This letter was received by NSP on October 15, 1996. The October 9th letter requests information concerning the processes applied at NSP's nuclear plants to operate and maintain the plants within their design basis. Exhibit A of this submittal provides such information for the Monticello Nuclear Generating Plant.

In addition, the October 9th NRC letter requested information concerning design review or reconstitution programs. Exhibit B of this submittal provides information concerning the Monticello Configuration Management Program.

This letter contains no new NRC commitments, nor does it modify any prior commitments. The information provided in the exhibits to this letter is intended to describe processes and procedures as they exist as of the date of this letter. It is not intended to preclude subsequent changes following normal practice, or to require NRC notification or consent for such changes other than those currently required.

Please contact us if you require further information.


Michael D Wadley
Vice President
Nuclear Generation

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USNRC
February 11, 1997
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Northern States Power Company

c: Director, Office of Nuclear Reactor Regulation
Regional Administrator - III, NRC
NRR Project Manager, NRC
Sr Resident Inspector, NRC
State of Minnesota, Attn: Kris Sanda

Attachments: Affidavit to the US Nuclear Regulatory Commission

Exhibit (A) Monticello Nuclear Generating Plant Response to Required Information
Items (a) Through (e)

Exhibit (B) Description of Monticello Nuclear Generating Plant Design Basis Review
Program

UNITED STATES NUCLEAR REGULATORY COMMISSION

NORTHERN STATES POWER COMPANY

MONTICELLO NUCLEAR GENERATING PLANT

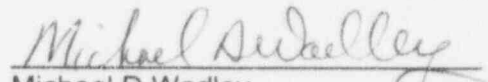
DOCKET NO. 50-263

RESPONSE TO REQUEST FOR INFORMATION PURSUANT TO 10 CFR 50.54(f)
REGARDING ADEQUACY AND AVAILABILITY OF DESIGN BASIS INFORMATION

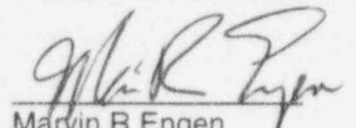
Northern States Power Company, a Minnesota corporation, by letter dated February 11, 1997 provides its response for the Monticello Nuclear Generating Plant to U.S. Nuclear Regulatory Commission (NRC) letter dated October 9, 1996, entitled "Request for Information Pursuant to 10 CFR 50.54(f) Regarding Adequacy and Availability of Design Bases Information." This letter contains no restricted or other defense information.

NORTHERN STATES POWER COMPANY

By


Michael D Wadley
Vice President
Nuclear Generation

On this 11th day of February 1997 before me a notary public in and for said County, personally appeared Michael D Wadley, Vice President Nuclear Generation, and being first duly sworn acknowledged that he is authorized to execute this document on behalf of Northern States Power Company, and that to the best of his knowledge, information, and belief the statements made in it are true.


Marvin R Engen
Notary Public - Minnesota
Sherburne County

My Commission Expires January 31, 2000

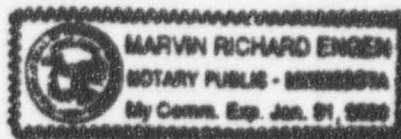


Exhibit A

Monticello Nuclear Generating Plant
Response to Required Information Items (a) Through (e)

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Exhibit A

Monticello Nuclear Generating Plant
Response to Required Information Items (a) Through (e)

I. BACKGROUND

By letter dated October 9, 1996, entitled "Request for Information: Pursuant to 10 CFR 50.54(f) Regarding Adequacy and Availability of Design Bases Information," the U.S. Nuclear Regulatory Commission (NRC) requested information pursuant to 10 CFR Part 50, Section 50.54(f), concerning facilities operated by the Northern States Power Company (NSP) and licensed by the NRC. The October 9th letter requests information concerning the processes applied at NSP's nuclear plants to operate and maintain these plants within their design basis and reconcile deviations in a timely manner.

By application dated August 1, 1966 to the Atomic Energy Commission (AEC), NSP requested a permit for construction of the Monticello Nuclear Generating Plant. The AEC issued construction permit CPPR-31 to NSP on June 19, 1967. By Amendment 9 to the August 1, 1966 application, NSP requested all necessary AEC licenses to operate the Monticello facility. The Monticello provisional operating license, License DPR-22, was issued on March 18, 1970. By application dated June 15, 1972, NSP requested that the Monticello provisional operating license be converted to a full term operating license. Facility Operating License DPR-22 for Monticello was issued as a full term operating license on January 9, 1981.

The Monticello provisional operating license was issued based on the design basis documented in the Monticello Final Safety Analysis Report (FSAR) submitted with Amendment 9 to the August 1, 1966 NSP application and supplemental information submitted in Amendments 10 through 28. The initial licensing of Monticello predated much of the current regulatory framework concerning design basis documentation. However, the principle design criteria for the plant were established and documented in the FSAR, as was the design basis information pertinent to licensing of the facility. In support of initial licensing of the facility, a comparative evaluation was performed between the Monticello design basis and the 70 proposed General Design Criteria as published by the Atomic Energy Commission (AEC). This comparative evaluation demonstrated that the design of the Monticello Nuclear Generating Plant as documented in the FSAR satisfied the intent of the AEC proposed 70 General Design Criteria.

The Monticello design basis documented in the license application was implemented in plant construction via system and equipment specifications, which were translated into construction drawings. Reasonable assurance of plant construction in accordance with the design criteria was provided via inspection of construction activities and by the performance of pre-operational and startup testing. The plant Technical Specifications, issued as Appendix A and B to the

Monticello Facility Operating License¹, provided further reasonable assurance that the plant would be operated consistent with the design basis. The processes for providing reasonable assurance that the design basis is maintained and properly controlled are those established in accordance with the NSP quality assurance program. The quality assurance program includes a process to provide timely corrective action should inconsistencies be identified.

Requirements for the development of directives to control design requirements were established by Revision 0 of the NSP Operational Quality Assurance Plan, dated October 6, 1974. Additional means to maintain the plant design basis were provided by Revision 1 to the NSP Operational Quality Assurance Plan, dated September 24, 1976. Revision 1 to the NSP Operational Quality Assurance Plan specified programmatic actions pursuant to 10 CFR 50, Appendix B. Revision 2 of the NSP Operational Quality Assurance Plan, effective November 15, 1977, invoked ANSI N18.7, "Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants," and the ANSI N45.2 series standards, including N45.2.11, "Quality Assurance Requirements for the Design of Nuclear Power Plants," as modified by pertinent NRC Regulatory Guides and NSP compliance positions as specified in the Operational Quality Assurance Plan. The codification of 10 CFR 50.71e, which requires periodic revision of the plant safety analysis report², further promotes maintenance of the plant's design basis as documented in the plant Updated Safety Analysis Report.

To provide reasonable assurance that design and configuration control activities as committed to by the NSP Operational Quality Assurance Plan are properly performed, an engineering training program has been established. This program is accredited by the National Nuclear Accrediting Board. The Engineer/Technical Staff Training Program establishes the requirements for initial and continuing training of the Engineer/Technical Staff personnel. These personnel include System Engineers, Maintenance Engineers, Project Engineers, Engineer Associates, Quality Engineers/Auditors, and Material Engineers. Initial training is provided such that personnel may attain the required knowledge and skills to perform the duties of the applicable position. Successful completion of initial training, position-specific training, and position-specific qualification requirements, qualifies an individual to perform activities independently and/or perform the final comprehensive review of an activity. Continuing training is provided such that incumbents may maintain and improve job performance, and develop a broader scope and depth of job-related knowledge and skills.

The Engineer/Technical Staff Training Program has supported the maintenance of an engineering staff knowledgeable in the plant system functional requirements, significant system parameters, and the plant Technical Specification requirements, by training requirements contained in the initial qualification training program and by training conducted in the continuing training program. In addition to the engineer qualification program, NSP has developed a

¹Appendix B to the Monticello Facility Operating License concerning environmental monitoring requirements was subsequently incorporated into Appendix A of the Facility Operating License via Amendment 15 to Facility Operating License DPR-22.

² The document created by the periodic revision of the Monticello safety analysis report is referred to as the Monticello Updated Safety Analysis Report (USAR).

certification program to support a high level of plant operations knowledge. Individuals completing the certification program are trained to a system knowledge level comparable to a licensed plant Senior Reactor Operator. The operational knowledge gained by individuals in the certification program is expected to enhance the nuclear plant staff's technical capabilities and result in improved plant operations. The certification program includes training on the plant Technical Specifications and bases; plant system operation, functional design, components, and interrelationships; and system design features as described in the plant Updated Safety Analysis Report.

Tools have been provided to the engineering staff to support the retrieval of design basis information and the performance of engineering evaluations consistent with the plant design basis. System Operational Manuals have been created and maintained which provide system operating procedures, system operability requirements and system operating requirements. In addition the system Operations Manuals contain system functional requirements, system equipment descriptions and design information, system instrument descriptions and actuation parameters, and system references. The system reference section of the Operations Manual contains a listing of plant drawings, specifications, Updated Safety Analysis Report sections, Design Changes, Alterations, and Safety Review Items pertinent to the system.

Based on the identification of industry issues resulting from NRC conducted Safety System Functional Inspections (SSFIs) in the mid- to late 1980s; and recognizing the importance of maintaining and controlling the plant consistent with the plant design basis, the Monticello Nuclear Generating Plant initiated a Configuration Management Program in 1989. The purpose of the Configuration Management Program was to improve the availability and retrievability of Monticello's design basis information. Additional information concerning the scope and status of this program is provided in Exhibit B of this submittal. This program has enhanced the consistency, availability, and retrievability of design basis information and has thus enhanced implementation of design and configuration control requirements.

The NSP quality assurance program as documented in the Operational Quality Assurance Plan and as implemented at Monticello through Administrative Control Directives, plant Administrative Work Instructions (AWIs), and plant procedures by trained individuals has provided reasonable assurance that Monticello is maintained and operated consistent with the plant design basis and that discrepancies in operation or configuration are identified, evaluated and corrected. The term design basis as used in this submittal is consistent with the definition provided in footnote 4 of the NRC information request, which states:

As described in 10 CFR 50.2, design bases is defined as, "Design bases mean that information which identifies the specific functions to be performed by a structure, system, or component of a facility, and the specific values or ranges of values chosen for controlling parameters as reference bounds for design...."

