ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Docket No.:	50-482
License No.:	NPF-42
Report No.:	50-482/97-06
Licensee:	Wolf Creek Nuclear Operating Corporation
Facility:	Wolf Creek Generating Station
Location:	1550 Oxen Lane, NE Burlington, Kansas
Dates:	January 28-31, 1997
Inspector:	Thomas H. Andrews, Radiation Specialist
Approved By:	Blaine Murray, Chief, Plant Support Branch Division of Reactor Safety
ATTACHMENT:	Supplemental Information

EXECUTIVE SUMMARY

Wolf Creek Generating Station
NRC Inspection Report 50-482/97-06

Plant Support

- The licensee implemented an effective process for handling low specific-activity materials and surface contaminated objects (Section R3.1).

- Changes were being made to enhance the licensee's oversight of the as low as is reasonably achievable (ALARA) program. Efforts will be made to extend the reactor coolant system cleanup period at the beginning of the 1997 refueling outage to reduce personnel exposures. Personnel exposure goals will be reviewed on a regular basis to ensure that they remain challenging (Section R3.2).

- An organization change was made which resulted in the radiation protection organization reporting directly to the plant manager. A new Performance Improvement Request Coordinator function was established to trend corrective actions and assessments (Section R5.1).

- The licensee had established a very aggressive and detailed assessment process to review and improve the radiation protection program implementation. Licensee's management was committed to improving the program (Section R7.1).

Report Details

Summary of Plant Status

The plant operated at full power during the inspection period. There were no operational events that effected the results of this inspection.

III. Engineering

E2 Engineering Support of Facilities and Equipment

A recent discovery of a licensee operating their facility in a manner contrary to the Updated Final Safety Analysis Report description highlighted the need for a special focused review that compares plant practices, procedures, and/or parameters to the Updated Final Safety Analysis Report description. While performing the inspection discussed in this report, the inspector reviewed the applicable portions of the Updated Final Safety Analysis Report that related to the areas inspected. The inspector verified that the Updated Final Safety Analysis Report wording was consistent with the observed plant practices, procedures, and/or parameters.

IV. Plant Support

R3 Radiation Protection and Chemistry Procedures and Documentation

R3.1 Transportation of Low Specific-Activity Materials and Surface Contaminated Objects

a. Inspection Scope (Temporary Instruction 2515/133)

The inspector reviewed the following:

- Changes made to procedures for the processing and packaging of low specific-activity material and surface contaminated objects,
- Use of packaging for shipments of low specific-activity material and surface contaminated objects, and
- Use of 10 CFR Part 61 waste stream analysis data in the preparation of shipping documents.

b. Observations and Findings

The inspector reviewed the licensee's process for determining the degree of uniformity used for classifying low specific-activity materials. The process was determined to be consistent with regulatory guidance. Procedures appropriately specified packaging requirements for shipments.

The licensee had made shipments of surface contaminated objects. The process for determining contamination levels on inaccessible areas was reviewed. The shipments reviewed were determined to be appropriately classified and documented.

The inspector reviewed information related to 10 CFR Part 61 waste stream analyses. The inspector noted that some waste streams had not been sampled in several years. The licensee stated that these were specialized waste streams and shipments involving materials from these waste streams were made on a very infrequent basis. The inspector reviewed recent shipments and determined that there were none that involved these waste streams.

c. Conclusion

The licensee implemented an effective process for handling low specific-activity materials and surface contaminated objects.

R3.2 Maintaining Occupational Exposures ALARA

a. Inspection Scope (83750)

The inspector reviewed the licensee's program for maintaining occupational exposures ALARA. The inspector reviewed minutes from the working group and committee associated with ALARA, as well as station personnel exposure goals for 1997.

b. Observations and Findings

Based upon a review of the meeting minutes for the ALARA site working group and committee, the inspector observed that meetings were more frequent at the beginning of 1996 and tapered off towards the end of the year. This was attributed to the refueling outage in the first quarter of 1996. The inspector noted that there appeared to be good input provided associated with topics discussed at the meetings.

The ALARA committee did not meet during the fourth quarter of 1996. According to the licensee's procedures, the ALARA committee was expected to meet at least once per quarter. While this was not a violation of the procedure, it was pointed out that procedural expectations were not met.

