



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
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January 19, 2001

Mr. J. V. Parrish (Mail Drop 1023)
Chief Executive Officer
Energy Northwest
P.O. Box 968
Richland, Washington 99352-0968

SUBJECT: COLUMBIA GENERATING STATION INSPECTION REPORT NO. 50-397/00-15

Dear Mr. Parrish:

From November 19, 2000, through January 6, 2001, the NRC completed a safety inspection at the Columbia Generating Station. The enclosed report presents the results of this inspection.

The inspectors 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. Within these areas, the inspectors examined a selection of procedures and representative records, observed activities, and conducted interviews with personnel. Based on the results of these inspections, 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 (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/NRC/ADAMS/index.html> (the Public Electronic Reading Room).

Should you have any questions concerning this inspection, we will be pleased to discuss them with you.

Sincerely,

/RA/

William B. Jones, Chief
Project Branch E
Division of Reactor Projects

Docket No.: 50-397
License No.: NPF-21

Energy Northwest

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Enclosure:
NRC Inspection Report No.
50-397/00-15

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- RITS Coordinator (**NBH**)

Only inspection reports to the following:

- Scott Morris (**SAM1**)
- NRR Event Tracking System (**IPAS**)
- Columbia Site Secretary (**LEF1**)

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ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Docket No.: 50-397
License No.: NPF-21
Report No.: 50-397/00-15
Licensee: Energy Northwest
Facility: Columbia Generating Station
Location: Richland, Washington
Dates: November 19, 2000, through January 6, 2001
Inspectors: G. D. Replogle, Senior Resident Inspector, Project Branch E, DRP
J. P. Rodriguez, Resident Inspector, Project Branch E, DRP
G. A. Pick, Senior Project Engineer, Project Branch E, DRP
P. A. Goldberg, Reactor Inspector, DRS
Approved By: William B. Jones, Chief, Project Branch E, Division of Reactor Projects

ATTACHMENTS:

Attachment 1: Supplemental Information
Attachment 2: NRC's Revised Reactor Oversight Program

SUMMARY OF FINDINGS

Columbia Generating Station
NRC Inspection Report 50-397/00-15

IR 05000597-00-15; on 11/19/2000-1/6/2001; Energy Northwest; Columbia Generating Station. Integrated Resident and Regional Report.

The inspection was conducted by two resident inspectors, one project engineer and one reactor inspector during a 7-week period from November 19, 2000, through January 6, 2001. No findings of significance were identified.

Report Details

Summary of Plant Status:

Operators maintained reactor power at essentially 100 percent for the inspection period.

1 REACTOR SAFETY

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

1R02 Changes to License Conditions and Safety Analysis Report (71111.02)

a. Inspection Scope

The inspector reviewed a selected sample of safety evaluations to verify that the licensee had appropriately considered the conditions under which the licensee may make changes to the facility or procedures or conduct tests or experiments without prior NRC approval.

The inspector reviewed a selected sample of safety evaluation screens, in which the licensee determined that safety evaluations were not required, to ensure that the licensee's exclusion of a full evaluation was consistent with the requirements of 10 CFR 50.59.

The inspector reviewed problem evaluation requests initiated by the licensee that addressed problems or deficiencies associated with 10 CFR 50.59 to ensure that appropriate corrective actions were being taken.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignments (71111.04Q)

a. Inspection Scope

The inspectors performed a partial equipment alignment verification for the following systems while the licensee had the redundant train out of service. The inspectors verified the following equipment for proper alignments for the plant conditions:

- Division II standby gas treatment system
- Division II containment atmospheric control system
- Division II emergency diesel generator
- Division III emergency diesel generator

b. Findings

No findings of significance were identified.

1R07 Heat Sink Performance

a. Inspection Scope

The inspectors reviewed heat exchanger performance tests for the Division II emergency diesel generator cooling water heat exchangers to verify that the licensee identified and resolved potential heat exchanger deficiencies to preclude any undue increase in risk.

