November 18, 2009

LICENSEE: Nebraska Public Power District

FACILITY: Cooper Nuclear Station Power Plant

SUBJECT: SUMMARY OF TELEPHONE CONFERENCE CALL HELD ON SEPTEMBER 21, 2009, BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION STAFF AND NEBRASKA PUBLIC POWER DISTRICT, RELATED TO A CLARIFICATION FOR CERTAIN RESPONSES TO REQUESTS FOR ADDITIONAL INFORMATION, FOR COOPER NUCLEAR STATION LICENSE RENEWAL

The U.S. Nuclear Regulatory Commission staff and representatives of Nebraska Public Power District held a telephone conference call on September 21, 2009, to discuss clarifications for certain responses to requests for additional information for Cooper Nuclear Station license renewal.

Enclosure 1 provides a listing of the participants, and Enclosure 2 contains a brief description of the conference call.

The applicant had an opportunity to comment on this summary.

***/RA/***

Tam Tran, Project Manager
License Renewal Projects Branch 1
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket No. 50-298

Enclosures:
As stated

cc w/encls: See next page

November 18, 2009

LICENSEE: Nebraska Public Power District

FACILITY: Cooper Nuclear Station Power Plant

SUBJECT: SUMMARY OF TELEPHONE CONFERENCE CALL HELD ON SEPTEMBER 21, 2009, BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION STAFF AND NEBRASKA PUBLIC POWER DISTRICT, RELATED TO A CLARIFICATION FOR CERTAIN RESPONSES TO REQUESTS FOR ADDITIONAL INFORMATION, FOR COOPER NUCLEAR STATION LICENSE RENEWAL

The U.S. Nuclear Regulatory Commission staff and representatives of Nebraska Public Power District held a telephone conference call on September 21, 2009, to discuss clarifications for certain responses to requests for additional information for Cooper Nuclear Station license renewal.

Enclosure 1 provides a listing of the participants, and Enclosure 2 contains a brief description of the conference call.

The applicant had an opportunity to comment on this summary.

***/RA/***

Tam Tran, Project Manager
License Renewal Projects Branch 1
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket No. 50-298

Enclosures:
As stated

cc w/encls: See next page

DISTRIBUTION: See next page

ADAMS Accession No. ML093000440

| OFFICE | LA:DLR | PM:RPB1:DLR | PM:RPB1:DLR | BC:RPB1:DLR | PM:RPB1:DLR |
|---|---|---|---|---|---|
| NAME | S. Figueroa | T. Tran | B. Brady | B. Pham | T. Tran |
| DATE | 11/13/09 | 11/03/09 | 11/18/09 | 11/18/09 | 11/18/09 |

OFFICIAL RECORD COPY

LIST OF PARTICIPANTS FROM THE
TELEPHONE CONFERENCE CALL FOR
COOPER NUCLEAR STATION
LICENSE RENEWAL APPLICATION

September 21, 2009

| PARTICIPANTS | AFFILIATIONS |
|---|---|
| T. Tran | U.S. Nuclear Regulatory Commission (NRC) |
| B. Brady | NRC |
| F. Farzam | NRC |
| G. Cheruvenki | NRC |
| C. Doutt | NRC |
| A. Obodoako | NRC |
| M. Yoder | NRC |
| D. Bremer | Nebraska Public Power District (NPPD) |
| J. Loynes | NPPD |
| C. Parkyn, | NPPD |
| J. Sweley | NPPD |
| D. Lach | Entergy |
| A. Cox | Entergy |
| R. Ahrabli | Entergy |
| J. Lingenfelter | Entergy |
| T. Ivy | Entergy |
| A. Taylor | Entergy |

ENCLOSURE 1

COOPER NUCLEAR STATION POWER PLANT
LICENSE RENEWAL APPLICATION
(Brief description of the conference call)

The U.S. Nuclear Regulatory Commission (NRC) staff and representatives of Nebraska Public Power District (NPPD), held a telephone conference call on September 21, 2009, to discuss clarifications for certain responses to requests for additional information listed below.

