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RECIP.NAME RECIPIENT AFFILIATION
EISENHUT,D.G. Division of Licensing

SUBJECT: Forwards response to Generic Ltr 83-28 Section 2.2.1 re equipment classification & update to Table 3.1-1.Update reflects changes by Westinghouse to maint recommendations for DB-50 reactor trip breaker.

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NRC-84-154

WISCONSIN PUBLIC SERVICE CORPORATION

P.O. Box 1200, Green Bay, Wisconsin 54305

September 21, 1984

Director, Office of Nuclear Reactor Regulation
Attention: Mr. D. G. Eisenhut, Director
Division of Licensing
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Eisenhut:

Docket 50-305
Operating License DPR-43
Kewaunee Nuclear Power Plant
TAC #52848
Generic Implications of Salem ATWS Event (Generic Letter 83-28)

References: 1) Generic Letter 83-28 dated July 8, 1983
2) Letter from C. W. Giesler to D. G. Eisenhut dated December 2, 1983

This letter provides our response to Generic Letter 83-28 Section 2.2.1 (Equipment Classification). A response to section 2.2.2 (Vendor Interface) will be submitted on or before November 1,1984 as agreed upon with our NRC Project Manager. Also an update to Table 3.1-1 is being included. The update to this table reflects the changes made by Westinghouse to the initial maintenance recommendations for the DB-50 reactor trip breaker.

Enclosed please find 25 copies of our response to Generic Letter 83-28 Section 2.2.1 and change number 2 to table 3.1-1.

Update Instructions

Please follow the instructions below when making the revision to this response. If you have any questions concerning this revision please call.

A055
1/27

Section	Remove Page No.	Insert Page No.
2.2	-	2.2.1 thru 2.2.16 Figure 2.2-1 Table 2.2-1 (pages 1 thru 5) Figure 2.2-2 Table 2.2-2 (pages 1 thru 22)
3.1	Table 3.1-1 page 1 Table 3.1-1 page 2 Table 3.1-1 page 3	Table 3.1-1 page 1 Table 3.1-1 page 2 Table 3.1-1 page 3

Very truly yours,

D. C. Hintz
Manager - Nuclear Power

DJM/jks

Enc.

cc - Mr. S. A. Varga, US NRC
Mr. Robert Nelson, US NRC

2.2 Equipment Classification And Vendor Interface (Programs for all Safety-Related Components)

1. For equipment classification, licensees and applicants shall describe their program for ensuring that all components of safety-related systems necessary for accomplishing required safety functions are identified as safety-related on documents, procedures, and information handling systems used in the plant to control safety-related activities including maintenance, work orders and replacement parts. This description shall include:

   1. The criteria for identifying components as safety-related within systems currently classified as safety-related. This shall not be interpreted to require changes in safety classification at the systems level.

WPSC Response

The KNPP has an agressive program for identifying and classifying components. Beginning during construction and extending through operation of the KNPP, a three-level QA classification scheme has been established and adhered to, which is controlled and supported by a computer based information retrieval system. During construction of the KNPP a QA typing committee was formed to review and categorize components, systems, equipment and structures as QA type 1, 2, or 3 in accordance with the importance of the function it served. The committee emphasized categorization on a systems level, with the need for individual component classification being dealt with on a case by case basis. This original committee was made up of personnel from WPSC and Pioneer Service and Engineering Company (AE) utilizing guidance from Westinghouse.

When the plant commenced commercial operation the original QA typing committee was abolished and in its place a new QA typing committee was formed. Included in this new QA typing Committee are the following WPSC personnel:

Quality Assurance Supervisor (Chairman)

Nuclear Licensing and Systems Superintendent

Nuclear Services Supervisor

Kewaunee Plant Operations Superintendent (SRO Licensed)

Kewaunee Plant Services Superintendent

The Quality Assurance typing committee operates under a charter which includes the criteria for identifying safety related components, including those components within systems currently classified as safety related.

New components being installed by a design change undergo several independent QA typing classification reviews. The responsible engineer makes the initial component classification determination for the new component being installed. For safety related design changes, concurrence of the component classification determination made by the responsible engineer is included as part of the second level design review performed prior to the design change installation. Should unresolved differences between the second level design review and the responsible engineer occur in the determination of the QA typing of the new component, the QA typing committee is called upon to make the final determination. The same holds true for differences arising within the organization concerning the QA typing of existing plant equipment; that is, the QA typing committee also resolves these differences. Thus, the QA typing committee reviews requested QA classification changes to determine if they are justifiable, and hence continues to ensure that all components, equipment, systems and structures of the KNPP are classified for quality type in accordance with the importance of the function they serve. The current QA typing committee abides by the same criteria used by the original committee and can be expressed as follows:

QA Type 1 identifies those items for which the Quality Assurance Program must assure the highest feasible degree of quality standards consistent

with the importance of the safety function to be performed. This category includes, in accordance with NRC Criteria, those "structures, systems, and components that prevent or mitigate the consequences of postulated accidents that could cause undue risk to the health and safety of the public."

QA Type 2 identifies those items for which the Quality Assurance Program must engender a high confidence level that the item will perform satisfactorily. This category includes those items whose failure would not directly affect the health and safety of the public but the failure of which could cause severe economic loss or cause the plant to experience an extended outage.

QA Type 3 identifies those items for which there is no compelling need of a Quality Assurance Program beyond that required to obtain standard high quality workmanship in manufacture and construction. This category includes all other items not included in Types 1 and 2. It includes those items, the failure of which could be tolerated without causing significant plant outage. It should be understood, however, that Type 3 component failures could hamper convenient operation of the unit.

The criteria as expressed above in conjunction with the QA Decision Tree (Figure 2.2-1) continues to be the program used by the design engineers, PORCommittee and the QA typing committee for ensuring that all components of safety-related systems necessary for accomplishing required safety functions are classified as safety-related.

2. A description of the information handling system used to identify safety-related components (e.g., computerized equipment list) and the methods used for its development and validation.

WPSC Response

The information handling system used at Kewaunee Nuclear Power Plant for the identification of safety related components consists of computer based information retrievals as follows:

a) Mechanical Component List

b) Electrical Component List

c) Structural Component List

d) Instrument Data List

e) Valve List

f) Pipe Hanger List

g) Motor List

These lists form a data base system which identifies the basic design parameters, reference drawings, purchase order number, etc. of the component or equipment, as well as the Quality Assurance Type of the component or equipment; a QA Typing of "1" for a component identifies the component as safety related. These lists were originally established by the Kewaunee Architect/Engineer, Pioneer Service and Engineering Company (PS&E) as the design of the plant was performed.

To assure the consistent and accurate identification of safety related equipment for design and equipment procurement, PS&E utilized a QA Typing decision tree to determine the QA Type of each plant component. The QA Type selected for Kewaunee components was reviewed by a plant design committee known as the

Quality Assurance Typing Committee. This committee consisted of the PS&E principal discipline engineers and licensing engineers of the Kewaunee design team and Wisconsin Public Service Corporation. The QA Type of components was established by PS&E design engineers utilizing the QA Type decision tree, then reviewed and concurred with by the QA Typing Committee and documented on the design drawings, specifications and component lists.

The systematic QA Typing of components through the QA Type decision tree has continued after original plant design. Systematic component QA Type selection by the design engineer is assured through Administrative Control Directive (ACD) 9.4 (QA boundaries); maintenance of the retrieval lists is assured through Engineering Control Directive 4.1 (Design Change Control) and ACD 2.12 (Retrieval Lists); review of QA typing is controlled by ECD 4.1 and Quality Assurance Directive (QAD) 4.3 (changes to Quality Assurance Type and EQ Classification).

In the future the issuing of hard copy retrieval lists will be discontinued due to the addition of more computer terminals within the plant. The addition of more computer terminals and changes that result (such as changes to ACD 2.12) will not reduce the effectiveness nor the accuracy of the information handling system currently used at KNPP. Therefore, no updates to this discussion will be made in the future.

