April 17, 2002

Mr. M. Warner
Site Vice President
Kewaunee and Point Beach Nuclear Plants
Nuclear Management Company, LLC
6610 Nuclear Road
Two Rivers, WI 54241

SUBJECT: KEWAUNEE NUCLEAR POWER PLANT
NRC INSPECTION REPORT 50-305/02-02

Dear Mr. Warner:

On March 31, 2002, the NRC completed an inspection at your Kewaunee Nuclear Power Plant. The enclosed report documents the inspection findings which were discussed on April 4, 2002, with you, Mr. F. Cayia, and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

No findings of significance were identified.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records System (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Roger D. Lanksbury, Chief
Branch 5
Division of Reactor Projects

Docket No. 50-305
License No. DPR-43

Enclosure: Inspection Report 50-305/02-02

See Attached Distribution

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D. Graham, Director, Bureau of Field Operations
Chairman, Wisconsin Public Service Commission
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REGION III

Docket No:	50-305
License No:	DPR-43
Report No:	50-305/02-02
Licensee:	Nuclear Management Company, LLC
Facility:	Kewaunee Nuclear Power Plant
Location:	N 490 Highway 42 Kewaunee, WI 54216
Dates:	February 22 through March 31, 2002
Inspectors:	J. Lara, Senior Resident Inspector Z. Dunham, Resident Inspector D. Nelson, Radiation Specialist P. Lougheed, Reactor Engineer
Approved By:	Roger D. Lanksbury, Chief Branch 5 Division of Reactor Projects

Summary of Findings

IR 05000305-02-02, on 02/22-03/31/2002, Nuclear Management Company, LLC, Kewaunee Nuclear Power Plant. Resident Inspector, Engineering Inspector, and Radiation Specialist Integrated Report.

The inspection was conducted by resident inspectors, a regional engineering inspector, and a regional radiation specialist. There were no findings identified during this inspection. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter 0609, "Significance Determination Process." Findings for which the Significance Determination Process does not apply are indicated by "No Color" or by the severity level of the applicable violation. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/index.html .

A. Inspector-Identified Findings

No findings of significance were identified.

B. Licensee-Identified Findings

No findings of significance were identified.

Report Details

Summary of Plant Status

The plant was operated at 100 percent power for most of the period except for a brief reductions in power to facilitate quarterly scheduled main turbine stop and control valve testing and to facilitate the repair of an off-site power transmission line.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, and Emergency Preparedness

1R04 Equipment Alignment (71111.04)

.1 Walkdown and Inspection of the Component Cooling Water System

a. Inspection Scope

During the week of March 4, 2002, the inspectors conducted a semi-annual walkdown of a risk significant system. The inspectors inspected the component cooling water system because the system was ranked one of the ten most important systems for risk at the facility and because of recent design issues which had been identified by the licensee (reference Inspection Report 50-305/01-17, Section 4OA3.1). To verify the proper system lineup, the inspectors reviewed operations procedures, including the system lineup checklist and normal and abnormal procedures. The inspectors also reviewed the Updated Safety Analysis Report (USAR), system drawings, and vendor manuals. Additionally, the inspectors reviewed current temporary design changes, operator workarounds, and the licensee corrective action program database to determine if there were any outstanding system deficiencies which could prevent the system from performing its design function. Using the system lineup checklist, the inspectors walked down system components to verify that valves were correctly positioned, electrical power was correctly aligned, and that support systems were operational. During the walkdown, the inspectors also checked equipment labeling, checked hangers and support structures for proper installation, and evaluated the overall material condition of the system. The inspectors also conducted a general review of the licensee's corrective action database records to determine whether the licensee was adequately identifying equipment alignment problems for other risk significant systems at an appropriate threshold.

b. Findings

No findings of significance were identified.

.2 Partial Walkdown of 'B' Internal Containment Spray System

a. Inspection Scope

On March 13, 2002, the inspectors conducted a partial walkdown of Train 'B' of the internal containment spray system while Train 'A' was out-of-service due to testing. The inspectors reviewed the system lineup checklists, normal operating procedures, abnormal and emergency operating procedures, and system drawings to verify the correct system lineup. Valve positions and electrical power availability were examined to verify that valve and electrical breaker positions were consistent with, and in accordance with, the licensee's procedures and design documentation. The material condition of the equipment was also inspected.

b. Findings

No findings of significance were identified.