Scoping and Screening of Structure

Regarding RAI 2.4-1, 10, 16 which was issued to the applicant on July 14, 2009 (ML091880476) and responded by the applicant on August 13, 2009 (ML092400412) the staff asked for further clarification on the appropriateness and adequacy of the scoping and screening of relevant structures and components for aging management review. The staff requested the following clarifications:

**RAI 2.4-1**

In the applicant's RAI response (ML092400412), the base plate and anchors are in scope. The staff asked why is the rest of the crane not in scope?

The crane cannot break loose and damage any safety-related equipment on any of the different levels below it during an earthquake. The term "cannot break loose" is a qualitative statement and suggests that the jib crane is located in a way that could have interaction with safety-related SSCs. Please provide further clarification.

The applicant provided the following clarifications during the conference call:

The jib crane and its associated trolley located in the reactor building are used to move control rod drives when maintenance is required during an outage. The crane does not perform a safety function and it is not critical to plant operation, and it does not lift loads over safety-related equipment. The crane is located such that its failure will not damage safety-related SSCs. It is built of a pipe column seismically anchored to the operating floor. The crane cannot break loose and damage any safety-related equipment on any of the different levels below it during an earthquake. Thus, its failure could not prevent satisfactory accomplishment of any of the functions identified in paragraphs (a)(1)(i), (ii), or (iii) of 10 CFR 54.4.

**RAI 2.4-10**

The applicant stated that:

> Built-up roofing systems were used in the structures listed in Section 2.4.3 of the LRA. However, the roofing systems, including roofing membranes, are not within the scope of license renewal. They are nonsafety-related and provide protection from external

environment to roof decking and roof slabs. Shielding and protection are provided by roof decking and roof slabs. The built-up roofing system does not perform any of the license renewal intended functions defined in 10 CFR 54.4(a)(l), (2) or (3).

It is not clear if this is implying that there are no safety-related SSCs below the roof areas (in various buildings) where the waterproofing membrane is used. The staff requested more specific clarifications. The staff understands that 54.4(a)(2) will be addressed either by stating that there are no safety-related SSC's that could be affected by a leaking roof (degradation of the roof waterproofing membrane) or the roof waterproofing membrane will be included in the scope and subject to AMR.

The applicant provided the following clarifications during the conference call:

Roofing materials provide protection of equipment from the elements to protect the utility investment in equipment contained within plant structures. During the operating experience review for the CNS license renewal project, several occurrences of leaking roof membrane were identified, none of which affected the operability of equipment relied on to accomplish any of the functions identified in paragraphs (a)(1) (i), (ii), or (iii) of 10 CFR 54.4. This operating experience provides additional confirmation that a leaking roof will not prevent satisfactory accomplishment of any of the functions identified in paragraphs (a)(1) (i), (ii), or (iii) of 10 CFR 54.4. Nevertheless, the roofing membrane (elastomer) has been included in the scope of license renewal and subjected to aging management review. LRA Tables 2.4-4 (Bulk Commodities Components Subject to Aging Management Review) and 3.5.2-4 (Bulk Commodities) <u>will be</u> revised as follows.

Table 2.4-4, Bulk Commodities Components Subject to Aging Management Review, Page 2.4-36

| Component | Intended Function[1] |
|---|---|
| Other Materials | |
| Roof membrane | Shelter or protection<br>Support for Criterion (a)(2) equipment |

| Table 3.5.2-4: Bulk Commodities, Page 3.5-82 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Structure and/or Component or Commodity | Intended Function | Material | Environment | Aging Effect Requiring Management | Aging Management Programs | NUREG-1801 Vol. 2 Item | Table 1 Item | Notes |
| Roof membrane | EN,SNS | Elastomer | Air-outdoor | Cracking<br>Change in material properties | Structures Monitoring | II.B4-7 (C-18) | 3.5.1-16 | E |

**RAI 2.4-16**

Please clarify whether the failure of OWCGG building onto adjacent building(s) is postulated in the CNS Current License Basis.

The applicant provided the following clarifications during the conference call:

As indicated in CNS USAR Section XII-2.1, the Class II structural design criteria apply to structures, equipment, and components which are important to reactor operation, but are not essential for preventing an accident which would endanger the public health and safety, and are not required for the mitigation of the consequences of these accidents. Accordingly, the OWCGG building is categorized as Class II. The impact of failure of the building is acceptable not because of its design features, but because of its location. It is near but not attached to the turbine building and is a separate structure with independent masonry block walls and concrete floor. An evaluation of the consequences of its failure has determined that its failure will have no impact on adjacent structures. Its failure would not prevent satisfactory accomplishment of any of the functions identified in paragraphs (a)(1) (i), (ii), or (iii) of 10 CFR 54.4.