3. A description of the process by which station personnel use this information handling system to determine that an activity is safety-related and what procedures for maintenance, surveillance, parts replacement and other activities defined in the introduction to 10 CFR 50, Appendix B, apply to safety-related components.

WPSC Response

Your letter of July 8, 1983 required licensees to provide a description of the process by which station personnel use this information handling system to determine that an activity is safety-related and what procedures for maintenance, surveillance, parts replacement and other activities defined in 10 CFR 50, Appendix B, apply to safety-related components. The Kewaunee Nuclear Plant uses control directives to accomplish the requirement. These directives have been written to fulfill the requirements of 10 CFR 50, Appendix B. For example, the following directives describe how plant procedures, work requests, purchase requisitions etc. interact with the information handling systems in order to determine that the activity is safety related. A brief explanation describing the purpose of the following directives are included. A current list of all Administrative Control Directives has been included in Table 2.2-1. (This table will not be updated in the future.)

ACD 1.2 Planning and Scheduling Program/Preventative Maintenance Program

This directive defines the responsibilities and requirements in the administration and use of the Planning and Scheduling Program/Preventative Maintenance Program. The Planning and Scheduling Program schedules as required the testing, sampling and preventative maintenance tasks as specified in plant procedures, technical specifications, manufacturer's recommendations or any other tasks which are done on a routine schedule.

ACD 2.2 Control of Administrative Control Directives

This directive establishes requirements for the preparation, format, content, review, approval, revision, and control of Administrative Control Directives.

ACD 2.6 Plant Procedures

This directive defines the responsibilities and requirements for controlling plant procedures.

ACD 2.12 Retreival Lists

This directive provides instruction for adding to, deleting from and updating retrieval files. Through the implementation of this ACD, retrieval lists can be maintained current and accurate.

ACD 3.2 Material Requests

This directive defines the responsibilities and requirements for requesting and issuing material such as: stocked spares, non-stocked spares, non-spares, support items, special support items, and administrative items through the Supply Group. This directive defines who is responsible for ensuring the material request form is completed properly (i.e. quantity, date, spare part number, QA type, supporting documentation, etc.). This type of information is contained in the various informational handling systems.

ACD 3.3 Purchase Requisition

This directive defines the responsibilities and requirements for preparing Purchase Requisitions including who is responsible for providing the correct QC requirements, QA type, material specifications, etc.

ACD 3.6 Material Storage

This directive establishes the requirements for the storage of equipment, components, and materials at the plant site from the time an item is received until it is issued for use. Equipment, components and materials are stored in accordance with the requirements of their governing specifications, purchase orders, or vendor recommendations, whichever is most stringent. For cases where requirements are not specified by the designer or vendor, a four level classification system is used. An explanation of each level classification is provided below:

Level A - Items classified to level A are those which are "significantly" sensitive to environmental conditions and require "special" measures for protection from one or more of the following effects: Temperatures, sudden temperature changes, humidity and vapors, gravitational (g) forces, physical damage, contamination (rain, snow, dust, dirt, salt spray, fumes, etc.).

Level B - Items classified to level B are those which are sensitive to environmental conditions and require measures for protection from the effects of temperature extremes, humidity and vapors, g forces, physical damage and airborne contamination.

Level C - Items classified to level C are those which require protection from exposure to the environment, airborne contaminants, and physical damage. Protection from water vapor and condensation is not so critical as for level B items.

Level D - Items classified to level D are those which are less sensitive to the environment than level C. These items require protection against the elements, airborne contamination, and physical damage.

ACD 5.4 Work Requests

This directive establishes the method of identifying, controlling, and establishing requirements for the documentation of maintenance actions performed on plant equipment. This directive identifies who is responsible for completing the requested information.

ACD 8.6 Surveillance Procedures

This directive defines the responsibilities and requirements for the preparation and use of Surveillance Procedures and Surveillance Procedure Exception Reports. Surveillance Procedures are written to cover the running and documentation of a Technical Specification required surveillance check, test or calibration.

ECD 4.1 Design Change Control

This directive establishes the responsibilities and requirements governing the processing of all design change requests and the control of changes, tests, and experiments as required by NRC regulations.

Each of the above ACDs relies on the information retrieval system in order to fulfill their specified requirements. The information retrieval system utilized at the KNPP thus assures that plant, corporate and contract personnel all have access to a common and periodically updated retrieval system. Furthermore, periodic retrieval system updates ensure a consistent and accurate retrieval system capable of identifying safety-related equipment for purposes of design, maintenance and equipment procurement.

4. A description of the management controls utilized to verify that the procedures for preparation, validation and routine utilization of the information handling system have been followed.

WPSC Response

The controls utilized by WPSC management to verify that the procedures for preparation, validation, and routine utilization of the information handling system have been followed are divided up between many groups and/or individuals. These groups/individuals include the Plant Operating Review Committee, individual WPSC supervisors and QC technicians, and the corporate Quality Assurance Group. An explanation of how management controls activities through each of these groups/individuals is presented below:

Management controls extend through the use of ACDs

The Kewaunee Nuclear Plant management has established a system of Administrative Control Directives (ACDs) to govern activities of the Plant Staff and personnel under the direct or indirect control of the Plant Manager. These directives establish how activities will be conducted in the area of plant; supply, operation, maintenance, radiation and chemistry control, engineering, quality control, plant shutdown and special activities, security, plant emergencies, training, fire protection and safety. The ACDs for each of these areas describe who is responsible and what the requirements are.

Management controls safety-related work through the procedure review process

Prior to performing any safety related job which involves the utilization of procedures, the procedures must be reviewed by the Plant Operating Review Committee (PORC) and approved by the Plant Manager.

Management verifies work quality through the use of QC checkpoints

Quality Control checkpoints, inspections and QC signoffs are incorporated into procedures and maintenance work requests. This enables management to verify that the requirements of the Operational Quality Assurance Program are being implemented, to monitor quality control on all plant modifications, revisions, or repairs concerning QA Type 1 equipment.

Management controls maintenance activity through the use of maintenance work requests

A maintenance work request (MWR) is a form which describes the investigative, corrective, design change or temporary change work activity. The form identifies the work activity requirements, authorizes the work activity and documents the review of the work activity. Through the use of this form management controls all non-routine plant maintenance. (Routine maintenance that is not controlled by an MWR is controlled through other administrative means.) An item-by-item instruction for filling out a maintenance work request (Figure 2.2-2) is included in Table 2.2-2. (This figure and table will not be updated in the future.) Table 2.2-2 defines who is responsible for each signoff and the intent of the review.

Management control through the use of audits

The Quality Assurance Group conducts a systematic and in-depth audit program to verify compliance and implementation of the Operational Quality Assurance Program (OQAP). Audits are performed not only on plant site activities but include off-site and vendor activities as well. Audits verify

proper implementation of the OQAP and evaluate its effectiveness. Quality Assurance Directive (QAD) 14.1 establishes the requirements for planning, performing, and documenting audits.

In conclusion, the WPSC management is responsible for ensuring that the directives/procedures for the preparation and routine utilization of the information handling system at the KNPP, are in place.

Management, without the cooperation of every individual, group and/or vendor contact, cannot ensure quality performance even utilizing the most strict managment controls. Quality performance at the KNPP starts with the individual but does not end with any individual or group; rather quality performance at the KNPP applies throughout the entire organization. Written within the policy statement of the KNPP OQAP is the following statement:

> "Compliance with this program is mandatory for Wisconsin Public Service employees and equivalent measures appropriate to the circumstance shall be enforced upon suppliers of material, equipment, or services".

Translation of this statement means; "Quality Assurance is everyones job".

5. A demonstration that appropriate design verification and qualification testing is specified for procurement of safety-related components. The specifications shall include qualification testing for expected safety service conditions and provide support for the licensees' receipt of testing documentation to support the limits of life recommended by the supplier.

WPSC Response

The KNPP uses several methods which demonstrate that appropriate design verification and qualification testing is specified for procurement of safety related components. The methods used are not limited to replacement parts but include the procurement of new equipment being installed through a design change.