.3 Partial Walkdown of 'B' Train of Safety-Related 4160-Volts Alternating Current (VAC) and 480-VAC Electrical Distribution Systems

a. Inspection Scope

On March 22, 2002, the inspectors conducted a partial walkdown of Train 'B' of the 4160- and 480-VAC electrical distribution systems while undervoltage relay testing was performed on Train 'A' of the safety-related 4160-VAC electrical distribution system. The inspectors walked down electrical breakers to verify that the breakers were properly positioned to provide power to the loads they supplied. Additionally, the inspectors conducted a brief walkdown of the Train 'B' emergency diesel generator, which supplied emergency electrical power. The inspectors also conducted reviews to verify that there were no other plant activities which could impact Train 'B' safety-related electrical buses.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)

.1 Fire Zone Inspections

a. Inspection Scope

The inspectors walked down the following areas to assess the overall readiness of fire protection equipment and barriers:

- Relay Room - Zone AX-30, March 8, 2002
- Containment Spray Pump Area - Zone AX-23A, March 8, 2002
- Fuel Handling Rooms - Zone AX-24, March 26, 2002

Emphasis was placed on the control of transient combustibles and ignition sources, the material condition of fire protection equipment, and the material condition and operational status of fire barriers used to mitigate fire damage or propagation. Additionally, fire hoses, sprinklers, portable fire extinguishers, and fire detection devices were inspected to verify that they were installed at their designated locations, were in satisfactory physical condition, and were unobstructed. Passive features such as fire doors, fire dampers, and fire zone penetration seals were also inspected to verify that they were in satisfactory condition and capable of providing an adequate fire barrier.

b. Findings

No findings of significance were identified.

1R07 Heat Sink Performance (71111.07)

.1 Biennial Review of Heat Sink Performance

a. Inspection Scope

A specialist inspector reviewed documents associated with the emergency diesel generator 'B' heat exchanger, the component cooling water (CCW) 'B' heat exchanger, and both the A & B residual heat removal (RHR) pump pit fan coil units. These heat exchangers were chosen for review based on their high risk assessment worth in the licensee's probabilistic safety analysis. While on site, the inspector reviewed completed surveillance tests and associated calculations, and performed independent calculations to verify that these activities adequately ensured proper heat transfer. The inspector reviewed the documentation to confirm that the test or inspection methodology was consistent with accepted industry and scientific practices, based on review of heat transfer texts and an Electrical Power Research Institute standard (EPRI TRI-107397, Service Water Heat Exchanger Testing Guidelines). The inspector also reviewed documentation to verify that acceptance criteria were consistent with design basis values, as outlined in the USAR and technical specifications. The inspector witnessed a demonstration of the instrumentation used to obtain air temperature and flow measurements for the fan coil units and reviewed documentation to verify that the instruments were within calibration. The inspector reviewed documentation to verify that the licensee took appropriate actions to verify physical integrity of the heat exchangers. The inspector also reviewed documentation to verify that the licensee had appropriate controls in place to verify availability of the ultimate heat sink under adverse conditions.

The inspector reviewed Kewaunee Assessment Process (KAP, the corrective action process) documents concerning heat exchanger or heat sink performance issues to verify that the licensee had an appropriate threshold for identifying issues. The inspector also evaluated the effectiveness of the corrective actions for identified issues, including the engineering justification for operability, if applicable.

The documents that were reviewed are listed at the end of the report.

b. Findings

No findings of significance were identified.

1R12 Maintenance Rule Implementation (71111.12)

a. Inspection Scope

The inspectors reviewed the licensee's implementation of the Maintenance Rule, 10 CFR 50.65, for the components listed below. The inspectors reviewed recent maintenance rule evaluations to assess: (1) scoping in accordance with 10 CFR 50.65; (2) characterization of system, structure, and component (SSC) failures; (3) SSC safety significance classification; (4) 10 CFR 50.65(a)(1) or (a)(2) classification for the SSCs; and (5) performance criteria for SSCs classified as (a)(2) or goals and corrective actions for SSCs classified as (a)(1). The inspectors also interviewed licensee staff and evaluated the licensee's monitoring and trending of performance data.

Specific components evaluated were:

- Auxiliary Building Basement Fan Coil Units
- Auxiliary Building Fan Floor Fan Coil Units
- Auxiliary Building Mezzanine Fan Coil Units

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessment and Emergent Work Evaluation (71111.13)

a. Inspection Scope

The inspectors reviewed the licensee's evaluation and assessment of plant risk, scheduling, and configuration control during the planned and emergent work activities listed below. In particular, the licensee's planning and management of maintenance was evaluated to verify that on-line risk was acceptable and in accordance with the requirements of 10 CFR 50.65(a)(4). Additionally, the inspectors compared the assessed risk configuration against the actual plant conditions and any in-progress evolutions or external events to verify that the assessment was accurate, complete, and appropriate. Licensee actions to address increased on-line risk during these periods were also inspected to verify that actions were in accordance with approved administrative procedures.