Additional information describing the Monticello programs and processes which address the information requested in items (a) through (e) of the Commission's October 9, 1996 letter pursuant to 10 CFR 50.54(f) is provided below. The information provided is intended to describe processes and procedures as they exist as of the date of this letter. It is not intended

to preclude subsequent changes following normal practice, or to require NRC notification or consent for such changes other than those currently required.

II. REQUIRED INFORMATION ITEM (a)

Description of engineering design and configuration control processes, including those that implement 10 CFR 50.59, 10 CFR 50.71(e), and Appendix B to 10 CFR Part 50.

MONTICELLO RESPONSE

The Monticello engineering design and configuration control processes for controlling and implementing permanent changes to the plant configuration or design criteria are implemented through the Design Change process, Alteration process or the Safety Review Item process. The Design Change process requires evaluation of permanent changes to the plant configuration in furtherance of Criterion III of 10 CFR 50, Appendix B, as committed to in the NSP Operational Quality Assurance Plan. The Alteration process provides an equivalency evaluation for part replacements, where an Alteration is the replacement of a component with an equivalent component meeting the same specifications and performance requirements of the original component. The Safety Review Item process provides for the evaluation of proposed changes to the plant and procedures which are not within the scope of the Design Change process or Alteration process. The Design Change process, Alteration process, and Safety Review Item process provide guidance on the performance of evaluations required by 10 CFR 50.59. The Design Change and Safety Review Item processes direct that updates to the Monticello Updated Safety Analysis Report be identified to support compliance with 10 CFR 50.71(e), and that appropriate reviews be performed.

A. Plant Design Change

The Monticello Administrative Work Instructions (AWIs) governing plant Design Changes consist of 4AWI-5.1.1, "Design Change Process," and the companion series of AWIs. The Monticello Design Change process implements the programmatic elements specified by the NSP Operational Quality Assurance Plan for modification control to comply with 10 CFR 50, Appendix B, Criterion III. Those programmatic elements are 1) implementation of ANSI N45.2.11-1974, 2) performance of review and approvals, 3) updating of plant documentation, 4) preparation and utilization of appropriate installation procedures, 5) performance of necessary tests and inspections, 6) review and revision of site procedures as appropriate, 7) compliance with 10 CFR 50.59, and 8) performance of fire protection reviews under Appendix C of the NSP Operational Quality Assurance Plan.

Design changes are required to conform to original design basis requirements, material specifications, and inspection requirements, unless alternate requirements are specifically evaluated and justified. Where there is a need to change the original specifications or design basis, evaluations are required to be performed and documented in the Design Change Package to show that the revised design requirements are acceptable in satisfying the original

design intent, or that the revised criteria meets or exceeds the original criteria. The need for a license amendment in such cases is determined by evaluations pursuant to 10 CFR 50.59, as discussed later in this exhibit.

The Monticello Design Change process consists of the identification of design inputs, the translation of design inputs into design output documents to control implementation, identification of future needs (i.e., procedure revisions, USAR revisions, training needs, documentation revisions, revised inventory requirements, etc.), implementation of the Design Change to physically change the plant configuration, testing of the installed change, turnover of the revised plant configuration to plant operations, and close-out of the Design Change Package. Throughout this process, specific reviews of the package are to be completed by appropriately qualified personnel as directed by plant instructions, procedures, or the General Superintendent Engineering.

A Design Change Package is prepared and maintained by the Project Engineer to document the various elements of the Design Change process. The Design Change Package evolves as the plant Design Change is developed and ultimately implemented. The package will include documentation of the design inputs, design outputs, design future needs, project description and safety evaluation, implementation and testing procedures, as well as other pertinent documentation related to the Design Change.

1. Team Approach to Implementation

When a Design Change has been identified, a Project Engineer is assigned to provide overall project control, oversees or performs the design, and completes the Design Change package. A Project Coordinator is assigned to provide input to the Project Engineer as to the operational, safety and regulatory aspects of the proposed Design Change, and to support the Project Engineer in implementation of the proposed Design Change, including identification and revision of impacted plant documentation. The Project Coordinator is a plant individual who provides overall sponsorship for the Design Change.

A Design Change Team is formed for projects when required by the complexity of the project. When designated, the Design Change Team provides technical support to the Project Engineer and Project Coordinator in the identification of design inputs, future needs, and design implementation. Individuals are selected for the team based on their area of expertise. Registered professional engineers are included as required for appropriate disciplines. Complex Design Changes are reviewed during the design development phase by the plant Technical Review Team. The Technical Review Team is a standing committee of senior plant personnel who review the work of the Design Change Team and provide oversight of the Design Change process.

For Design Changes which require a safety evaluation pursuant to 10 CFR 50.59, the Design Change project description and safety evaluation is reviewed by the plant on-site review body (the Operations Committee). The plant off-site review body (the Safety Audit Committee)

provides subsequent review of Design Change safety evaluations performed in accordance with 10 CFR 50.59.

2. Identification of Design Inputs/Creation of Design Outputs

For Design Changes involving structures, systems, or components which are safety related, related to fire protection, post accident monitoring instrumentation, or for which operability requirements are identified in the plant Technical Specifications, Monticello instruction 4AWI-5.1.6, "Design Input," provides requirements and guidance for determining design inputs, applicable regulatory requirements and the design basis. This instruction may also be implemented for Design Changes to other categories of equipment. The Monticello plant practice has typically been to apply the guidance of this instruction to all plant Design Changes. The Project Engineer specifies design inputs for the Design Change. Assistance in the identification of design inputs may be provided by a Design Change Team. The instruction requires completion of the Design Input Applicability Checklist for acquisition of design input information during initial development of the Design Change. The Design Input Applicability Checklist provides a basic planning aid and guidance concerning the identification of the necessary design basis or principal sources of detailed design inputs. If the Design Change affects any of the systems or components included in the probabilistic risk assessments, transient analyses, or accident analyses, then the Project Engineer is to contact the responsible engineering group for further review of the Design Change for impacts on these previously performed evaluations and analyses. In addition, the Project Engineer is to consult a plant specific listing of items to consider for the identification of design inputs.

The Project Engineer translates the design input and engineering analysis into design output documents such as drawings or specifications during the detailed design phase of the project. Monticello instruction 4AWI 5.1.8, "Specifications and Drawings," provides guidance and requirements regarding the control of drawings and specifications related to Design Change activities and is applicable to all Design Changes. In selected cases, the translation of design inputs into design output documents may be performed by design organizations external to NSP. Monticello instruction 4AWI-5.1.18, "Design by Consultants," provides guidance and requirements applicable to all plant Design Changes regarding the use of external engineering resources. When consultants are used for design activities, the responsibility for identification of design inputs is retained by the Project Engineer and it is the Project Engineer's responsibility to provide the necessary inputs to the design organization. Design output documents may be verified by the originating organization in accordance with the organization's accepted quality assurance program or verified by Monticello engineering.

3. Identification of Future Needs

The Project Engineer and Project Coordinator are to specify future needs for the Design Change. Design Change future needs include existing plant documents which require revision or new documents which should be created to support implementation of the Design Change. This includes identification of Updated Safety Analysis Report changes, procedure changes, drawing revisions, training needs, plant simulator changes, data base updates, and other

similar items. The identified future needs are compiled in the Design Change Package, including identification as to whether the item is required prior to Turnover (prior to release of the Design Change to plant operations for use), or prior to Close-out (prior to the associated Design Change documentation revisions being addressed). Identification of the impacts that the Design Change may have on the Monticello Updated Safety Analysis Report supports implementation of the requirements of 10 CFR 50.71(e). The identification of future needs provides reasonable assurance that documents controlling the plant configuration, operations, maintenance, and periodic testing are properly maintained to reflect changes to the plant configuration.

In addition, topical area reviews of the Design Change Package are performed by individuals knowledgeable in the unique design requirements of topical areas applicable to the Design Change. These reviews include ALARA radiation exposure considerations, fire protection, 10 CFR 50 Appendix R considerations, environmental qualification, human factors, security, safe shutdown, emergency lighting, and similar items. Completion of these reviews must be documented in the Design Change Package. Performance of these topical area reviews provides reasonable assurance that specific design basis requirements pertinent to these areas are properly translated into the plant Design Change and that appropriate future needs are identified for the revision of plant documentation.

4. Project Description and Safety Evaluation

Design Change project descriptions and safety evaluations are prepared under 4AWI-5.1.10, "Project Descriptions and/or Safety Evaluations," which is applicable to all Design Changes. The project description is included in the Design Change Package to provide a description of the Design Change, including the technical requirements, functional design requirements, and design features. The project description is to provide a clear statement as to whether the plant Technical Specifications or the Updated Safety Analysis Report are impacted by the Design Change. Design changes are required to conform to original design basis requirements, material specifications, and inspection requirements, unless alternate requirements are specifically evaluated and justified in the project description.

The Design Change safety evaluation is prepared when identified as required for compliance with 10 CFR 50.59. As directed by Monticello instruction 4AWI-5.1.13, "Design Change Package Review and Approval," the General Superintendent of Engineering reviews the Design Change Package to determine if a safety evaluation is required. A safety evaluation is required if the Design Change:

1. affects directly or indirectly a safety-related function of a Q-listed component, system or structure;
2. is inconsistent with a description, figure or analysis contained in the Updated Safety Analysis Report or a pending Updated Safety Analysis Report submittal;
3. conflicts with the design basis, reduces the safety margin of, or involves a change to the Technical Specifications; or
4. involves a possible unreviewed safety question.

The Design Change safety evaluation evaluates the proposed change against the criteria of 10 CFR 50.59 for determining if the proposed change involves an unreviewed safety question using the guidance of NSAC-125, "Guidelines for 10 CFR 50.59 Safety Evaluations."