In the case of design changes, the cognizant person designs the modification and procures the equipment based on the QA type classification. Once the design has been finalized but prior to installation a review is performed by the PORCommittee. This review provides assurance that the system/components will not degrade nuclear safety or result in any unreviewed safety question. Specifications used for the procurement of new safety related equipment are generated by the design engineer using original plant design criteria in addition to new criteria and standards applicable to the KNPP. In conjunction with the specifications, the design engineer must also use qualified suppliers when purchasing safety related equipment. The following explains the qualified suppliers list, the directives used for purchasing new and replacement parts and the followup design verification performed after the design change is completed.

The Qualified Suppliers List is Used to Purchase Equipment

During the design and construction of the KNPP a "Qualified Bidders List" was prepared and utilized to procure equipment for the plant. After plant startup

in order to assure that qualified vendors continued to be used for the procurement of safety-related components, the KNPP established ACD 3.1 (Qualified Suppliers List). The Qualified Suppliers List is a continuation of the Qualified Bidders List and identifies acceptable vendors for the purchase of new plant components and replacement parts. Vendor additions and deletions from the Qualified Suppliers List are made in accordance with Quality Assurance Directive (QAD) 6.3. This directive establishes the requirements and responsibilities for the preparation, review, approval, revision and distribution of the Qualified Suppliers List. Measures for evaluation of suppliers include, as applicable, the use of:

- Evaluation of the supplier's history of providing a product which performs satisfactorily in actual use.

- Review of industry directories.

- Review of whether the prospective supplier has a quality assurance program approved by the NRC under the Vendor Inspection Program.

- Review of whether the prospective supplier is listed in a current CASE (Coordinating Agency for Supplier Evaluation) Nuclear or Aerospace Registers, or similar third party inspection publication.

- Review and evaluation of:

  (a) The supplier's quality assurance program, manual and procedures;

  (b) The supplier's design and manufacturing capability.

- WPS audit of the prospective supplier's technical and quality capability by directly evaluating his facilities, personnel, and the implementation of his quality assurance program.

IC

- Case by case evaluation as defined in the Operational Quality Assurance Program Section 6, Paragraph 3.5.6.

Directives are Used to Control the Procurement of Safety Related Equipment

Administrative Control Directives (ACD 3.3 Purchase Requisition) has been established to define the responsibilities and requirements for purchasing new or replacement parts. The purchase requisition originator is responsible for providing the proper specification information for the equipment. The Quality Control Supervisor is responsible for reviewing and verifying that the specification information is correct and accurate. For safety-related components an additional form entitled "Procurement Requirement Form" (Table 2.2-3) is required to be completed. (This table will not be updated in the future.) The "Procurement Requirement Form" supplements these specifications and code requirements which becomes a part of the purchase requisition.

Surveillance Procedure Continues to Verify the Qualification Testing Results

Surveillance and maintenance procedures continue to monitor equipment performance. Surveillance and maintenance procedures are written using the technical manuals supplied with the equipment. At such time that the equipment can no longer perform as required new components/parts can be purchased. The component/parts go through the same procurement process as explained above.

Appropriate equipment specification and testing requirements are specified for equipment subject to the requirements of 10 CFR 50.49.

6. Licensees and applicants need only to submit for staff review the equipment classification program for safety-related components. Although not required to be submitted for staff review, your equipment classification program should also include the broader class of structures, systems, and components important to safety required by GDC-1 (defined in 10 CFR Part 50, Appendix A, "General Design Criteria, Introduction").

WPSC Response

The overall equipment classification program for safety-related components is as described above.

With respect to the equipment classification program for structures, systems and components important to safety, we are participating in the Utility Safety Classification Group and are seeking a generic resolution to the staff's concern in this regard through the efforts of the Group. We do not agree that plant structures and components important to safety constitute a broader class than the safety-related set. We nevertheless believe that non safety-related plant structures, systems and components have been designed, and are maintained, in a manner commensurate with their importance to the safety and operation of the plant.

QA DECISION TREE

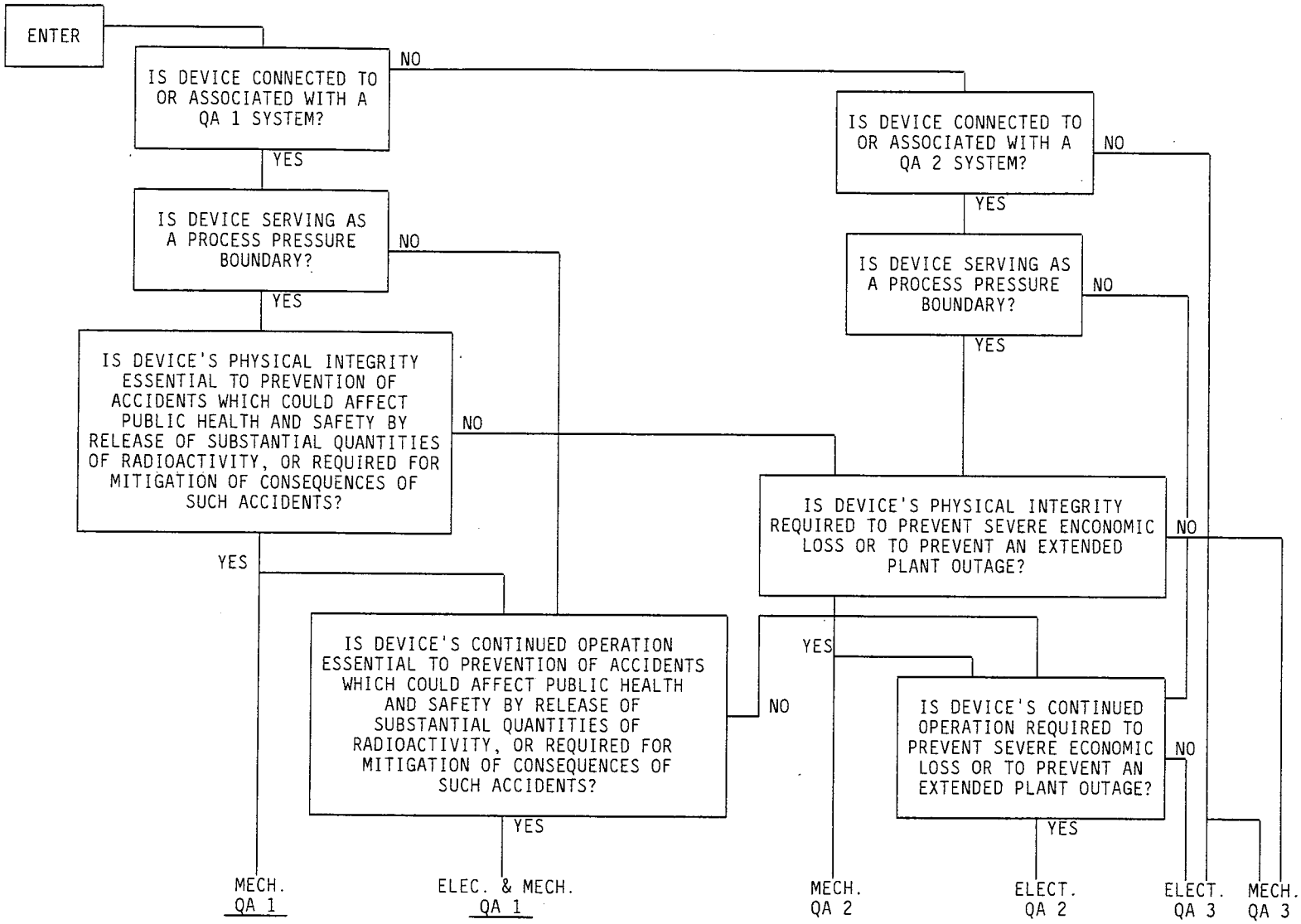

FIGURE 2.2-1

TABLE 2.2-1

KEWAUNEE NUCLEAR PLANT
ADMINISTRATIVE CONTROL DIRECTIVES

1.0 GENERAL

1.1 Safe Load Paths for the Fuel Handling and Reactor Building Polar Cranes
1.2 Planning and Scheduling Program/ Preventative Maintenance Program
1.3 Jumper Control Log
1.4 ISI Program
1.5 Crane Inspection
1.6 Temporary Changes
1.7 Environmental Qualification of Electrical Equipment
1.8 Independent Verification

