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Nebraska Public Power District

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NLS2003105
December 9, 2003

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

Subject: License Amendment Request for LOCA Dose Calculation Methodology and Resolution of Remaining License Condition 2.C.(6) Issues
Cooper Nuclear Station, NRC Docket No. 50-298, DPR-46

References:

1. Letter to C. Warren (Nebraska Public Power District) from U.S. Nuclear Regulatory Commission dated October 2, 2003, "Cooper Nuclear Station - Request for Additional Information Regarding Modification of the Main Steam Isolation Leakage Pathway and License Condition 2.C.(6) (MB7376)."

2. Letter to C. Warren (Nebraska Public Power District) from U.S Nuclear Regulatory Commission dated February 21, 2003, "Cooper Nuclear Station – Issuance of Amendment Regarding Design Basis Accidents' Radiological Dose Assessment Methodologies, and Revision to License Condition 2.C.(6). (TAC No. MB4654)"

3. Letter from U.S. Nuclear Regulatory Commission dated August 21, 2003, "Summary of Meeting With Nebraska Public Power District to Discuss Issues Related to Main Steam Isolation Leakage Pathway Seismic Evaluation (TAC No. MB7376)."

The purpose of this letter is three-fold. First, the Nebraska Public Power District (NPPD) is requesting Nuclear Regulatory Commission (NRC) approval of the Main Steam Isolation Valve (MSIV) Leakage Pathway configuration (including the post-accident manual actions necessary to establish that configuration), as described in Attachment 1. As part of this request, NPPD is also responding to the NRC Request for Additional Information (RAI) transmitted in Reference 1. Second, NPPD is requesting permanent approval of the Loss-of-Coolant Accident (LOCA) dose calculation methodology (currently approved on an interim basis). Third, NPPD is requesting deletion of License Condition 2.C.(6), which will eliminate the commitment to provide potassium iodide to the Control Room occupants during LOCA conditions with core damage. The following paragraphs discuss the specifics of these three elements to this License Amendment Request. NPPD requests NRC approval by June 30, 2004, and that the approved request become effective 60 days after issuance.

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In Reference 2, the NRC stated that its review of the MSIV Leakage Pathway configuration was being conducted as a separate action. A meeting was held at NRC Headquarters on July 23, 2003 between the NRC staff and NPPD to discuss the MSIV Leakage Pathway, as documented in Reference 3. At this meeting, NPPD explained that the necessary design activities had been completed and implemented in the field related to the License Condition 2.C.(6) seismic evaluation. It was also communicated that the principal remaining implementation activity was issuance of the station procedure that directs the manual actions necessary to configure the MSIV Leakage Pathway. Final issuance is awaiting NRC approval of the proposed MSIV Leakage Pathway to the Main Turbine Condenser, and the manual actions necessary to establish that configuration. Since this meeting, the NRC issued the Reference 1 RAI. NPPD understands that this RAI contains the remaining NRC questions on the MSIV Leakage Pathway. Attachment 1 provides a License Amendment Request that addresses this RAI, and formally requests acceptance of the overall configuration (with approval of the associated manual actions) for incorporation in the Updated Safety Analysis Report.

In Reference 2, the NRC issued Cooper Nuclear Station (CNS) License Amendment 196. That amendment provided interim approval of the LOCA dose calculation methodology, expiring upon CNS entering Mode 4 of Refueling Outage 22. There are no outstanding technical issues related to this methodology. Accordingly, NPPD has requested in Attachment 1 permanent approval of the LOCA dose calculation methodology. NPPD understands that the resolution of the remaining technical issues of the MSIV Leakage Pathway (as described above) and completion of the remaining implementation activities for the pathway are prerequisites to incorporating permanent LOCA methodology approval into the CNS licensing basis.

With NRC approval of the MSIV Leakage Pathway configuration, implementation of the necessary actions to establish that configuration, and permanent approval of the LOCA dose calculation methodology, License Condition 2.C.(6) will have been rendered a historical requirement whose results have been incorporated in the CNS current licensing basis. Accordingly, as an administrative matter, NPPD requests deletion of License Condition 2.C.(6) in Attachment 1. Removal of this License Condition will formalize the elimination of the compensatory measure to provide potassium iodide to the Control Room occupants during a LOCA with core damage.

NPPD recognizes that the three licensing activities being proposed are sequential:

- NPPD implementation of License Condition 2.C.(6) requires prior NRC approval of the MSIV Leakage Pathway configuration, and the necessary manual actions,
- Permanent incorporation of the LOCA dose calculation methodology into the CNS licensing basis requires prior NPPD implementation of License Condition 2.C.(6),
- Deletion of License Condition 2.C.(6) requires both prior implementation of License Condition 2.C.(6) and permanent incorporation of the LOCA dose calculation methodology into the CNS licensing basis.

Accordingly, NPPD proposes the following sequence in implementing the approved License Amendment Request:

1. NPPD is issued the requested License Amendment providing final NRC approval of the License Condition 2.C.(6) seismic evaluation (including acceptance of the configuration of the MSIV Leakage Pathway and the manual actions needed to establish that configuration), permanent approval of the LOCA dose calculation methodology, and deletion of License Condition 2.C.(6).

2. During the 60-day implementation period following receipt of the License Amendment, NPPD will implement the necessary procedure change reflecting the approved manual actions to configure the MSIV leakage pathway.

3. Following issuance of the above procedure change, NPPD will establish the License Amendment for all three activities as effective to the CNS licensing basis within the 60-day implementation period.

The three aspects of this License Amendment Request have been organized into distinct subsections in Attachment 1 to facilitate review. The proposed license amendment has been reviewed by the necessary safety review committees and incorporates amendments to the CNS Facility Operating License through Amendment 201. NPPD has concluded that the proposed changes do not involve a significant hazards consideration. Additionally, NPPD has concluded that the proposed changes do not have a significant adverse effect on the environment, and are justified for categorical exclusion from the requirement for an environmental assessment as provided by 10CFR51.22(c)(9).

This request is submitted under oath pursuant to 10CFR50.30(b). By copy of this letter and its attachments, the appropriate State of Nebraska official is notified in accordance with 10CFR50.91(b)(1). Copies to the NRC Region IV office and the CNS Resident Inspector are also being provided in accordance with 10CFR50.4(b)(1).

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

Sincerely,

Randall K. Edington
Vice President- Nuclear and
Chief Nuclear Officer

/wrv
Attachments

cc: Regional Administrator w/attachments
USNRC - Region IV

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

Senior Resident Inspector w/attachments
USNRC

Nebraska Health and Human Services w/attachments
Department of Regulation and Licensure

NPG Distribution w/o attachments

Records w/attachments

STATE OF NEBRASKA)
)
NEMAHA COUNTY)

Randall K. Edington, being first duly sworn, deposes and says that he is an authorized representative of the Nebraska Public Power District, a public corporation and political subdivision of the State of Nebraska; that he is duly authorized to submit this correspondence on behalf of Nebraska Public Power District; and that the statements contained herein are true to the best of his knowledge and belief.

Randall K. Edington

Subscribed in my presence and sworn to before me this 9 day of December, 2003.

