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August 9, 2005

U.S. Nuclear Regulatory Commission  
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TWFN, Mail Stop T 7F-27  
11545 Rockville Pike  
Rockville, MD 20852

Pathfinder Generating Plant Docket No. 030-05004  
Byproducts Materials License No. 22-08799-02

Subject: Pathfinder Quality Assurance Project Plan

Dear Mr. Glenn:

The subject plan was previously submitted to the NRC as Appendix E to the Pathfinder Decommissioning Plan. The project plan contains references to the Utility Engineering (UE) Quality Assurance Manual. During the development of the decommissioning plan, UE was a wholly owned subsidiary of Xcel Energy. Xcel Energy has recently divested its interest in Utility Engineering, and no longer has control over UE documents. This has necessitated a revision to the project plan to remove references to the UE documents.

Accordingly, Xcel Energy has revised the Pathfinder Quality Assurance Project Plan and removed references to the UE manual. The removed references did not address radiation safety, and these revisions are administrative in nature. The UE references have been replaced with equivalent Xcel Energy requirements and guidelines. The changes allow more direct Xcel Energy control over quality processes at Pathfinder. The revised document is enclosed herein.

Please call me at 612-337-2183 if you have any questions.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Charlie Bomberger'.

Charlie Bomberger  
General Manager, Nuclear Asset Management  
Xcel Energy

Enclosure: Revision 1 to Pathfinder QA Plan

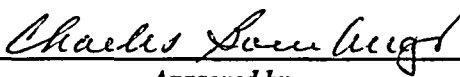
Cc:  
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**XCEL ENERGY INC.  
414 Nicollet Mall  
Minneapolis, MN 55401**

**PATHFINDER DECOMMISSIONING PROJECT  
QUALITY ASSURANCE PROJECT PLAN**

**REV. 1**

  
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*Prepared by*  
**Joel Beres**

  
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*Approved by*  
**Charles Bomberger**

## TABLE OF CONTENTS

	Page
1. POLICY STATEMENT .....	3
2. INTRODUCTION.....	3
3. ORGANIZATION.....	3
4. PATHFINDER QUALITY ASSURANCE PROGRAM .....	5
5. DESIGN CONTROL .....	7
6. PROCUREMENT DOCUMENT CONTROL.....	7
7. PROCEDURES AND DRAWINGS .....	8
8. DOCUMENT CONTROL.....	9
9. CONTROL OF PURCHASED MATERIAL, EQUIPMENT, AND SERVICES.....	9
10. IDENTIFICATION AND CONTROL OF MATERIALS, PARTS AND COMPONENTS .....	10
11. CONTROL OF SPECIAL PROCESSES .....	10
12. INSPECTION.....	11
13. TEST CONTROL .....	12
14. CONTROL OF MEASURING AND TEST EQUIPMENT.....	12
15. HANDLING, SHIPPING, AND STORAGE .....	12
16. INSPECTION, TEST, AND OPERATING STATUS .....	13
17. NONCONFORMING MATERIALS, PARTS OR COMPONENTS .....	13
18. CORRECTIVE ACTION.....	13
19. QUALITY ASSURANCE RECORDS .....	14
20. AUDITS.....	14

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# QUALITY ASSURANCE PROJECT PLAN

## 1. POLICY STATEMENT

Xcel Energy is responsible for the safe decommissioning of the Pathfinder site. Decontamination and decommissioning activities at the Pathfinder site are subject to the general requirements of Xcel Energy quality assurance practices and the specific requirements of the Pathfinder Decommissioning Quality Assurance Project Plan (QAPP). In the event conflicts exist between quality guidance documents, the requirements of the QAPP will prevail. The quality assurance program, as applied to activities shall comply with and be responsive to applicable regulatory requirements and applicable industry codes and standards. These activities are for the protection of the health and safety of the public and project personnel, and for adherence to regulations and commitments made to the Nuclear Regulatory Commission, including the control of personnel exposure to radiation, control of radioactive material and contamination, and radwaste shipment.

Project procedures shall provide for compliance with appropriate regulatory, statutory, license, and industry requirements. Specific quality assurance requirements and organizational responsibilities for implementation of these requirements shall be specified.

Compliance with this program and provisions of project procedures is mandatory for personnel with respect to Pathfinder decommissioning activities, which may affect quality or the health and safety of project personnel or the general public. Personnel shall, therefore, be familiar with the requirements and responsibilities of the program that are applicable to their individual activities and interfaces.