2.0 ADMINISTRATION

2.1 Plant Organization
2.2 Control of Administrative Control Directives
2.3 Public Information Release (Non-Emergency)
2.5 Correspondence Management
2.6 Plant Procedures
2.7 Central Subject File
2.10 Reports to NRC
2.11 Monthly Operating Report to NRC
2.12 Retrieval Lists
2.13 Control of New Vendor Documents
2.14 Technical/Instruction Manual Revision Control
2.15 Overtime Policy
2.16 Incident Report

3.0 SUPPLY

3.1 Qualified Suppliers List
3.2 Material Request
3.3 Purchase Requisition
3.4 Receiving
3.5 Spare Part Inventory Control System
3.6 Material Storage
3.7 Shipping
3.8 Non-Comformance Report
3.9 Weld Material Control
3.10 Control of Compressed Gas Cylinders
3.11 Material Turn-in
3.12 Spare Parts Design Change Request Administration

KEWAUNEE NUCLEAR PLANT
ADMINISTRATIVE CONTROL DIRECTIVES

4.0 OPERATION

4.1 Operations Group Organization
4.2 Operating Procedures
4.3 Tagout Control
4.4 Assist. Supt.-Operations Night Orders
4.5 Shift Operation and Turnover
4.6 Operations Instructions
4.7 Shift Supervisor's Log
4.8 Reactor and Control Room Log
4.9 System Load Dispatching and Substation Switching
4.10 System Description
4.11 Control Room Access
4.12 Alarm Response Sheets
4.15 Writers Guide for Emergency OP's
4.16 Control of Pumps and Valves Inservice Testing Plan

5.0 MAINTENANCE

5.1 Maintenance Group Organization
5.2 Maintenance Procedures
5.3 Measuring and Test Equipment
5.4 Work Request
5.7 Bench Spares

6.0 RADIATION AND CHEMISTRY

6.1 Radiation Protection and Chemistry Group Organization
6.2 Chemistry and Health Physics Group Procedures
6.3 Radiation Work Permits
6.4 Non-Radiological Liquid Waste Discharge Permit
6.5 Personnel Monitoring
6.6 Radiological Gaseous Waste Discharge Permit
6.7 Radiological Liquid Waste Discharge
6.8 Radiological Survey & Radioanalytical Equipment Control
6.9 Control of Chemistry Analytical Equipment
6.10 Respiratory Protection Program
6.11 Medical Examination Program
6.12 Solid Radioactive Waste Disposal Program
6.13 Steam Cycle Chemistry Control Program

KEWAUNEE NUCLEAR PLANT
ADMINISTRATIVE CONTROL DIRECTIVES

7.0 INSTRUMENT AND CONTROL

7.1 I&C Group Organization
7.2 Measuring and Test Equipment
7.3 I&C Procedures
7.4 Bench Spares

8.0 ENGINEERING

8.1 Reactor Engineering Group Organization
8.2 Reactor Test Procedures (RTP)
8.3 SNM Safeguards and Accountability
8.4 Temporary Changes
8.5 Plant Modifications
8.6 Surveillance Procedures
8.7 Information & Operational Experience Review Program
8.8 Reactor Data Manual
8.9 Shift Technical Advisor Position Description
8.10 Reactor Engineering Group Reporting Requirements
8.11 Reactor Engineering Procedures
8.12 Drawing Changes
8.13 Engineering Change Recommendation
8.14 Technical Support Procedures
8.15 Design Change Procedures

9.0 PLANT QUALITY

9.1 Quality Control Group Organization
9.2 Plant QA Records
9.4 Quality Assurance Boundary
9.5 Corrective Action
9.6 QC Qualification and Training

10.0 PLANT SHUTDOWN AND SPECIAL ACTIVITIES

10.1 Refueling Shutdown
10.2 Fuel Shuffle
10.10 Westinghouse Refueling Operation

KEWAUNEE NUCLEAR PLANT
ADMINISTRATIVE CONTROL DIRECTIVES

11.0 SECURITY

11.1 Control of Plant Industrial Security
11.2 Admittance and Control of Personnel
11.3 Admittance and Control of Vehicles
11.4 Incoming Package and Materials Control
11.5 Personnel Security Responsibilities
11.6 Employee and Contractor Security Training
11.7 Liaison and Communication with Local Law Enforcement Agencies
11.8 Control of Security Safeguards Information
11.9 Security Force Organization and Duties
11.10 Security Patrols
11.11 Contractor Security Requirements
11.12 Security Logs, Reports, and Records
11.13 Use and Testing of Communication Equipment
11.14 Security Equipment Operating Instructions
11.15 Testing and Maintenance of Security Equipment
11.16 Security Compensatory Measures
11.17 Bomb Search
11.18 Response to Threatening Phone Calls

12.0 PLANT EMERGENCIES

12.1 Emergency Plan Implementing Procedures (EPIP)
12.2 Emergency Equipment Quarterly Inventory

13.0 PLANT STAFF TRAINING

13.2 Training Plan
13.3 Training Records
13.4 Emergency Preparedness Training
13.6 Radiation Protection Training
13.8 Control of Heavy Load
13.9 Department/Group Training
13.10 Operator Training
13.13 Kewaunee Plant Indoctrination
13.14 Trainer Evaluation

KEWAUNEE NUCLEAR PLANT
ADMINISTRATIVE CONTROL DIRECTIVES

14.0 FIRE PROTECTION

14.1 Plant Fire Protection Organization
14.2 Fire Emergency
14.5 Fire Brigade/Fire Team Training
14.6 Fire Hazards Review

15.0 PLANT OCCUPATIONAL SAFETY

15.1 Plant Safety Organization
15.2 Occupational Injuries or Vehicle Accident During Normal Operations

Requisition Number (1): 25261

KEWAUNEE NUCLEAR POWER PLANT
WORK REQUEST FORM
Form 145.501 Rev. 9-83

SYS. NO. (2) | COMPONENT IDENTIFICATION (3) | RESPONSIBLE GROUP (4): Elec ☐ Mech ☐ IC ☐ HP ☐ | TEMP. CHG REQ. NO. (5) | DESIGN.CHG. REQ. NO. (6) | MAINT. TYPE (7): Emerg ☐ Rout. ☐ | REROUTE TO ORIGINATOR WHEN JOB IS DONE (8): ☐ YES ☐ NO INITIALS

Equipment Description (9)

Initial Problems or Failure Description, Failure Detection, & Location: (10)

ORIGINATOR (11) _____ DATE _____

START FAILURE (12): Mo | Da | Yr | Hr. | Min.

Completion Date Req. (13): Mo. | Da. | Yr.

Plant Mode Code During Failure ☐ (14)

Priority Code ☐ (15) | Plant Mode During Work ☐ (16) | RWP Req. ☐ (17) | OA Type ☐ (18) | Fire Hazard Review Req. ☐ (19) | EQ Type ☐☐ (20)

MC Review (21) _____ Date _____

Approval To Begin Work: | Tagout Number: (22) | RWP Number: (23) | Maint./Ops Supvr. or Shift Supvr. (24) _____ Date _____

Lead Man (25) _____ Date _____

Work Completion Data	Material Requisitions (30)	Associated Work Requests (31)	WORK DONE BY: (32)

JOB MAN–HOURS (33): Elec | Mech | I & C | Oper | Rdch | Hphy | Other

JOB START DATE (34): Mo Da Yr Hr Min

JOB COMPLETION DATE (35): Mo Da Yr Hr Min

Failure Description (36)

Cause (37)

Correc. Action (38)

RETEST REQUIRED ☐ YES ☐ NO

TYPE OF TEST (26)

Reviewer (27)

RETEST COMPLETED ☐ SAT ☐ UNSAT (28)

RETEST BY (29) _____ DATE _____

Reviewer (39) _____ Date _____

QC Review (40) _____ Date _____

Maint./Ops. Supvr. or Shift Supvr. (41) _____ Date _____

Group Supvr. (42) _____ Date _____

MC Review (43) _____ Date _____

NPRD REPORT REQUIRED? (44) ☐ YES ☐ NO

FOLLOW-UP ACTION REQUIRED (45) ☐ YES ☐ NO

Tech. Review (46) _____ Date _____

Fire Marshal (47) _____ Date _____

QC Review (48) _____ Date _____

Comments: (49)

(50) _____ (51) _____

Figure 2.2-2

Field #: 1

Field Name: Sequence Number

Field Content: This is the sequential numbering of the work request and is preprinted on the form.