NOTARY PUBLIC

GENERAL NOTARY - State of Nebraska
WILMA M. WERNER
My Comm. Exp. Oct. 26, 2006

PROPOSED LICENSE AMENDMENT FOR POST-ACCIDENT CONFIGURATION OF THE MSIV LEAKAGE PATHWAY, PERMANENT APPROVAL OF LOCA DOSE CALCULATION METHODOLOGY, AND ELIMINATION OF LICENSE CONDITION 2.C.(6)

COOPER NUCLEAR STATION
NRC DOCKET NO. 50-298, LICENSE DPR-46

1.0 INTRODUCTION

1.1 MSIV Leakage Pathway Configuration

Cooper Nuclear Station (CNS) License Condition 2.C.(6) requires full implementation of the Main Steam Isolation Valve (MSIV) Leakage Pathway seismic evaluation upon receiving Nuclear Regulatory Commission (NRC) approval of the evaluation. Based on a review of similar regulatory precedent, "NRC approval" of the 2.C.(6) Seismic Evaluation should cover two key areas before full implementation can proceed. The first area is acceptance of the Civil/Structural methodology used to establish the seismic ruggedness of the MSIV Leakage Pathway to the Main Turbine Condenser, the Main Turbine Condenser, and the Turbine Building. The second area is NRC acceptance of the MSIV Leakage Pathway configuration, including concurrence with the manual actions necessary to establish the configuration.

The Safety Evaluation to License Amendment 196 (Reference 7.1[1]) provided NRC approval of the Civil/Structural methodology used. NPPD has resolved the seismic outliers through hardware modifications, or more detailed analyses. Accordingly, NPPD understands this aspect of NRC approval of the 2.C.(6) Seismic Evaluation to be complete.

To limit the scope of the necessary Main Steam piping seismic review, the Nebraska Public Power District (NPPD) selected the Alternate Leakage Treatment (ALT) pathway (a.k.a. MSIV Leakage Pathway) per the criteria of NEDC-31858P-A (Reference 7.3), as shown in Enclosure 1 to this Attachment. In order to minimize the leakage past the seismic analysis boundaries, certain post Loss-of Coolant Accident (LOCA) manual isolation actions are necessary. Additionally, certain valves will be manually opened to establish one of the leakage pathways to the Main Turbine Condenser. The manual actions for which NRC approval is requested are described in Table 1. As discussed in the July 23, 2003 meeting between the NRC staff and NPPD (Reference 7.2), it was established that NRC approval of the remaining License Condition 2.C.(6) Seismic Evaluation configuration issues should be applied for in a License Amendment Request, pursuant to 10CFR50.90.

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1 The References cited are found in Section 7 of this Attachment.

1.2 Permanent Approval of LOCA Dose Calculation Methodology

In Reference 7.1, the NRC issued CNS License Amendment 196. That amendment provided interim approval of the LOCA dose calculation methodology, expiring upon CNS entering Mode 4 of Refueling Outage (RFO) 22. There are no outstanding technical issues related to this methodology. However, since the methodology credits iodine plateout in the Main Turbine Condenser, NPPD understands that the methodology cannot be incorporated into the CNS licensing basis on a permanent basis until the License Condition 2.C.(6) seismic evaluation has been fully approved by the NRC and implemented at CNS. Sections 1.1, 2.1, and 3.1 of this Attachment separately discuss the remaining technical issues of the License Condition 2.C.(6) seismic evaluation of the ALT pathway.

1.3 Elimination of License Condition 2.C.(6)

License Condition 2.C.(6) states the following:

> 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.

By inspection, there are three elements to the License Condition: 1) obtaining NRC approval of the seismic evaluation, 2) implementation of seismic evaluation at CNS as a restart constraint from RFO 22, and 3) continued availability of potassium iodide in the Control Room as a credited licensing basis compensatory measure for a LOCA with core damage during the interim period. With NRC approval of the License Condition 2.C.(6) seismic evaluation in this License Amendment Request, implementation will be achieved prior to the 60-day effective date of the License Amendment. Additionally, with permanent approval of the LOCA dose calculation methodology, also part of this License Amendment Request, distribution of potassium iodide to Control Room personnel will not be relied upon as a compensatory measure to ensure General Design Criteria 19 limits are met. With the above activities completed, License Condition 2.C.(6) will have been rendered an obsolete requirement, and its deletion will be an administrative matter.

2.0 DISCUSSION

2.1 ALT Pathway Configuration

Structures, systems, and components (SSCs) that are credited with mitigating the consequences of accidents at CNS are designated as Class I, and are typically analyzed as remaining functional following a Safe Shutdown Earthquake (SSE). NEDC-31858P-A, "BWROG Report for Increasing MSIV Leakage Rate Limits and Elimination of Leakage Controls Systems," (Reference 7.3) provides an NRC-approved method for demonstrating the seismic ruggedness of non-Class I SSCs

in withstanding the loadings of an SSE. Reference 7.3 describes an acceptable ALT pathway, and anticipates the need for potential manual actions to establish that configuration. The pathway and the manual actions needed to configure it are acknowledged in the associated NRC Safety Evaluation as acceptable, provided that functional reliability is demonstrated for the ALT drain path. The ALT pathway is diagrammed on Enclosure 1, and the specific requested manual actions to establish that configuration are listed on Table 1. The valves are located in the Turbine Building and are accessed from Floor Elevations 903'6", 909'6", and 932' 6". With the MSIVs closed, NPPD would not expect adverse environmental conditions until the MSIV leakage migrated sufficiently far under depressurized conditions in the Main Steam piping to produce elevated local radiation levels (as a result of core damage). However, NPPD has performed walkdowns of the necessary manual actions, and has determined that CNS personnel have sufficient time to perform these actions before increased exposure would become a concern.

Reference 7.4 contains an NRC Request for Additional Information (RAI) that relates to the reliability of the ALT pathway. The NPPD response to this RAI is contained in the following paragraphs. Where the RAI discusses the additional boundary valves that were installed, it is understood that the questions apply also to the previously existing valves that require repositioning to configure the ALT pathway.

Question 1: *Describe and justify any exceptions that are proposed to the flowpath criteria that are included in Appendix C to NEDC-31858P, Rev. 2.*

Response: Appendix C to NEDC-31858P, Rev. 2 provides a radiological dose methodology for the Loss-of-Coolant Accident without crediting an MSIV Leakage Control System. CNS used a different dose calculation methodology, as approved by the NRC on an interim basis in Reference 7.1. Accordingly, only Section 4 to Appendix C is applicable to this License Amendment Request. NPPD has not taken any exceptions to the flowpath criteria provided in that Section.

Question 2: *With respect to the turnbuckle device, explain what role/purpose the device serves and why it is needed relative to the guidance specified in NEDC-31858P, Rev. 2, and confirm that the fraction of MSIV leakage to the high pressure turbine (i.e., ratio of flow areas satisfies the criteria specified in Appendix C of NEDC-31858P, Rev. 2.)*

Response: The purpose of the Turbine Stop Valve shaft adjustment tool (turnbuckle device) is to eliminate potential direct leakage from the ALT pathway to the Turbine Building via the two Turbine Stop Valve shafts. This leakage could occur assuming a loss of gland seal steam. A shaft adjustment tool is installed on each Turbine Stop Valve shaft (two total) to close the clearance by moving the shaft outwards from the valve body such that a shaft sealing ring (located on the inside of the valve body) is sealed against the face of the valve bushing. Sealing in this manner (shaft sealing ring to valve bushing) is the sealing method that occurs during normal operation, except that steam itself provides motive force instead of a shaft adjustment tool.