**RAI 4.1-1**

The RAI 4.1-1 response stated: "NPPD must complete a new analysis prior to 2011." However, a commitment was not made for this item. The staff questioned why, specifically:

- plant-specific analysis consistent with BWRVIP-25 to demonstrate that the core plate hold-down bolts can withstand normal, upset, emergency, and faulted loads, as applicable, considering the effects of stress relaxation until the end of the period of extended operation (consistent with installed core plate configuration and bolt preload)
- application of plant-specific design basis loads and load combinations (incorporate detailed flux/fluence analyses and improved stress relaxation correlations)
- analysis availability prior to 2011 (with sufficient time for NRC review)

The applicant provided the following clarifications during the conference call:

The new analysis was effectively a revision to the existing analysis performed by GE and therefore contains proprietary information. The applicant affirmed that neither the original GE analysis that determined sufficiency of the core plate hold-down bolts to 2011, nor the recently performed analysis that evaluated the acceptability of the core plate hold-down bolts beyond 2034, meet the definition of a TLAA. The applicant proposed to make a non-proprietary version of NPPD analysis available to NRC as supplemental information.

**RAI B.1.37-1**

The applicant made a commitment in its RAI B.1.37-1 response letter that if niobium is found to be a constituent of any CASS component material, the component will be considered susceptible to thermal aging embrittlement, without the application of the screening criteria. The applicant further stated that consistent with any other component found susceptible to thermal aging embrittlement, they will be examined via a supplemental inspection in accordance with the GALL Report Section XI.M13 recommendations.

Until the applicant either confirms that there is no niobium-bearing CASS materials used for vessel internal components, or provide (or make a commitment to provide) a flaw evaluation methodology for niobium-bearing CASS internal components for staff review, the staff's concerns in RAI B.1.37-1 are unresolved.

The applicant provided the following clarifications during the conference call:

The applicant will make a commitment to either confirm that there are no niobium-bearing CASS materials used for vessel internal components, or provide a flaw evaluation methodology for niobium-bearing CASS internal components for staff review prior to the period of extended operation (PEO).

**RAI B.1.37-2**

The staff's review of the applicant's program also showed that the applicant had not confirmed that there is no CASS material with >25% ferrite. The GALL Report further states that flaw evaluation for CASS components with >25% ferrite is performed on a case-by-case basis using fracture toughness data provided by the applicant. The applicant stated, "Flaw evaluation for CASS components with greater than 25% ferrite content will be developed on a case-by-case basis using fracture toughness data. The applicable BWRVIP guidelines will be used for flaw evaluation of internal components for which IWB-3500 and IWB-3640 are not applicable." It is not clear to the staff what the applicant means by "applicable BWRVIP guidelines" because none of the BWRVIP documents address the reduction of fracture toughness due to thermal aging embrittlement and neutron irradiation embrittlement. Until the applicant either confirms that there are no CASS materials with greater than 25% ferrite or provides a flaw evaluation methodology for CASS internal components with greater than 25% ferrite and includes this commitment in CNS Commitment No. NLS2008071-26, the staff's concerns in RAI B.1.37-2 are unresolved.

The applicant provided the following clarifications during the conference call:

The applicant will make a commitment to either confirm there are no CASS materials with greater than 25% ferrite or provide a flaw evaluation methodology for CASS internal components with greater than 25% ferrite for staff review prior to the PEO.

**RAI B.1.22-3**

The staff requested the applicant to provide a justification for omitting the inspection frequencies from the LRA Section B.1.22 USAR supplement summary description. In its response dated July 29, 2009, the applicant stated that LRA Section A.1.1.22 states that the metal Enclosed Bus Program will be implemented consistent with NUREG-1801, Section XI.E4 which specifies the applicable test and inspection frequencies. The applicant also stated that LRA B.1.22 includes an exception to add inspections for the metal enclosure assemblies. The applicant stated that Section A.1.1.22 of the LRA is therefore revised to state the frequency for this addition to the Metal Enclosed Bus Program. Based on its review, the staff finds the applicant's response acceptable concerning the program exception because the applicant revised LRA Section A.1.1.22 to include the frequency of inspection. However, there is no USAR

supplement to reference this GALL AMP XI.E4 inspection and test frequencies (consistent with LR SRP Table 3.6.2), why?
The applicant provided the following clarifications during the conference call:

The applicant will revise LRA B.1.22 to provide GALL AMP XI.E4 inspection and test frequencies. This will include revising the USAR supplement.

