

# Nebraska Public Power District

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NLS970204  
December 4, 1997

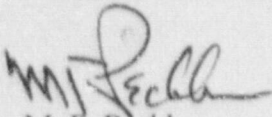
U.S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, D.C. 20555-0001

Gentlemen:

Subject: Special Report on Augmented Off Gas Outage  
Cooper Nuclear Station, NRC Docket 50-298, DPR-46

The subject Special Report is forwarded as an enclosure to this letter. This Special Report is required to fulfill the requirements of the Cooper Nuclear Station (CNS) Technical Specifications whenever the Augmented Off Gas (AOG) system is isolated for an extended period of time.

Sincerely,

  
M. F. Peckham  
Plant Manager

/dm

Enclosure

cc: Regional Administrator  
USNRC - Region IV

Senior Project Manager  
USNRC - NRR Project Directorate IV-1

Senior Resident Inspector  
USNRC

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## SPECIAL REPORT FOR AUGMENTED OFF GAS OUTAGE

### 1.0 INTRODUCTION

In conformance with the requirements of the CNS Technical Specifications this report describes the effects of an extended outage of the Augmented Off Gas (AOG) system. Technical Specifications Section 3.21.C.4.c states:

*"In the event radioactive gas from the main condenser air ejector is discharged in effluent air for more than 7 days without treatment by charcoal adsorbers or in the event that air is discharged via an exhaust ventilation treatment system for more than 31 days without treatment and the limit of Specification 3.21.C.4.b is exceeded, prepare and submit a Special Report to the NRC, pursuant to Specification 6.5.3 and in lieu of any other report, which identifies the inoperable equipment and describes the corrective action taken."*

### 2.0 DISCUSSION

On October 14, 1997 at approximately 0053 indications of a hydrogen burn in the off gas system were received and appropriately acted on by the Operations Crew on watch. Procedures were followed based upon the indications existing at that time which required the bypassing of the AOG charcoal beds and subsequently the removal of the AOG system from service. The requirements challenged by this event are to maintain the charcoal beds in service to comply with the operating license and to preclude plant challenges to the operations staff. Further investigations eliminated the possibility of a hydrogen burn and determined that the most likely cause of this event was a valve malfunction, however, no definitive cause has been determined from the investigations. It has been established that there was a steam intrusion into the 48 inch off gas holdup line which condensed and the condensate then flowed into the Z sump. A total of about 250 to 300 gallons of water was then pumped from the sump to radwaste.

Since the AOG was out of service for longer than 7 days a Special Report is required to fulfill the Technical Specification requirements. Accordingly:

- 1) The AOG system was isolated on October 14 and on November 19, 1997, the AOG was placed back in service, using the Special Procedure discussed below. Charcoal beds B, C, E, and F were placed in service with charcoal beds A and D bypassed. On November 21, the AOG charcoal beds B, C, E and F were also bypassed due to moisture content. On November 29, 1997, the AOG LCO was exited since all of the charcoal beds were placed



back in service and are functioning normally with the Elevated Release Point (ERP) radiation monitors indicating a normally expected release. However, the hydrogen analyzers are not as yet operable and the Special Procedure is in effect to ensure that full AOG system operation is restored.

- 2) An evaluation of the dose effects to the public has been performed considering the effects of operation with the AOG isolated. This evaluation projected that the dose consequences to a Member of the Public will remain within the limits established by the CNS Radiological Effluent Technical Specifications.

### 3.0 CORRECTIVE ACTION

- 1) Maintenance was performed on AOG system components to assure reliability of these components during the restart process.
- 2) The AOG system charcoal adsorption function is operable with the offsite radiation releases in the normally expected range. The system is still under the provision of the Special Procedure to ensure adequate monitoring of the system performance and to bring the hydrogen analyzers on line.

### 4.0 CONCLUSION

The projected offsite dose increase, due to the AOG outage and based on an assessment of compliance to the Technical Specification limits, indicates that the dose consequences to a Member of the Public will remain within the limits established by the CNS Radiological Effluent Technical Specifications.

ATTACHMENT 3 LIST OF NRC COMMITMENTS

Correspondence No: NLS970204

The following table identifies those actions committed to by the District in this document. Any other actions discussed in the submittal represent intended or planned actions by the District. They are described to the NRC for the NRC's information and are not regulatory commitments. Please notify the Licensing Manager at Cooper Nuclear Station of any questions regarding this document or any associated regulatory commitments.

COMMITMENT	COMMITTED DATE OR OUTAGE
None	NA