## 2. INTRODUCTION

This project quality assurance program is structured to comply with the appropriate regulatory requirements of NUREG 1757, Consolidated NMSS Decommissioning Guidance, and is implemented to assure that surveying, dismantling, packaging, and shipping activities are conducted in a controlled manner designed to assure quality and to protect the health and safety of both project workers and the public.

## 3. ORGANIZATION

The decommissioning organization for the Pathfinder Decontamination & Decommissioning (D&D) is shown in Figure 1.1. The Director - Xcel Nuclear Asset Management has the management authority for the safe dismantlement and decommissioning of the Pathfinder site. He has overall responsibility for implementing

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this Quality Assurance Project Plan. The key decommissioning staff members perform the functions described in the following subsections.

### **3.1 PROJECT MANAGER**

Directly responsible to the Director - Xcel Nuclear Asset Management, the Project Manager coordinates and oversees all decommissioning activities. This person directs subordinates and support contractors to ensure radiological and industrial safety, compliance with regulatory and procedural requirements, and cost-effectiveness of the decommissioning project. The Project Manager implements the Quality Assurance Project Plan and is the contact point for contested items from QA and corporate industrial safety. This person provides necessary liaison with regulatory agencies and utility management.

The Project Manager may perform the duties of the Project Engineer or delegate these duties as necessary.

#### **3.1.1 PROJECT ENGINEER**

This person supervises engineering support and or construction personnel and assists the construction superintendent in developing detailed work procedures. This person arranges the writing of specifications for special equipment, tools, and services that must be procured or fabricated. The Project Engineer prepares reports requested by the decommissioning Project Manager and is responsible for licensing activities.

#### **3.1.2 RADIATION SAFETY OFFICER (RSO)**

The Radiation Safety Officer is responsible for ensuring compliance with radiation work procedures. This individual is responsible for directing the activities of the Radiation Protection Specialist(s). The RSO oversees decommissioning activities, recording of on the job radiation dose information and operation of the plant laboratory facilities including sampling and analysis. He supervises the Radioactive Waste Shipping Specialist in all radioactive material shipments.

This individual is also qualified to perform the duties of the Radiation Protection Specialist and may do as the workload dictates.

The RSO may hire additional contractor personnel, or Xcel Energy nuclear plant and/or Xcel Energy corporate personnel. They may assist with job supervision during peak times, or as operations dictate.

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### **3.1.3 CONSTRUCTION SUPERINTENDENT**

The Construction Superintendent is responsible for carrying out the actual decommissioning work during a shift, and this individual supervises Xcel Energy crew leaders and craft supervisors. This person reports to the Project Manager. As this person supervises the day-to-day performance of the shift, this person recommends changes in procedures and schedules to improve the safety and/or cost effectiveness of the project. This person also is responsible for directing and supervising work performed by dismantling subcontractors.

### **3.1.4 PROJECT CONTROLS SUPERVISOR**

The Project Controls supervisor is responsible for establishing cost controls, managing contracts, and preparing and maintaining project schedules.

### **3.1.5 ADMINISTRATIVE CONTROLS SUPERVISOR**

The Administrative Controls Supervisor is responsible for issuing controlled documents and the retention of quality records.

## **3.2 QUALITY ASSURANCE MANAGER**

The Quality Assurance Manager reports to the Director - Xcel Nuclear Asset Management and is responsible for assessing implementation of the quality assurance plan for decommissioning. He provides consultation and advice to the Project Manager regarding implementation of the Quality Assurance Program. This person manages the independent assessment function, maintains audit and surveillance records, and verifies that established project procedures are followed for quality-related activities.

## **3.3 PLANT MANAGER**

The Plant Manager is responsible for industrial security and industrial safety at the Pathfinder site.

# **4. PATHFINDER QUALITY ASSURANCE PROGRAM**

## **GENERAL REQUIREMENTS**

- A) The project quality assurance program shall be documented by written procedures and carried out throughout the decommissioning project in accordance with those procedures.