**RAI 3.3.2.2.6-1**

CNS LRA Section 3.3.2.6, "Reduction of Neutron-Absorbing Capacity and Loss of Material due to General Corrosion," states that, for Boral spent fuel storage racks exposed to a treated water environment, loss of material is an AERM and reduction of neutron-absorbing capacity is insignificant and requires no aging management. The second statement references CNS plant operating experience with Boral coupons inspected in 2002. The LRA does not address applicability of recent adverse operating experience (plant-specific and industry) with Boral. The LRA states that management of loss of material is performed by the Neutron Absorber Monitoring and Water Chemistry Control - BWR Programs. However, the CNS LRA does not present sufficient specific plant information on how these programs will manage loss of material for Boral in the spent fuel pool. The staff has concerns that NPPD had ceased neutron attenuation testing of the Boral coupons in 1992, and were not intending to conduct neutron attenuation testing of the Boral coupons during the PEO. The staff also has a concern relating to the step-changes in the material property of neutron absorber, which is being communicated to the industry via various generic communications (e.g., RIS, ISG, etc.). The staff has the following questions:

(a) In the license renewal application, it was stated that the Water Chemistry Control – BWR Program and Neutron Absorber Monitoring Program will continue to monitor the material degradation and neutron attenuation performance of Boral in the spent fuel pool during the period of extended operation. Please clarify the frequency at which the surveillance inspections will be conducted.
(b) On page 40 of your July 29, 2009 (Agencywide Documents Access Management System (ADAMS) Accession Number ML091600284) letter, it was stated that evaluation for change in material properties such as Boron-10 areal density measurement is not done due to operating experience obtained from previous neutron attenuation testing performed. Please clarify the results of the last evaluation for Boron-10 areal density measurement. In addition, please clarify whether any future neutron attenuation testing will be performed.
(c) On pages 41 - 43 of your July 29, 2009 letter, it was stated that three Boral coupons were identified as being swollen in the1982 and 1992 surveillance inspections. Subsequently, testing was performed on the coupons and it was reported that the swelling was due to internal mechanical failure combined with water being entrained in the coupons, and small leakage into the coupons.
(d) It was reported that three of the twenty-one coupons in the spent fuel pool were identified with swelling and underwent testing. Please clarify whether the remaining eighteen coupons were examined for swelling and discuss their results.
(e) Please clarify why the coupons identified with swelling are not characteristic of swollen Boral panels in the spent fuel pool racks.
(f) Please clarify the extent of swelling identified in the coupons and whether any swelling has been identified in the Boral panels in the spent fuel pool racks. Additionally, please provide

the trending results for the swollen coupons that were returned back to the spent fuel pool after inspection and testing.

(g) Please clarify how the neutron attenuation tests on the swollen coupons were performed, i.e., were the coupons submerged in water before testing for neutron attenuation. Further, please clarify whether the swollen coupons exhibited any reduction in neutron attenuation performance.

(h) Please clarify whether swelling of coupons with gas is bounded by the criticality analysis.

(i) Please clarify the applicability of using NUREG-1787, "Safety Evaluation Report Related to the License Renewal of the Virgil C. Summer Nuclear Station," March 2004, and BNL-NUREG-25582, "Corrosion Considerations in the Use of Boral in Spent Fuel Storage Pool Racks," January 1979, as justification of aging effects of Boral being insignificant at CNS.

The applicant provided the following clarifications during the conference call:

The applicant stated that operating experience justified discontinuing neutron attenuation testing at CNS and stated that dimensional testing of Boral coupons continued every eight years with the next test planned in the next fuel cycle. Detection of abnormalities during these inspections would lead to additional corrective actions that may include neutron attenuation testing. However, the applicant agreed to commit to perform neutron attenuation testing once during the PEO. The applicant further clarified that if the staff issues a generic communication on this topic prior to or during the PEO that prescribes different requirements for neutron attenuation testing or frequency of testing then the applicant's response to the generic communication will supersede this commitment associated with RAI 3.3.2.2.6-1.

