UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064

October 23, 2000

S. K. Gambhir, Division Manager
Nuclear Operations
Omaha Public Power District
Fort Calhoun Station FC-2-4 Adm.
P.O. Box 399
Hwy. 75 - North of Fort Calhoun
Fort Calhoun, Nebraska 68023-0399

SUBJECT: NRC INSPECTION REPORT NO. 50-285/20-08

Dear Mr. Gambhir:

This refers to the inspection conducted on August 20 through October 7, 2000, at the Fort Calhoun Station facility. The enclosed report presents the results of this inspection.

The inspection was an examination of activities conducted under your license as they relate to safety and to compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas, the inspection consisted of a selective examination of procedures and representative records, observations of activities, and interviews with personnel. Specifically, this report focused on reactor safety, emergency preparedness, occupational radiation safety, and public radiation safety. Based on the results of this inspection 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, its enclosures, and your response will be made 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/

Charles S. Marschall, Chief
Project Branch C
Division of Reactor Projects

Docket No.: 50-285
License No.: DPR-40

Enclosure:
NRC Inspection Report No.
50-285/20-08

cc w/enclosure:
Mark T. Frans, Manager
Nuclear Licensing
Omaha Public Power District
Fort Calhoun Station FC-2-4 Adm.
P.O. Box 399
Hwy. 75 - North of Fort Calhoun
Fort Calhoun, Nebraska 68023-0399

James W. Chase, Division Manager
Nuclear Assessments
Fort Calhoun Station
P.O. Box 399
Fort Calhoun, Nebraska 68023

Richard P. Clemens, Manager - Fort Calhoun Station
Omaha Public Power District
Fort Calhoun Station FC-1-1 Plant
P.O. Box 399
Hwy. 75 - North of Fort Calhoun
Fort Calhoun, Nebraska 68023

James R. Curtiss
Winston & Strawn
1400 L. Street, N.W.
Washington, D.C. 20005-3502

Chairman
Washington County Board of Supervisors
Washington County Courthouse
P.O. Box 466
Blair, Nebraska 68008

Cheryl K. Rogers, Program Manager
Nebraska Health and Human Services System
Division of Public Health Assurance
Consumer Services Section
301 Centennial Mall, South
P.O. Box 95007
Lincoln, Nebraska 68509-5007

Electronic distribution from ADAMS by RIV:
Regional Administrator **(EWM)**
DRP Director **(KEB)**
DRS Director **(ATH)**
Senior Resident Inspector **(WCW)**
Branch Chief, DRP/C **(CSM)**
Senior Project Engineer, DRP/C **(DPL)**
Branch Chief, DRP/TSS **(PHH)**
RITS Coordinator **(NBH)**
Jim Isom, Pilot Plant Program **(JAI)**
Sampath Malur, Pilot Plant Program **(SKM)**

Only inspection reports to the following:
David Diec **(DTD)**
NRR Event Tracking System **(IPAS)**
FCS Site Secretary **(NJC)**
Dale Thatcher **(DFT)**

R:_FCS\2000\FC2000-08RP-WCW.wpd

RIV:SRI;DRP/C	SRI:DRP/A	RI:DRP/C	C:DRS/PSB	C:DRP/C
WCWalker:nc	ATGody	CCOsterholtz	GMGood	CSMarschall
T - CSMarschall	***T - CSMarschall***	***T - CSMarschall***	***/RA/***	***/RA/***
10/20/00	10/20/00	10/20/00	10/20/00	10/23/00

OFFICIAL RECORD COPY T=Telephone E=E-mail F=Fax

ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Docket No.:	50-285
License No.:	DPR-40
Report No.:	50-285/00-08
Licensee:	Omaha Public Power District
Facility:	Fort Calhoun Station
Location:	Fort Calhoun Station FC-2-4 Adm., P.O. Box 399 Hwy. 75 - North of Fort Calhoun Fort Calhoun, Nebraska
Dates:	August 20, 2000 through October 7, 2000
Inspectors:	W. Walker, Senior Resident Inspector C. Osterholtz, Resident Inspector J. Dodson, Health Physicist J. Nicholas, Senior Health Physicist D. Carter, Health Physicist A. Gody, Senior Resident Inspector J. Clark, Senior Resident Inspector
Approved By:	C. Marschall, Chief, Project Branch C

ATTACHMENTS:

Attachment 1: Supplemental Information

Attachment 2: NRC's Revised Reactor Oversight Process

SUMMARY OF FINDINGS

Fort Calhoun Station
NRC Inspection Report No. 50-285/20-08

IR 05000285-00-08; on 8/20-10/07/2000; Omaha Public Power District; Fort Calhoun Station, Integrated Resident & Regional Report. No findings identified.