Responsible Person: N/A

Original/Copies To Be Routed To: N/A

Field #: 2

Field Name: System Number

Field Content: This is the number of the system (per KNPP numbering convention) that contains the component/equipment to be worked on.

Responsible Person: Originator

Original/Copies To Be Routed To: N/A

Field #: 3

Field Name: Component Identification

Field Content: This is the WPS-assigned component identification number taken from instrument, valve, mechanical, electrical, or structural component lists.

If there is no WPS-assigned number, this field should be marked "N/A"; supplementary number references should be included in Field #10.

Responsible Person: Originator

Original/Copies To Be Routed To: N/A

Field #: 4

Field Name: Responsible Group

Field Content: This is the KNPP group or department having overall responsibility for the performance of the work.

For contracted work, this field indicates the general nature of the work to be done.

Responsible Person: Originator

Original/Copies To Be Routed To: N/A

Field #: 5

Field Name: Temporary Change Request Number

Field Content: When applicable, this is the TCR number as assigned by the Operations Superintendent.

If work to be performed is not pertinent to a TCR, "N/A" should be indicated.

Responsible Person: Originator

Original/Copies To Be Routed To: N/A

Field #: 6

Field Name: Design Change Request Number

Field Content: When applicable, this is the DCR number as assigned by the Design Change Group.

If work to be performed is not pertinent to a DCR, "N/A" should be indicated.

Responsible Person: Originator

Original/Copies To Be Routed To: N/A

Field #: 7

Field Name: Maintenance Type

Field Content: This specifies the overall type of maintenance (see step 3.7 & 3.8 of this ACD for definition of routine and emergency maintenance).

Responsible Person: Originator

Original/Copies To Be Routed To: N/A

Field #: 8

Field Name: Reroute to Originator When Job Is Done

Field Content: This specifies that the completed work documentation package is, or is not, to be returned to the originator for review. The Originator's review is indicated by initialing the designated area, after work is completed. "

Responsible Person: Originator

Original/Copies To Be Routed To: N/A if no review requested. If Originator requested review, he/she will receive the work documentation package from Maintenance Coordinator (MC Review/Date, field #43). The Originator reviews, initials (field #8) and routes the work request package to the Plant Systems/Reliability Supervisor.

Field #: 9

Field Name: Equipment Description

Field Content: This is an abbreviated description of the equipment/component requiring maintenance. Typically, this description is taken from instrument, valve, mechanical, electrical, or structural component lists.

If the the component/equipment is not identified in the WPS retrieval lists, the originator shall briefly describe, in his own words, the component/equipment.

Responsible Person: Originator

Original Copies To Be Routed To: N/A

Field #: 10

Field Name: Initial Problems or Failure Description, Failure Detection & Location

Field Content: This narrative field provides an accurate, complete description of the problem indication (for investigative maintenance), failure description, (for corrective maintenance), or installation/modification summary and instructions (for DCR installation/modification).

Included in this section is the method of failure detection (e.g., routine inspection, audio/visual alarm, etc.) and location of equipment/component.

Corrective maintenance and DCR/TCR modification/installation work requests should reference all appropriate installation and test procedures (e.g., GMP's, SP's, ICP's, etc.) if known. When DCR/TCR work is indicated the originator should refer to ACD 8.5, ACD 8.4 for TCR's.

Responsible Person: Originator

Original/Copies To Be Routed To: N/A

Field #: 11

Field Name: Originator/Date

Field Content: The Originator signs and dates the work request form. The Originator signature indicates that his/her responsibilities (per Appendix A to this ACD) are satisfied (i.e., complete and accurate.)

Responsible Person: Originator

Original/Copies To Be Routed To: N/A

Field #: 12

Field Name: Start Failure

Field Content: For investigative or corrective maintenance, this indicates the month, day, year, and time of the problem or failure.

For DCR/TCR, installation/modification, this field is not applicable and should be marked "N/A".

Responsible Person: Originator

Original/Copies To Be Routed To: N/A

Field #: 13

Field Name: Completion Date Required

Field Content: This indicates the date by which the work activity should be completed. Of particular concern are time limits as stated in the Limiting Conditions for Operation (KNPP Technical Specifications). If no time constraints apply, this field should be marked N/A or a line drawn through it.

The basis for any time constraints noted should be referenced under "Comments", field #49.

Responsible Person: Originator

Original/Copies To Be Routed To: N/A

Field #: 14

Field Name: Plant Mode Code During Failure

Field Content: This code designates the operational status (e.g., full power, cold shutdown, etc.) of the plant at the time of the equipment/component malfunction (for investigative or corrective maintenance).

Applicable codes are given on the reverse side of the work request.

Responsible Person: Originator

Original/Copies To Be Routed To: The original and all copies are forwarded to the Maintenance/Operations Supervisor.

Field #: 15

Field Name: Priority Code

Field Content: This designates the urgency or level of attention, demanded by the work activity.

Applicable codes are given on the reverse side of the work request.

Responsible Person: Maintenance/Operations Supervisor
Maintenance Coordinator or Shift Supervisor if Maintenance/ Operations Supervisor is unavailable

Original/Copies To Be Routed To: N/A

Field #: 16

Field Name: Plant Mode During Work

Field Content: This entry specifies the operational status of the plant during the performance of the work. If more than one code is applicable, enter all applicable codes.

Applicable codes are given on the reverse side of the work request.

Responsible Person: Maintenance/Operations Supervisor
Maintenance Coordinator or Shift Supervisor if Maintenance/ Operations Supervisor is unavailable

Original/Copies To Be Routed To: N/A

Field #: 17

Field Name: RWP Required

Field Content: An "x" in this field indicates the need for a Radiation Work Permit prior to the start of work.

If an RWP is not necessary, this field should be left blank.

Responsible Person: Maintenance/Operations Supervisor
Maintenance Coordinator or Shift Supervisor if Maintenance/ Operations Supervisor is unavailable

Original/Copies To Be Routed To: N/A

Field #: 18

Field Name: QA Type

Field Content: This entry indicates the QA type of the equipment/component to be installed, repaired or modified.

A summary of QA types is given on the reverse side of the work request.

Responsible Person: Maintenance/Operations Supervisor
Maintenance Coordinator or Shift Supervisor if Maintenance/ Operations Supervisor is unavailable

Original/Copies To Be Routed To: N/A

Field #: 19

Field Name: Fire Hazard Review Required

Field Content: An "x" in this field indicates the need for a Fire Hazard Review (see ACD 14.6) prior to the start of flame cutting, brazing, grinding, etc. If a Fire Hazard Review is not required, this field should be left blank in the event it is later deemed necessary.

Responsible Person: Maintenance/Operations Supervisor
Maintenance Coordinator or Shift Supervisor if Maintenance/ Operations Supervisor is unavailable

Original/Copies To Be Routed To: N/A

Field #: 20

Field Name: EQ Type

Field Content: The appropriate EQ type code indicates the need or lack thereof, for special considerations prior to, during and following the performance of the work (see KNPP Environmental Qualification Plan). A summary of EQ codes is on reverse side of work requests.