(a) As stated in Section 1.d of the response to RAI 3.3.2.2.6-1, each surveillance inspection occurs once every eight years.

(b) As stated in Section 1.j of the response to RAI 3.3.2.2.6-1, evaluation in 1982 showed that neutron shielding performance exceeded the minimum requirements for a new Boral panel, and evaluation in 1992 showed no loss of neutron absorber material and no indication of non-uniform distribution of the boron-10 in the absorber material. As stated in Section 1.g.iii of the response to RAI 3.3.2.2.6-1, Boron-10 areal density measurement is no longer performed. Neutron attenuation testing occurred when the issues were noted with the coupons in 1982 and 1992. The last neutron attenuation test was in 1992. Coupon 7-196-A-1-3 had a B-10 loading of 0.0256 gm/cm2. Coupon 7-196-A-4-2 had a B-10 loading of 0.0256 gm/cm2. The unswollen coupon used for comparison had a B-10 loading of 0.0257 gm/cm2. No future attenuation testing is planned.

(c) No question is apparent from this statement, please clarify information requested. This was discussed: NPPD re-asserted that the cause of the swelling was unique to coupon construction and not indicative of the boral panels.

(d) All coupons are examined per the surveillance procedure, including dimensional tests. Coupons with swelling noted were subjected to more tests (including the neutron attenuation testing). As stated in Section 1.d of the response to RAI 3.3.2.2.6-1, Boral coupons are weighed, visually inspected, and photographed. Thickness measurements are taken at three points along the length of the coupon. Visual inspections check for signs of loss of material, swelling, and blistering. As stated in Section 1.j of the response to RAI 3.3.2.2.6-1, two of twenty Boral coupons were discovered to be swollen in the 1982 inspection; the other

eighteen were not swollen. One Boral coupon was discovered swollen in the 1992 inspection; the other eighteen were not swollen.

(e) As stated in Section 1.j of the response to RAI 3.3.2.2.6-1, the 1982 evaluation determined that the main constituent of the entrapped gas was hydrogen, with an internal gage pressure of less than 3 psi. An internal gage pressure of 50 psi was applied to the sample without causing swelling. Therefore, the conclusion was that the swelling was due to internal mechanical failure of the coupon combined with water entrained in the failed coupon at the time of the final factory leak test prior to shipment. The mechanical failure was ascribed to the shearing required to reduce the samples to a smaller than original size prior to shipment. The swelling did not indicate a condition which would affect the panels themselves, as they did not undergo the same shearing process. As stated in Section 1.j of the response to RAI 3.3.2.2.6-1, the 1992 evaluation found that the swollen coupon showed swelling typical of a sealed Boral sample when water leaks into the enclosed space. The bulges observed on the coupon were considered unique to the coupon and not representative of the Boral panels in the racks. The conclusion was that the swelling noted was due to a small leak in the coupon.

(f) No swelling or other issues with the panels have been noted. The rack cells are checked for debris prior to fuel storage and fuel has been moved to comply with the security order. No swelling, indications of other issues, or binding of components or fuel bundles has been noted. Refer to attached trend graphs for swollen coupons.

(g) As stated in Sections 1.g.i and 1.g.ii of the response to RAI 3.3.2.2.6-1, all Boral coupons are mounted inside the spent fuel pool and are open to the spent fuel pool water, except for the two control coupons which are mounted outside the spent fuel pool. Thus the swollen coupons had been submerged in water prior to testing. As stated in Section 1.j of the response to RAI 3.3.2.2.6-1, the swollen coupons exhibited no reduction in neutron shielding performance. The 1982 test report does not specify a dry or wet test. The 1992 test procedure specifies that the coupons are conditioned in air for 48 hours prior to any testing. The swollen coupons did not show a reduction in B-10 loading in the neutron attenuation testing.

(h) As stated in Section 1.j of the response to RAI 3.3.2.2.6-1, swelling of the coupons was not considered representative of the racks. Therefore, swelling of the coupons had no impact on the criticality analysis for the racks discussed in CNS SAR Chapter X, Section 3.6.