The inspectors reviewed the following documents as part of this inspection:

- Final Safety Analysis Report
- Procedure 8.4.62, "Thermal Performance Monitoring of DCW-HX-1B1 and DCW-HX-1B2," Revision 6, performed on October 23, 2000
- Problem Evaluation Request 200-0633, DCW-HX-1B2 Failed to Meet Acceptance Criteria During Testing, dated April 13, 2000
- Problem Evaluation Request 200-2039, DCW-HX-1B2 Failed to Meet Acceptance Criteria During Testing, dated November 20, 2000
- Problem Evaluation Request 200-2178, DCW-HX-1B2 Tube Bundle Baffle Configuration Does Not Match Vendor Drawing, dated December 19, 2000
- "Principles of Heat Transfer," Fourth Edition, Kreith and Bohn

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification (71111.11Q)

a. Inspection Scope

The inspectors observed a crew training scenario and the subsequent critique to assess the effectiveness of the licensee's operator requalification program. The inspectors also assessed the ability of operators to respond to high risk events and verified that the licensee configured the simulator consistent with the control room.

b. Findings

No findings of significance were identified.

1R12 Maintenance Rule Implementation (71111.12)

a. Inspection Scope

The inspectors reviewed the following documents associated with equipment failures to assess the effectiveness of the licensee's maintenance efforts:

- Problem Evaluation Request 200-1527, Containment Instrument Air Pressure Switch Tripped Outside Allowable Band, dated September 8, 2000
- Problem Evaluation Request 200-1665, Main Steam Pressure Switch 61B Inoperable Because of Leakage Past Pressure Equalization Valve, dated September 26, 2000
- Problem Evaluation Request 200-1611, Slop System Piping Rupture Causes Degraded Condenser Vacuum and Manual Plant Scram, dated September 19, 2000
- Problem Evaluation Request 200-0872, Failed High Pressure Core Spray System Annunciator, dated May 25, 2000
- Problem Evaluation Request 200-0757, Containment Atmospheric Control System Cooling Water Valve Found Mispositioned closed, dated April 14, 1999
- Problem Evaluation Request 200-1310, Control Room Chiller Failed Surveillance, dated August 4, 2000
- Problem Evaluation Request 200-1715, Tower Makeup Pump Tripped During Hanging of Clearance Order, dated October 5, 2000
- Maintenance Rule Status Report for the Third Quarter, 2000
- Control room logs
- Maintenance Rule Program, Revision 3

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13)

a. Inspection Scope

The inspectors reviewed the following work prioritization, risk evaluation, and control activity to evaluate the effectiveness of the licensee's risk management efforts:

- Division II emergency diesel generator maintenance

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors reviewed an operability evaluation addressing a previously NRC identified problem, involving the failure to perform surveillances on several condensate and standby service water heat trace circuits. The inspectors checked that the licensee properly justified operability and that other components/systems remained available such that no unrecognized increase in risk had occurred. The inspectors reviewed the following document during this inspection:

- Problem Evaluation Request 200-2037, Insufficient Testing of Heat Trace Components

b. Findings

No findings of significance were identified.

1R19 Postmaintenance Testing (71111.19)

a. Inspection Scope

The inspectors evaluated postmaintenance testing for the following maintenance activities to determine whether the tests confirmed equipment operability:

- Work Order 01010747, Main Steam Leakage Control Valve 5 Repack
- Work Order 00RKW4, Division III Emergency Diesel Generator Field Flashing Time Delay Relay Calibration
- Work Order 01019223, Division II Emergency Diesel Generator Termination Repair
- Work Order 01008388, Reactor Core Isolation Cooling System Pressure Control Valve 15 Stem Replacement
- Work Order 1015831, Division II Residual Heat Removal Keepfill Pump Bearing Replacement
- Work Order 01018633, High Pressure Core Spray Keepfill Pump Repack and Lubricating Oil Gage Installation

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors reviewed the surveillance tests listed below to verify that the testing demonstrated system/component capability.

- Procedure OSP-ELEC-M701, "Diesel Generator 1 - Monthly Operability Test," Revision 10
- Procedure OSP-HPCS/IST-Q701, "HPCS [High Pressure Core Spray] System Operability Test," Revision 11
- Procedure OSP-RCIC/IST-Q702, "RCIC [Reactor Core Isolation Cooling] Valve Operability Test," Revision 8
- Procedure OSP-LPCS/IST-Q702, "Emergency Core Cooling System, LPCS [Low Pressure Core Spray] Operability Test," Revision 7

b. Findings

No findings of significance were identified.