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- B) The program shall apply to radiological protection and survey activities and the packaging and shipping of radioactive waste.
  - C) The program shall provide control over activities affecting quality or the health and safety of project personnel and the public.
  - D) Activities affecting quality shall be accomplished under suitable controlled conditions. Controlled conditions include the use of appropriate equipment; suitable environmental conditions for accomplishing the activity, such as adequate cleanliness; and assurance that all prerequisites for the given activity have been satisfied.
  - E) The program shall take into account the need for special controls, processes, test equipment, tools, and skills to attain the required quality, and the need for verification of satisfactory implementation.
  - F) The program shall provide for indoctrination and training of personnel performing activities affecting quality as necessary to assure that suitable proficiency is achieved and maintained.
  - G) The adequacy and status of the program shall be regularly reviewed.
  - H) Management of other organizations participating in the program shall regularly review the status and adequacy of the part of the program which they are implementing.

#### 4.1 GENERAL DESCRIPTION

- A) The Pathfinder Decommissioning Project Quality Assurance Program has been established to govern those activities that may affect the quality of the project, including the health and safety of the public as well as the project personnel.
- B) The project quality assurance program shall utilize the following documents to meet its objectives.
  - 1. Pathfinder Decommissioning Quality Assurance Project Plan (QAPP).
  - 2. Required procedures at the project implementing level.

The QAPP contains mandatory requirements that must be met for quality-related activities, but is considered as a guidance document for project work.

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#### **4.2 PATHFINDER DECOMMISSIONING QUALITY ASSURANCE PROJECT PLAN**

- A) The QAPP shall describe in general how compliance with appropriate quality and safety requirements is accomplished.
- B) The QAPP shall be issued under the authority of the Director - Xcel Nuclear Asset Management.
- C) All changes to the QAPP shall be approved by the Director - Xcel Nuclear Asset Management.

#### **4.3 QUALITY ASSURANCE TRAINING**

- A) Personnel responsible for performing activities affecting quality or the health and safety of project personnel or the general public are instructed as to the purpose, scope, and implementation of application controlling procedures.
- B) Personnel performing such activities are trained and qualified, as appropriate, in principles and techniques of the activity being performed.
- C) The scope, the objective, and the method of implementing the training programs are documented.
- D) Methods are provided for documenting training sessions describing content, attendance, data of attendance, and the results of the training session, as appropriate.

### **5. DESIGN CONTROL**

#### **GENERAL REQUIREMENTS**

The design of engineered modifications shall include controls and reviews to assure verification of design specifications. The modifications shall include consideration of radiological impacts if any. The relevant regulatory and statutory requirements shall be identified and documented.

### **6. PROCUREMENT DOCUMENT CONTROL**

The responsible project organization shall assure those applicable regulatory requirements, design bases, and other requirements that are necessary to assure adequate quality are suitably included or referenced in the procurement document.

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## **7. PROCEDURES AND DRAWINGS**

### **GENERAL REQUIREMENTS**

- A) Procedures and drawings of a type appropriate to the circumstances shall be provided for the control and performance of activities that are important to quality, health, and safety.
- B) Procedures and drawings shall include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished.

### **7.1 PROCEDURES**

- A) Typical working level procedures include the following, as appropriate.

- Calibration procedures
  - Radiation protection procedures
  - Radioactive material packaging and shipment procedures
  - Audit or surveillance procedures
  - Administrative control procedures (e.g. Corrective Action, Document Control, Records Retention, Audit, etc.)

- B) Procedures shall provide specific controls and instructions for performing activities affecting quality or the health and safety of project personnel or the general public.

Procedures shall be reviewed by technically competent persons other than the preparer and approved by project management.

Contractor and third party procedures shall receive independent technical review and project management approval.

### **7.2 DRAWINGS**

Changes to plant drawings are not anticipated. If changes are necessary, the changes will be controlled in accordance with the Xcel Energy Supply requirements for Pathfinder.

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## **8. DOCUMENT CONTROL**

### **GENERAL REQUIREMENTS**

- A) Measures shall be established to control the issuance of documents, such as procedures and drawings, including changes thereto, which prescribe activities affecting quality.
- B) These measures shall assure that documents, including changes, are reviewed for adequacy and approved for release by authorized personnel, and are distributed to and used at the location where the prescribed activity is performed.
- C) Changes to documents shall be reviewed and approved by the same organization that performed the original review and approval or by another designated responsible organization.

### **8.1 PROCEDURE CONTROL**

Required procedures shall be controlled to assure that current copies are made available to personnel performing the prescribed activities. Required procedures shall be reviewed by a technically competent person other than the preparer and shall be approved by a member of the project management staff.