(i) CNS has not asserted that the aging effects of Boral are insignificant. The question posed in Section 3.c of RAI 3.3.2.2.6-1 pertained only to reduction of neutron absorbing capacity due to sustained irradiation of Boral.

**RAI 3.3.2.2.6-2**

CNS LRA Section 3.3.2.2.6, "Reduction of Neutron-Absorbing Capacity and Loss of Material due to General Corrosion," addresses Boral spent fuel storage racks exposed to a treated water environment, but does not address Metamic™. LRA Table 3.3.2-9 states that management of loss of material for "aluminum/boron carbide panels is performed by the Neutron Absorber Monitoring and Water Chemistry Control- BWR Programs." However, the CNS LRA does not present sufficient specific plant information on how these programs will manage reduction of neutron-absorbing capacity or loss of material for Metamic™ in the spent fuel pool. Section B.1. 23 of the LRA, entitled "Neutron Absorber Monitoring," specifically indicates that the scope of this program includes "all Boral in the CNS spent fuel pool," and does not include Metamic™ or aluminum/boron carbide.

(a) Please confirm that the Water Chemistry Control – BWR Program will continue to be used to monitor the material degradation and neutron attenuation performance of Metamic™ in the spent fuel pool during the period of extended operation. In addition, please confirm that the Metamic™ coupons will continue to be periodically tested in accordance with CNS License Amendment No. 227 (ADAMS Accession Number ML072130023) during the period of extended operation.
(b) Additionally, please clarify how NUREG-1787 and BNL-NUREG-25582 correlate to the performance of Metamic™.

The applicant provided the following clarifications during the conference call:

Confirmed. The Metamic™ program will meet the commitments made for license amendment 227 during the period of extended operation. As indicated in LRA Table 3.3.2-9, the aging effect requiring management for aluminum / boron carbide (Metamic™) spent fuel panels in a treated water environment is loss of material which is managed by the Water Chemistry Control - BWR Program. This Table was amended in the response to RAI 3.3.2.2.6-2 to highlight the fact that reduction of neutron absorption capability is not an aging effect requiring management for the Metamic™ panels at CNS. However, in accordance with License Amendment 227, the neutron absorption capability of Metamic™ is periodically tested.

As stated in Section 1.b of the response to RAI 3.3.2.2.6- 2, the NRC staff has accepted the position that Boral spent fuel panels do not degrade as a result of long-term exposure to radiation (documented in Section 3.5.2.4.2 of the license renewal SER for VC Summer [NUREG-1787]). The potential aging effects resulting from sustained irradiation of Boral were previously evaluated by the staff (in BNL-NUREG-25582, dated January 1979) and determined to be insignificant. Metamic™ material composition is an improvement to the Boral design that provides reduced neutron streaming. This is based in part on the more homogeneous mixture of aluminum and boron carbide powders in Metamic™ made possible by a smaller boron carbide particle size. These Metamic material improvements of the Boral design do not adversely affect the neutron absorption capability such that conclusions previously reached by the NRC staff for Boral in the above documents are applicable to the Metamic™ panels at CNS.

**RAI 3.6-1**

The response to this RAI was on the telecon-agenda for clarification. However, the discussion for this item did not occur due to staff's schedule conflict.

Letter to Nebraska Public Power District from T. Tran, dated November 18, 2009

DISTRIBUTION:

SUBJECT: SUMMARY OF TELEPHONE CONFERENCE CALL HELD ON SEPTEMBER 21, 2009, BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION STAFF AND NEBRASKA PUBLIC POWER DISTRICT, RELATED TO A CLARIFICATION FOR CERTAIN RESPONSES TO REQUESTS FOR ADDITIONAL INFORMATION, FOR COOPER NUCLEAR STATION LICENSE RENEWAL