- Diesel Generator 'B' Failed Air Start Motor Solenoid Valve - March 14, 2002
- Performance of Component Cooling Special Operating Procedure, SOP-CC-31-18, "CC [Component Cooling] Flow Measurement Thru Both RHR Hxs [Heat Exchangers] With CC-302 Full Open" - March 21, 2002

b. Findings

No findings of significance were identified.

1R14 Non-Routine Evolutions (71111.14)

.1 Power Reduction to Perform Auxiliary Feedwater Flow Tests

a. Inspection Scope

On March 9, 2002, the licensee reduced reactor power to approximately 93 percent of full power to facilitate auxiliary feedwater (AFW) inservice testing (IST). The inspectors observed the reduction to verify that communications, procedure use and adherence, and command and control by shift management was in accordance with the facility's policies and procedures.

b. Findings

No findings of significance were identified.

1R16 Operator Workarounds (OWAs) (71111.16)

.1 Operator Rounds

a. Inspection Scope

On March 25, 2002, the inspectors accompanied a Nuclear Auxiliary Operator during routine equipment rounds to determine whether there were any unidentified or proceduralized OWAs which had not been captured in the licensee's OWA process. Specifically, the inspectors observed whether there were any equipment issues which required additional operator contingency actions that could have impacted emergency operations.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing (71111.19)

.1 Diesel Generator 'B' Failed Air Start Motor Bank No. 1 Solenoid Valve

a. Inspection Scope

On March 15, 2002, the inspectors reviewed the post-maintenance testing associated with the replacement of the 'B' diesel generator air start motor bank No. 1 and associated solenoid valve which had failed. During a diesel generator start the previous day, the solenoid valve failed to subsequently close after opening to admit air to the air start motor bank No. 1. This condition resulted in bank No. 1 remaining engaged to the diesel generator flywheel, which, as the diesel increased in speed, caused the air start

motor bank to overspeed. The licensee secured the diesel generator and subsequently replaced the solenoid valve and the air start motor bank. The licensee then conducted a partial surveillance test procedure as an operational retest of the diesel generator. The inspectors reviewed the scope of the replacement work to ensure that the post-maintenance test was adequate for the scope of the work and demonstrated operational readiness.

b. Findings

No findings of significance were identified.

.2 Diesel Generator 'B' Fuel Injector Adjustments

a. Inspection Scope

On March 18, 2002, the inspectors reviewed post-maintenance activities associated with maintenance performed on the 'B' diesel generator which had taken place previously on March 15. The maintenance consisted of making adjustments to the fuel injectors on cylinders No. 9 and No. 20. The exhaust temperatures of these cylinders had been running respectively hotter and colder as compared to the other cylinders' exhaust temperatures, and the difference in temperature between the two cylinders had been approaching an operational limit for the diesel generator. The inspectors reviewed the work order to verify that the scope of the work which had been performed was accurate and that the associated post-maintenance test was adequate to demonstrate operational readiness of the diesel generator. The inspectors also reviewed the test results and conducted a brief walkdown of the diesel generator following the completion of the maintenance to verify that the equipment was returned to a condition in which it could perform its safety function.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors observed surveillance testing on risk-significant equipment to verify that the equipment was capable of performing its intended safety function and that the surveillance tests satisfied the requirements contained in Technical Specifications and the licensee's procedures, and that the equipment was capable of meeting its design function. During the surveillance tests, the inspectors reviewed the test to verify that it was adequate to demonstrate operational readiness consistent with the design and licensing basis documents, and that the testing acceptance criteria were clear. Portions of the test were observed to verify that the test was performed as written, that all testing prerequisites were satisfied, and that the test data were complete, appropriately verified, and met the requirements of the testing procedure. Following the completion of the test,

where applicable, the inspectors conducted walkdowns of the affected equipment to verify that the equipment was returned to a condition in which it could perform its safety function.