Since the leakage pathway of concern is directly to the Turbine Building rather than the High Pressure Turbine, the Appendix C fractional leakage equation is not explicitly applicable. However, it is understood that the intent of that methodology is to limit MSIV leakage to the Turbine Building that does not egress from the Main Turbine Condenser, where iodine plateout is most effective. Application of the shaft adjustment tool will isolate the leakage boundary at the Turbine Stop Valve shafts. This action, in concert with the isolation of the other boundary valves, will assure that the MSIV leakage will reach the Main Turbine Condenser via a seismically rugged pathway.

With respect to Turbine Stop Valve leakage to the High Pressure Turbine, Section 4 of Appendix C states:

> When off-site power is available, or if any 1 inch (or larger) drain line remains open (without an orifice), essentially all of the release will be via the main condenser. However, if such a pathway is not available and since the turbine stop and control valves do not provide a perfect seal, a fraction of the MSIV leakage will pass through the closed turbine stop and control valves and flow toward the high pressure turbine.

The CNS ALT pathway meets the above criteria because the preferred flowpath is 1" or larger and remains open without an orifice, and does not rely on the availability of offsite power. Therefore, essentially all of the CNS MSIV leakage release will be via the Main Turbine Condenser, and it is unnecessary to apply the Appendix C fractional leakage criteria.

Question 3: *You stated in Reference 1 that "...Five manual isolation valves to be installed on Main Steam branch lines in order to limit the amount of piping to be credited for the MSIV leakage flowpath (and hence, maintained as seismically robust). Post-accident Operator action will be required to close these valves (which will be located in the Turbine Building)..." We request your responses to the following:*

(a) Explanation as to how those five manual isolation valves will be seismically qualified.

(b) Provide a comparison between the CNS MSIV leakage path proposed manual isolation valves and the earthquake experience database concerning seismic performance of this class of equipment.

(c) Indicate whether the leakage path with the manual isolation valves installed meets the provisions in the SQUG-GIP 2. If it does not, identify how the outlier conditions were resolved.

(d) Indicate whether the five manual valves will be part of the CNS Inservice Testing (IST) Program. If they are not, provide justification as to why they should not be part of the IST program.

Response: As shown on Enclosure 1 to Reference 7.5, a total of six new manual boundary isolation valves have been installed in the final design. The latest revision of Drawing CNS-MS-43 is provided as Enclosure 1 to this Attachment for your information. There are 13 valves that are locally closed, two valves that are remotely closed, and three valves that automatically close to isolate the ALT pathway from the unanalyzed piping.

(a)(b)(c) The 13 locally closed isolation valves range in size from ¾" to 5". These valves do not belong to any of the designated SQUG-GIP 2 valve classes of equipment (i.e., Fluid Operated Valves, Motor Operated Valves, or Solenoid Operated Valves). In the application of the SQUG-GIP 2, manual valves are classified as "Inherently Rugged Equipment," and as such, do not require their seismic adequacy to be verified in the USI A-46 program (see Section 3.3.5 of Reference 7.6).

Accordingly, no outlier conditions existed as result of the use of these boundary valves. The valves were considered in the overall evaluation of the piping systems by the methods previously submitted for NRC review (see Reference 7.7, Enclosure 1, Section 4.5.4.4). In Section 4.5.4.4, NPPD provided a summary of results for piping and pipe supports that also included a description of the "Correlation with the Piping Experience Data". The same methodology was applied to the piping systems on which the new and existing valves are configured.

(d) NPPD does not propose to add the ALT pathway boundary valves to the Inservice Testing (IST) Program. Since these valves are not classified as ASME Section XI Class 1, 2, or 3 it is unnecessary to include them within the 10CFR50.55(f) IST Program. Moreover, NPPD's understanding of the NRC Safety Evaluation of NEDC-31858P-A is that only motor-operated valves that are remote-manually opened to establish the pathway are candidate for inclusion in the IST Program (see Reference 7.3, Volume 1 Tab 1 Section 5.3, and Tab 5 NRC Concern #12). Nonetheless, the manual valves that are either: a) closed to configure the boundaries of the ALT pathway, or b) opened to establish a flowpath to the Main Turbine Condenser, will be cycled during each Refueling Outage to assure their functionality. NPPD will describe this testing in the Updated Safety Analysis Report (USAR), with future changes being reviewed in accordance with 10CFR50.59, and reported with the USAR update per 10CFR50.71(e).

Question 4: *You stated in Reference 3 that "...The cross-sectional leakage area is being reduced by mechanically adjusting the Stop Valve actuator/control shaft positions through use of a special pre-staged tool, applied as a post-Loss of Coolant Accident manual action..." The NRC staff requests responses to the following:*

(a) Explanation as to how the mechanically adjusted Stop Valve actuator/control shaft with a special pre-staged tool will be seismically robust.

(b) Provide a comparison between the MSIV leakage path Stop Valve actuator with the proposed adjustment and the earthquake experience database concerning seismic performance of the equipment class that encompasses the reconfigured Stop Valve.

(c) Explain how the post-Loss of Coolant Accident (post-LOCA) manual action is accomplished. Supplemental information, such as diagrams/photos/illustration of the prestaged tool, Stop Valve actuator, location of task to be performed, etc., will be beneficial to include in the response. At a minimum, the following questions should be addressed in the explanation:

1. What step(s) is/are involved in performing the actions(s), i.e., how much physical and mental effort does the task require? How many Stop Valves will require manual adjustment? If more than one valve is involved, where are the valves located in relation to one another?

2. Is the action taken locally or from the control room?

3. How much time is required to successfully accomplish the task (including time that may be required to access the location from where the task is performed)? How much time is available to take the action(s) before adverse consequences occur?

4. What are the consequences of failing to perform the task?

5. How does the operator know when to perform the task, e.g., are there specific alarms, cues directions, instructions, etc.?

6. What are the conditions under which the task will be performed (e.g., lighting, noise temperature, humidity, radiation levels expected, smoke, toxic gas, etc.)?

7. What is the pre-staged tool?

8. *In addition to the pre-staged tool, are there any other special tools/equipment required to successfully accomplish the task?*

9. *How has it been determined that the required manual action(s) can be successfully completed in the time allowed, especially considering other tasks required to be performed under post-LOCA conditions?*

10. *What procedure(s) is/are involved in performing the task and how have the operators been trained to use the procedures?*

Response:

(a) (b) There are two Turbine Stop Valves at CNS that are upstream of the one high pressure turbine. The Turbine Stop Valves are located on the Turbine Building operating floor (elevation 932'-6"; 29 feet above grade elevation 903'-6") (refer to Enclosure 2, Drawing 2052 for general arrangement). The SQUG-GIP criteria for the Fluid Operated Valves equipment class were used to evaluate the Turbine Stop Valves, with no outliers being identified. The post-LOCA installation of the shaft sealing tool has negligible effect on the Turbine Stop Valve evaluation. The structurally simple and seismically robust tool is manually threaded into the pre-threaded end of the 5 inch diameter Turbine Stop Valve shaft and torqued to a specified value of 100 ft-lb (refer to Enclosure 2, Sketch SKE-CED6007261-30). The weight of each tool is approximately 25 pounds which is insignificant compared to the weight of the large Turbine Stop Valve. The tool creates a very small and negligible eccentric load on the valve. In the event of a postulated SSE, the tool will remain intact and perform its sealing function because its threaded fastener (bolt) component is preloaded to several thousand pounds of force which is more than adequate for preventing the tool from becoming loosened during a postulated SSE. In addition, under normal and SSE loading conditions, the tool will not induce any loading that could adversely affect the Turbine Stop Valve.