### **8.2 RADIOACTIVE SHIPMENT PACKAGE DOCUMENTS**

All documents related to a specific shipping package for radioactive material shall be controlled by appropriate procedures. All significant changes to such documents shall be similarly controlled.

## **9. CONTROL OF PURCHASED MATERIAL, EQUIPMENT, AND SERVICES**

### **GENERAL REQUIREMENTS**

Purchased materials, equipment, and services shall be controlled to assure that the applicable quality requirements are met. Service providers that are providing radiological services shall operate under a current quality assurance program that has been audited by an independent auditor.

### **9.1 RECEIPT INSPECTION**

- A) Commensurate with potential adverse impacts on quality or health and safety, material and equipment shall be inspected upon receipt at the plant

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site prior to use or storage to determine that procurement requirements are satisfied.

- B) Material, parts, and components that are to be utilized to fulfill a 10 CFR 71 related function or used for shipment of radioactive materials shall be inspected upon receipt to assure that associated procurement document provisions have been satisfied. Measures shall be established for identifying nonconforming material, parts and components.

## **10. IDENTIFICATION AND CONTROL OF MATERIALS, PARTS AND COMPONENTS**

Materials, parts, and components shall be uniquely identified to provide traceability where necessary. Site procedures may be developed to control and implement traceability requirements.

## **11. CONTROL OF SPECIAL PROCESSES**

### **GENERAL REQUIREMENTS**

Measures shall be established to assure that special processes, including welding, and nondestructive examination are controlled and accomplished by qualified personnel using qualified procedures in accordance with applicable codes, standards, specifications, criteria, and other special requirements.

#### **11.1 WELDING PROCEDURES**

Welding of critical lifting and rigging equipment shall be performed in accordance with qualified procedures. Such procedures shall be qualified in accordance with applicable codes and standards and shall be reviewed to assure their technical adequacy.

#### **11.2 WELDER QUALIFICATION**

Measures shall be established that assure welding of critical lifting and rigging equipment is performed by qualified personnel.

#### **11.3 NDE PROCEDURES**

Nondestructive examinations (NDE) of critical lifting equipment shall be performed in accordance with procedures formulated in accordance with applicable codes and standards and shall be reviewed to assure their technical adequacy.

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## **11.4 NDE PERSONNEL QUALIFICATION**

Measures shall be established that assure nondestructive examination (NDE) are performed by personnel qualified in accordance with applicable codes and standards.

## **12. INSPECTION**

### **GENERAL REQUIREMENTS**

- A) Measures shall be established for inspection of appropriate activities to verify conformance with the documented procedures and drawings for accomplishing the activity.
- B) If mandatory inspection hold points, which require witnessing or inspection and beyond which work shall not proceed without prior consent are required, the specific hold points shall be indicated in appropriate document.

### **12.1 TECHNICAL SERVICES**

Measures shall be established which assure that activities associated with technical services (such as surveillance testing, instrument calibration, laboratory services, etc.) are inspected by qualified personnel when determined appropriate by quality or other qualified personnel.

### **12.2 RADIOACTIVE MATERIAL PACKAGES**

Measures shall be established which assure that packages utilized to ship licensed radioactive material offsite are inspected in accordance with the applicable provisions of 10 CFR 71.

### **12.3 INSPECTION PROCEDURES**

Required inspections shall be performed in accordance with appropriate procedures. Such procedures shall contain a description of objectives, acceptance criteria and prerequisites for performing the inspections. These procedures shall also specify any special equipment or calibrations required to conduct the inspection.

### **12.4 PERSONNEL QUALIFICATION**

- A) Personnel performing required inspections shall be qualified. Required inspections shall not be performed by individuals who performed the inspected activity or directly supervised the inspected activity.

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- B) Personnel performing inspections required by sections required by sections 12.2 and 12.3 shall be qualified based upon experience and training in inspection methods.

## **12.5 SELF-CHECKING AND PEER VERIFICATION**

Workers may use self-checking and peer verification techniques to assure activities meet quality requirements. Self-checking and peer verification may be used in addition to, but shall not be used as a substitute for inspection when an inspection is required.

## **13. TEST CONTROL**

### **GENERAL REQUIREMENTS**

Measures shall be established to assure that tests necessary to assure quality or health and safety are controlled and accomplished in accordance with quality requirements. Such tests include verification of lifting capacity of cranes.