The inspectors observed and reviewed the performance of the following surveillance testing on risk-significant equipment:

- SP 05B-283A, "Motor Driven AFW Pump A Full Flow Test - IST," Original Revision, March 9, 2002
- SP 05B-283B, "Motor Driven AFW Pump B Full Flow Test - IST," Original Revision, March 9, 2002
- SP 34-099, "RHR Pump and Valve Test - IST," Revision AR, March26, 2002

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety

2OS1 Access Control to Radiologically Significant Areas (71121.01)

.1 Plant Walkdowns and Radiological Boundary Verification

a. Inspection Scope

The inspector conducted walkdowns of selected radiologically controlled areas within the plant to verify the adequacy of radiological boundaries and postings. Specifically, the inspector walked down several radiologically significant work area boundaries (high and locked high radiation areas) in the auxiliary building. The inspector performed confirmatory radiation measurements to verify that these areas and selected radiation areas were properly posted and controlled in accordance with 10 CFR Part 20, licensee procedures, and Technical Specifications.

b. Findings

No findings of significance were identified.

.2 High Radiation Area and Very High Radiation Area Access Controls

a. Inspection Scope

The inspector reviewed the licensee's procedures, practices and associated documentation for the control of access to radiologically significant areas (high, locked high, and very high radiation areas) and assessed compliance with Technical Specifications, procedures, and the requirements of 10 CFR 20.1601 and 20.1602. In particular, the inspector reviewed the licensee's practices and records for the control of keys to locked high radiation areas (LHRAs) and very high radiation areas (VHRAs), the

use of access control guards to control entry into such areas, and the licensee's methods for independently verifying proper closure and latching of LHRA and VHRA doors upon area egress. Additionally, radiological postings were reviewed, and access control boundaries were challenged by the inspector throughout the plant to verify that high, locked high, and very high radiation areas were properly controlled.

b. Findings

No findings of significance were identified.

.3 Review of Radiologically Significant Work

a. Inspection Scope

The inspector reviewed the radiation work permit (RWP) and attended the pre-job ALARA brief for the testing of the flow of the CCW through both of the RHR heat exchangers. The inspector also reviewed the RWP used for the monthly containment inspections, at power. These inspection activities were performed to verify the adequacy of surveys, access controls, and postings to assess the exchange of work area radiological information and to evaluate radiation worker and radiation protection technician performance. The inspector also evaluated the licensee's procedure and practices for dosimetry placement and use of multiple dosimetry in high radiation areas having significant dose gradients for compliance with the requirements of 10 CFR 20.1201 and applicable Regulatory Guides.

b. Findings

No findings of significance were identified.

.4 Control of Non-Fuel Materials Stored in the Spent Fuel Pools

a. Inspection Scope

Even though there were no highly activated or contaminated materials (non-fuel) currently being stored within the spent fuel pool or other storage pools, the inspector reviewed the licensee's controls for the storage of these materials. Members of the radiation protection (RP) staff and management were interviewed and a walkdown of the refuel floor was conducted. The inspector assessed the adequacy of the administrative and physical controls for the underwater storage of non-fuel materials to verify consistency with the licensee's procedures and with Regulatory Guide 8.38, Information Notice 90-33, and applicable Health Physics Positions in NUREG/CR-5569.

b. Findings

No findings of significance were identified.

2OS2 As-Low-As-Is-Reasonably-Achievable (ALARA) Planning and Controls (71121.02)

.1 Radiological Work Planning

a. Inspection Scope

The inspector reviewed selected ALARA post-job debriefs generated during the September 24 to December 5, 2002, steam generator replacement and refueling outage. The inspector conducted the reviews to determine if the debriefs had been conducted in accordance with procedure HP-04.001, ALARA Plan, and if identified problems had been entered into the corrective action program.

b. Findings

No findings of significance were identified.

.2 Job Site Inspections and ALARA Control

a. Inspection Scope

The inspector evaluated the use of ALARA controls during the testing of CCW flow through both of the RHR heat exchangers. The inspector reviewed the adequacy of radiological surveys performed for the job, evaluated the radiological work controls, and assessed worker performance and RP staff oversight. The inspector also observed and questioned both the RP staff that provided job coverage for these activities and the radiation workers (radworkers) involved in selected work to verify that they had adequate knowledge of radiological work conditions and ALARA controls.

b. Findings

No findings of significance were identified.

.3 Identification and Resolution of Problems

a. Inspection Scope

The inspector reviewed the licensee's KAP documents related to the radiological access control and ALARA programs that were generated during 2001 and the first 2 months of 2002. The review was conducted to assess the effectiveness of the corrective action program to identify problems and to develop corrective actions. Selected KAPs were discussed with RP staff and management to determine if problem characterization was accurate and to verify that extent of condition reviews were adequately completed or were in the process of being performed.

