



Nebraska Public Power District

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NLS2003117
November 10, 2003

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

Subject: Initial Response to NRC Generic Letter 2003-01
Cooper Nuclear Station, NRC Docket 50-298, DPR-46

Reference: 1. NRC Generic Letter 2003-01 dated June 12, 2003, "Control Room Habitability"

2. Teleconference, E. L. McCutchen, et. al., (Nebraska Public Power District) and M. W. Blumberg, et. al., (US Nuclear Regulatory Commission) on October 16, 2003, Cooper Nuclear Station Response to Generic Letter 2003-01.

The purpose of this letter is to provide the Nebraska Public Power District (NPPD) initial response to Generic Letter (GL) 2003-01, "Control Room Habitability" for Cooper Nuclear Station (CNS), Reference 1, as discussed in the October 16, 2003, teleconference with the Nuclear Regulatory Commission, Reference 2.

On June 12, 2003, the Nuclear Regulatory Commission issued GL 2003-01 to, in part, alert the addressees to findings at U.S. power reactor facilities suggesting that the control room licensing and design bases, and applicable regulatory requirements may not be met, and that existing technical specification surveillance requirements may not be adequate. NPPD initially believed the 180 day schedule for completion of the requested actions would be met. A subsequent review determined that the 180 day schedule for the completion of all the requested actions cannot be met at CNS. Attachment 1 provides a discussion of NPPD's proposed alternative course of action including actions CNS has completed to date, actions to be completed prior to providing a final response to the GL, and a basis for acceptability for this course of action.

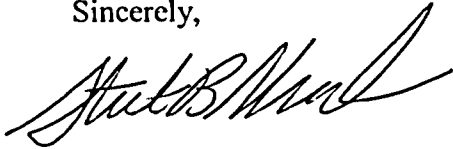
Should you have any questions concerning this matter, please contact Paul Fleming at (402) 825-2774.

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Sincerely,

A handwritten signature in black ink, appearing to read "Stewart B. Minahan". The signature is fluid and cursive, with the first name "Stewart" being more prominent.

Stewart B. Minahan
Acting Site Vice President

/rar

Attachment

cc: Regional Administrator w/ attachment
USNRC - Region IV

Senior Project Manager w/ attachment
USNRC - NRR Project Directorate IV-1

Senior Resident Inspector w/ attachment
USNRC

NPG Distribution w/o attachment

Records w/ attachment

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Nebraska Public Power District
Cooper Nuclear Station
Initial Response to Generic Letter 2003-01
Control Room Habitability

1. Introduction

Nebraska Public Power District (NPPD) has reviewed the actions requested by Nuclear Regulatory Commission (NRC) Generic Letter (GL) 2003-01 and has determined that the 180 day completion schedule cannot be met at Cooper Nuclear Station (CNS).

This response addresses the proposed course of action NPPD plans to take in resolution of GL 2003-01, as discussed with the NRC during the October 16, 2003, teleconference. It includes actions completed to date, actions to be completed, and the basis for this course of action. This response also addresses items 2 and 3 of Generic Letter 2003-01.

2. Proposed Alternative Course of Action

NPPD proposes to follow a systematic approach to assess and evaluate control room habitability at CNS. As guidance, NPPD will use NEI 99-03, Revision 1, Control Room Habitability Guidance. The following initial, "one-time actions" will be part of these assessments, as necessary and appropriate:

NPPD has completed the following actions:

- Assembled Control Room Habitability licensing and design basis.
- Assembled Control Room Habitability analysis.
- Assembled Implementing Documents for Control Room Habitability licensing and design basis and analysis.
- Performed a System Walkdown Inspection for Control Room Envelope Material Condition

The following major actions are outstanding:

- Assess and evaluate licensing/design basis and operator dose analyses.
- Assess and evaluate Implementing Documents to confirm licensing and design basis is maintained.
- Confirm that the limiting Design Basis Accident has been used to assure adequacy of Control Room Habitability design.
- Assess and evaluate potential sources of hazardous chemicals and update hazardous chemicals surveys as necessary.
- Assess and evaluate control room inleakage.
- Assess and evaluate control room habitability during smoke events.
- Assess and evaluate the adequacy of existing control room emergency ventilation system technical specifications.

These initial actions will provide the technical and licensing basis for additional actions.

After the completion of these actions, NPPD will prepare and submit to the NRC, a written report summarizing the results of these initial actions. NPPD will submit plans and schedules for the resolution of any significant discrepancies or conditions adverse to quality if follow-on actions are required.

3. Basis for Acceptability of Alternative Course of Action

The alternative course of action described above is justifiable for several reasons. Some of these are detailed below:

- Individual Plant Examinations for External Events have investigated the frequencies of occurrence and impact of hazardous chemical, transportation, and nearby facility incidents. For CNS, it has been determined that such accidents have a low (less than $1\text{E-}6$ per year) frequency of occurrence.
- Operators are protected from the potential effects of radiological events, or hazardous chemical releases by existing alternate means (e.g., self-contained breathing apparatus, potassium iodide (KI)).
- Onsite and offsite hazardous material surveys have been conducted in the past at CNS. Storage of onsite hazardous materials is controlled to preclude threats to control room habitability. Station procedures contain guidance for response to onsite and offsite hazardous material releases.
- Previous evaluations and analyses, together with existing procedures and controls limit the extent of issues raised in the GL (i.e., radiological, toxicity, and reactor control impacts). For example, the potential effects on control room habitability of hazardous chemicals were evaluated as part of NUREG 0737, III.D.3.4, "Control Room Habitability."
- Interim compensatory measures will be implemented if evidence indicates that control room operators are not adequately protected from the potential effects of radiological or hazardous chemical events.
- There are only a limited number of companies qualified to conduct ASTM E741, or equivalent, tracer gas testing. NPPD has contacted NCS Corporation to perform the CNS testing. An in-depth Control Room Envelope walk-down in preparation for tracer gas testing is scheduled in December 2003. NPPD anticipates that the tracer gas testing will be performed during the first quarter of 2004.