Responsible Person: Maintenance/Operations Supervisor
Maintenance Coordinator or Shift Supervisor if Maintenance/ Operations Supervisor is unavailable

Original/Copies To Be Routed To: N/A

Field #: 21

Field Name: MC Review/Date

Field Content: The Maintenance/Operations Supervisor signs and dates the work request. This signature indicates that his responsibilities (per Appendix A to this ACD) are satisfied (i.e., accurate and complete). In addition, this review addresses:

- preliminary determination of the need for a DCR. If a change in the physical plant which causes a system, structure, or component to differ from the applicable design document for that item is indicated, the Maintenance/Operations Supervisor will return the work request to the originator for proper dispensation per ACD 8.5.
- determination of additional work requirements. The Maintenance/Operations Supervisor may make additional references, as necessary, in the "Comments" section. (Field 49)
- preliminary screening of work activities in order to identify potential scheduling problems due to current work force, operational limitations, equipment availability, materials accessibility, etc.

Responsible Person: Maintenance/Operations Supervisor
Maintenance Coordinator or Shift Supervisor if Maintenance/Operations Supervisor is unavailable

Original/Copies To Be Routed To: Copy 5 is forwarded to the Maintenance Coordinator. Copies 1, 2, 3 and 4 are routed to the appropriate Group Supervisor.

Field #: 22

Field Name: Tagout Number

Field Content: This number is assigned by Operations personnel. If no tagout is required, "N/A" should be entered.

NOTE: ACD 4.5 requires the tagging of the Control Room device (e.g., switch, etc.) for all out-of-service equipment.

Responsible Person: Shift Supervisor

Original/Copies To Be Routed To: N/A

Field #: 23

Field Name: RWP Number

Field Content: If a Radiation Work Permit (field #17) is required, the appropriate RWP numbers as assigned by the Radiation Protection Group, is entered.

If no RWP is required, "N/A" should be entered.

Responsible Person: Maintenance/Operations Supervisor for non-operational maintenance. Shift Supervisor for all other maintenance activities.

Original/Copies To Be Routed To: N/A

Field #: 24

Field Name: Maintenance/Operations Supervisor or Shift Supervisor/Date

Field Content: The Maintenance/Operations Supervisor signs and dates the work request for non-operational maintenance. The Shift Supervisor signs and dates the work request for all other maintenance activities. This signature indicates that his responsibilities (per Appendix A of the ACD) are satisfied. Also, see ACD 4.3.

This signature gives authorization to start the subject activity when all prerequisites are completed.

Responsible Person: Maintenance/Operations Supervisor for non-operational maintenance. Shift Supervisor for all other maintenance activities.

Original/Copies To Be Routed To: The Shift Supervisor (or Maintenance/Operations Supervisor, as appropriate) retains copy 4 of the work request for a record of maintenance in progress.

Copies 1, 2 and 3 of the work request are returned to the assigned worker for performing the work.

Field #: 25

Field Name: Lead Man/Date

Field Content: The foreman/leadman signs and dates the work request form. This signature indicates his/her responsibilities (per Appendix A of this ACD) are satisfied (i.e., complete and accurate) and the scheduled work activity is completed.

The leadman review ensures:

- an accurate failure cause, and corrective action description (field #36, 37 and 38).
- the identification of test equipment by name, serial number, instrument numbers, etc.
- additional procedural technical manual, etc. references in the "Comments" section.
- necessary documentation (e.g., material requests, marked up drawings, completed procedures, cable pull cards, etc.) is attached.
- proper QC documentation and sign-off, when needed.

Responsible Person: Foreman/Leadman

Original/Copies To Be Routed To: Copies 1, 2, and 3 of the work request are forwarded to the QC Technician for signature and date and returned to the leadman.

Copies 1, 2 and 3 of the work request are then forwarded to the Group Supervisor for determination of retest.

Field #: 26

Field Name: Retest Required/Type of Test

Field Content: This entry indicates the need for a component/equipment/system retest and the type of test (full flow, partial SP, ICP, etc.) to be performed on completion of the job. If a retest is not required, "NO" should be checked and "N/A" entered under Type of Test.

Retest procedure numbers shall be noted here; ambiguous, indefinite terminology such as "functional", "operable", etc. should be avoided.

Copies of completed retest data sheets, checklists, etc. should be attached to the work request package.

Responsible Person: Shift Supervisor and Group Supervisor

Original/Copies To Be Routed To: N/A

Field #: 27

Field Name: Reviewer

Field Content: This is the signature of the person specifying a retest.

If the retest determination falls outside the scope of the responsible group, the Group Supervisor shall contact the appropriate group for guidance and assistance.

Responsible Person: Shift Supervisor and Group Supervisor

Original/Copies To Be Routed To: Lead Man

Field #: 28

Field Name: Retest Completed Sat/Unsat

Field Content: The required end result of corrective or modification/ installation maintenance is a functional, operable component or system. Therefore, an "Unsat" entry in this field is not permitted; the work request should remain active and maintenance action continued until the desired result (a satisfactory retest) is achieved.

If a retest is not required, this field should be left blank.

Responsible Person: Person performing retest.

Original Copies To Be Routed To: N/A

Field #: 29

Field Name: Retest By/Date

Field Content: The person performing the retest signs and dates the work request. This signature indicates:

- the retest was performed in accordance with the appropriate procedures (referenced in field #26 or "Comments" section).
- the retest acceptance criteria was satisfied.

Copies of retest data sheets, check lists, etc. should be attached to the work request package.

Responsible Person: Person performing retest.

Original/Copies To Be Routed To: Copies 1, 2, and 3 of the work request are forwarded to the Shift Supervisor (Maintenance/ Operations Supervisor for non-operational maintenance).

Field #: 30

Field Name: Material Requisitions

Field Cnntent: All Material Requests associated with the performance of the maintenance activity are to be referenced in this field. Additional references should be included in the "Comments" section or on a work request continuation sheet.

If there were no associated Material Requests, "N/A" should be entered, or a line drawn through the field to indicate that it does not apply.

Responsible Person: Foreman/Leadman

Original/Copies To Be Routed To: N/A

Field #: 31

Field Name: Associated Work Requests

Field Content: Other maintenance activities that should be, or have been, associated with the subject work request should be referenced in this field. If one work request prompts the initiation of another work request (e.g., temporary repairs require follow-up and permanent repairs at a later date) they should be cross-referenced by entries in this field. Additional reference should be included in the "Comments" section, or on a work request continuation sheet. If there were no associated work requests, "N/A' should be entered, or a line drawn through the field to indicate that it does not apply.

Responsible Person: Group Supervisor

Original/Copies To Be Routed To: N/A

Field #: 32

Field Name: Work Done By

Field Content: This indicates the name or initials of the person(s) performing the work.

Responsible Person: Foreman/Leadman

Original/Copies To Be Routed To: N/A

Field #: 33

Field Name: Job Man Hours

Field Content: This indicates the total man-hours by department/group, of participation in the maintenance work activity.

The leadman of the group having major responsibility for the activity should coordinate with leadmen from other groups in order to make an accurate entry.

Responsible Person: Foreman/Leadman

Original/Copies To Be Routed To: N/A

Field #: 34

Field Name: Job Start Date

Field Content: This indicates the start date and time of the maintenance work activity.

Responsible Person: Foreman/Leadman

Original/Copies To Be Routed To: N/A

Field #: 35

Field Name: Job Completion Date

Field Content: This indicates the completion date and time for the maintenance work activity.

The job is not considered complete until retest acceptance criteria has been satisfied (if a retest is required).

Responsible Person: Foreman/Leadman

Original/Copies To Be Routed To: N/A

Field #: 36

Field Name: Failure Description

Field Content: For corrective and investigative maintenance, this field is a brief narrative describing the failure mode. This narrative should be accurate and complete. If additional space is needed, the "Comments" section or a work request continuation sheet should be used.

For DCR/TCR installation/modification work this field should be marked "N/A" since it does not apply.