The inspector reviewed a 2002 focus area self-assessment of the Kewaunee Nuclear Power Plant (KNPP) ALARA Program and a Nuclear Oversight Observation Report of the ALARA Program to evaluate the effectiveness of the self-assessment process to identify, characterize, and prioritize problems with the ALARA program. The inspector reviewed the corrective actions to address problems in the ALARA program proposed in

the KNPP Strategic Plan for Radiation Dose Reduction 2002-2007. The inspector also attended a meeting of the Radiological Performance Committee to identify if the members of the committee and management were aware of the problems in the ALARA program and supported the corrective actions proposed in the Strategic Plan.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator (PI) Verification (71151)

a. Inspection Scope

The inspectors reviewed the licensee's PI data collection process from the second quarter through the fourth quarter of 2001 to verify the accuracy of collected and submitted data. Additionally, the inspectors reviewed control room logs, primary leak rate surveillance test results, and radiochemistry analysis results to independently verify the data that the licensee had collected. The following PIs were evaluated:

- RCS Leakrate
- RCS Specific Activity

b. Findings

No findings of significance were identified.

4OA5 Other

.1 Classification of Fire Zone TU-95B Not in Accordance with 10 CFR Part 50, Appendix R

On October 13, 2001, the licensee identified that fire zone TU-95B, which contained the 'B' and turbine-driven AFW pump and 'B' train 480-VAC electrical buses, was classified improperly with respect to 10 CFR Part 50, Appendix R, "Fire Protection Program for Nuclear Power Facilities Operating Prior to January 1, 1979." Specifically, Zone TU-95B had been improperly classified as meeting the requirements of 10 CFR Part 50, Appendix R, Section III.G.2., which did not require a suppression system where redundant trains were either not located within the same fire area or were protected by a rated 3-hour fire barrier. The licensee identified that Zone TU-95B should have been classified as an area requiring alternative shutdown to meet the requirements of 10 CFR Part 50, Appendix R, Section III.G.2. Section III.G.2 required the installation of a fixed suppression system. Contrary to this requirement, there was no fixed fire suppression equipment installed in Zone TU-95B which contained cables of redundant trains of equipment required for achieving and maintaining hot shutdown. The safety significance of this issue is yet to be determined. Accordingly, an Unresolved Item (URI 050-305/02-02-01, Appendix R Classification of the Fire Zone TU-95B) was

opened pending the NRC's review of the licensee's completed risk significance evaluation. The licensee entered this issue into their corrective action program as KAP Work Order (WO) 01-016753.

4OA6 Management Meetings

Exit Meeting Summary

On April 4, 2002, the inspectors presented the inspection results to Mr. M. Warner, Mr. F. Cayia, and other members of the Nuclear Management Company staff. The licensee acknowledged the findings presented. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

Interim Exit Meetings Summary

Senior Official at Exit:	Mr. F. Cayia
Date:	March 8, 2002
Proprietary:	No
Subject:	Heat Sink Biennial Inspection
Change to Inspection Findings:	No

Senior Official at Exit:	Mr. T. Coutu
Date:	March 22, 2002
Proprietary:	No
Subject:	Radiation Protection
Change to Inspection Findings:	No

KEY POINTS OF CONTACT

Nuclear Management Company, LLC

S. Baker, Manager, Radiation Protection
F. Cayia, Kewaunee-Point Beach Operations Director
T. Coutu, Plant Manager, Kewaunee Site
R. Farrell, Manager, Planning and Scheduling
M. Fencl, Manager, Security
G. Harrington, Licensing Leader
K. Hull, Supervisor, Engineering
M. Kwitek, Manager, Maintenance
J. McCarthy, Manager, Operations
R. Pulec, Manager, Site Assessment
S. Putman, Kewaunee-Point Beach Engineering Manager
A. Rahn, Mechanical Design Engineer (Technical Contact)
R. Repshas, Manager, Site Services
J. Schweitzer, Manager, Engineering Systems
J. Stoeger, Assistant Manager, Operations
M. Warner, Kewaunee-Point Beach Vice President
T. Webb, Kewaunee-Point Beach Licensing Manager

Nuclear Regulatory Commission - RIII

R. Lanksbury, Branch Chief, DRP, Branch 5

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

50-305/02-02-01	URI	Appendix R Classification of the Fire Zone TU-95B (Section 4OA5)

Closed

None

Discussed

None

LIST OF ACRONYMS USED

ALARA	As Low As Is Reasonably Achievable
AFW	Auxiliary Feed Water
CCW	Component Cooling Water
CFR	Code of Federal Regulations
DRP	Division of Reactor Projects, Region III
EPRI	Electric Power Research Institute
EOP	Emergency Operating Procedure
FCU	Fan Coil Unit
HRA	High Radiation Area
IST	Inservice Testing
KAP	Kewaunee Assessment Process
KNPP	Kewaunee Nuclear Power Plant
LER	Licensee Event Report
LHRA	Locked High Radiation Area
NCV	Non-Cited Violation
NRC	Nuclear Regulatory Commission
OWA	Operator Workaround
PI	Performance Indicator
RHR	Residual Heat Removal
RP	Radiation Protection
RWP	Radiation Work Permit
SSC	System, Structure, and Component
URI	Unresolved Item
USAR	Updated Safety Analysis Report
VAC	Volts Alternating Current
VHRA	Very High Radiation Area
WO	Work Order