5. Design Review/Verification

As part of the Design Change process, reviews are performed to provide reasonable assurance that the Design Change is properly implemented consistent with the plant design basis. In accordance with the plant Technical Specifications, the Design Change receives appropriate review by the Monticello on-site and off-site review bodies, the Operations Committee and the Safety Audit Committee respectively. The Monticello Design Change process includes verification of the design outputs in accordance with ANSI N45.2.11 as committed to by the NSP Operational Quality Assurance Plan. Plant specific topical area reviews are performed by knowledgeable individuals. For Design Changes which are complex or for which engineering management has determined it prudent to provide added oversight, the Monticello Design Change process includes review by the Technical Review Team to provide oversight to the Design Change process.

The responsibilities of the Technical Review Team are specified by Monticello instruction 4AWI 5.1.5, "Project Initiation." The Technical Review Team is a standing committee of senior plant personnel, who review the work of the Design Change Team and provide oversight of the Design Change process. The Technical Review Team consists of the following individuals or their designated representatives: the General Superintendents of Engineering, Operations, Maintenance and Safety Assessment; a representative from Nuclear Generation Services engineering management; the Project Engineer; the Project Coordinator; the Training Manager; and other cognizant individuals. The Technical Review Team reviews the Project Description to determine that the document adequately defines technical, operational, maintenance, training, and regulatory needs of the plant. The Technical Review Team is to perform review of the Design Change during the conceptual design stage and again when the design has been established, but prior to final design verification; or at any other time the Project Engineer, Project Coordinator, or any other Technical Review Team member feels additional meetings are warranted. Technical Review Team review provides added confidence concerning the adequacy of the design in satisfying the technical, operational, maintenance, training, and regulatory needs; the adequacy of identified construction, pre-operational, and operational testing; the acceptability of plant operational needs and impacts during installation and testing of the Design Change; and the identification of personnel training and simulator changes.

Design output documents may be reviewed under Monticello instruction 4AWI-5.1.7 "Design Document Review," which is applicable to all Design Changes. When designated by the Project Engineer, design output documents critical to implementation of the Design Change, such as equipment specifications and drawings, are to be reviewed by NSP personnel. This review is in addition to the design verification performed in accordance with the NSP Operational Quality Assurance Plan. Design reviewers, as appropriate, are obtained from plant operations, engineering, construction and other groups who may be involved in the Design

Change. The design reviewers are to check the design implementation documents to assure that project and Design Change requirements are met. The design reviewers are to check that the designer has adequately addressed the applicable design criteria and that the design properly incorporates licensing requirements, technical requirements, regulatory requirements, design codes, and standards.

For Design Changes involving structures, systems, or components which are safety related, related to fire protection, post accident monitoring instrumentation, or for which operability requirements are identified in the plant Technical Specifications; Monticello instruction 4AWI-5.1.9, "Design Checking and Verification," provides requirements and guidance for reviewing design output documents. This instruction may also be implemented for Design Changes to other categories of equipment. The Monticello plant practice has typically been to apply the guidance of this instruction to all plant Design Changes. Design output documents are to be verified in accordance with commitments established in the NSP Operational Quality Assurance Plan. Design verification is performed by competent individuals or groups other than those who performed the original design but who may be from the same organization. With respect to the plant design basis, design verifiers are to confirm that inputs are correctly selected and incorporated into the design; that the design inputs do not conflict with the Technical Specifications, the Updated Safety Analysis Report, or other submittals to the NRC; that the applicable codes, standards and regulatory requirements are properly identified; that the design assumptions necessary to perform the design activity are adequately described and reasonable; and that the design will fulfill the design objectives.

Review and approval of the Design Change package is governed by Monticello instruction 4AWI-5.1.13, "Design Change Package Review and Approval," which is applicable to all Design Changes. The General Superintendent Engineering reviews the Design Change Package to determine if it is complete and adequate and to determine if a review by the Operations Committee is required. A review by the Operations Committee is required if a safety evaluation is required as specified by the criteria discussed previously concerning Design Change safety evaluations.

When Operations Committee review is required, the committee is to review the Design Change project description and safety evaluation, and the appropriate supporting documentation, for correctness and completeness. The Operations Committee is to review the Design Change safety evaluation and project description findings concerning whether an unreviewed safety question or plant Technical Specification change is involved. The intent of the Operations Committee review is to provide reasonable assurance that the requirements of 10 CFR 50.59 are satisfied. If the Operations Committee review determines that additions or corrections are required, then the package is returned to the Project Engineer with recommended changes or identified issues requiring resolution. The Operations Committee may direct that the package be re-submitted for the committee's review or that the General Superintendent of Engineering assure that the committee's comments are properly incorporated. On concurrence of the Operations Committee that the Design Change safety evaluation and project description are complete and accurate with the identified comments of the committee appropriately resolved, the Design Change is approved by the General Superintendent of Engineering. For those Design Changes which do not require Operations Committee review, the General

Superintendent of Engineering is to approve the package based on review of the package and finding that the package is complete and correct.

When a determination is made that the proposed change involves an unreviewed safety question or change to the plant Technical Specifications, then a submittal requesting NRC approval of the proposed change is to be prepared and submitted. The proposed change is not to be implemented until NRC approval is received, except for installations where appropriate holds may be established to prevent reliance on the affected structures, systems, or components; or where the proposed change is allowed by the existing plant Technical Specifications (e.g., the change proposes requirements more conservative or restrictive than the plant Technical Specifications).

In addition, the Design Change package is required to be reviewed by the Safety Audit Committee, if the proposed change involves a change to the Updated Safety Analysis Report or a change to an NRC submittal subsequent to the last Updated Safety Analysis Report update. In addition to the requirements of the 4AWI-5.1.13, "Design Change Package Review and Approval," all Design Change safety evaluations are to be submitted to the Safety Audit Committee. This review may occur subsequent to implementation of the proposed change. For those proposed changes which require NRC approval pursuant to 10 CFR 50.59, the submittal requesting NRC approval is reviewed by the Safety Audit Committee prior to transmittal to the NRC. The Safety Audit Committee review provides another check that the proposed change does not involve an unreviewed safety question.

6. Design Change Implementation

Design changes are to be performed using written procedures, documented instructions, or drawings. During implementation, changes to the design output documents which control the Design Change installation may be identified. Monticello instruction 4AWI-5.1.15, "Engineering Change Requests," provides guidance applicable to all plant Design Changes regarding requesting and processing changes to approved design documents released for fabrication, construction, or installation. When such changes are identified, an Engineering Change Request is to be processed. The Engineering Change Request is reviewed by the Project Engineer and the cognizant design organization to assure that the requested change is consistent with the approved Design Change. Engineering Change Requests that are determined to be consistent with the approved Design Change are incorporated into the fabrication, construction or installation documents.

If an Engineering Change Request is determined to be inconsistent with the approved Design Change and is necessary to support the proposed installation, then a revision, part or addendum to the Design Change package is to be processed to evaluate the requested change. The Design Change package revision, part or addendum supporting the proposed change is to be reviewed and approved in a manner consistent with the original Design Change package. Similarly, changes to approved Design Change installation and testing procedures may be processed to address off normal plant configurations or procedure discrepancies, while still providing for proper performance of the procedure. Such changes are governed by

Monticello instruction 4AWI-2.2.5, "Temporary Change Process." These procedure changes receive review by individuals to confirm that the proposed change will not affect the approved Design Change nor the scope or intent of the procedure. In addition, the approved procedure changes are to receive post implementation reviews to provide a check that the procedure change was appropriate. These controls provide reasonable assurance that Design Changes are implemented pursuant to the design evaluations performed to assure consistency with the plant design basis.

Appropriate tests are to be conducted to confirm proper implementation of the design. Preparation, review, approval, and implementation of installation and test procedures for all Design Changes is controlled by Monticello instruction 4AWI-5.1.14, "Installation and Test Procedures." Design change testing is to be performed, to the extent reasonable, to demonstrate that the modified system meets its design intent and will perform its design function. This testing may make use of existing plant procedures and/or require the preparation of test procedures. The purpose of the testing is also to provide confirmation that the Design Change does not have a detrimental effect on any associated structures, systems, or components. The test procedures undergo Project Coordinator review, an independent review, and a user review prior to implementation. The plant Operations Committee reviews test procedures for safety related Design Changes prior to implementation.

Design change turnover is a process designed to provide assurance that appropriate actions have been taken to permit the affected structure, system, or component to be released for use. Modified structures, systems, and components may not be considered operable, as defined by the plant Technical Specifications, until the turnover items are complete or properly dispositioned. The turnover items include items such as pre-operational testing, operator training, operating procedure revisions, and critical drawings revisions.

Design change close-out is a process designed to provide assurance that documentation associated with the Design Change is complete, that future needs identified via the development of the Design Change are addressed, and that the Design Change is ready for plant acceptance with respect to required documentation revisions. During the Design Change close-out process, required Monticello Updated Safety Analysis Report revisions and Design Change safety evaluation summaries are compiled for revising the Monticello Updated Safety Analysis Report and reporting the summaries of evaluations performed pursuant to 10 CFR 50.59. This action supports compliance with 10 CFR 50.71(e) and 10 CFR 50.59.

The Design Change turnover and close-out processes provide reasonable assurance that plant processes established to govern plant configuration control are appropriately implemented, and provide tracking mechanisms of the required document revisions such that design basis information is translated into plant procedures, drawings, specifications and other plant documentation to reflect the implemented Design Change.

B. Plant Alteration

An Alteration is defined as a replacement of a component with an equivalent component meeting the same specifications and performance requirements of the original component; however, the replacement is not identical to the original component. Monticello instruction 4AWI-6.1.5 provides guidance and requirements for processing, controlling, and documenting Alterations to the plant.