(c) Parts 1, 2, 3, 7 Both Turbine Stop Valve shafts are located approximately 8 ½ feet off the floor and are approximately 20 feet apart. The Turbine Stop Valves have discs for isolating flow. Each disc is attached to a valve shaft that rotates 90 degrees from full open to full closed. The design is such that the Turbine Stop Valve shafts are located upstream of the valve discs when the valve is closed. A clearance area exists between the valve shafts and the valve bushings. The valve shaft penetrates the valve through a bushing and attaches to a spring actuator that assists in closing the valve by rotating the shaft for isolating flow to the turbine. During normal operation this clearance area is sealed by steam pressure that moves the shaft so that a seal ring located on the valve shaft is forced against the face of the valve bushing.

However, during a LOCA event, the shaft clearance area is conservatively assumed to be a potential leakage point from the ALT pathway.

In order to address this issue, CNS has constructed and pre-staged two (2) shaft sealing tools. Each tool is fabricated to the materials and dimensions shown on Enclosure 2, SKE-CED6007261-30. When required by the implementing CNS emergency procedure, these shaft sealing tools are manually installed on the two Turbine Stop Valve shafts. The shaft sealing tools are located near the Turbine Stop Valves (between approximately 25-35 feet away) in a metal box (reference Enclosure 2 Drawing 2052). Since each tool weighs approximately 25 pounds, it can be handled and installed by a single person.

One end of each Turbine Stop Valve shaft has an internally threaded hole. The shaft sealing tools consist of a threaded fastener component that goes through an oversized hole in a steel squared "U" shaped bracket. The shaft tool is manually threaded into the shaft end until the bracket contacts the outside of the valve housing. (refer to Enclosure 2, Attachment 1 to Procedure 5.2FUEL, and attached photos).

Elimination of the clearance area is accomplished by torquing the threaded fastener component to 100 ft-lb. This forces the shaft seal ring against the valve bushing. This torque will create a force on the shaft that is more than twice the force needed to seal the clearance area and is well below the maximum allowable design torque of the tool's threaded fastener component. The shaft needs to move less than 1/10 of an inch to provide an effective seal. The 100 ft-lb torque is accomplished with a pre-staged calibrated torque wrench that is included in the metal box along with the shaft sealing tools near the Turbine Stop Valves.

The time to accomplish the above task is estimated at approximately 30 minutes total for both of the Turbine Stop Valves based on a walkdown of the area along with a practice installation to ensure the task can be completed effectively and in a timely fashion. The task is considered relatively simple to perform. The steps to accomplish this task along with a sketch showing the shaft sealing tool installation on the stop valves will be provided in a CNS emergency procedure (refer to Enclosure 2, Attachment 1 to Procedure 5.2FUEL). With the MSIV leakage assumed in the LOCA analysis and conservative assumptions, this evolution would be performed well before any radiological release to the Turbine Building could occur from Turbine Stop Valve shaft clearance area leakage. The implementing emergency procedure directs completion within 30 hours.

(c) Part 4

The Westinghouse Turbine Stop Valve design used at CNS provides a unique challenge in application of the NEDC-31858P-A methodology. As discussed below in the response to Part 6 of Question 4(c), the environmental conditions do not preclude personnel access to perform the Turbine Stop Valve shaft alignment. However, if the shaft sealing tools were not installed in event of LOCA with core damage, a potential leakage pathway could exist to the Turbine Building via the Turbine Stop Valve shafts. NPPD believes that conformance to that methodology requires elimination of that leakage path. Notwithstanding this, the LOCA dose calculation methodology already assumes a leak rate of 1% of the volume per day from the turbine condenser complex.

(c) Part 5

A CNS emergency procedure will provide the necessary guidance as to when to install the shaft sealing tool. The signals to commence alignment consist of a concurrent high drywell pressure and high drywell radiation indication during LOCA conditions.

(c) Part 6

The Turbine Stop Valves are located on the Turbine Building operating floor and the MSIVs are located in the Reactor Building. The Turbine Stop Valves are located more than 200 feet downstream of the outboard MSIVs. For a LOCA, the MSIVs would close. The radiation level in the vicinity of the Turbine Stop Valves would be minimal after MSIV isolation until the release via the MSIV leakage would reach the Turbine Stop Valves. Because the time needed to accomplish the sealing of the Turbine Stop Valve shaft leakage is small (approximately 30 minutes total for both valves) compared to the time it takes for the release via MSIV leakage (11.5 scfh per line) to reach the Turbine Stop Valves, the shaft adjustments would be made before local radiation levels would be a personnel exposure concern.

During a LOCA, the normal lighting in the Turbine Building is assumed not to be available due to a postulated loss of off-site power, however, battery operated emergency lighting is available in the area. Modifications to the existing emergency lighting configuration were completed during RFO 21 to improve the capability of the system.

Directly after a LOCA induced shutdown, the area surrounding the Turbine Stop Valves would be hot from residual heat in the piping and valves. However, the majority of equipment in the area is insulated, the shaft sealing tool can be installed with minimal contact with the outside shaft of the Turbine Stop Valve, and the stay time required to install both tools is minimal.

Humidity, noise, smoke, and toxic gases would not be expected to be a concern during installation. With the MSIVs closed and the pathway open to

the Main Turbine Condenser, the downstream piping is depressurized. Accordingly, protective equipment to cope with steam leaks would not be necessary for CNS personnel performing the installation.

In summary, personnel access to complete the installation task is not a concern.

(c) Part 8 — The pre-staged tools consist of one shaft sealing tool for each Turbine Stop Valve shaft and a calibrated torque wrench for tightening the shaft sealing tool to a specific torque value. These items are located in a metal box on the outside of the Turbine Building operating floor concrete shield wall but near the Turbine Stop Valves (refer to Enclosure 2, Drawing 2052). There are no other special tools required to perform this task.

(c) Part 9 — A walkdown of the area along with a practice installation has been performed to ensure this simple task can be completed effectively and in a timely fashion. The shaft sealing tool installation will be provided in a CNS emergency procedure. Because of the short time frame required to complete the installation compared to the relatively long time available to perform this task, impact to other immediate post-LOCA activities would not be experienced.

(c) Part 10 — A CNS emergency procedure will provide specific guidance for performing the shaft sealing tool installation. This procedure will also specify the conditions under which the shaft sealing tools are required to be installed. Training for CNS personnel that will be implementing this portion of the procedure is being developed and will be made effective after receipt of NRC approval of these manual actions.

2.2 Permanent Approval of LOCA Dose Calculation Methodology

As discussed in Section 1.2, permanent approval of the LOCA dose calculation methodology becomes an administrative matter once the License Condition 2.C.(6) seismic evaluation is implemented at CNS. As described previously, this implementation will be accomplished by the time the issued License Amendment becomes effective.

2.3 Elimination of License Condition 2.C.(6)

As discussed in Section 1.3, the deletion of License Condition 2.C.(6) from the CNS Operating License becomes an administrative matter once the seismic evaluation is fully approved by the NRC and implemented at CNS, and permanent approval of the LOCA dose calculation methodology is obtained.