LIST OF DOCUMENTS REVIEWED

1R04 Equipment Alignment

N-ICS-23-CL	Containment Spray System Prestartup Checklist	Revision AA
OPERM-217	Flow Diagram-Internal Containment Spray System	Revision AK
DCR 2379	Install ICS Full Flow Test Line	
USAR, Section 9	Auxiliary and Emergency Systems	Revision 16
N-CC-31	Component Cooling System Operation	Revision U
A-CC-31	Abnormal Conditions in the Component Cooling System	Revision 0
A-CC-31B	Leakage into Component Cooling System	Revision I
E-CC-31	Loss of Component Cooling	Revision L
N-CC-31-CL	Component Cooling System Prestartup Checklist	Revision W
OPER XK100-20	Flow Diagram - Auxiliary Coolant System	Revision T
OPER XK100-19	Flow Diagram - Auxiliary Coolant System	Revision AD
SP 31-168	Component Cooling Pump and Valve Test - IST	Revision AH
SP 31-248	Component Cooling Water System Pressure Test,	Revision F
	Night Order, Component Cooling Leakage	February 1, 2002
TCR 02-01	Install Mechanical Stop on Valve CC302	January 25, 2002
OWA 02-01	Pump Overheating Concerns Associated with Component Cooling Pumps	

1R05 Fire Protection

FPP 08-07	Control of Ignition Sources	Revision D
FPP 08-08	Control of Transient Combustibles	Revision A
FPP 08-09	Barrier Control	Revision C
N-FP-08-CL	Fire Protection System Checklist	Revision AL
	Appendix R Design Description	December 14, 2000
	Kewaunee Fire Protection Program Plan	Revision 4

1R07 Heat Sink Performance

Action Request CAP003539	Component Cooling Water Heat Exchanger Design Basis Information Documentation	March 7, 2002
Action Request CAP003541	Unclear Basis or Values Used in Calculation C1150 on Diesel Generator Heat Exchanger Design Heat Removal Capacity	March 7, 2002
Action Request CAP003542	Diesel Generator Heat Exchanger Proto-HX Model Design Discrepancy	March 8, 2002
Action Request CAP003543	Area Safeguards Fan Coil Unit, Fan Heat Input Calculation	March 8, 2002
Calculation C11037	Residual Heat Removal Pump Pits Fan Coil Units Performance Evaluations	November 19, 1998
Calculation C11150	Diesel Generator Heat Exchanger Design Heat Removal Capacity	May 5, 2000
Calculation C11195	Maximum Pressure Drop on Component Cooling Water Heat Exchangers	February 19, 2001
Calculation C11340	Fan Coil Unit and Diesel Generator Operability Curves Based on Service Water Inlet Temperature and Flow	November 24, 2001
Calculation C11343	2001 Service Water Flow Test Analysis	November 27, 2001
Calculation C11344	2001 Service Water Flow Test	November 24, 2001
Calculation C11357	Evaluate the Ability of a Lower Lake Temperature to Compensate for Reduced Component Cooling Water Flow to a Residual Heat Removal Heat Exchanger	January 25, 2002
Calibration ICP-2-26	Service Water Fan Coil Unit Temperature Indicators Calibration (Temperature Indicator TI-12309)	February 7, 2001
Calibration ICP-2-26	Service Water Fan Coil Unit Temperature Indicators Calibration (Temperature Indicator TI-12299 and Temperature Elements TE 14154 and 14155)	July 27, 2001
Calibration ICP-2-26	Service Water Fan Coil Unit Temperature Indicators Calibration (Channels 1 (14174) and 3 (14176)	October 28, 2001
Calibration ICP-10-10	DGM - Diesel Generator B Temperature Indicators Calibration (Temperature Indicators TI-55102 and 55109)	October 21, 2001
Calibration ICP-82B-113	ICE - Digital Thermometers Calibration (Thermometer 91454)	August 10, 2001