The inspection was conducted by resident inspectors and regional radiation specialists. Based on the results of this inspection, no findings of significance were identified.

Report Details

The Fort Calhoun Station began this inspection period at 100 percent power and maintained that level throughout the inspection period.

1. REACTOR SAFETY
Initiating Events, Mitigating Systems, Barrier Integrity

1R04 Equipment Alignments

.1 Partial Equipment Alignment

a. Inspection Scope

The inspectors performed a partial inspection of Control Room Ventilation VA-46B and Diesel Fire Pump FP-1B to verify alignment and identify any discrepancies that could impact redundant system operability. The inspectors used the following procedures while performing the equipment alignments:

- OI-VA-3, "Control Room Ventilation System Normal Operation," Revision 17
- OI-FP-1, "Fire Protection System Water System," Revision 38

The inspectors reviewed portions of the Technical Specifications and Updated Safety Analysis Report.

b. Findings

There were no findings identified during this inspection.

.2 Semiannual system alignment verification (Auxiliary Feedwater System)

a. Inspection Scope

The auxiliary feedwater system consists of three diverse and redundant systems and is a risk-significant mitigation system. These systems include safety-related, motor-driven Auxiliary Feedwater Pump FW-6, safety-related, turbine-driven Auxiliary Feedwater Pump FW-10, and nonsafety grade diesel-driven Auxiliary Feedwater Pump FW-54. The inspectors conducted a complete inspection of Pump FW-6 and its associated equipment prior to and during the monthly surveillance test of Pump FW-10 and reviewed the following documents as they apply to Pump FW-6:

- Updated Safety Analysis Report Section 9.4, "Auxiliary Feedwater"
- Quarterly Surveillance Test Procedure SE-ST-AFW-3005, "Auxiliary Feedwater Pump FW-6, Recirculation Valve, and Check Valve Tests"
- Monthly Surveillance Test Procedure OP-ST-AFW-0007, "Auxiliary Feedwater Pump FW-6 Operability Test"

- Monthly Surveillance Test Procedure OP-ST-AFW-0001, “Auxiliary Feedwater System Valve Alignment Check”

b. Findings

There were no findings identified during this inspection.

1R05 Fire Protection

a. Inspection Scope

The inspectors performed inspections of the following area to determine if proper fire protection controls for combustibles and ignition sources were being effectively maintained:

- Upper electrical penetration room
- Emergency feedwater storage tank room
- Air compressor room

b. Findings

There were no findings identified during this inspection.

1R06 Flood Protection

a. Inspection Scope

The inspectors conducted a inspection of the auxiliary building, the intake structure, and the air compressor room to verify that the equipment was not subject to damage resulting from internal flooding. The inspectors reviewed the internal flooding analysis design calculations performed to demonstrate that the safety-related equipment in the auxiliary building, intake structure, and air compressor rooms was not vulnerable to internal flooding. They also reviewed the design basis for the plant site to verify that the auxiliary building and intake structure were not vulnerable to external flooding events.

The following documents and calculations were used as criteria for the inspection:

- Probability Risk Assessment Summary Notebook Table 7.1.3, “Summary of Dominant Internal Flooding Scenarios”
- Updated Safety Analysis Report Section 2.7, “Hydrology,” and Section 9.8, “Raw Water System”
- Engineering Analysis EA-FC-90-084, “Raw Water Pump Room Internal Flooding,” Revision 0

b. Findings

There were no findings identified during this inspection.

1R11 Licensed Operator Requalification

a. Inspection Scope

The inspectors observed an evaluated requalification scenario in the simulator for an operating crew. The inspectors also observed the postdrill critique performed between training and operations personnel after the scenario's conclusion.

b. Findings

There were no findings identified during this inspection.