Responsible Person: Foreman/Leadman

Original/Copies To Be Routed To: N/A

Field #: 37

Field Name: Cause

Field Content: For corrective and investigative maintenance, this is a brief narrative describing the root cause of the failure (e.g., torque switch out of adjustment prevented full closure of valve). This narrative should be accurate and complete. If additional space is needed, the "Comments" section or a work request continuation sheet should be used.

For DCR installation/modification work this field should be marked "N/A" since it does not apply.

Responsible Person: Foreman/Leadman

Original/Copies To Be Routed To: N/A

Field #: 38

Field Name: Corrective Action

Field Content: For corrective and investigative maintenance, this is a brief narrative describing the maintenance action taken (e.g., adjusted torque switch per GMP and performed valve timing test per SP). This narrative should be accurate and complete; include procedure references when appropriate. If additional space is needed, the "Comments" section or a work request continuation sheet should be used. For DCR installation/ modification work this is a brief narrative describing the activity (e.g., installed and acceptance tested new air drive motor on fuel transfer cart). This narrative should be accurate and complete; include procedure references when appropriate. If additional space is needed, the "Comments" section, or a work request continuation sheet should be used.

Responsible Person: Foreman/Leadman

Original Copies To Be Routed To: N/A

Field #: 39

Field Name: Reviewer/Date

Field Content: The Shift Supervisor signs and dates to indicate that he has reviewed data sheets, checklists, etc. pertinent to the retest.

If no retest was required, the Shift Supervisor or Maintenance/ Operations Supervisor, when applicable, enters N/A.

Responsible Person: Shift Supervisor

Original Copies To Be Routed To: Copies 1, 2 and 3 returned to worker.

Field #: 40

Field Name: QC Review/Date

Field Content: The QC Technician signs and dates the work request. This signature ensures:

- materials and work meet appropriate specifications
- other special requirements (e.g., welding procedures, code inspection, NDE requirements. etc.) are identified prior to the start of work. Special requirements should be noted in the "Comments" section. or on a work request continuation sheet or per GMP-207 Checksheet or QCP-200 checksheet.

Respnnsible Person: QC Technician

Original/Copies To Be Routed To: The QC Technician returns copies 1, 2 and 3 to the leadman.

Field #: 41

Field Name: Maintenance/Operations Supervisor or Shift Supervisor/Date

Field Content: The Shift Supervisor (Maintenance/Operations Supervisor for non-operational maintenance) signs and dates the work request. This signature ensures:

- the work has been completed, appropriate tags removed, and equipment returned to service.
- equipment has been retested satisfactory, when appropriate.

Responsible Person: Maintenance/Operations Supervisor for non-operational maintenance, Shift Supervisor for all other maintenance activities.

Original/Copies To Be Routed To: Copy 4 of the work request (signed and dated) is retained for the Maintenance Coordinator.

Copies 1, 2, and 3 (signed and dated) are returned to the leadman or assigned worker.

Field #: 42

Field Name: Group Supervisor/Date

Field Content: The appropriate group supervisor signs and dates the work request. This review ensures:

- performance of the work activity as requested
- proper documentation of the maintenance work activity; references should be complete and accurate and the necessary documentation should be attached, or in QA vault
- complete, accurate narrative description of failure, cause, and corrective action

Responsible Person: Group Supervisor

Original/Copies To Be Routed To: Copy 2 of the work request is retained by the Group Supervisor for maintenance records.

The remainder of the work request package (Copies 1 and 3, and attached documentation) is forwarded to the Maintenance Coordinator.

Field #: 43

Field Name: MC Review/Date

Field Content: The Maintenance Coordinator signs and dates the work request. This review ensures records accountability.

Responsible Person: Maintenance Coordinator

Original/Copies To Be Routed To: If the originator did not request a post work review, (field #8) the work request package is forwarded to the Plant Systems/Reliability Supervisor.

If the originator did request a post work review, (field #8), the work request package shall be routed to him. The originator on completion of review, will forward the work request package to the Plant Systems/ Reliability Supervisor.

Field #: 44

Field Name: NPRD Report Required

Field Content: This indicates the need or lack thereof, for a follow-up report, (e.g., Failure Report, Out-of-Service Report, etc.) to the NPRDS data base via INPO.

Responsible Person: Plant Systems/Reliability Supervisor

Original/Copies To Be Routed To: N/A

Field #: 45

Field Name: Follow-up Action Required

Field Content: This entry indicates the need or lack thereof, for follow-up action (e.g., Incident Report, Operational Experience Assessment, generic or common mode failure investigation, etc.) Follow-up action referred to cognizant supervisor.

Responsible Person: Plant Systems/Reliability Supervisor

Original/Copies To Be Routed To: N/A

Field #: 46

Field Name: Tech Review/Date

Field Content: The Plant Systems/Reliability Supervisor signs and dates the work request. This review ensures:

- the identification and correction of significant safety related problems
- investigation of recurrent problems/failures
- investigation of potential generic problems
- review by the PORCommittee when needed
- that an incident report is generated, when needed (see ACD 2.16)
- the initiation of follow-up action (e.g., cause of failure investigation, procedures changes, DCR/TCR initiation, etc.)

All applicable references (e.g., Incident Report #, Operational Experience Assessment #, etc.) should be included in the "Comments" section.

Responsible Person: Plant Systems/Reliability Supervisor

Original/Copies To Be Routed To: The work request package is forwarded to the Fire Marshal

Field #: 47

Field Name: Fire Marshal/Date

Field Content: The Fire Marshal signs and dates the work request. This review ensures:
- that the necessary preventive measures were taken when the maintenance activity involved combustible materials and ignition sources. If a Fire Hazards Review was required, the Fire Marshal attaches the white copy of the Fire Hazard Review Form to the work request package.

Responsible Person: Fire Marshal

Original/Copies To Be Routed To: The work request package is routed to the Plant Records Coordinator.

Field #: 48

Field Name: QC Review/Date

Field Content: The Plant Records Coordinator attaches all original documentation. This review ensures:
- conformance to plant QA standards
- complete, accurate documentation of the maintenance activity.
- signed and dated by QC Supervisor

Responsible Person: QC Supervisor

Original/Copies To Be Routed To: Copy 3 of the work request is forwarded to the Maintenance Coordinator. The completed work request package is forwarded to the plant QA file (vault).

Field #: 49

Field Name: Comments

Field Content: This field is to be used by any person when they require space to provide additional information (e.g., procedure references, vendor manual references, etc.). If more additional space is needed, a work request continuation sheet should be used.

Responsible Person: Any Reviewer

Original/Copies To Be Routed To: N/A

Field #: 50

Field Name: Continuation Sheet Used

Field Content: This indicates whether a work request continuation sheet is used to provide additional information.

When used, the work request continuation sheet should be attached to the work request form.

Responsible Person: Any Reviewer or person doing the work

Original/Copies To Be Routed To: N/A

Field #: 51

Field Name: Distribution

Field Content: This summarizes the person/department receiving the designated copies of the work request form.

This field is informational and requires no entry.