There are four types of Alterations at Monticello: administrative part number, vendor endorsed, no vendor endorsement, and generic Alterations. For each type of Alteration, the responsible engineer 1) identifies any future needs, 2) describes the Alteration, 3) evaluates the acceptability of the Alteration including form, fit, function, and 4) identifies installation and testing requirements. The Alteration process specifies that if the replacement component being evaluated is inconsistent with the plant design basis, a more detailed evaluation in accordance with the plant Design Change process is required. In addition, the Alteration process directs that an Alteration should not be processed if the Alteration involves an operational hold that would require turnover issues affecting plant operations (e.g., required revisions to plant operating procedures, surveillance procedures, and critical drawings). If operational holds and turnover issues are involved, then the proposed change is to be processed as a Design Change. The Alteration evaluation is reviewed for adequacy and completeness by a member of engineering management. Engineering management is to review the Alteration to determine that it does not involve a plant Design Change and to determine if a safety evaluation is required in accordance with 10 CFR 50.59. If a safety evaluation is required, the required safety evaluation is prepared in accordance with the guidance of NSAC-125, "Guidelines for 10 CFR 50.59 Safety Evaluations," and must be reviewed by the plant Operations Committee.

The intent of the Operations Committee review is to provide reasonable assurance that the requirements of 10 CFR 50.59 are satisfied. If the Operations Committee review determines that additions or corrections are required, then the Alteration safety evaluation is returned to the preparer with recommended changes or identified issues requiring resolution. On concurrence of the Operations Committee that the Safety Review Item is complete and accurate with the identified comments of the committee appropriately resolved, the item is approved by the General Superintendent of Engineering. For those Alterations which do not require Operations Committee review, a member of engineering management is to approve the package based on review of the package and finding that the package is complete and correct.

Similar to Design Changes, Alterations are required to be implemented through written instructions, procedures or drawings and undergo a close-out process. The close-out process provides reasonable assurance that plant documents identified as requiring revision are appropriately revised to reflect the Alteration and that other future needs are properly addressed.

C. Safety Review Item Process

Monticello instruction 4AWI-5.6.1, "Safety Review Item," specifies requirements and guidance for evaluating proposed changes, tests, and experiments pursuant to 10 CFR 50.59. The Safety Review Item process is to be employed for safety evaluations which are not associated with a Design Change or Alteration. A Safety Review Item is to be prepared for new procedures or procedure changes which result in a deviation from steps provided in the Monticello Updated Safety Analysis Report, or that will result in system operation which deviates from that described in the Monticello Updated Safety Analysis Report. A Safety Review Item is to be prepared for a proposed change, test or experiment if the performance of the test or experiment is not described in the Updated Safety Analysis Report; or if the proposed change, test or experiment is inconsistent with the Updated Safety Analysis Report, conflicts with the design basis, or involves a change to the plant Technical Specifications. This instruction incorporates the nuclear industry guidance in NSAC-125, "Guidelines for 10 CFR 50.59 Safety Evaluations."

A Safety Review Item may be required for temporary changes to the plant configuration as controlled by a bypass, for a plant procedure revision, or for the creation of a new procedure. In addition to performing a licensing basis test that the proposed change does not impact previous safety determinations, the safety review item also embodies an evaluation that the proposed change is consistent with the plant design basis. For Safety Review Items prepared to support a bypass installation, the content of the evaluation is to include design requirements and considerations, installation considerations with respect to nuclear safety, and testing considerations to demonstrate adequacy and operability of the installation. Similarly, when the Safety Review Item is prepared to evaluate a new or changed procedure which differs from information provided in the Monticello Updated Safety Analysis Report or procedures for testing not described in the Updated Safety Analysis Report, then an evaluation of the proposed procedure change or test with respect to the design basis as provided in the Updated Safety Analysis is to be performed.

The Safety Review Item process requires the preparer of the Safety Review Item to identify future needs resulting from the evaluation of the proposed changes. These future needs may include changes to the plant Updated Safety Analysis Report, new or revised drawings, procedures, specifications, or training. The Safety Review Item process also specifies that future needs are to be identified to assure that the analyses and assumptions of the Safety Review Item are reflected in the operating procedures and Updated Safety Analysis Report. Completion of items identified as future needs are tracked for completion via the Safety Review Item close-out process. Prepared Safety Review Items are to be independently reviewed for technical accuracy and consistency with plant design prior to approval.

Safety Review Items are to be reviewed by the Operations Committee. The committee is to review the Safety Review Item, and the appropriate supporting documentation, for correctness and completeness. The Operations Committee is to review the findings concerning whether an unreviewed safety question or plant Technical Specification change is involved. The intent of the Operations Committee review is to provide reasonable assurance that the requirements of

10 CFR 50.59 are satisfied. If the Operations Committee review determines that additions or corrections are required, then the Safety Review Item is returned to the preparer with recommended changes or identified issues requiring resolution. On concurrence of the Operations Committee that the Safety Review Item is complete and accurate with the identified comments of the committee appropriately resolved, the item is approved by the General Superintendent of Engineering.

When a determination is made that the proposed change involves an unreviewed safety question or change to the plant Technical Specifications, then a submittal requesting NRC approval of the proposed change is to be prepared and submitted. The proposed change is not to be implemented until NRC approval is received, except for installations where appropriate holds may be established to prevent reliance on the affected structures, systems, or components; or where the proposed change is allowed by the existing plant Technical Specifications (e.g., the change proposes requirements more conservative or restrictive than the plant Technical Specifications).

In addition, the Safety Review Item is to be reviewed by the Safety Audit Committee, if the proposed change involves a change to the Updated Safety Analysis Report or a change to an NRC submittal subsequent to the last Updated Safety Analysis Report update. In addition to the requirements of the 4AWI-5.6.1, "Safety Review Item," all Safety Review Items are to be submitted to the Safety Audit Committee. This review may occur subsequent to implementation of the proposed change. For those proposed changes which require NRC approval pursuant to 10 CFR 50.59, the submittal requesting NRC approval is reviewed by the Safety Audit Committee prior to transmittal to the NRC. The Safety Audit Committee review provides another check that the proposed change does not involve an unreviewed safety question.

During completion of Safety Review Item future needs, required Monticello Updated Safety Analysis Report revisions and safety evaluation summaries are compiled for revising the Monticello Updated Safety Analysis Report, and reporting the summaries of evaluations performed pursuant to 10 CFR 50.59. This action supports compliance with 10 CFR 50.71(e) and 10 CFR 50.59. As specified in 10 CFR 50.59, a report containing a brief description of the changes to the facility and procedures, tests, and experiments implemented under 10 CFR 50.59 is submitted to the NRC. This report provides a summary of the safety evaluations for each evaluated change, including the basis for the unreviewed safety question determination.

D. Temporary Changes, Setpoint Changes and Calculations

Temporary changes to the plant configuration may be implemented through the plant Bypass process. Monticello instruction 4AWI-4.4.3, "Bypass Control," provides guidance and requirements for requesting, reviewing, authorizing, controlling, and documenting these temporary installations. At Monticello, the Bypass process is used to temporarily modify plant equipment and systems. This process is not to be used to circumvent the process for permanent plant Design Changes.

Bypasses may be installed as part of previously reviewed Operations Committee procedures with independent verification of installation and removal of the bypass. If a bypass is to be installed in support of a procedure or work document which does not require Operations Committee review, then application of the bypass is to be reviewed by Plant Engineering. Plant Engineering is required to review the application of the bypass to confirm the acceptability of the bypass as well as to determine if a safety evaluation is required. If a safety evaluation is determined to be required, then a Safety Review Item is to be prepared and processed as discussed above. Once the bypass is installed, periodic reviews are performed and mechanisms are in place to provide accountability of these temporary configuration changes. Operations personnel review the bypass system weekly. The plant Operations Committee is required to review the installed bypasses every three months and considers if the bypasses should be removed or incorporated into the permanent plant design as a Design Change.

Changes to setpoints established for plant equipment are controlled to provide reasonable assurance that setpoints are maintained consistent with the plant design basis. Monticello instruction 4AWI-4.5.8, "Setpoint Change Request Control," provides guidance and requirements for initiating, controlling and documenting setpoints, setting tolerances and calibration point changes to plant equipment. Requested setpoint changes are to be reviewed by knowledgeable individuals. This review of the proposed change includes review to determine if the proposed change requires a safety evaluation pursuant to 10 CFR 50.59. If the proposed change is determined to require a 10 CFR 50.59 evaluation, the change is further evaluated with the Safety Review Item process.

Calculations and engineering analysis may be performed to support Design Changes, Alterations, Safety Review Items, setpoints changes, or as required to support evaluations and proposed changes to plant documentation. Monticello instruction 4AWI-5.1.25, "Calculation/Analysis Control," provides guidance and requirements for the preparation or review of calculations, analyses or studies that are necessary to establish design information for safety related applications. Guidance and requirements are provided for the control of analyses prepared by the Monticello staff as well as by organizations external to the Monticello staff. This instruction provides for an appropriate level of review or verification of calculations, and for the update of documentation to reflect the results of the calculation or to enforce assumptions of the calculation.

E. 10 CFR 50.71(e) Process

As discussed above, the compiling of information required for periodic revisions to the Monticello Updated Safety Analysis Report are integrated into the Design Change process and the Safety Review Item process. The individuals tasked with preparation of Design Changes and Safety Review Items are responsible for identification of required Updated Safety Analysis Report revisions. Independent reviews, management reviews and Operations Committee reviews provide reasonable assurance that required revisions to the Updated Safety Analysis Report are identified. In addition, the Monticello licensing group reviews correspondence between NSP and the NRC for potential revisions to the Updated Safety Analysis Report due to analyses submitted to the Commission by the licensee or prepared by the licensee pursuant to

Commission requirements since the last update to the Updated Safety Analysis Report. This review is performed as part of the Updated Safety Analysis Report revision process.

On an operating cycle basis, but not to exceed two years, the licensing group compiles the submitted items for revision to the Updated Safety Analysis Report. The changes are reviewed for consistency and compiled into revised sections of the document. The revised sections are reviewed by cognizant groups of the Monticello site staff to identify errors or omissions. The licensing group reconciles any review comments and coordinates distribution of the document.

III. REQUIRED INFORMATION ITEM (b)

Rationale for concluding that design bases requirements are translated into operating, maintenance, and testing procedures.

MONTICELLO RESPONSE

Reasonable assurance that design basis requirements are translated into plant operating, maintenance, and test procedures is provided by Monticello plant processes established to govern plant Design Changes, Alterations and Safety Review Items; procedure content, review and approval; and temporary procedure changes. These processes have been established consistent with the requirements of the NSP Operational Quality Assurance Plan. Should an activity discover or cause a condition for which corrective action is required, then corrective action processes provide for assessment and appropriate resolution of the condition. Assessment activities have been conducted to provide further assurance that operating, maintenance, and test procedures are maintained consist with the plant design basis.