**HARD COPY**:
DLR RF

**E-MAIL**:
PUBLIC
RidsNrrDlrResource
RidsNrrDlrRpb1 Resource
RidsNrrDlrRpb2 Resource
RidsNrrDlrRer1 Resource
RidsNrrDlrRer2 Resource
RidsNrrDlrRerb Resource
RidsNrrDlrRpob Resource
RidsNrrDciCvib Resource
RidsNrrDciCpnb Resource
RidsNrrDciCsgb Resource
RidsNrrDraAfpb Resource
RidsNrrDraApla Resource
RidsNrrDeEmcb Resource
RidsNrrDeEeeb Resource
RidsNrrDssSrxb Resource
RidsNrrDssSbpb Resource
RidsNrrDssScvb Resource
RidsOgcMailCenter Resource
---
T. Tran
F. Lyon
D. Roth (OGC)
A. Jones (OGC)
N. Taylor (RIV)
E. Collins (RIV)
C. Casto (RIV)
B. Maier (RIV)
V. Dricks (RIV)
D. Chamberlain (RIV)
A. Vegel (RIV)
W. Walker (RIV)
G. Miller (RIV)
G. Pick (RIV)
S. Burnell (RIV)

Cooper Nuclear Station

cc:

Mr. Ronald D. Asche
President and Chief Executive Officer
Nebraska Public Power District
1414 15th Street
Columbus, NE 68601

Mr. Gene Mace
Nuclear Asset Manager
Nebraska Public Power District
P.O. Box 98
Brownville, NE 68321

Mr. John C. McClure
Vice President and General Counsel
Nebraska Public Power District
P.O. Box 499
Columbus, NE 68602-0499

Mr. David Van Der Kamp
Licensing Manager
Nebraska Public Power District
P.O. Box 98
Brownville, NE 68321

Mr. Michael J. Linder, Director
Nebraska Department of Environmental Quality
P.O. Box 98922
Lincoln, NE 68509-8922

Chairman
Nemaha County Board of Commissioners
Nemaha County Courthouse
1824 N Street
Auburn, NE 68305

Ms. Julia Schmitt, Manager
Radiation Control Program
Nebraska Health & Human Services R&L
Public Health Assurance
301 Centennial Mall, South
P.O. Box 95007
Lincoln, NE 68509-5007

Deputy Director for Policy
Missouri Department of Natural Resources
P.O. Box 176
Jefferson City, MO 65102-0176

Senior Resident Inspector
U.S. Nuclear Regulatory Commission
P.O. Box 218
Brownville, NE 68321

Regional Administrator, Region IV
U.S. Nuclear Regulatory Commission
612 E. Lamar Blvd., Suite 400
Arlington, TX 76011-4125

Director, Missouri State Emergency Management Agency
P.O. Box 116
Jefferson City, MO 65102-0116

Chief, Radiation and Asbestos Control Section
Kansas Department of Health and Environment
Bureau of Air and Radiation
1000 SW Jackson
Suite 310
Topeka, KS 66612-1366

Ms. Melanie Rasmussen
Radiation Control Program Director
Bureau of Radiological Health
Iowa Department of Public Health
Lucas State Office Building, 5th Floor
321 East 12th Street
Des Moines, IA 50319

Mr. Keith G. Henke, Planner
Division of Community and Public Health
Office of Emergency Coordination
930 Wildwood P.O. Box 570
Jefferson City, MO 65102

Mr. Art Zaremba, Director of Nuclear Safety Assurance
Nebraska Public Power District
P.O. Box 98
Brownville, NE 68321

Mr. John F. McCann, Director
Licensing, Entergy Nuclear Northeast
Entergy Nuclear Operations, Inc.
440 Hamilton Avenue
White Plains, NY 10601-1813

cc:

Stewart Minahan
Vice President
Nuclear and Chief Nuclear Officer
Cooper Nuclear Station
72676 – 648A Avenue
Brownville, NE 68321

Mike Boyce
Cooper Strategic Initiatives Manager
Cooper Nuclear Station
72676 – 648A Avenue
Brownville, NE 68321

Dave Bremer
License Renewal Project Manager
Cooper Nuclear Station
72676 – 648A Avenue
Brownville, NE 68321

Bill Victor
License Renewal Project Licensing Lead
Cooper Nuclear Station
72676 – 648A Avenue
Brownville, NE 68321

Garry Young
License Renewal Manager
Entergy Nuclear
1448 S.R. 333, N-GSB-45
Russellville, AR 72802

Alan Cox
License Renewal Technical Manager
Entergy Nuclear
1448 S.R. 333, N-GSB-45
Russellville, AR 72802

Dave Lach
LRP Entergy Project Manager
Entergy Nuclear
1448 S.R. 333, N-GSB-45
Russellville, AR 72802