3.0 DESCRIPTION OF CHANGES

3.1 MSIV Leakage Pathway Configuration

The specific changes being proposed are to revise the USAR, per 10CFR50.71(e), to: a) reflect the configuration of the ALT pathway (as shown in Enclosure 1), and b) describe the requested manual actions (as listed in Table 1).

3.2 Permanent Approval of LOCA Dose Calculation Methodology

The specific change being proposed is to revise the USAR LOCA accident analysis to reflect permanent approval of the dose calculation methodology.

3.3 Elimination of License Condition 2.C.(6)

Attachment 2 provides the markup of Page 4 of 5 of the CNS Operating License. Attachment 3 provides the final text of that page.

4.0 NO SIGNIFICANT HAZARDS CONSIDERATION EVALUATION

In accordance with 10CFR50.92, a proposed change to the Operating License involves no "significant hazards" if operation of the facility, in accordance with the proposed change, would not: 1) involve a significant increase in the probability or consequences of an accident previously evaluated, 2) create the possibility of a new or different kind of accident from any accident previously evaluated, or 3) involve a significant reduction in a margin of safety.

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

   Response: No

   The ALT pathway was determined using the NRC-endorsed method described in Reference 7.3. The proposed manual actions to establish that configuration are designed to assure that MSIV leakage resulting after a LOCA with core damage will reach the Main Turbine Condenser via a pathway that has been evaluated as being seismically robust. The LOCA dose calculation methodology assumes this leakage reaches the turbine condenser complex. The manual actions are simple to perform and there are no concerns for personnel safety in carrying out these actions within the timeframes established. Accordingly, there is no significant increase in probability or consequences of a previously evaluated accident.

   The LOCA dose calculation methodology is already approved on an interim basis, as documented in Reference 7.1. As there are no technical issues to resolve, the effects of permanent approval on the probability or consequences of an accident are bounded by the previous safety conclusions of License Amendment 196.

The deletion of License Condition 2.C.(6), following implementation of the seismic evaluation and permanent approval of the LOCA dose calculation methodology, is an administrative change to the CNS Operating License. Therefore, there are no associated effects on the probability or consequences of previously evaluated accidents.

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

   Response: No

   The proposed changes only involve the treatment of the Loss-of-Coolant Accident. No other new or different kinds of accidents can be created by the proposed changes.

3. Does the proposed change involve a significant reduction in a margin of safety?

   Response: No

   The LOCA dose calculation methodology credits MSIV leakage plateout in the Main Turbine Condenser prior to release to the Turbine Building. The ALT pathway to the Main Turbine Condenser was determined using the NRC-endorsed method described in Reference 7.3. Therefore, the effects on safety margins due to crediting this configuration are bounded by the NRC Safety Evaluation conclusions on this methodology. Using the MSIV leakage assumed in the LOCA analysis and conservative assumptions, there is sufficient time for the CNS personnel to take the simple actions necessary to configure the pathway, and thereby assure that the radiological consequences are bounded by the LOCA dose calculation methodology results. Accordingly, there is no significant reduction in safety margin.

   The LOCA dose calculation methodology is already approved on an interim basis, as documented in Reference 7.1. As there are no technical issues to resolve, the effects of permanent approval on the probability or consequences of an accident are bounded by the previous safety conclusions of License Amendment 196.

   The deletion of License Condition 2.C.(6), following implementation of the seismic evaluation and permanent approval of the LOCA dose calculation methodology, is an administrative change to the CNS Operating License. Therefore, there are no associated effects on safety margins.

In conclusion, based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

5.0 ENVIRONMENTAL IMPACT EVALUATION

10CFR51.22(c)(9) provides for, and identification of, licensing and regulatory actions eligible for categorical exclusion from performing an environmental assessment. A proposed amendment to an operating license for a facility does not require an environmental assessment if operation of the facility in accordance with the proposed amendment would not: (1) involve a significant hazards consideration, (2) result in a significant change in the types or significant increase in the amount of any effluents that may be released offsite, or (3) result in a significant increase in individual or cumulative occupational radiation exposure. NPPD has reviewed the proposed license amendment and concludes that it meets the eligibility criteria for categorical exclusion set forth in 10CFR51.22(c)(9). Pursuant to 10CFR51.22(c), no environmental impact statement or environmental assessment needs to be prepared in connection with issuance of the proposed license changes. The basis for this determination is as follows:

1. The proposed license amendment does not involve significant hazards as described previously in the No Significant Hazards Consideration Evaluation.

2. The proposed license amendment involves acceptance of the ALT pathway, and crediting manual actions to configure the pathway following a design basis LOCA with core damage. This will ensure: a) that the leakage will reach the Main Turbine Condenser via a pathway that has been demonstrated to be seismically robust, and b) that the airborne radioactivity that exits the Turbine Building during a LOCA with core damage is bounded by the LOCA dose calculation results. Permanent approval of the LOCA dose calculation methodology and deletion of License Condition 2.C.(6) are administrative matters that do not affect effluent release. In summary, none of these proposed changes result in a significant change in the types or significant increase in the amount of any effluents that may be released offsite.

3. Approval of the ALT pathway (including crediting manual actions as previously described) will not result in an increase in individual or cumulative occupational radiation exposure dose for normal plant operations. The CNS Radiological Protection Program ensures that occupational exposure remains within the limits of 10CFR20. Permanent approval of the LOCA dose calculation methodology and deletion of License Condition 2.C.(6) are administrative matters that do not affect occupational exposure.

6.0 CONCLUSION

NPPD is requesting acceptance of the MSIV Leakage Pathway, and approval of the manual actions necessary to establish the configuration during a LOCA with core damage. Additionally, NPPD is requesting permanent approval of the LOCA dose calculation methodology, and deletion of License Condition 2.C.(6). As documented in the previous No Significant Hazards Consideration Evaluation, these proposed changes do not result in a significant hazards consideration. The configuration of the ALT pathway was determined using an NRC-approved methodology. The crediting of manual actions to establish the configuration assures that MSIV leakage after a LOCA

with core damage will reach the Main Turbine Condenser via piping that has been evaluated as seismically rugged. NEDC-31858P-A anticipated the potential need for manual actions to establish the pathway, as acknowledged in the associated NRC Safety Evaluation (Reference 7.3). Several regulatory precedents describe in their Safety Evaluations the acceptability of ALT pathways proposed by licensees, as well as the acceptability of crediting manual action to establish these pathways:

Facility	
Brunswick Units 1 and 2	Amendments 221/246 Safety Evaluation dated May 30, 2002
Browns Ferry Units 2 and 3	Amendments 263/223 Safety Evaluation dated March 14, 2000
Susquehanna Units 1 and 2	Amendments 151/121 Safety Evaluation dated August 15, 1995

Providing permanent approval of the LOCA dose calculation methodology and deletion of License Condition 2.C.(6) are administrative changes that follow the implementation of the License Condition 2.C.(6) seismic evaluation.

7.0 REFERENCES

7.1 Letter to C. Warren (NPPD) from U.S Nuclear Regulatory Commission dated February 21, 2003, "Cooper Nuclear Station – Issuance of Amendment Regarding Design Basis Accidents' Radiological Dose Assessment Methodologies, and Revision to License Condition 2.C.(6) (TAC No. MB4654)."