- Design basis operator radiological dose calculations have recently been revised. Technical Specification Amendments 183, 187, 196 and 196 (as amended), received between April 7, 2000 and March 12, 2003, approved amendment requests related to dose assessment methodology and assessment of Design Basis Accidents. A license amendment request is planned for December 2003 to convert the Loss of Coolant Accident dose calculation from interim to permanent NRC approval. Additionally, a license amendment request to utilize an alternative source term as defined in 10 CFR 50.67 is tentatively scheduled for late 2004.
- The NRC and industry representatives have not yet finalized new technical specification requirements for control room habitability. While both the industry and NRC have given this issue a high priority, latest estimates are that model specifications (i.e., TSTF-448) will not be ready until late 2003. NPPD will consider TSTF-448 in the development of an anticipated technical specification change.
- The potential effects of smoke on control room habitability were considered as part of the design of the fire protection program. Smoke detectors are provided in both the control room and cable spreading room (both are part of the control room envelope), which alarm in the control room. The number of detectors and their location were determined based on the results of air flow analyses for the areas involved. Procedures are in place to mitigate the effects of smoke, and maintain reactor control capability from outside the control room if necessary. The alternate shutdown panel locations are physically remote from the control room. In addition, the control room ventilation system automatically isolates from the cable spreading room on detection of smoke in the cable spreading room's return air plenum, which decreases the probability of smoke affecting reactor control capability.
- An ASTM E741 test of the CNS control room performed in 1994 demonstrated that measured control room inleakage was approximately 45 scfm in the pressurization mode. This value, allowing for uncertainty and other required parameters, is bounded by the current licensing basis radiological analysis. Testing in the neutral pressure mode for toxic gas events measured inleakage of approximately 142 scfm which is bounded by the toxic gas analysis.
- CNS has recently completed a System Walkdown Inspection of the Control Room Envelope and associated Control Room Habitability equipment to determine inleakage vulnerability. No deficiencies were noted. One enhancement action was identified and an activity to install a more robust sealing plate over a retired

Control Room Envelope penetration was initiated. The Walkdown Inspection Report documents that the Control Room Envelope is in good material condition.

4. Proposed Schedule

Upon completion of the GL required actions, NPPD will submit a written response to GL 2003-01 for CNS by September 30, 2004. This response will include a summary of the "initial action" evaluations and assessments. The final response will address all Requested Information Items. The following information is provided as an initial response to GL 2003-01 Items 2 and 3.

5. GL 2003-01 Item 2, Compensatory Measures

NRC Requested Information:

If you currently use compensatory measures to demonstrate control room habitability, describe the compensatory measures at your facility and the corrective actions needed to retire these compensatory measures.

NPPD Response:

CNS currently utilizes potassium iodide (KI) as a compensatory measure to demonstrate control room habitability during a loss-of-coolant accident with core damage, as described in License Condition 2.C.(6).

"Upon receiving NRC approval of the licensee's seismic evaluation of the main steam isolation valve leakage pathway to the main turbine condenser, the main turbine condenser, and the turbine building, the licensee shall fully implement the approved request, including the associated modifications, prior to restart from refueling outage 22. Until implementation is completed, potassium iodide will continue to be made available to Control Room personnel during a loss-of-coolant accident with core damage."

A response to a Request for Additional Information associated with the main steam isolation valve leakage pathway and a request to delete License Condition 2.C.(6) is currently scheduled for submittal in December 2003.

6. GL 2003-01 Item 3, Applicability of General Design Criteria

NRC Requested Information:

If you believe that your facility is not required to meet either the GDC, the draft GDC, or the "Principal Design Criteria" regarding control room habitability, in addition to responding to 1

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and 2 above, provide documentation (e.g., Preliminary Safety Analysis Report, Final Safety Analysis Report sections, or correspondence) of the basis for this conclusion and identify your actual requirements.

NPPD Response:

CNS conformance to the 1967 proposed General Design Criteria (as described in Updated Safety Analysis Report (USAR) Appendix F) is the licensing basis for CNS except where specific commitments have been made to the 1971 GDC's and described in the USAR.

ATTACHMENT 3 LIST OF REGULATORY COMMITMENTS©
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Correspondence Number: NLS2003117

The following table identifies those actions committed to by Nebraska Public Power District (NPPD) in this document. Any other actions discussed in the submittal represent intended or planned actions by NPPD. They are described for information only and are not regulatory commitments. Please notify the Licensing & Regulatory Affairs Manager at Cooper Nuclear Station of any questions regarding this document or any associated regulatory commitments.

COMMITMENT	COMMITTED DATE OR OUTAGE
Nebraska Public Power District will submit a written response to Generic Letter 2003-01 for Cooper Nuclear Station by September 30, 2004. This response will include a summary of the "initial action" evaluations and assessments. The final response will address all Requested Information Items.	September 30, 2004