Responsible Person: N/A

Original/Copies To Be Routed To: N/A

TABLE 2.2-3

WISCONSIN PUBLIC SERVICE CORPORATION

PROCUREMENT REQUIREMENTS FOR P.O. #_____

The following requirements, as applicable, supplement those specification and code requirements which may be a part of this purchase order and are not intended to derogate those requirements outlined elsewhere in this purchase order:

		APPLICABLE	N/A
1.0	Quality Assurance Program - The supplier shall have a documented and implemented quality assurance program that conforms to 10CFR50, Appendix B and ANSI N45.2, as applicable, and invoke those requirements upon all sub-suppliers as required . . . . . (CODE 063). .	☐	☐
2.0	Right of Access - WPS reserves the right of access to the suppliers' facilities and QA records when the need for such evaluation/surveillance/inspection has been determined . . . . . (CODE 064). .	☐	☐
3.0	Document Requirements - All required documentation described within the text of this purchase order or attached hereto must be legible and of microfilmn quality and meet the requirements of this purchase order. Support documentation must be retained by the supplier for the life of the plant or if disposition of said documentation is desired, WPS will be notified to determine resolution . . . . . (CODE 066). .	☐	☐
4.0	Hold and Witness Points - The supplier shall not proceed with fabrication beyond any specified hold/witness points as attached hereto without prior written authorization from WPS . . .	☐	☐
5.0	Nonconformances - All nonconformances noted by the supplier shall be reported to WPS and all dispositions/corrective action approved and/or acknowledged by WPS prior to their implementation . . . . . (CODE 065). .	☐	☐
6.0	Technical Requirements/Specifications/Scope of Work are provided either within the text of this purchase order or attached hereto	☐	☐
7.0	10CFR21 - The materials, components or services provided under this purchase order are nuclear related. Therefore, a defect or noncompliance discovered by the supplier shall be evaluated and reported, if necessary, by the supplier under part 21 of title 10, chapter 1 of the Code of Federal Regulations . . (CODE 039). .	☐	☐
8.0	Contractor Security Requirements - Services provided by this purchase order must be in compliance with ACD 11.11 . . (CODE 041). .	☐	☐
9.0	Withhold of Payment - Wisconsin Public Service Corporation's invoices will not be paid until all documentation requirements have been fulfilled . . . . . (CODE 060). .	☐	☐
10.0	Additional requirements as attached hereto	☐	☐
11.0	Two copies of the following signed statements, under the vendor's letterhead, shall be furnished to D. C. Hintz at Wisconsin Public Service Corporation, Kewaunee Nuclear Power Plant, Route 1, Box 48, Kewaunee, Wisconsin 54216, prior to, or included with the shipment: Certification of conformance that all material as listed above is in accordance with the requirements of the purchase order/contract, and that all applicable manufacturing, inspection, and test reports are on file and are available for review or have been shipped with the material (CODE 067). .	☐	☐
12.0	The following signed statement shall be furnished to D. C. Hintz at Wisconsin Public Service Corporation, Kewaunee Nuclear Power Plant, Route 1, Box 48, Kewaunee, Wisconsin 54216, prior to, or included with, the return of each instrument. 1) A record identifying the "as-found" Calibration. (vendors recommended test cards or equivalent) 2) Certificate of Calibration identifying final Calibration, traceable to a national standard. Identification of the transfer standard required. 3) A summary of changes or rework necessary to restore equipment to its original specification, including spare parts, shall be provided. 4) Certificate of Conformance stating that test instruments repaired on this P.O. meet all of the specified performance, accuracy, and functional requirements established by the Manufacturer (Code 068)	☐	☐

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TABLE 3.1-1

Comparison of - Westinghouse Maintenance Recommendations for the DB-50 Reactor Trip Breackers and the KNPP Maintenance Procedures

ACTIVITY	ITEM	SUGGESTED FREQUENCY	KNPP MAINTENANCE PROCEDURE
1a	Trip Breaker Manually	6 Months	PMP 47-1, Section 3.0 See Note 1
1b	Trip Bar, Freedom of Movement	6 Months	PMP 47-1, Section 4.0 See Note 1
2a	Operating Mechanism Manual Test	6 Months	PMP 47-1, Section 4.11 See Note 1
2b	Rotate Operating Handle	6 Months	PMP 47-1, Section 4.11 See Note 1
2c	Observe Freedom of Movement	6 Months	PMP 47-1, Section 4.10 See Note 1
2d	Cleanliness	6 Months	PMP 47-1, Section 4.0 See Note 1
2e	Latch Breaker	6 Months	PMP 47-1, Section 4.11 See Note 1
2f	Trip Breaker Manually	6 Months	PMP 47-1, Section 4.11 See Note 1
2g	Remove Wire	6 Months	PMP 47-1, Section 4.11 See Note 1
3	Check Retaining Rings	6 Months	PMP 47-1, Section 4.0 See Note 1
4	Check Bolts	6 Months	PMP 47-1, Section 4.0 See Note 1
5	Pole Buses	6 Months	PMP 47-1, Section 4.0 See Note 1
6a	Check Arcing and Main Contacts	6 Months	PMP 47-1, Section 4.4 See Note 1
6b	Check Gap	6 Months	PMP 47-1, Section 4.5 See Note 1
7	Check Insulating Link for Cleanliness	6 Months	PMP 47-1, Section 4.0 See Note 1
8	Check Wiring	6 Months	PMP 47-1, Section 4.0 See Note 1

2

ACTIVITY	ITEM	SUGGESTED FREQUENCY	KNPP MAINTENANCE PROCEDURE
9	Arc Chutes	6 Months	PMP 47-1, Section 4.3 See Note 1
10	Check for Loose Bolts	6 Months	PMP 47-1, Section 4.0 See Note 1
11	Cleanliness	6 Months	PMP 47-1, Section 4.0 See Note 1
12a	Examine Contacts	6 Months	PMP 47-1, Section 4.0 See Note 1
12b	Check Control Relay	6 Months	See Note 2
13a	Recommended Service Life	6 Months	See Note 3
13b	UVTA	6 Months	PMP 47-1, Section 4.0 See Note 1
13c	Dropout Voltage Test	6 Months	See Note 4
13d	Visible Gap	6 Months	PMP 47-1, Section 4.0 See Note 1
13e	Bolt Tightness	6 Months	PMP 47-1, Section 4.0 See Note 1
14a	Shunt Trip non-binding	6 Months	PMP 47-1, Section 4.0 See Note 1
14b	Trip Level Clearance	6 Months	PMP 47-1, Section 4.11.2 See Note 1
14c	Check Bolts	6 Months	PMP 47-1, Section 4.0 See Note 1
14d	Check Shunt Trip	6 Months	See Note 5
15a	Check Aux Contacts	6 Months	PMP 47-1, Section 4.0 See Note 1
15b	Inspect Contacts	6 Months	PMP 47-1, Section 4.0 See Note 1
15c	Mounting Bolts	6 Months	PMP 47-1, Section 4.0 See Note 1
16a	Check Positioning Lever	6 Months	PMP 47-1, Section 4.0 See Note 1
16b	Stop Pin	6 Months	PMP 47-1, Section 4.0 See Note 1

ACTIVITY	ITEM	SUGGESTED FREQUENCY	KNPP MAINTENANCE PROCEDURE
16c	Trip Arm	6 Months	PMP 47-1, Section 4.0 See Note 1
17a	Functional Check Prior to Returning to Service	6 Months	PMP 47-1, Section 5.2.2 See Note 1
17b	Check for Visible Clearance	6 Months	PMP 47-1, Section 4.14 See Note 1
18a	Trip Breaker	Annual	PMP 47-1, Section 3.0
18b	Close Breaker in Test Position & Trip it	Annual	PMP 47-1, Section 4.0
18c	Try Closing Breaker Between Positions	Annual	See Note 6
19a	Remove Breaker	Annual	PMP 47-1, Section 4.15
19b	Inspect Breaker	Annual	PMP 47-1, Section 4.0
19c	Clean Enclosure	Annual	PMP 47-1, Section 4.0
19d	Check for Loose Bolts	Annual	PMP 47-1, Section 4.0
19e	Inspect Support Rails	Annual	PMP 47-1, Section 4.0
20	Trip Force	Annual	PMP 47-1, Section 4.15 2
21	Functional Test	Monthly	SP 47-062

NOTE 1) This maintenance activity is being performed on an annual basis, during refueling. Our Maintenance Department feels that due to past history and operating experience that this schedule has proven to be adequate.

NOTE 2) The operation of the control relay is demonstrated monthly during SP-062.

NOTE 3) The recommended service life of the UVTA is 1250 operations. Over the forty year life span of this plant that averages out to over thirty trips per year.

NOTE 4) This test is not done at KNPP. However, operability of the UVTA is checked monthly during SP-062 and annually during PM 47-1.

NOTE 5) The shunt trip feature is checked during PMP 47-1 while checking breaker response time.

NOTE 6) WPSC feels this test may incure more damage to the breaker than provide useful information.