A. Design Changes, Alterations and Safety Review Items

As discussed above, processes have been established requiring engineering design and configuration of the Monticello Nuclear Generating Plant to be controlled and modified in a deliberate and conscientious manner to maintain consistency with, or conservatism with respect to, the plant design basis. The Monticello Design Change, Alteration and Safety Review Item processes contain specific requirements for the identification of plant documentation requiring revision or creation. These processes include reviews and tracking mechanisms to provide reasonable assurance that the appropriate documentation is identified and revised.

The Design Change process provides for the identification of plant procedures requiring revision as a result of a plant Design Change. Procedure revisions determined to be necessary to directly support plant operations are tracked through the Design Change turnover process. Procedure revisions required for any other reason such as configuration control are tracked via the Design Change close-out process. The Design Change turnover and close-out processes provide reasonable assurance that the affected procedures are revised. Similarly, the Alteration process requires the identification of plant procedures which require revision as a result of the Alteration and provides a tracking mechanism to provide reasonable assurance that procedures are revised as appropriate.

The Monticello Safety Review Item process directs that changes to plant design criteria, required to be evaluated in accordance with 10 CFR 50.59, be translated into plant procedures. The Safety Review Item process provides guidance for the evaluation of proposed changes to the plant as described in the Updated Safety Analysis Report. The Safety Review Item process requires that the preparer identify future needs resulting from the evaluation of the proposed changes. The revision of plant procedures to reflect the change evaluated by the Safety Review Item is addressed by the Safety Review Item close-out processes.

B. Procedure Content, Review and Approval

Procedure revisions or new procedures are prepared, reviewed and approved through processes which implement the NSP Operational Quality Assurance Plan. Monticello instruction 4AWI-2.2.2, "Work Procedure Preparation, Review and Approval," provides overall guidance and requirements for this process. Additional instructions are provided governing procedure content specific to various categories of procedures. These processes specify that procedures be prepared based upon a sound technical basis. Personnel assigned to prepare procedures are to perform appropriate validation of new or revised procedures. This validation may include a walk-through, talk-through or simulator performance of the procedure. New or revised procedures are required to be independently reviewed by knowledgeable individuals to determine that the technical bases of the procedure is correct and complete and that a Safety Review Item has been properly prepared if required. A Safety Review Item is to be prepared for new procedures or procedure changes which result in a deviation from steps provided in the Monticello Updated Safety Analysis Report, or that will result in system operation which deviates from that described in the Monticello Updated Safety Analysis Report.

Plant procedures are reviewed by the plant Operations Committee when required by the plant Technical Specifications (e.g., integrated plant operating procedures, plant system operating procedures, emergency operating procedures, Technical Specification surveillance procedures, and safety-related surveillance procedures). The plant Operations Committee reviews the adequacy of the document and recommends approval, or returns the document to the preparer with comments for incorporation. Procedures are approved by a member of the Monticello site management. The person designated to approve the document is directed to confirm the document is complete and adequate for its purpose and has properly incorporated comments from the Operations Committee, if the procedure was reviewed by the committee. These multiple reviews provide reasonable assurance that the creation of new procedures and procedure revisions are performed in a manner consistent with the plant design basis.

Reasonable assurance that plant procedures are appropriately maintained with respect to the plant design basis is provided by periodic review of plant procedures in accordance with the plant Technical Specifications and the NSP Operational Quality Assurance Plan, as directed by Monticello instruction 4AWI-2.2.4, "Periodic Review of Operations Manuals and Associated Procedures." A purpose of the process governing the periodic review of plant procedures is to assess the consistency of the system configuration and operation with the plant Updated Safety Analysis Report. The periodic review of procedures also requires a check that plant Technical Specification requirements are properly implemented and that procedures controlling testing activities adequately demonstrate performance of safety functions.

Procedure revisions may be required to be initiated as a result of amendments to the plant Technical Specifications. Monticello instruction 4AWI-4.3.1 requires that license amendments providing changes to the plant Technical Specifications be reviewed to identify procedures impacted, new procedure requirements, and surveillance scheduling changes. When the required changes are identified, they are tracked to provide reasonable assurance that the required documentation revisions are completed.

C. Temporary Procedure Changes

Temporary changes to operating, maintenance, and testing procedures may be implemented through Monticello instructions 4AWI-2.2.5, "Temporary Change Process," or 4AWI-2.2.6, "Volume F Memorandums." Temporary changes to these procedures may be processed to address off normal plant configurations or procedure discrepancies, while still providing for proper performance of the procedure. The Temporary Procedure Change process provides guidance for processing temporary changes to standing procedures such as preventative maintenance procedures, surveillance procedures, and test procedures. The Volume F Memorandum process provides guidance for processing temporary changes to procedures contained in the plant Operations Manual. The Operations Manual contains normal system operating procedures, integrated plant operating procedure, alarm response procedures, and abnormal equipment/plant occurrence procedures. These processes require that temporary procedure changes not change the scope or intent of the procedure. Temporary Changes are not allowed for changes to procedure acceptance criteria, changes to numerical values which are based on engineering establish criteria, or changes to calculational formula. In addition, procedures related to a Design Change installation or testing activities may not be changed using the Temporary Change process if the change impacts original design criteria for the Design Change.

Pursuant to the plant Technical Specifications, temporary changes to those procedures which are required to be reviewed by the Operations Committee may be made with the concurrence of two members of the unit management staff, at least one of whom holds a Senior Operator License. For those temporary procedure changes not controlled by the plant Technical Specifications, the change is to be reviewed by two individuals knowledgeable in the areas affected by the procedure, with one of the individuals being a member of plant management. Multiple reviews prior to approval of a temporary change, as well as reviews subsequent to implementation to verify appropriateness of the temporary change, provide reasonable assurance that the temporary change process does not circumvent the appropriate processes established for changing plant design criteria.

The Monticello Technical Specifications specify those activities to be controlled by plant procedures. The NSP Quality Assurance program further specifies, in accordance with Criterion III of 10 CFR 50 Appendix B, that modifications be subject to design control measures, and in part, specifies that plant documentation be updated and that site procedures be reviewed and revised as appropriate. The processes for preparation, review and approval of plant procedures, with appropriate interfaces to the plant design configuration control processes, and as implemented by knowledgeable individuals, provide reasonable assurance that the plant design basis is appropriately translated into plant procedures.

D. Inspections and Assessments

Self assessments, inspections, and other oversight activities also assess the consistency of plant operating, maintenance and test procedures with the design basis and are part of our rationale that design basis are translated into these procedures. These activities are described in our response to required information item (e) below. Should these assessment activities identify a discrepancy in the implementation of processes established to evaluate and control plant procedure changes, then corrective action processes are to be used to evaluate the discrepancy. The Condition Report process is described in our response to required information item (d) below.

IV. REQUIRED INFORMATION ITEM (c)

Rationale for concluding that system, structure, and component configuration and performance are consistent with the design bases.

MONTICELLO RESPONSE

Work control processes at Monticello require that the plant be maintained in accordance with plant technical documentation and that activities be performed in accordance with instructions, procedures or drawings. Performing work activities in a controlled manner as directed by the work control processes provides reasonable assurance that the plant configuration is maintained consistent with plant documentation, which encompasses design basis information. Thus the work control processes provides reasonable assurance that the plant configuration is maintained consistent with the design basis and that unauthorized Design Changes are not implemented. Periodic, post maintenance, and post modification testing is performed, using acceptance criteria that are based in part on design basis information, to assess the performance of systems, structures and components. Should a work activity discover or cause a condition for which corrective action is required, then corrective action processes provide for assessment and appropriate resolution of the condition. Activities have been conducted to assess system, structure, and component configuration and performance for consistency with the plant design basis.

A. Modifications

As discussed previously, the Monticello Design Change, Alteration, Bypass, and Safety Review Item processes are designed to provide controls requiring that changes to the plant design are to be properly evaluated and reviewed prior to implementation to provide consistency with the plant design basis. These processes require that plant documentation which requires creation or revision be identified and generated or revised as appropriate. The processes control plant documentation, which in part govern implementation of design basis information.

B. Work Control

Maintenance of plant equipment is controlled by the work control process as governed by Monticello instructions 4AWI-4.5.2, "Requesting Work and Work Order Preparation," 4AWI-4.5.3, "WO Review," 4AWI-4.5.4, "Conduct of Maintenance, Alterations and Design Changes," and 4AWI-4.5.6, "WO Close-out and Disposition." These instructions provide controls to provide reasonable assurance that the plant configuration is maintained consistent with the design basis. The prepared Work Orders provide for the control of corrective maintenance activities as well as preventative maintenance activities. It is a responsibility of the work order preparer to assure that the work instructions are consistent with plant design documentation.

Work Orders which may affect plant operating equipment require approval of the Operations Shift Supervisor to commence work. The intent of the Shift Supervisor approval is that the plant is in acceptable condition for work to commence, including consideration of the plant Technical Specifications requirements. The work control process provides for documentation of the work performed, including the recording of information which provides traceability of replacement parts to documentation supporting acceptability of the parts used. Process instructions direct that reviews be performed of the Work Order prior to initiation and while in progress to provide checks that unauthorized changes to the plant design are not performed. Post completion review of the Work Order are required to provide an additional check that unauthorized changes to the plant design have not been performed.

The Monticello procurement process supports the objective of maintaining plant configuration by requiring that all safety-related and augmented quality components and parts purchased for installation have appropriate technical requirements consistent with the design basis or that the technical requirements are evaluated in accordance with the Alteration process. Items being procured for component or part replacements which are not identical to original plant equipment must be evaluated for acceptability and consistency with the plant design basis in accordance with the Alteration process. The Alteration process specifies that if the replacement component being evaluated is inconsistent with the plant design basis, then a more detailed evaluation in accordance with the plant Design Change process is required.