## **14. CONTROL OF MEASURING AND TEST EQUIPMENT**

### **GENERAL REQUIREMENTS**

Measures shall be established to assure that tools, gauges, instruments and other measuring and testing devices used in activities important to health and safety are properly controlled, calibrated and adjusted at specified periods to maintain accuracy within necessary limits.

## **15. HANDLING, SHIPPING, AND STORAGE**

### **GENERAL REQUIREMENTS**

Handling, storage, and shipping of general items that do not involve radioactive material is controlled in accordance with the Xcel Energy Supply requirements in place for the Pathfinder facility. Measures shall be taken to prevent damage or deterioration of equipment.

### **15.1 RADIOACTIVE MATERIAL STORAGE**

- A) Areas shall be provided for storage of radioactive material which assure physical protection, as low as reasonably achievable radiation exposure to personnel, control of stored material, and containment of radioactive material, and containment of radioactive material as appropriate.

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- B) Handling, storage, and shipment of radioactive material shall be controlled based upon the following criteria.

1. Established safety restrictions concerning the handling, storage, and shipping of packages for radioactive material shall be followed.
2. Shipments shall not be made unless all tests, certifications, acceptances, and final inspections have been completed.
3. Procedures shall be provided for handling, storage and shipping operations.

## **15.2 RADIOACTIVE MATERIAL SHIPPING AND PACKAGING**

Shipping and packaging documents for radioactive materials shall be consistent with the applicable requirements of 10 CFR 71.

## **16. INSPECTION, TEST, AND OPERATING STATUS**

The operating status of quality-related equipment is indicated by tagging or other specified means to prevent inadvertent use. The status of inspections or test performed on individual items is clearly indicated by markings and/or logging to prevent inadvertent by passing of such inspections and tests.

## **17. NONCONFORMING MATERIALS, PARTS OR COMPONENTS**

### **GENERAL REQUIREMENTS**

- A) Measures shall be established to control materials, parts, or components which do not conform to requirements in order to prevent their inadvertent use or release for shipment. These measures shall include, as appropriate, procedures for identification, documentation, segregations, disposition and notification to affected organizations.
- B) Nonconformance items shall be reviewed and accepted, rejected, repaired, or reworked in accordance with documented procedures.

## **18. CORRECTIVE ACTION**

### **GENERAL REQUIREMENTS**

- A) Measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, discrepancies, deviations, defective

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material and equipment, and nonconformances are promptly identified and corrected.

- B) For significant conditions adverse to quality, the cause of the condition shall be determined and corrective action taken to preclude recurrence. In these instances, the condition, cause and corrective action taken shall be documented and reported to appropriate levels of management.

## **19. QUALITY ASSURANCE RECORDS**

### **GENERAL REQUIREMENTS**

- A) Sufficient records shall be maintained to furnish evidence of activities affecting quality. These records shall be consistent with the requirements of Section 3, Record Keeping, of Volume 3, Financial Assurance Record Keeping and Timeliness, of NUREG-1757.
- B) Records shall be identifiable and retrievable.

Requirements shall be established concerning record retention, such as duration, location, and assigned responsibility. Such requirements shall be consistent with the potential impact on quality, health and safety of public, safety of project personnel, and applicable regulations.

## **20. AUDITS**

### **GENERAL REQUIREMENTS**

A system of planned audits shall be carried out to verify compliance with appropriate requirements of the Project Quality Assurance Program and to determine the effectiveness of the program. The audits shall be performed in accordance with written procedures or checklists by appropriately trained personnel having no direct responsibility in the areas being audited. Audit results shall be documented and reviewed by management having responsibility in the area audited. Follow-up action, including re-audit of discrepant areas, shall be taken where indicated.

#### **20.1 AUDIT REPORTS**

- A) Reports of the results of each audit shall be prepared. These reports shall include a description of the area audited, identification of individuals responsible for implementation of the audited provisions and for performance of the audit, identification of discrepant areas, and recommended corrective action as appropriated.

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- B) Audit reports shall be distributed to the appropriate management level and to those individuals responsible for implementation of audited provisions.

## **20.2 CORRECTIVE ACTION**

Measures shall be established which assure that discrepancies identified by audits or other means are resolved. These measures shall include notification of the manager responsible for the discrepancy, recommended corrective action, and verification of satisfactory resolution. Discrepancies shall be resolved by the manager responsible for the discrepancy. Management shall resolve disputed discrepancies.