1R12 Maintenance Rule Implementation

a. Inspection Scope

The inspectors verified proper implementation of the maintenance rule for the following components:

- Fire Damper FD-35
- Raw water piping (East raw water header)

b. Findings

There were no findings identified during this inspection.

1R13 Maintenance Risk Assessments and Emergent Work Evaluation

a. Inspection Scope

The inspectors reviewed the licensee's risk assessment for equipment outages that result from planned and emergent maintenance to evaluate the licensee's effectiveness in assessing risk. The inspectors also discussed these activities with planning and maintenance personnel. They observed and reviewed emergent work on the following systems/components/activities:

- Troubleshooting Safety Injection Tank SI-6B level increase
- Repair of an instrument air leak on HCV-485, a component cooling water outlet from Shutdown Heat Exchanger 4B

b. Findings

There were no findings identified during this inspection.

1R15 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the following operability evaluations for technical adequacy, applicable compensatory measures, and impact on continued operations:

- Operability for pinhole leak on east raw water header piping (Condition Report 200001661)

- Operability for secondary control element assembly position indication system (Condition Report 200001602).

b. Findings

There were no findings identified during this inspection.

1R16 Operator Work-Arounds

a. Inspection Scope

The inspectors performed a programmatic review of the operator work-around program to evaluate the cumulative effects of operator work-arounds on the reliability and availability of mitigating systems. They also reviewed the ability of operators to respond in a correct and timely manner to plant transients.

b. Findings

There were no findings identified during this inspection.

1R19 Postmaintenance Testing

a. Inspection Scope

The inspectors reviewed or observed the postmaintenance testing on the following equipment to verify that procedures and tests adequately verified system operability:

- Work Order 45707 and 41159 for turbine-driven auxiliary feedwater pump fuse block and relay replacement

- Work Order 52653 and 63973 for diesel-driven auxiliary feedwater pump inboard bearing and inboard and outboard packing replacement

b. Findings

There were no findings identified during this inspection.

1R23 Temporary Plant Modifications

a. Inspection Scope

The inspectors performed a detailed review of Temporary Modification EC#25423. This modification provided a temporary instrument air supply to the circulator discharge check valves to prevent them from drifting during maintenance on the normal air supply.

b. Findings

There were no findings identified during the inspection.

Emergency Preparedness

1EP1 Exercise Evaluation

Emergency Plan Drill

a. Inspection Scope

The inspectors reviewed a licensee prepared emergency plan drill scenario, observed performance of the drill by licensee personnel in the simulator, and reviewed the licensee's drill critique for the identification and resolution of performance weaknesses.

b. Findings

There were no findings identified during the inspection.

Occupational Radiation Safety

2OS3 Radiological Monitoring Instrumentation (71121.03)

a. Inspection Scope

The inspectors interviewed licensee personnel and the following items were reviewed and compared to regulatory requirements:

- Calibration and source response check documentation, operability, and alarm setpoints, when applicable, of portable radiation detection instrumentation, temporary area radiation monitors, continuous air monitors, whole-body counting instrumentation, personnel contamination monitors, and radiation monitor instrumentation not included in the maintenance rule program

- Radiation protection technician instrument selection and self-verification of instrument operability prior to use
- The status and surveillance records of self-contained breathing apparatuses staged and ready for use in the plant
- The licensee's capability for refilling and transporting self-contained breathing apparatus air bottles to and from the control room and operations support center during emergency conditions
- Control room operator and emergency response personnel training and qualifications for use of self-contained breathing apparatus
- Licensee self-assessments and audits, focusing on radiological incidents that involved personnel internal exposures
- Selected exposure significant radiological incidents that involved radiation monitoring instrument deficiencies since the last inspection in this area

b. Findings

There were no findings identified.

Public Radiation Safety

2PS1 Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems (71122.01)

a. Inspection Scope

The inspectors interviewed members of the licensee's chemistry staff responsible for implementing the liquid and gaseous radioactive waste effluent program and the system engineer responsible for maintaining the engineered safety-related ventilation systems. The inspectors walked down the major accessible components of the liquid and gaseous radioactive waste collection and processing equipment to determine the equipment material condition and system configuration as compared to the description in the Final Safety Analysis Report. The filter housings for the control room heating, ventilation, and air conditioning system, spent fuel storage ventilation system, and the safety injection pump room ventilation system were also inspected.