Reasonable assurance that plant equipment is maintained consistent with design basis concerning potential aging issues is provided by the plant preventative maintenance program. Monticello instruction 4AWI-5.2.3, "Preventative Maintenance Plan," provides guidance and instructions concerning this program. The purpose of the Preventative Maintenance Plan is to maintain plant equipment at a high level of operational reliability and availability.

C. Plant Operations

Short term configuration of the plant may be altered due to removal of equipment for maintenance or degraded equipment performance. The Monticello plant Technical Specifications provide limiting conditions for operation to provide reasonable assurance that equipment necessary to mitigate the consequences of design basis accidents and assure safe plant operation is available or that the plant is placed in a condition to enhance and assure

nuclear safety. Monticello focuses a high level of attention on maintaining the plant safety systems and support systems in a high level of readiness. Monticello instruction 4AWI-4.1.1, "General Plant Operating Activities," directs plant Operations personnel to place a high priority on communicating equipment problems to appropriate members of the plant staff. The aggressive pursuit of corrective maintenance actions minimizes equipment unavailability and the duration the plant is in a Technical Specification limiting condition for operations, and provides added assurance that the plant configuration is maintained consistent with the design basis.

In some cases voluntary entry into a plant Technical Specification limiting condition for operation may improve plant safety. This may occur when preventative maintenance or corrective maintenance will provide an overall improvement in the reliability and availability of selected equipment. Monticello instruction 4AWI-5.2.6, "Guidelines for Preventative Maintenance During Plant Operation," provides guidance and requirements concerning voluntary entry into limiting conditions for operation. Such an action is performed in a pre-planned manner with consideration given to plant status and potential conflicting conditions. The activity is planned to minimize equipment out-of-service time and maximize equipment availability.

D. Testing

Testing is to be performed in accordance with the plant surveillance program, following plant modification in accordance with the Design Change process, and following maintenance in accordance with the post maintenance testing process. As directed by 4AWI-2.3.3, "Work Procedure Content," test procedures are required to incorporate the requirements and acceptance limits contained in applicable design documents. Preparation of testing procedures is to take into consideration the performance of testing in a thorough integrated manner in order to simulate, as near as practicable, the plant conditions under which the component or system is required to function. Post-maintenance testing as controlled by 4AWI-4.5.6, "Post-Maintenance Testing," is intended to verify the ability of the structure, system or component to perform its intended function after maintenance; that the maintenance has corrected the original deficiency; and that the maintenance has not created any new equipment problems.

Monticello instruction 4AWI-4.3.1, "Plant Surveillance Program," establishes the methods for scheduling, performing, reviewing and documenting surveillance activities. This testing, in part, is performed to satisfy the requirements of the plant Technical Specifications. Technical Specification surveillance procedures are required to be prepared to assure that structures, systems and components governed by the plant Technical Specifications are capable of performing within plant Technical Specification limits. The plant Technical Specifications provide reasonable assurance that the plant is operated within significant parameters consistent with the design basis. In addition, the surveillance program includes operational surveillance requirements, beyond those required by the plant Technical Specifications, to implement other items to assure safe and reliable plant operation. These additional surveillance activities provide some assurance that the configuration of the plant is being maintained consistent with the plant design basis.

E. Inspections and Assessments

Self assessments, inspections, and other oversight activities also assess the consistency of the plant configuration with the design basis and are also part of our rationale for concluding that the plant configuration and performance are consistent with the design basis. These activities are described in our response to required information item (e) below. Should these assessment activities identify a discrepancy in the implementation of plant processes established to evaluate and control the plant configuration and performance, then corrective action processes are to be used to evaluate the discrepancy. The Condition Report process is described in our response to required information item (d) below.

V. REQUIRED INFORMATION ITEM (d)

Processes for identification of problems and implementation of corrective action, including actions to determine the extent of problems, actions to prevent recurrence, and reporting to NRC.

MONTICELLO RESPONSE

Monticello has a problem assessment and action tracking process, called the Condition Report Process. The process was developed to meet the requirements of 10 CFR Part 50, Appendix B, Criteria XVI, "Corrective Action," and the NSP Operational Quality Assurance Plan. The Condition Report process screens, assesses if necessary, and tracks actions resulting from the assessment of the condition. Conditions can be identified by any plant person, by quality assurance audits and reviews, as well as by information received from the nuclear industry³.

Screening of an initiated condition report is performed. The condition report is screened to determine the need for immediate actions, the impact on component or system operability, and reportability in accordance with regulatory requirements. The screening process is also used to determine if a detailed assessment of the condition is required. Detailed assessment of a Condition Report is required for a condition which is quality assurance related.

The condition report assessment process requires that the extent of the problem is determined and actions are proposed to correct the conditions that are adverse to quality. For conditions which involve a significant condition adverse to quality, a root cause determination is made and actions are required to prevent recurrence. Significant conditions adverse to quality include conditions reportable to the NRC staff, conditions contrary to the plant Technical Specifications and the Updated Safety Analysis Report, and conditions which require preparation of a Safety Review Item for resolution. Significant conditions adverse to quality also include malfunctions of a safety related structure, system, or component which prevents the item from performing its

³Including NRC Information Notices, Institute of Nuclear Power Operations documents (SERs, SOERs, etc.), as well as other vendor information.

intended function. As part of assessing the extent of the problem, the assessor is to take into consideration the generic implications of the problem as well as previous similar internal or external condition reports. In addition, the operability and reportability of the condition is reviewed again consistent with the philosophy of operability determinations being an ongoing and continuous process. A review is performed of the assessment and a determination as to further review by the Operation Committee and Safety Audit Committee is made. The Operations Committee and Safety Audit Committee review condition reports dealing with significant abnormalities, deviations, and deficiencies in safety related structures, systems, or components. Condition reports not required to be reviewed by these committees are approved by a plant supervisor. Following review and approval of the assessment, the actions generated by the condition report assessment are tracked until completion.

The Monticello Work Order used to control maintenance activities is an integral part in the identification of conditions adverse to quality affecting structures, systems and components; as well as the resolution of these conditions. The Work Order process provides reasonable assure that conditions adverse to quality affecting plant structures, systems and components, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected. For those conditions which are determined to involve a significant condition adverse to quality, the Work Order process directs that a Condition Report be processed. This action provides reasonable assurance that a root cause determination is made and that actions are required to prevent recurrence of the condition.

To further encourage employee involvement in correcting problems and identifying opportunities for improvement, an employee observation process was put in place in 1994. This problem identification system works with and enhances the Condition Report Process. This system uses a simple notecard form which is readily available throughout the plant. These issues are then screened to determine if processing as a formal condition report is warranted and are tracked in the Condition Report Process for resolution.

These processes are designed to 1) bring problems or potential problems to the attention of the proper personnel, 2) assess those problems and 3) report appropriate problems to the NRC. Corrective actions are identified that are intended to prevent occurrence of events that have happened at other sites and prevent recurrence of events that have occurred at Monticello. A cross-section of site personnel periodically review the events in the condition report system for adverse trends. This group provides feedback regarding identified trends to plant management.

VI. REQUIRED INFORMATION ITEM (e)

The overall effectiveness of your current processes and programs in concluding that the configuration of your plant(s) is consistent with the design bases.

MONTICELLO RESPONSE

The processes and programs that have been established in accordance with the NSP Operational Quality Assurance Plan are deemed effective in providing reasonable assurance that the configuration of the plant is maintained consistent with the plant design basis. Should an inconsistency with the plant design basis be identified, the processes provide for appropriate resolution of the inconsistency. The effectiveness of the Monticello processes are subject to ongoing evaluation through Monticello self assessments, Quality Assurance assessments as well as assessments performed by NRC Inspections. The Monticello staff has been responsive to opportunities for improvement identified by these assessment activities. The Monticello staff has been self critical of the design configuration of the plant and the processes which control design basis information.

A. Monticello Self Assessments

Monticello has been performing detailed self assessments of the plant's design basis configuration management and measures to maintain the plant's design basis starting in approximately 1989. Most noteworthy of these activities is the Monticello Nuclear Generating Plant self-initiated Configuration Management Program and the Monticello Power Rate Program.

The purpose of the Configuration Management Program was to improve the availability and retrievability of Monticello's design basis information. The Monticello Configuration Management Program provided a review of design basis information for selected systems, structures, and topical areas. Additional information regarding the Monticello Configuration Management Program is provided in Exhibit B of this submittal. As noted in Exhibit B, the design basis review being conducted by the Configuration Management Program remains an on going activity.

For selected systems, structures, and topical areas; the Monticello Configuration Management Program provided for collection and indexing of documentation supporting the plant design basis, review and limited reconstitution of information supporting the plant design basis, and assessment of the physical configuration against the plant design basis. During this process, inconsistencies and discrepancies between information sources have been identified. Under the program, these issues were reviewed for operability, reportability and safety impact, tracked for resolution, and resolved with corrective actions as needed. The process has been effective in compiling information which supports the plant design basis and in assessing whether design basis information has been properly incorporated into the plant procedures and configuration.

The Configuration Management program has identified a significant number of issues for resolution. However, considering the extent of the review and complexity of the Configuration Management program, NSP believes that the program confirms, in the aggregate and for the large number of systems, structures, and topical areas reviewed, that the plant design basis have been properly incorporated and maintained in the plant procedures and configuration. When the program identified inconsistencies which may pose a safety concern, the inconsistencies were evaluated for operability and reportability concerns. A very limited number of these inconsistencies were determined to have safety significance or impact on the operability of plant structures, systems and components. To a great extent, the issues represented inconsistencies in the design basis supporting documentation identified with insights gained from compiling, cataloging and reviewing the source documents and in part are due to the evolution of nuclear reactor regulation over the life of the facility.

The Monticello Configuration Management Program includes a Design Basis Document verification process, which performs system evaluations similar to the NRC's Safety System Functional Inspection (SSFI) Procedure 93801. Currently, 13 system, 8 topical area, and 7 structure Design Basis Documents have been evaluated as indicated in Exhibit B. The verification process selects a sample of the design basis document information (as well as sources of information such as the plant Updated Safety Analysis Report, plant procedures and recent industry notices) to verify plant configuration conformance. These verifications utilize a checklist which includes six categories: design basis requirements, design, maintenance and testing, walkdown, procedures, and operational experience.