The site ALARA working group was supposed to meet approximately every 2 weeks. There were periods of 6 to 8 weeks without a meeting observed in the last half of 1996. According to the licensee's procedure for the site ALARA working group, the ALARA supervisor could cancel the meeting if there was not sufficient business to warrant a meeting.

According to the ALARA supervisor, meetings were not conducted either because of the lack of sufficient business to warrant a meeting or problems meeting the quorum requirements for the meeting. There was no documented justification provided for the meetings that were missed. The inspector noted that the procedure did not appear to give the ALARA supervisor the discretion to cancel the meeting due to lack of a quorum, therefore, the inspector was not able to determine if the procedure was fully complied with. The lack of documentation for cancelled meetings was pointed out to the licensee in an NRC inspection conducted in 1995.

The radiation protection manager had recently taken control and assumed the responsibility as the chairman of the ALARA committee. This was done because of concerns about the effectiveness of this committee. The radiation protection manager stated that an assessment was planned to review the functions of both the ALARA committee and the site ALARA working group to see if these functions could be combined. This was expected to provide a better control mechanism for documenting the basis for meetings that were either cancelled or missed.

The inspector reviewed information regarding personnel exposures. The station person rem data shown below indicated that the 3-year rolling average for 1994 to 1996 cumulative person-rem continued to decline and appeared to be below the industry average.

	1994	1995	1996
Wolf Creek Annual Person-Rem	231	14	140
Wolf Creek 3-year Average	155	138	128
Industry Average Pressurized Water Reactor Annual Person-Rem	134	157	*
Industry Average Pressurized Water Reactor 3-year Average	180	162	*

* = Industry data not available.

The ALARA goals for 1997 were discussed with the licensee. According to the licensee, the 1997 goal was set at 150 person-rem.

The radiation protection manager stated that they had started tracking weekly station exposures during the last half of 1996. The weekly average was used to provide the basis for estimating nonoutage personnel exposure goals. The inspector discussed the nature of work performed during this time interval and pointed out that there appeared to be some high exposure work performed that may skew the data higher than normal. The licensee stated that the ALARA goal would be reviewed on a continuing basis to ensure that it remains challenging.

In planning for the next refueling outage, the licensee stated that there was a significant dose reduction from the long reactor coolant system cleanup period during Refueling Outage 8 in 1996. According to the licensee, in addition to other common dose reduction techniques, efforts will be made to extend the cleanup period in Refueling Outage 9, as much as possible, to gain a similar benefit.

c. Conclusion

Changes were being made to enhance the licensee's oversight of the ALARA program. Efforts will be made to extend the reactor coolant system cleanup period at the beginning of the 1997 refueling outage to reduce personnel exposures. Personnel exposure goals will be reviewed on a regular basis to ensure that they remain challenging.

R5 Radiation Protection and Chemistry Staff Training and Qualification

R5.1 Radiological Protection Organization Changes

a. Inspection Scope (83750)

The inspector reviewed changes to the licensee's radiation protection organization.

b. Observations and Findings

The licensee had made an organization change which reassigned the radiation protection organization from reporting through the plant support division to a direct report to the plant manager. This change resulted in direct access to the plant manager by the radiation protection manager. Based upon interviews with personnel in the radiation protection organization, as well as with selected other individuals, this move was considered to be a very positive step. The inspector did not identify adverse impacts associated with this change.

One technician had been hired since the last inspection. This individual was in the process of becoming qualified as a junior technician; therefore, the inspector did not review the individual's experience record. Qualifications of other staff members had been reviewed in previous inspections.

The dosimetry supervisor had been designated as the performance improvement request coordinator for both the radiation protection and chemistry departments. This was a new position that was in the process of having job duties defined. To minimize the work load of this individual to permit focus on new job assignments, the function of dosimetry was reassigned to another radiation protection supervisor. Personnel interviewed regarding these changes were knowledgeable of the reasons behind the changes.

The performance improvement request coordinator was expected to be knowledgeable regarding corrective action documents, assessments, and root causes of problems identified within the radiation protection and chemistry departments. This individual was also to be responsible for trending this information to provide additional insight into the corrective action process. Because this was a new position, the licensee was providing the necessary training to ensure that this individual had the necessary skills to accomplish these tasks.

c. Conclusion

The licensee's radiation protection organization was properly staffed. Personnel within the organization were knowledgeable. A new function to trend corrective actions and assessments was considered a program improvement.