The inspectors observed the following activities and compared them to regulatory requirements:

- The collection of gaseous effluent samples from the auxiliary building and the laboratory and radwaste building ventilation stacks and the performance of the required weekly surveillance radiochemistry analyses for airborne particulates, iodine, and noble gas

- The collection of gaseous effluent samples from the containment atmosphere; performance of the radiochemistry analyses for airborne particulates, iodine, tritium, and noble gas; and the preparation of the containment vent batch release permit

The inspectors reviewed the following items and compared them to regulatory requirements:

- Implementing procedures for the liquid and gaseous radioactive waste effluent program as described in the Offsite Dose Calculation Manual

- Six randomly selected batch radioactive liquid waste effluent release permits for discharges from the plant effluent tanks for the period January 1999 through August 2000

- Randomly selected liquid waste effluent sample analyses of continuous release samples from the steam generator blowdown for the period January 1999 through August 2000

- Five randomly selected batch radioactive gaseous waste effluent release permits for discharges from the waste gas storage tanks, containment vents, and containment purges for the period of January 1999 through August 2000

- Randomly selected gaseous waste effluent sample analyses of continuous release samples from the auxiliary building ventilation system, condenser offgas ventilation system, and the laboratory and radwaste building ventilation system for the period of January 1999 through August 2000

- Compensatory sampling and radiological analyses performed during effluent releases made while effluent radiation monitors were inoperable

- Off-site dose calculation methodologies and the dose results calculated from liquid and gaseous radioactive waste effluents released during the period January 1999 through August 2000

- Calibration and quality control procedures and records for the chemistry counting room instrumentation associated with effluent monitoring and release activities

- The chemistry laboratory’s interlaboratory analysis comparison program performance during 1999

- Procedures and records of liquid and gaseous effluent radiation monitor checks and calibrations performed during the period of January 1999 through August 2000

- Calculation and installation of effluent radiation monitor alarm setpoints

- Revisions to the Offsite Dose Calculation Manual involving changes to the liquid and gaseous radioactive waste effluent program
- Records and results of the in-place filter testing of high efficiency particulate filters and the laboratory tests performed on the charcoal adsorber material sampled for the control room heating, ventilation, and air conditioning system, spent fuel storage ventilation system, and the safety injection pump room ventilation system
- 1998 and 1999 Annual Radioactive Effluent Release Reports
- Quality assurance audit report of the liquid and gaseous radioactive waste effluent program activities performed during the period of January 1999 through August 2000
- Nuclear Procurement Issues Committee audits of the two contractor laboratories used to perform surveillance tests and sample analyses required by the radioactive waste effluent program and the engineered-safety-related ventilation filter systems testing program
- Condition Reports related to the liquid and gaseous radioactive waste effluent program activities written since the previous inspection in December 1998

b. Findings

There were no findings identified.

2PS3 Radiological Environmental Monitoring Program and Radioactive Material Control Program

a. Inspection Scope (71122.03)

The inspector interviewed members of the licensee's staff responsible for implementing the radiological environmental and meteorological monitoring programs and toured the four environmental monitoring indicator stations (airborne and thermoluminescent dosimeter locations) and the meteorological tower. The inspector observed the following activities and equipment:

- Collection and preparation for shipment of airborne particulate, charcoal, and surface water samples for analysis at an off-site contract laboratory
- Meteorological instrument data displays at the meteorological tower and in the control room
- The survey of materials for release from the radiologically controlled area

The following items were reviewed and compared with regulatory requirements to determine whether the licensee had an adequate program to verify the impact of radioactive effluent releases to the environment and to ensure that the licensee's surveys and controls were adequate to prevent the inadvertent release of licensed materials into the public domain:

- Implementing procedures for the radiological environmental monitoring program as described in the Offsite Dose Calculation Manual
- Number and location descriptions of the environmental sampling stations as specified in the Offsite Dose Calculation Manual
- Environmental sampling schedule, sample collection forms, and sample data receipt forms
- Environmental sample analytical results
- 1999 land use census results and any resulting changes to the radiological environmental monitoring program
- Calibration procedures, calibration, and maintenance records for air sampling equipment
- The contractor environmental laboratory's performance in the interlaboratory comparison program
- Calibration procedures, calibration, and maintenance records for the meteorological monitoring instrumentation
- Meteorological instrument operability, reliability, and annual meteorological data recovery
- 1998 and 1999 Annual Radiological Environmental Reports
- Audits, surveillances, and corrective action documentation
- Procedures, methods, and instruments used to survey, control, and release materials from the radiologically controlled area
- Calibration procedures and calibration records for instruments used to perform radiological surveys prior to material release
- Detection sensitivities of radiation survey instruments used for contamination measurements prior to release of materials from the radiologically controlled area, including screening levels for commonly found site-specific surface contamination radionuclides

- Criteria used for the unrestricted release of material from the radiologically controlled area
- Corrective action documentation

b. Findings

There were no findings identified.

2. OTHER ACTIVITIES

4OA5 Other

.1 (Closed) Violation 50-285/99012-07 (EA 00-042): Failure to Ensure that the Arrival and Presence of an NRC Inspector was Not Announced. This violation was addressed and closed in a letter from NRC RIV to Fort Calhoun dated August 23, 2000.

4OA6 Exit Meeting Summary

.1 On October 6, 2000, the inspectors presented the resident inspection results in a meeting with Mr. Clemens and other members of your staff. The licensee acknowledged the findings as presented.

.2 The inspectors presented the radiological monitoring and effluents inspection results to Mr. Gary Gates, Vice President, Nuclear, and other members of licensee management at exit meetings on September 1 and 15, 2000. The licensee acknowledged the findings presented.

.3 The inspector presented the environmental and radioactive material control programs inspection results to Mr. S. Gambhir, Division Manager - Nuclear Operations, and other members of licensee management at an exit meeting on September 29, 2000. The licensee acknowledged the findings presented.

At all three exit meetings, the inspector asked the licensee whether any materials examined during the associated part of the inspection should be considered proprietary. No proprietary information was identified.

KEY POINTS OF CONTACT

Licensee

D. Bannister, Manager, Operations
G. Cavanhaugh, Supervisor, Nuclear Licensing
J. Chase, Division Manager, Nuclear Assessment
R. Clemons, Plant Manager
M. Core, Manager, System Engineering
D. Dryden, Licensing Specialist, Nuclear Licensing
T. Durkarski, Supervisor, System Chemistry
M. Frans, Manager, Nuclear Licensing
S. Gambhir, Division Manager, Nuclear Operations
J. Gaspar, Manager, Nuclear Projects
G. Gates, Vice President, Nuclear
S. Gebers, Corporate Health Physicist
R. Hamilton, Manager, Chemistry
E. Jun, System Engineer, Heating, Ventilation and Air Conditioning
T. Nguyen, System Engineer
R. Phelps, Division Manager, Nuclear Engineering
M. Puckett, Manager, Radiation Protection
R. Reno, Supervisor ALARA/Radiological Equipment, Radiation Protection
L. Schneider, Senior Lead Auditor, Quality Assurance
J. Spilker, Manager, Corrective Action Group
M. Tesar, Division Manager, Nuclear Support Services
J. Tills, Manager, Maintenance
R. Westcott, Manager, Training

PREVIOUS ITEM CLOSED

Closed

50-285/99012-07 (EA 00-0042)	VIO	Failure to Ensure that the Arrival and Presence of an NRC Inspector was Not Announced

DOCUMENTS REVIEWED

The following documents were selected and reviewed by the inspectors to accomplish the objectives and scope of the inspection and to support any findings:

Quality Assurance and Corrective Action Documents:

NUPIC Audit Number 16749, Analytics, Inc., 03/02 - 03/05/1999

NUPIC Audit Number 16864, Teledyne Brown Engineering - Environmental Services, 04/26 - 04/29/1999

SARC Audit Report No. 63, Radiological Effluent Technical Specifications, Radiological Environmental Monitoring Program, and Process Control Program, 03/12/1999

Quality Assurance Surveillance Report No. B3-98-1, Environmental Monitoring, 07/08/1998

Results of Radiochemistry Cross Check Program, 1999 and First Quarter 2000

Environmental Monitoring Program Condition Reports: 1999-00020, 1999-00236, 1999-00626, 1999-01224, 1999-01283, 1999-01367, 1999-02111, 2000-0430, 2000-0912, 2000-1221, 2000-1522.