The Design Basis Document verification process has identified limited instances where design basis attributes have not been fully implemented in the physical plant or associated plant documentation. The majority of these instances are minor documentation errors, and any significant findings from these verifications have received operability and reportability screenings. The number of systems/topical design and performance attributes researched and verified by this program, compared to the limited inconsistencies identified, provides reasonable assurance the Monticello's operating, maintenance and testing procedures, and the configuration of Monticello's structures, systems and components, are consistent with the plant design basis.

A second major self assessment of the plant design bases, the Monticello Power Rerate Program, evaluated the plant design to confirm and establish the technical and safety basis to support a proposed amendment of the Facility Operating License for operation at an increased thermal power level. This program provided benefits beyond those obtained by the Design Basis review performed by the Configuration Management program. The Power Rerate Program included the performance of detailed analyses and evaluations, and review of the design inputs and assumptions used. These activities have been self critical, providing resolution of inconsistencies when identified. This work has been performed utilizing the site staff to the maximum extent feasible, thus providing the site staff with a greater appreciation and knowledge level of plant design basis information. The Monticello Power Rerate Program provided a detailed revisit of the plant design basis. Similar to the Configuration Management Program discussed above, the program generally confirmed that the plant design basis supporting safe operations has been properly incorporated and maintained in the plant

procedures and configuration. On a limited basis, some inconsistencies requiring resolution were identified during the Power Rerate Program. These inconsistencies are evaluated for operability, reportability and tracked for resolution.

B. Quality Assurance Assessments

Quality assurance assessments have been performed of key processes which provide for the translation of the plant design basis into documentation and physical configuration. Assessment subjects have included but are not limited to the following subjects: 1) specification control, 2) safety evaluations, 3) internal design and review, 4) control of design inputs, 5) temporary modifications, 6) walkdowns of installed components, 7) Design Change installation, 8) Design Change pre-operational and operational testing, 9) setpoint control, and 10) Updated Safety Analysis Report control. Also, quality assurance assessment activities have been conducted in an attempt to be proactive with respect to potential problems and industry concerns. The above assessments have been conducted using various approaches in an attempt to provide thoroughness in coverage. This has included assessments on a process basis, assessment on a plant system basis, assessment on a modification project basis and assessments on a issue basis. Quality assurance assessments have been performed via audits, surveillances and overall program assessments by organizations external to NSP.

Quality assurance assessments have primarily been performed via NSP's quality assurance audit program. Auditing of processes related to configuration management commenced at Monticello in 1975. NSP has continued to comply with its commitment to perform audits as described in its Operational Quality Assurance Plan during its operating history. Audit subjects are scheduled such that all safety related functions are audited. Quality assurance audits have been performed of the Design Change process on a periodic basis to assess the effectiveness of this key process for controlling design configuration. These audits have determined that the Design Change process is effective and that the processes are being effectively implemented.

Quality assurance surveillances were also used for a period of time to provide on-site monitoring of program implementation including Design Changes and Alterations. The quality assurance surveillances were less structured than audits but provided increased flexibility in day-to-day monitoring and reporting of discrepancies. Surveillances are no longer performed due to re-engineering of the audit process in 1995. This re-engineering consisted of consolidating the performance of required and elective audits into quarterly audit reports, with a quarterly report prepared for each of the four major plant functional areas (engineering, maintenance, operations and plant support). The results of quality assurance audits are reported via Audit Observation reports during the audit quarter to provide timely notification of the status of audit objective areas and thus replaced the quality assurance surveillance report. The Audit Observation reports provide input to the quarterly functional area audit report.

Finally, independent external assessment have been performed periodically to assess the overall effectiveness of the quality assurance program. These independent assessments provide further confirmation of the effectiveness of the processes established, in accordance with the NSP Operational Quality Assurance Plan, to provide reasonable assurance that the

plant documentation, configuration and operations are maintained consistent with the plant design basis.

Quality assurance assessments have periodically identified areas of ineffectiveness, nonconformances or opportunities for improvement. Monticello views itself as responsive to these identified issues. For example, issues were identified related to implementation of the Design Change process in the late 1980s. These identified issues did not impact the functional operability of the Monticello Plant but represented opportunities for improvement. Monticello focused resources to address the identified issues and has continued to focus resources on maintaining an effective program for controlling changes to the plant design via the Design Change process.

In response to the identification of these issues, several organizational and process implementation changes were implemented. For example, responsibility for performing and implementing plant Design Changes has been assigned to one group located at the Monticello site. Previous to this change, Design Change activities were under the control of up to three different engineering organizations. This focusing of site resources and responsibility further enhanced the effectiveness of this process by providing increased continuity, consistency and experience levels for plant Design Change activities. To enhance the timeliness of documentation revision and focus resources on Design Change close-out, a dedicated Design Change close-out group was established. Similarly, the drawing revision process was modified to enhance the creation and revision of plant drawings to reduce the cycle time between implementation of the Design Change and issuance of revised drawings to the plant controlled drawing files. These types of enhancements have improved the effectiveness of the Design Change process.

Quality assurance assessments have also been performed on the Monticello Safety Review Item process to confirm that this process for evaluating proposed changes to plant design documentation and implementation procedures is effective. As in the case of the Design Change process, Monticello strives to provide continued improvement in the implementation of this process. The role of the Design Change close-out group was expanded several years ago to provide added focus on the close-out of future needs (completion items) resulting from Safety Review Item evaluations performed. In addition, Monticello management has continued to stress the importance of technically sound safety evaluations and has set a standard of high quality and accuracy in the preparation of these evaluations via management review by the on-site Operations Committee (OC).

These ongoing Quality Assurance assessment activities have supported the conclusions that processes have maintained the configuration of the Monticello plant consistent with the design basis.

C. Inspection Activities

Inspections performed by the NRC staff have indicated that the plant configuration and documentation has been maintained consistent with the design basis to support and assure

safe operation of the facility. In 1987, 1990 and 1992, the NRC performed detailed safety system functional inspections of the Core Spray system, Electrical Distribution systems, and the Service Water systems. While these inspections identified opportunities for improvement, the inspections found that the inspected systems were fully capable of performing the required safety functions.

The 1987 Core Spray Safety System Functional Inspection (NRC Inspection Report 50-263/87-05) identified twenty-one open items, two unresolved items, and nine examples of potential violations of NRC Rules and Regulations. Monticello recognized the importance of these issues and pursued corrective actions and resolution of these NRC concerns. Actions resulting from the findings of the Core Spray Safety System Functional Inspection included the initiation of the Configuration Management program, and enhancement of the post-maintenance testing and condition reporting processes.

The 1990 Electrical Distribution System Functional Inspection (NRC Inspection Report 50-263/90-018) identified one open item, three unresolved items, and one violation concerning appropriate evaluation of instrument calibration information to assure acceptance criteria are satisfied. The report noted strengths in the low maintenance backlog, the material condition and housekeeping in the plant, and the experience and technical competence of the engineering staff. The 1992 Service Water Operational Performance Inspection (NRC Inspection Report 50-263/92-010) identified two open items, two unresolved items, and one violation concerning inadequate in-service testing. The inspection report also noted strengths in the effectiveness of the design basis documents, competency and experience of the engineering staff, overall good material condition of the service water system, and good quality of recently performed calculations and analyses. Corrective actions have been implemented to provide resolution of the issues identified by these inspection reports. These issues have also been pursued to enhance the processes controlling the performance of plant activities.

The safety system functional inspections also provided benchmarks as to the effectiveness of the Monticello Configuration Management Program. Improvement in the retrievability of design basis information resulting from implementation of the Configuration Management program is noted in several NRC inspection reports, as well as NSP Quality Assurance audits, performed subsequent to implementation of this program. In addition, assessment activities noted improvements in the plant design control processes concerning level of detail provided in engineering evaluations and analyses.

D. Conclusion

The objective evidence provided by inspections and independent assessments, Quality Assurance audits and assessments, and other self assessments, supports the conclusion that the Monticello processes are effective and effectively implemented to provide reasonable assurance that the configuration of the plant is consistent with the design basis. The assessments performed also indicate that the Monticello staff is self critical with regard to maintaining and operating the plant. The Monticello staff has used the site corrective action

processes to self identify issues, assess their significance, and implement appropriate corrective actions.

It is also noted that regulatory requirements and quality expectations have changed significantly over the life of the facility. Monticello recognizes that program and process effectiveness is but one indicator of performance. The Monticello staff continually seeks improvements in the controlling processes and process implementation such that the facility is maintained and operated in the most effective manner feasible, while maintaining the primary focus on public health and safety as well as compliance with regulatory requirements.

Exhibit B

Description of Monticello Nuclear Generating Plant Design Basis Review Program

The Monticello Nuclear Generating Plant self initiated a Configuration Management (CM) Program in 1989. The intent of the CM Program was to improve the availability and retrievability of Monticello's design basis information. This Configuration Management Program included creation of the Design Basis Information System (DBIS), creation of Design Basis Documents (DBDs), resolution of open items found during this process and DBD verification. A general flow chart is included as Attachment B-1.

The Monticello process controlling creation of the DBDs followed the guidance of NUMARC 90-12, "Design Basis Program Guidelines." The scope and description of the Monticello Configuration Management Program has been previously communicated to the NRC by NSP letter dated November 13, 1989, with subject, "Configuration Management Program Description," from C. E. Larsen (NSP) to Mr. A. Bert Davis (NRC Region III) and at a meeting with members of the NRC staff on December 14, 1989, Monticello Plant management agreed to submit semi-annual progress reports describing the status of the Monticello Configuration Management Program. These status reports were transmitted as agreed to and have subsequently been discontinued at the request of the NRC staff as the Design Basis Document creation portion of the Configuration management Program neared completion. As discussed in the semi-annual progress reports, changes to the scope and schedule for the Configuration Management program have occurred since the original inception of the program. Additional scope changes have been made subsequent to the discontinuation of the progress reports. None-the-less, the essential elements of the program have remained constant. Information concerning the current status of the Configuration Management Program is provided below.