7.2 Letter from U.S. Nuclear Regulatory Commission dated August 21, 2003, "Summary of Meeting With Nebraska Public Power District to Discuss Issues Related to Main Steam Isolation Leakage Pathway Seismic Evaluation (TAC No. MB7376)."

7.3 NEDC-31858P-A Class III, August 1999, "BWROG Report for Increasing MSIV Leakage Rate Limits and Elimination of Leakage Control Systems."

7.4 Letter to C. Warren (NPPD) from U.S. Nuclear Regulatory Commission dated October 2, 2003, "Cooper Nuclear Station - Request for Additional Information Regarding Modification of the Main Steam Isolation Leakage Pathway and License Condition 2.C.(6)."

7.5 Letter to U. S. Nuclear Regulatory Commission from Michael T. Coyle (NPPD) dated December 19, 2002, "Additional Information Related to License Condition 2.C.(6) Seismic Evaluation" (NLS2002093).

7.6 Seismic Qualification Utility Group, "Generic Implementation Procedure (GIP) for Seismic Verification of Nuclear Power Plant Equipment," Revision 3, May 16, 1997.

7.7 Letter to U. S. Nuclear Regulatory Commission from David L. Wilson (NPPD) dated February 26, 2002, "License Condition 2.C.(6) Seismic Evaluation" (NLS2002014).

Table 1

Requested Manual Actions to
Configure the MSIV Leakage Pathway

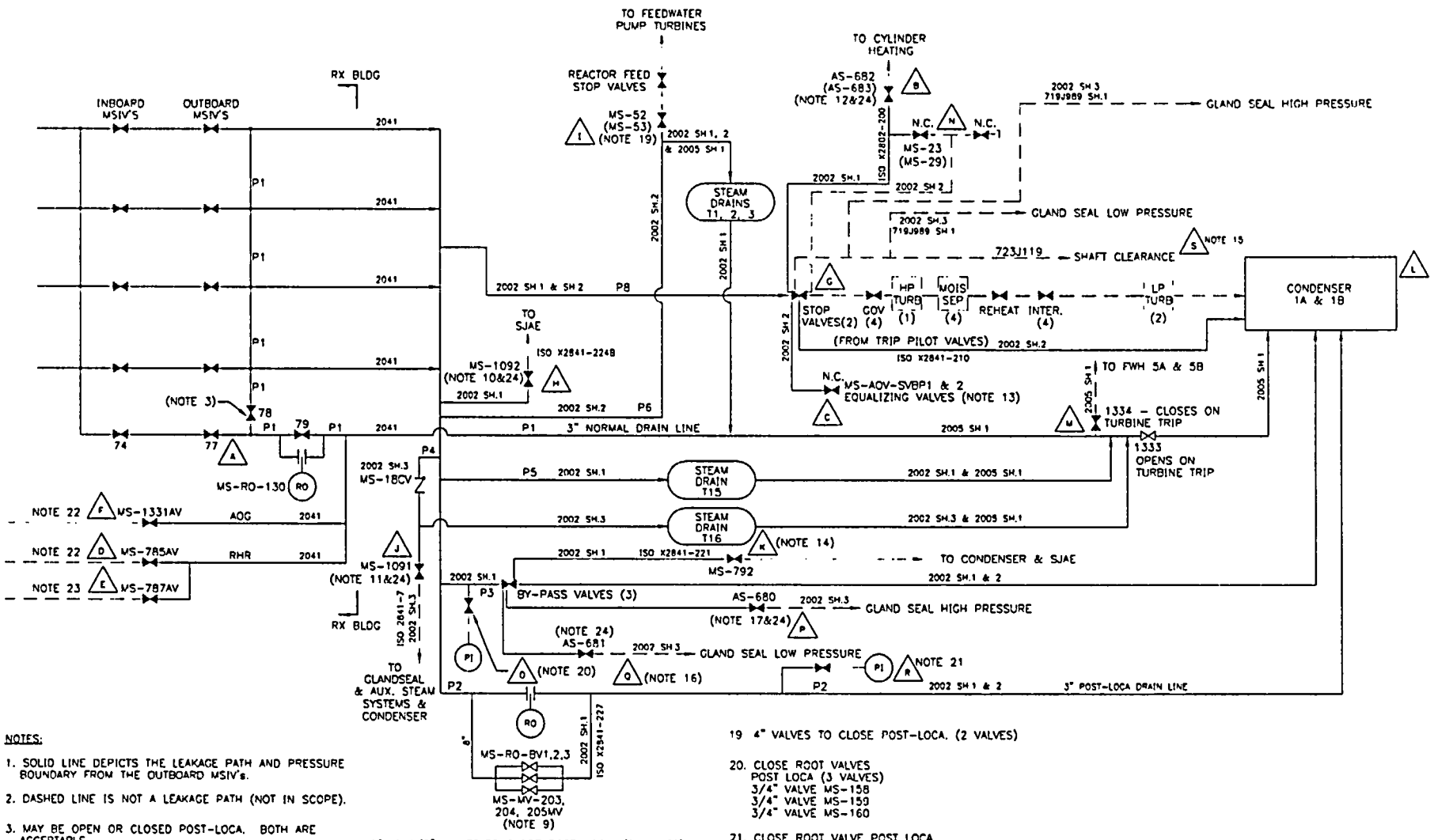
Valve	Location	Required Manual Action
MS-1091 (New Valve)	Turbine Building	Close locally.
MS-1092 (New Valve)	Turbine Building	Close locally
AS-680 (New Valve)	Turbine Building	Close locally
AS-681 (New Valve)	Turbine Building	Close locally
AS-682 (New Valve)	Turbine Building	Close locally
AS-683 (New Valve)	Turbine Building	Close locally
MS-52 (Existing Valve)	Turbine Building	Close locally
MS-53 (Existing Valve)	Turbine Building	Close locally
MS-158 (Existing Valve)	Turbine Building	Close locally
MS-159 (Existing Valve)	Turbine Building	Close locally
MS-160 (Existing Valve)	Turbine Building	Close locally
MS-180 (Existing Valve)	Turbine Building	Close locally
MS-792 (Existing Valve)	Turbine Building	Close locally
MS-HOV-SV1 (Existing Valve)	Turbine Building	Locally install and manipulate shaft adjustment tool to minimize shaft leakage.
MS-HOV-SV2 (Existing Valve)	Turbine Building	Locally install and manipulate shaft adjustment tool to minimize shaft leakage.
MS-MOV-203MV (Existing Valve)	Turbine Building	Open locally
MS-MOV-204MV (Existing Valve)	Turbine Building	Open locally
MS-MOV-205MV (Existing Valve)	Turbine Building	Open locally

ENCLOSURE 1

MSIV LEAKAGE PATHWAY

CONFIGURATION

1. Drawing CNS-MS-43, Rev. 1



NOTES:

1. SOLID LINE DEPICTS THE LEAKAGE PATH AND PRESSURE BOUNDARY FROM THE OUTBOARD MSIV's.
2. DASHED LINE IS NOT A LEAKAGE PATH (NOT IN SCOPE).
3. MAY BE OPEN OR CLOSED POST-LOCA. BOTH ARE ACCEPTABLE.
4. POST-LOCA VALVE MANIPULATIONS ARE PER PROCEDURE 5.2 FUEL
5. NOT ALL LINES SHOWN (e.g. INSTRUMENT AND SENSING LINES). VALVE ON THESE LINES NORMALLY CLOSED SEE NEDC 00-029 TABLE 2).
6. FLOW DRAWING NUMBERS SHOWN ON LINE e.g.: 2041
7. POTENTIAL LEAKAGE PATHS SHOWN WITH A "P" DESIGNATION, EXAMPLE: P1
8. BOUNDARY CONDITIONS SHOWN WITH A LETTER IN A TRIANGLE EXAMPLE: A
9. 2" NORMALLY CLOSED, OPEN POST-LOCA. (3 VALVES)
10. 2" VALVE TO CLOSE POST-LOCA. (1 VALVE)
11. 5" VALVE TO CLOSE POST-LOCA. (1 VALVE)
12. 1 1/2" VALVES TO CLOSE POST-LOCA (2 VALVES)
13. 4" EQUALIZING VALVES NORMALLY CLOSED.
14. 2" VALVE TO CLOSE POST-LOCA. (1 VALVE)
15. INSTALL AND MANIPULATE SHAFT ADJUSTMENT SYSTEM POST-LOCA.
16. 1 1/4" VALVE TO CLOSE POST-LOCA. (1 VALVE)
17. 4" VALVE TO CLOSE POST-LOCA. (1 VALVE)
18. VALVES SHOWN IN POST LOCA POSITION.
19. 4" VALVES TO CLOSE POST-LOCA. (2 VALVES)
20. CLOSE ROOT VALVES POST LOCA (3 VALVES)
    3/4" VALVE MS-158
    3/4" VALVE MS-159
    3/4" VALVE MS-160
21. CLOSE ROOT VALVE POST LOCA
    3/4" VALVE MS-180 (1 VALVE)
22. 1" VALVE TO CLOSE POST-LOCA (2 VALVES)
23. 1" VALVE MS-787AV IS NORMALLY CLOSED (1 VALVE)
24. CED 6007261 INSTALLED THE FOLLOWING VALVES
    AS-680 AS-682 MS-1091
    AS-681 AS-683 MS-1092

CALC NEDC 00-029

AS BUILT
452244766
CADD DRAWING
DO NOT REVISE MANUALLY

REVISIONS BY N.P.P.D.					
NO	REVISIONS	DFT	CKD	APP	DATE
N01	CED 6007261 (OCN 03-0983)	RGA	DLR	WC	7/15/03

LEAKAGE PATHS FROM OUTBOARD MSIV's COOPER NUCLEAR STATION

DRAWN / DATE	RA/KJD 10/16/02
CHECKED / DATE	PKA FOR RLY 10-29-02
APPROVED / DATE	TPV FOR TDS 3-6-03
FILMED	

Nebraska Public Power District

CNS-MS-43 | REVISION N01

C0043212

ENCLOSURE 2

TURBINE STOP VALVE

SHAFT ALIGNMENT TOOL

INFORMATION

1. Drawing 2052, Rev. 18
2. Sketch SKE-CED6007261-30
3. Draft Attachment 1 to Procedure 5.2FUEL
4. Photographs of shaft alignment tool (4)

LEGEND

N

- LOCATION OF TURBINE STOP VALVE SHAFT SEALING TOOLS
- LOCATION OF TURBINE STOP VALVES

OPERATING FLOOR PLAN
EL. 932'-6"

ROOF PLAN

LEGEND
FIRE WALL
NUMBER INDICATES HOURS OF FIRE RESISTANCE
FIRE WALL I.D. NUMBER

FIRE AREAS

NOTE 1: MAINTAIN PERSONNEL ACCESS TO THE FIRE BRIGADE GEAR CABINETS, SC841 AND THE SAITRONIC UNIT FOR THE DURATION THE DESIGNATED HATCH COVER LAYDOWN AREAS ARE BEING USED FOR STORING THE HATCH PLUGS. (CED 8000-0169)

NOTE 2: BULLET RESISTANT BARRIERS NEAR COLUMN LINES B6 AND E1, INSTALLED PER CED 8006861.

DCN REVISIONS BY N.P.P.D.

FOR PREVIOUS REVISIONS SEE SUPERSEDED DWGS.

INFORMATION ONLY

454003642

BURNS AND ROE, INC.
ENGINEERS AND CONSTRUCTORS
NEW YORK, N.Y.