Meteorological Monitoring Program Condition Reports: 1999-00142, 1999-00766, 1999-01149.

Unrestricted Release of Material Condition Reports: 1999-1629, 1999-1957, 1999-2457, 1999-2617, 2000-00419, 2000-00873, 2000-00977, 2000-01461, 2000-01697.

Safety Audit Review Committee Audit Report No. 58, "Radiation Protection," performed March 29 through April 21, 1999

Quality Assurance Surveillance Report H-99-1, "Radiation Protection Radiation Monitoring Instrumentation," performed June 14 through July 9, 1999

Safety Audit Review Committee Audit Report No. 63, "Radiological Effluent Technical Specifications, Radiological Environmental Monitoring Program, and Process Control Program," performed January 18 through February 12, 1999

"Radiation Protection Assessment," performed August 23-27, 1999

"Chemistry Department Assessment," performed July 18-29,1999

1998 Respiratory Protection Program Evaluation

1999 Respiratory Protection Program Evaluation

NUPIC Joint Audit: "Teledyne Brown Eng-Enviro Services, Westwood, NJ," performed August 31 through September 4, 1998

NUPIC Joint Audit: "Teledyne Brown Eng-Enviro Services, Northbrook, IL," performed April 26-29, 1999

NUPIC Joint Audit: "NCS Corporation, Columbus, OH," performed December 8-10, 1998

<u>Radiation Protection Procedures</u>

RP-AD-400	"Radiation Protection Instrumentation Program," Revision 5
RP-401	"Issue, Control and Accountability of Radiation Protection Instrumentation," Revision 9

RP-402	"Calibration and Test Requirements for Radiation Protection Equipment," Revision 5
RP-403	"Instrument Response Testing," Revision 12
RP-404	"Quality Assurance of Counting Systems and Portable Counters," Revision 7
RP-450	"Operation and Response Test of Portable Counting Instruments," Revision 11
TDB-IV.7	"Technical Data Book - Process Monitor Setpoints," Revision 175
TDB-IV.8	"Technical Data Book - Area Monitoring Setpoints," Revision 53

Chemistry Procedures

CH-AD-0030	"Quality Control of Chemistry Equipment," Revision 11
CH-CP-RA-0006	"Calibration of Canberra Gamma Spectroscopy Detectors," Revision 7
CH-SMP-RE-0013	"Auxiliary Building Exhaust Stack Sampling," Revision 11
CH-SMP-RE-0018	"Laboratory and Radioactive Waste Processing Building Exhaust Stack Sampling," Revision 15
CH-AD-0021	"Containment Release Permit and Summary," Revision 17
CH-AD-0022	"Waste Liquid Release Permit and Summary," Revision 15
CH-AD-0027	"Waste Gas Decay Tank Release Permit and Summary," Revision 9
CH-AD-0029	"Quarterly Cumulative Dose Calculations from Radioactive Effluents," Revision 4
CH-AD-0050	"Annual Radioactive Effluent Release Report," Revision 3

Miscellaneous Documentation:

"Offsite Dose Calculation Manual," Revision 10

Selected contamination monitor, portal monitor, portable survey instruments, and area radiation monitor calibration and response test documentation

Calibration data packages and quality control records for the Canberra Whole Body Counters

Self Contained Breathing Apparatus Personnel Qualification Records

Calibration data and functional check test packages for effluent radiation monitors and flow measurement equipment

Condition Reports associated with radiation monitoring instrumentation, whole body counters, respiratory protection program, and the liquid and gaseous effluent program

NRC'S REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) 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 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	Radiation Safety	Safeguards
•Initiating Events	•Occupational	•Physical Protection
•Mitigating Systems	•Public	
•Barrier Integrity		
•Emergency Preparedness		

To monitor these seven cornerstones of safety, the NRC used 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 plan, as described in the Action Matrix.

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