The Configuration Management program consists of 4 major group activities 1) creation of the Design Basis Information System (DBIS), 2) creation of DBDs, 3) open item resolution and 4) DBD verification.

I. Creation of Design Basis Information System

Site documents were collected and cataloged into numerous categories and entered into a data base called the Design Basis Information System (DBIS). A complete turnover of all records held by the original Architect Engineer was performed. The provided index of this information was reviewed and prioritized. Information of significant value (calculations, specifications and technical reports) were indexed for immediate use in the DBIS. The remainder of the information is being reviewed and indexed programatically and on an as needed basis. Examples of the input categories are system code, structure, and topical code along with document types such as calculations or correspondence. This data base allowed Monticello to systematically collect the source documents needed for preparation of the Design Basis Documents. It also enables engineers to locate other design and licensing information which may not be part of the Design Basis Documents.

Monticello's Licensing Commitments were identified in parallel to the development of the DBIS. A separate data base has been created that contains these commitments.

II. Creation of Design Basis Documents

The scope of the Design Basis Document creation portion of the Configuration Management program included preparation of 29 system, 19 topical and 7 structural Design Basis Documents (See Attachment B-2 for a complete list). No additional Design Basis Documents are planned. The Design Basis Documents are revised on a periodic basis.

III. Open Item Resolution

The open items found during the creation and verification of the Design Basis Documents were documented in the Follow On Item (FOI) process. This process provided means for tracking, assessing, recommending corrective actions and closure of open items. Part of the assessment portion of the process included actions for reviewing operability and reportability of the open item. There were approximately 770 open items identified and 650 corrective actions generated out of the CM Program. Currently, approximately 99% of the assessments have been completed and approximately 93% of the corrective actions have been completed. Monticello is continuing to pursue closure of the remaining open items.

IV. DBD Verification

The Monticello Configuration Management program includes a Design Basis Document verification process, similar to the NRC's Safety System Functional Inspection (SSFI) Procedure 93801. A sample of the design basis documents, USAR information, licensing and design commitments are verified to be in conformance with actual plant configuration. These verifications utilize a checklist which includes six categories: design basis requirements, design, maintenance & testing, walkdown, procedures, and operational experience.

Currently, 13 system, 8 topical, and 7 structure Design Basis Documents have been verified. It is Monticello's intent to continue the verification activity.

Exhibit B

Description of Monticello Nuclear Generating Plant Design Basis Review Program

Attachment B-1

Design Basis Document Development Process

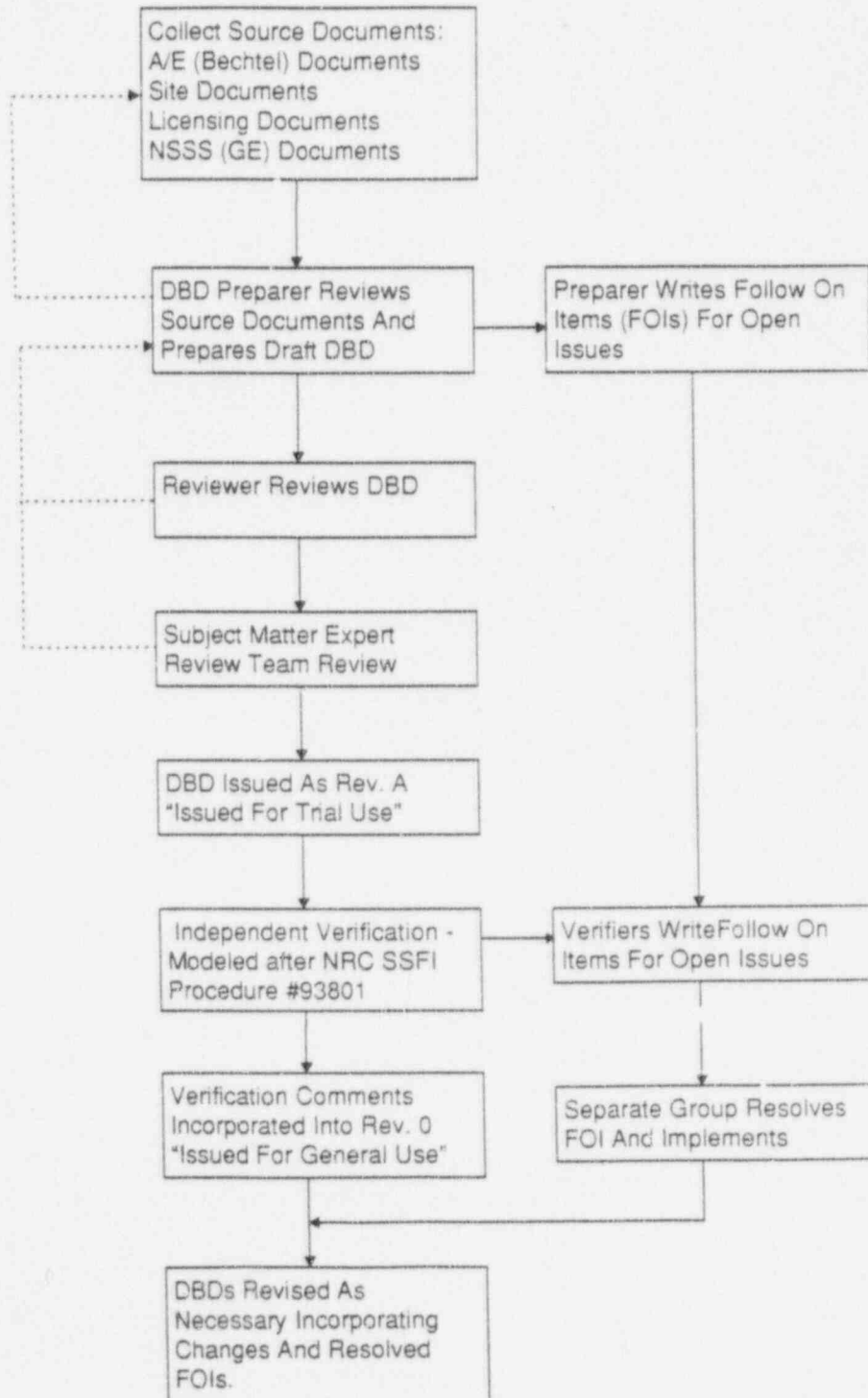


Exhibit B
Description of Monticello Nuclear Generating Plant
Design Basis Review Program

Attachment B-2
Listing of Design Basis Documents and System Information Documents

NUMBER	TITLE	VERIFICATION ACTIVITY COMPLETED
DBD B.1.1	Reactor and Vessel Assembly	No
DBD B.1.2/3	Control Rod Drives/CRD Hydraulic System	No
DBD B.1.4	Reactor Recirculation System	Yes
DBD B.2.1	Spent Fuel Pool Cooling/Cleanup System	No
DBD B.2.3	Reactor Core Isolation Cooling (RCIC) System	No
DBD B.2.4	Main Steam System	No
DBD B.3.1	Core Spray Cooling (CS) System	Yes
DBD B.3.2	High Pressure Coolant Injection (HPCI) System	Yes
DBD B.3.3	Reactor Pressure Relief	Yes
DBD B.3.4	Residual Heat Removal (RHR) System	Yes
DBD B.3.5	Standby Liquid Control (SBLC) System	Yes
DBD B.4.1	Primary Containment (PCTMT)	No
DBD B.4.2	Secondary Containment (SCTMT)/Standby Gas Treatment (SBGT)	Yes
DBD B.4.3.2	Combustible Gas Control (CGCS) System	No

NUMBER	TITLE	VERIFICATION ACTIVITY COMPLETED
DBD B.5.1	Neutron Monitoring System	No
DBD B.5.6	Plant Protection System	No
DBD B.8.1.2	Emergency Diesel Generator Service Water (EDG-ESW) System	Yes
DBD B.8.1.3	Residual Heat Removal Service Water (RHRSW) System	Yes
DBD B.8.1.4	Emergency Service Water (ESW) System	Yes
SID B.8.4.1	Instrument Air	No
DBD B.8.4.3	Alternate Nitrogen System	No
DBD B.8.7	HVAC	No
DBD B.8.13	Control Room HV and Emergency Filtration Train (EFT) System	Yes
DBD B.9.6	4.16KV Station Auxiliary System	No
DBD B.9.7	480V Station Auxiliary System	No
DBD B.9.8	Emergency Diesel Generators (EDG)	No
DBD B.9.9	250 VDC System	Yes
DBD B.9.10	125 VDC System	Yes
DBD B.9.13	Instrument AC and Uninterruptible (UPS) Distribution System	No

NUMBER	TITLE	VERIFICATION ACTIVITY COMPLETED
DBD T.1	Fire Protection/Appendix R Program	No
DBD T.2	Anticipated Transients Without Scram (ATWS)	Yes
DBD T.3	Design Basis Accident & Events (DBA&E)	No
DBD T.4	Environmental Qualification (EQ)	No
DBD T.5	External Flooding	Yes
DBD T.6	High Energy Line Break (HELB)	Yes
DBD T.8	Internal Flooding	Yes
DBD T.9	Missiles	No
DBD T.10	Motor Operated Valves (MOV)	Yes
DBD T.11	NUREG 0737	No
DBD T.12	Piping	No
DBD T.13	Regulatory Guide 1.97	Yes
DBD T.14	Equipment Seismic Requirements	No
DBD T.15	Seismicity	Yes
DBD T.17	Electrical Design Considerations (EDC)	No
DBD T.18	Station Blackout (SBO)	Yes
DBD T.19	External Considerations	No
DBD T.20	Heavy Loads	No
DBD T.21	Separation and Single Failure	No

NUMBER	TITLE	VERIFICATION ACTIVITY COMPLETED
DBD S.1	Reactor Building	Yes
DBD S.2	Plant Control & Cable Spreading Structure	Yes
DBD S.3	Off-Gas Stack, Off-Gas Storage & Compressor Building	Yes
DBD S.4	Intake Structure	Yes
DBD S.5	Diesel Generator (EDG) Building	Yes
DBD S.6	Turbine Building	Yes
DBD S.8	Emergency Filtration Train (EFT) Building	Yes