R7 Quality Assurance in Radiation Protection and Chemistry Activities

R7.1 Audits and Assessments

a. Inspection Scope (83750)

The inspector reviewed quality assurance audits and surveillances as well as self assessments performed that were related to the radiation protection program.

b. Observations and Findings

Quality assurance audits and surveillances were very good in that they provided probing insight into performance of the licensee's radiation protection program. During a recent inspection, the NRC called attention to concerns associated with the process for dealing with these observations.

To address these concerns, the licensee developed a comprehensive assessment plan to identify areas for improvement. This plan not only included a listing of areas where attention would be focused, but included guidance for dealing with adverse observations, schedules, and assigned specific responsibilities for these assessments to various supervisors within the radiation protection organization.

Included in this process was the creation of the performance improvement request coordinator position. An early assignment for this individual was to compile information from NRC inspection reports, internal assessments, corrective action documents, and external assessments. Substantial insight was obtained by performing an assessment to review NRC, external and internal assessment data. This assessment was still in progress, but sufficient information had been compiled which identified areas that needed focused efforts for improvement.

As part of this focus, a comprehensive plan for improving the linkage between management's expectations, procedures, and human performance was presented. The plan was distinguished by numerous assessments of the program. These assessments look at the performance of the program, communications within the program, long-term effectiveness of corrective actions taken, and a mechanism to track the progress of these efforts.

One of the short-term goals was to improve the procedures and understanding of management's expectations. The licensee recognized that most of the problems that they had experienced during the 1996 refueling outage were related to not clearly informing contractors of this site-specific information. An anticipated benefit to improving the understanding of the staff in these areas is that the licensee will be able to capture this information for training contractor technicians. The licensee was working to having this portion of the assessment completed in time to train contractors for the 1997 refueling outage.

Overall, the licensee was not satisfied with the existing condition of their program. They recognized that the efforts they were initiating were not going to be a one time fix and stated that ongoing assessment and improvement was the goal. Given the amount of senior management attention and intermediate management involvement, the licensee indicated a strong commitment to improving the organization.

c. Conclusion

The licensee had established a very aggressive and detailed assessment process to review and improve the radiation protection program implementation. Licensee's management was committed to improving the program.

V. Management Meetings

X1 Exit Meeting Summary

The inspector presented the results of the inspection to members of licensee's management at the conclusion of the inspection on January 31, 1997. The licensee acknowledged the findings presented.

The inspector asked the licensee whether materials examined during the inspections should be considered proprietary. No proprietary information was identified.

ATTACHMENT

SUPPLEMENTAL INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

Licensee

T. Conley, Superintendent, Radiation Protection
T. Damashek, Supervisor Regulatory Compliance
J. Harris, Supervisor Health Physics - Support
E. Holman, Supervisor Health Physics - ALARA
B. McKinney, Plant Manager
C. Medenciy, Supervisor Health Physics - Radwaste
C. Reekie, Engineering Specialist, Regulatory Compliance

NRC

J. F. Ringwald, Senior Resident Inspector

INSPECTION PROCEDURES USED

83750	Occupational Radiation Exposure
86750	Solid Radioactive Waste Management and Transportation of Radioactive Materials
TI 2515/133	Implementation of Revised 49 CFR Parts 100-179 and 10 CFR Part 71

DOCUMENTS REVIEWED

Quality Evaluations Audit Reports

- Report K15-002 K434, "Process Control Program"
- Report K15-002 K437, "Radiation Protection"
- Report K15-002 K460, "Radiation Protection"

Self Assessment Reports

- SEL 95-038, "Use of Radioactive Release Permits"
- SEL 95-051, "Health Physics Technician Training Program"
- SEL 96-012, "Primary to Secondary Leak Response"

- SEL 96-013, "Procedural Requirements Versus Health Physics Management Expectations"
- SEL 96-021, "Health Physics Technician Training Program"
- SEL 96-031, "WCNOC Quality Control Radiography Safety Program"
- WMG Report 9620, December 1996, "Radioactive Material Management Practice Assessment at the Wolf Creek Generating Station"

Plant Observation Checklists

- OB 96-012, "Free Release of Material"
- OB 96-108, "Personnel Decontamination"
- OB 96-184, "Removing the Sub from Refueling Cavity"
- OB 96-187, "HP Survey of Spent Fuel Pool Area"
- OB 96-206, "Containment Walkdown"
- OB 96-242, "Movement of TRI-NUC Vacuum Filters"
- OB 96-271, "Cavity Decon"