Calibration ICP-82B-113	ICE - Digital Thermometers Calibration (Thermometers 91379, 91380, 91407, 91422 & 91427)	December 5, 2001
Calibration ICP-82B-144	ICE - Digital Hand Held Humidity and Temperature Indicators (91494, 91494A)	August 8, 2001
Drawing 4-107-13-040-001	ITT 13040 CPK Bundle Assembly	March 9, 2000
Drawing 5-046-13-040-001	ITT 13040 CPK Exchanger, 2 Pass	Revision 5
Drawing NEN-15748	Component Cooling Water Heat Exchanger Shell Channel and Support Details	Revision B
Drawing NEN-B-15748	Component Cooling Water Heat Exchanger Tube Sheet, Bundle, and Layout	Revision A
Engineering Services Report 91-16	Slime and Silting Control in the Service Water System	May 4, 1993
Inspection CMP-31-02	Component Cooling Water Heat Exchanger Hydro-laser Cleaning	May 4, 2000
Inspection CMP-31-02	Component Cooling Water Heat Exchanger Tube Cleaning	September 13, 2001
KAP 97-001163-000	Evaluate Acceptability of Reduced Service Water Flow to the Component Cooling Water Heat Exchanger	May 27, 1997
KAP 98-001693-000	Determine and Document the Input Parameters for Computer Program Proto-HX for the Component Cooling Water Heat Exchangers	April 25, 1998
KAP 98-002220-000	Evaluate Tube Plugging Limit on a Component Cooling Water Heat Exchanger	October 28, 1998
KAP 99-002650-000	Service Water Temperature Instruments Not Calibrated	February 12, 1999
KAP 99-003158-000	Increase Component Cooling Water Flow to 1B Residual Heat Removal Heat Exchanger to 1750 Gallons per Minute	June 16, 1999
KAP 99-003736-000	Maximum Flow to Spent Fuel Pool Heat Exchanger	December 3, 1999
KAP 00-001836-000	Error in KAP 1136	July 10, 2000
KAP 00-002511-000	KAP1136 Didn’t Consider Maximum Pressure Drop When Arriving at Tube Plug Limit	July 17, 2000
KAP 00-002621-000	SSDI Questions - Control of Design Basis Information	July 26, 2000

KAP 00-004024-000	Questionable Data Following Change to Performance Monitoring Method	November 16, 2000
Procedure CMP-31-02	(CC) Component Cooling Water Heat Exchanger Tube Cleaning (QA-1)	Revision G
Procedure E-CW-04	Loss of Circulating Water	Revision T
Procedure PMP-04-01	Circulating Water - Inlet Structure Inspection	Revision J
Procedure PMP-10-11	DGM - Diesel Generator Cooling Water Heat Exchanger Performance Monitoring (QA-1)	Revision A
Procedure PMP-17-02	ACA - QA-1 Fan Coil Units, Inspection and Cleaning	Revision T
Procedure PMP-17-15	ACA - RHR Pump Pit Fan Coil Unit 1b Performance Monitoring (QA-1)	Revision B
Procedure RC-C-46K	Service Water Dead Leg Chemical Treatment	Revision 0
Procedure RCC-046	Circulating Water Sodium Hypochlorite Injection	Revision G
Procedure RC-046G	Service Water Chemical Injection Procedure	Revision J
Procedure TLA-27	Circulating Water Inlet Temperature High	Revision B
Report NMC-KN1-02	Eddy Current Inspection Report - Diesel Generator B Coolers	October 20, 2001
Test PMP-10-11	DGM - Diesel Generator Cooling Water Heat Exchanger Performance Monitoring (QA-1)	Completed August 16, 2001
Test PMP-10-11	DGM - Diesel Generator Cooling Water Heat Exchanger Performance Monitoring (QA-1)	Completed February 14, 2002
Test PMP-17-15	ACA - RHR Pump Pit Fan Coil Unit 1b Performance Monitoring (QA-1)	Completed February 8, 2001
Test PMP-17-15	ACA - RHR Pump Pit Fan Coil Unit 1b Performance Monitoring (QA-1)	Completed September 7, 2001

1R12 Maintenance Rule Implementation

KAP WR 02-0931	Continuous Venting from SV-33839, Auxiliary Basement FCU Control Valve
Action Request 02-3539	Auxiliary Building FCU Service Water Control Valve Failed

KAP WR 01-8366	Auxiliary Building Fan Floor Fan Coil Unit (FCU) 1B has Broken Belt	
Action Request 02-0026	Fan Floor FCU Drive Belt Failed	
KAP WR 01-8311	Auxiliary Building Basement FCU B has Broken Belt	
Action Request 01-22108	Broken Belt on Auxiliary Building FCU	
Action Request 02-0205	Drive Belts on FCUs Run Hot	
Action Request 02-1184	Auxiliary Building Basement and Fan Floor FCU Run Hot	