1EP6 Emergency Drill Evaluation (71114.06)

a. Inspection Scope

The inspectors observed two simulator scenarios on November 5 and 7, 2000 to evaluate operator implementation of emergency preparedness protective active recommendations and to assess the effectiveness of the licensee's critique.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA6 Management Meetings

Exit Meeting Summary

The reactor inspector presented the "Changes to License Conditions and Safety Analysis Report" inspection results to Mr. S. Oxenford, Plant General Manager, and

other members of licensee management, at the conclusion of the inspection on December 7, 2000. The senior resident inspector presented the remaining inspection results to Mr. G. Smith, Vice President - Generation, and other members of licensee management, on January 8, 2001. The licensee acknowledged the inspection results during each meeting. Following the meetings, the inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

Attachment 1

Supplemental Information

PARTIAL LIST OF PERSONS CONTACTED

Licensee

J. Parrish, Chief Executive Officer
D. Atkinson, Manager, Engineering
B. Boyum, Assistant Engineering Manager, Design Engineering
R. Brownlee, Engineer, Licensing
D. Coleman, Manager, Regulatory Affairs
G. Cullen, Technical Staff Supervisor, System Engineering
D. Feldman, Manager, Operations
P. Inserra, Manager, Licensing
T. Meade, Corrective Action Program Manager
T. Messersmith, Corporate Emergency Preparedness, Safety and Health Officer
W. Oxenford, Plant General Manager
D. Poirier, Maintenance Manager
G. Smith, Vice President - Generation
R. Webring, Vice President - Operation Support

ITEMS OPENED AND CLOSED

Items Opened, Closed, and Discussed During this Inspection

Opened

None

Opened and Closed During this Inspection

None

Previous Items Closed

None

Previous Items Discussed

None

PARTIAL LIST OF DOCUMENTS REVIEWED

Safety Evaluations

SE-00-0007, Revision 0
SE-00-0047, Revision 0
SE-99-0007, Revision 0
SE-99-0017, Revision 0
SE-99-0022, Revision 0
SE-99-0033, Revision 0
SE-99-0057, Revision 0
SE-99-0063, Revision 0
SE-99-0066, Revision 0

10 CFR 50.59 Screens

Screening for BDC-94-0088-OA-801
Screening for BDC-94-0274-7H
Screening for LDCN-FSAR-99-083
Screening for LDCN-FSAR-99-071
Screening for LDCN-FSAR-99-044
Screening for LDCN-FSAR-99-086
Screening for Procedure PPM-1.3.43
Screening for Procedure 3.2.2
Screening for Procedure ABN-ELEC-AC
Screening for Procedure ISP-CRD-Q901
Screening for Procedure TSP-RHRB/RHRC-B501

Problem Evaluation Requests

299-0119	299-0591	200-0283	200-0537	200-0695
299-0308	299-0699	200-0441	200-0630	200-1881
299-0359	299-0928			

Technical Evaluation Request

99-0039-0

Calculations

ME-02-89-58, "WNP-2 Pressure Temperature Limit Curves," Revision 2

Modifications

BDC 99-0051-0A-20, "Deactivate the testable function of ECCS 2 Velan testable swing check valves RHR-V-41B, 41C, 50B, and 89," Revision 0

Procedures

No. 1.3.43, "Licensing Basis Impact Determination," Revision 16

No. *3.2.2, "Normal Shutdown to Hot Shutdown," Revision 21

ABN-ELEC-AC, "Plant AC Distribution System Failures," Revision 0

TSP-RHRB/RHRC-B501, "RHRB/RHRC LSFT," Revision 3

ISP-CRD-Q901, "RPS Trip System A and Control Rod Block on SDV Level High-CC/CFT,"
Revision 3

SWP-CAP-01, "Problem Evaluation Requests (PERs)," Revision 2

Miscellaneous

Licensing Document Change Notice LDCN-FSAR-99-045

NUREG-0803, "Generic Safety Evaluation Report Regarding Integrity of BWR Scram System
Piping," August 1981

ATTACHMENT 2

NRC's REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) recently revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting and assessing safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas): reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

Reactor Safety

- Initiating Events
- Mitigating Systems
- Barrier Integrity
- Emergency Preparedness

Radiation Safety

- Occupational
- Public

Safeguards

- Physical Protection

To monitor these seven cornerstones of safety, the NRC uses two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues that are of low to moderate safety significance. YELLOW findings are issues that are of substantial safety significance. RED findings represent issues that are of high safety significance with a significant reduction in safety margin.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, and RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margin and requires even more NRC oversight. RED indicates performance that represents a significant reduction in safety margin but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plant, as described in the Action Matrix.

More information can be found at: <http://www.nrc.gov/NRR/OVERSIGHT/index.html>.