1R13 Maintenance Risk Assessment and Emergent Work Evaluation

GNP 08.21.01	Risk Assessment for Plant Configurations	Revision A
Individual Plant Examination, Section 5	Core Damage Frequency Quantification	

1R14 Non-Routine Evolutions

N-0-03	Plant Operation Greater Than 35% Power	Revision AL
N-CVC-35B	Charging and Volume Control	Revision AE
GNP 03.17.10	Reactivity Management	Revision A

1R19 Post-Maintenance Testing

WO 02-4551	Engine Exhaust Temperatures Trending Upwards	
SP 42-312B	Diesel Generator B Availability Test	Revision P
USAR, Section 8.2.3	Emergency Power	Revision 16
TS 3.7	Auxiliary Electrical Systems	
WO 02-4564	Solenoid Failed Causing Air Start Motors to not Disengage	
E-1621	Integrated Logic Diagram - Diesel Generator Mechanical System	Revision AK

1R22 Surveillance Testing

SP 05B-283A	Motor Driven AFW Pump A Full Flow Test - IST	Original Revision
SOP AFW-05B-14	Auxiliary FW Pump A Casing Flush	Original Revision
SP 34099	RHR Pump and Valve Test - IST	Revision AR
	Kewaunee Pump and Valves IST Plan	Revision O
USAR, Section 6.2	Safety Injections Systems	Revision 16
OPER XK-100-18	Flow Diagram - Auxiliary Coolant System	Revision AK
SP 05B-283B	Motor Driven AFW Pump B Full Flow Test - IST	Original Revision

4OA1 Performance Indicator Verification

	Reactor Operator Logs	June 1-December 31,2001
NEI 99-02	Regulatory Assessment Performance Indicator Guideline	Revision 1
	Kewaunee Barrier Cornerstone Data Sheets, 3rd and 4th Quarter	

20S1 Access Controls For Radiologically Significant Areas

Technical Specification 6.13	High Radiation Areas	Amendment 122
Procedure RE-24	Special Nuclear Materials Control	Revision K
Procedure SOP-CC-31-18	CC Flow Measurement Thru Both RHR HXs With CC-302 Full Open	Revision Orig
RWP 17	Monthly Containment Inspections	Revision 0
2002-001-2-006	Nuclear Oversight Observation Report, Key Control	February 5, 2002
RWP 36	Install Flow Limiter on CC-302 and Place UFM on CC Piping. Also to Include Component Cooling Flow Test	Revision 1
ACE 000572	Postings on Some Doors did not Meet Requirements of HP-01.019	May 24, 2001

2OS2 As-Low-As-Is-Reasonably-Achievable (ALARA) Planning and Controls

HP-04.001	ALARA Plan	Revision D
	Post-Job ALARA Review Checklists #01-052, RCS Severance, Welding, and Associated Activities	November 6 & 24, 2001
KAP 000001	Determine Whether SS Key Cabinet Control Complies with our Legal Requirements	January 10, 2000
KAP 000409	Dose Reduction is the Responsibility of the Entire Plant Organization	January 28, 2002
KAP 000412	Formally Integrate ALARA Planning into Work Planning	January 28, 2002
KAP 000740	To Document Suggestions for Improvement/Lessons Learned from the NRC Inspection	November 5, 2001
KAP 003051	Key Control Shortfalls	February 6, 2002
KAP 003238	Beta Source Fixture #2 Found Unattended	February 25, 2002
	Post-Job ALARA Review Checklists #01-053, Install and Remove Temporary RCS & RCP Restraints and Lower Support Feet	November 17 & 24, 2001
	Post-Job ALARA Review Checklists #01-062, Containment Structural Modifications	November 14 & 24, 2001
	Post-Job ALARA Review Checklist #01-060/51/63/54/56/57/70, Various Tasks Relating to SGRP	November 17, 2001
	Post-Job ALARA Review Checklist #01-0001, Refueling Operations	December 2, 2001
	Kewaunee Steam Generator Replacement Project, Radiation Protection Plan	Revision 0
	Radiation Protection Work Instruction for Pipe End Decontamination	Revision 0

2002-001-2-037	Nuclear Oversight Observation Report, The ALARA Program Review	March 18, 2002
KSA-RP-02-01	Self-Assessment of the KNPP's ALARA Program	January 31, 2002
	Kewaunee Nuclear Plant Steam Generator RP/ALARA Report (Draft)	
	Radiological Performance Committee Agenda	March 19, 2002