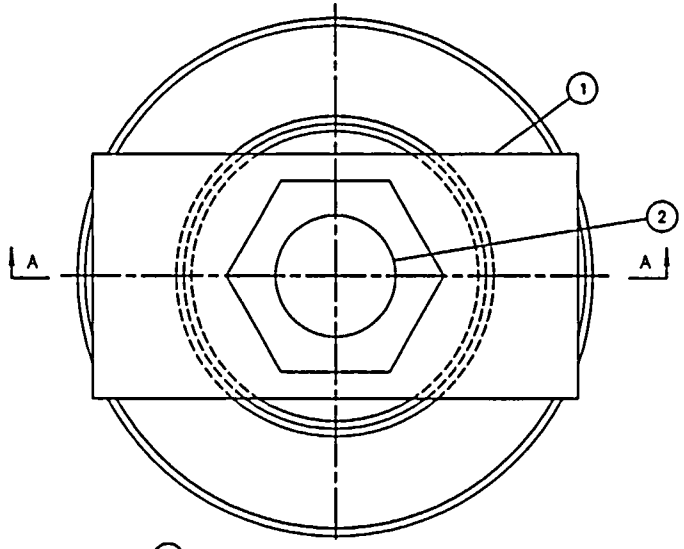
GENERAL ARRANGEMENT
TURBINE BUILDING
OPERATING FLOOR PLAN

CONSUMERS PUBLIC POWER DISTRICT
COOPER NUCLEAR STATION

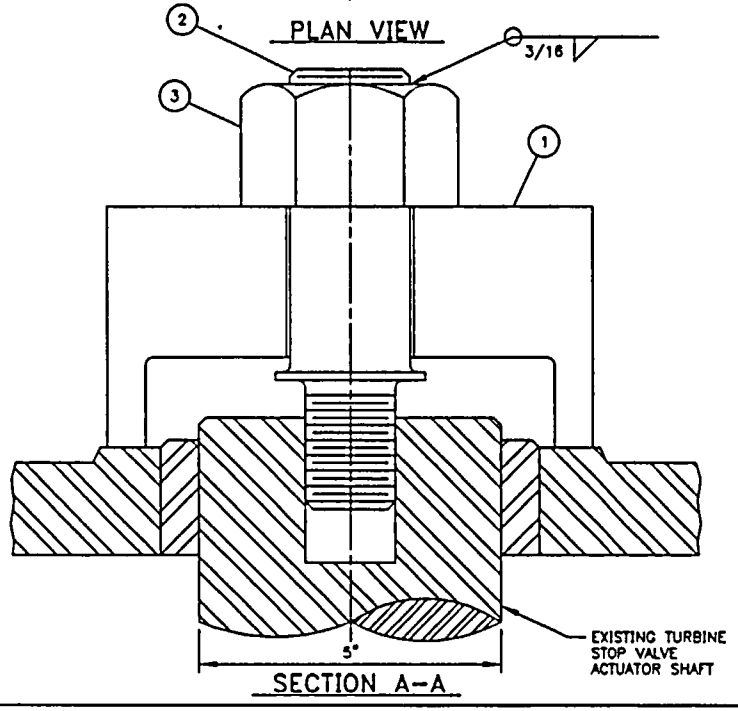
W.O. 8580
DWG. 8068

C01

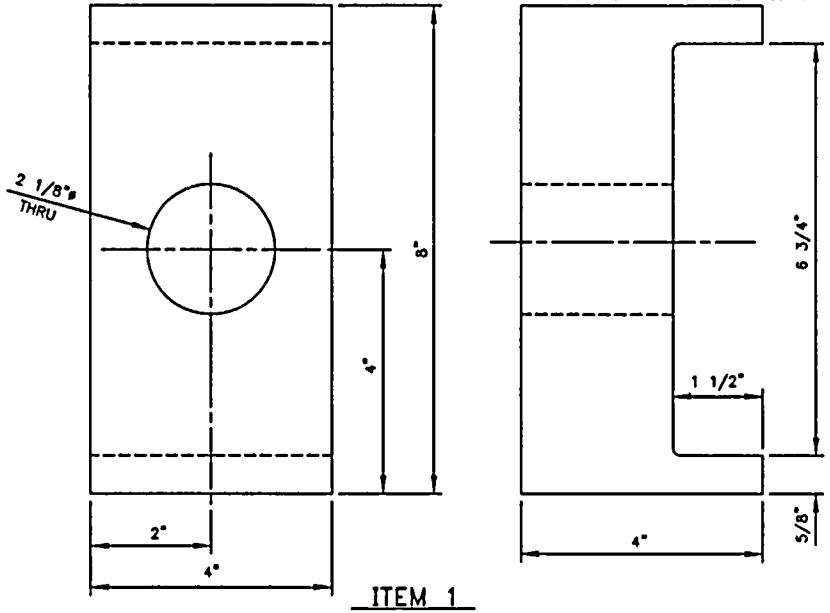
ITEM NO.	NO. REQ'D	DESCRIPTION	MATERIAL TYPE AND GRADE
1	1	PL 4" x 4" x 8"	ASTM A36
2	1	RND. BAR STOCK, 2 1/2" x 7 1/4"	ASTM A36
3	1	2"-8UN, HVY. HEX. NUT	-



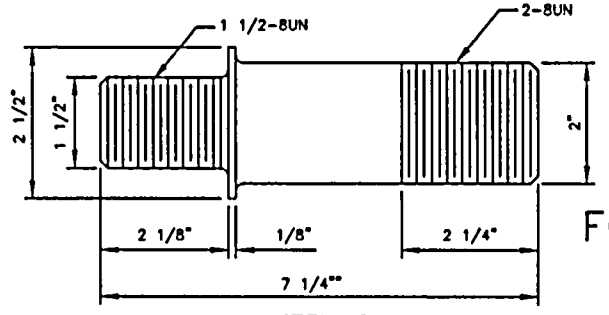
PLAN VIEW



SECTION A-A



ITEM 1



ITEM 2

FOR CONSTRUCTION

CADD DRAWING
DO NOT REVISE MANUALLY
CADD FILE: C0036251

SCALE: HALF

ENGINEERING SKETCH	PREPARER DLR	DATE 9/24/02	Nebraska Public Power District
TURBINE STOP VALVE ACTUATOR SHAFT TOOL COOPER NUCLEAR STATION	INDEPENDENT VERIFICATION	DATE	
	SHEET 1 OF 3	SKETCH NUMBER SKE-CED6007261-30	REV 0

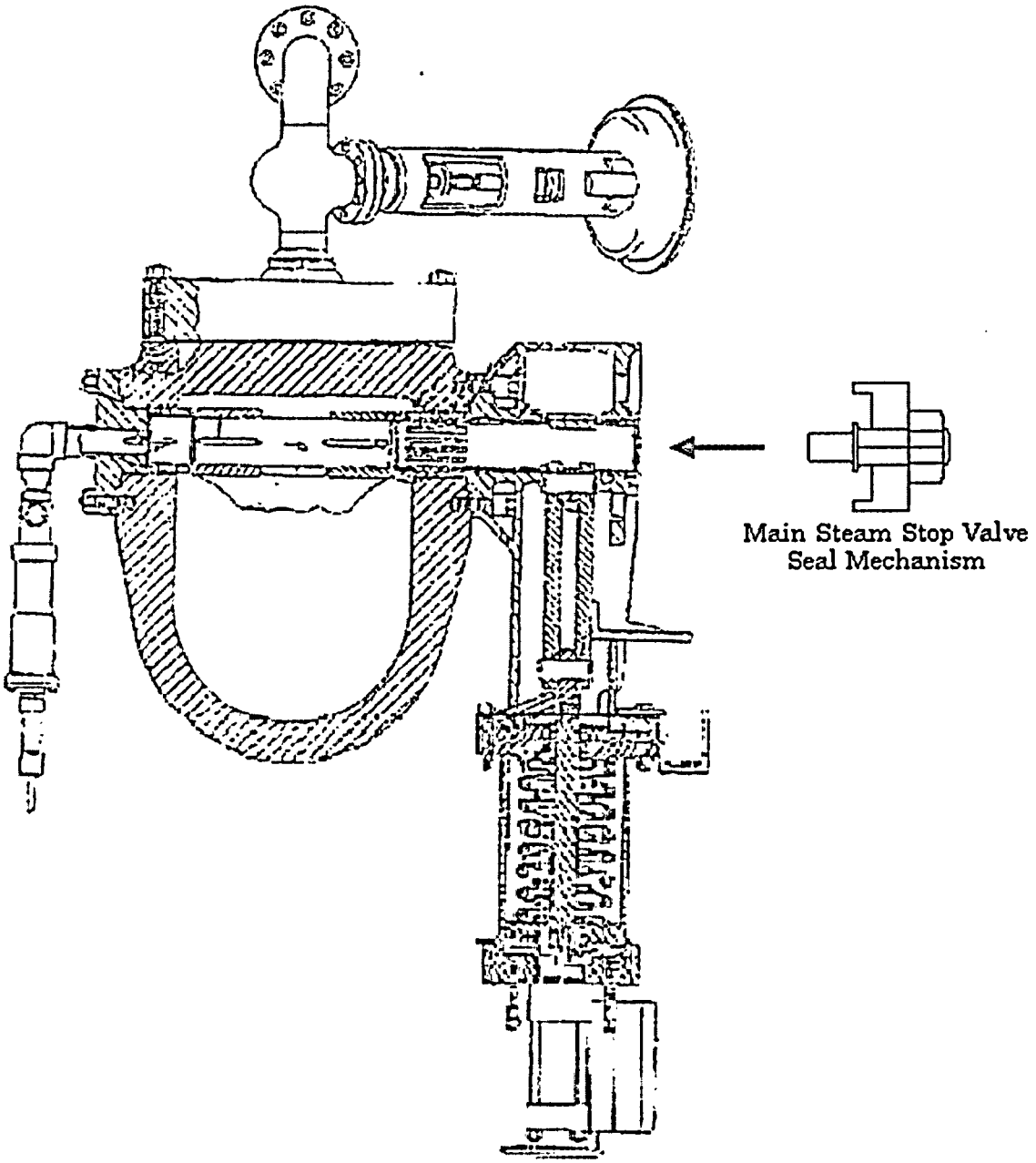
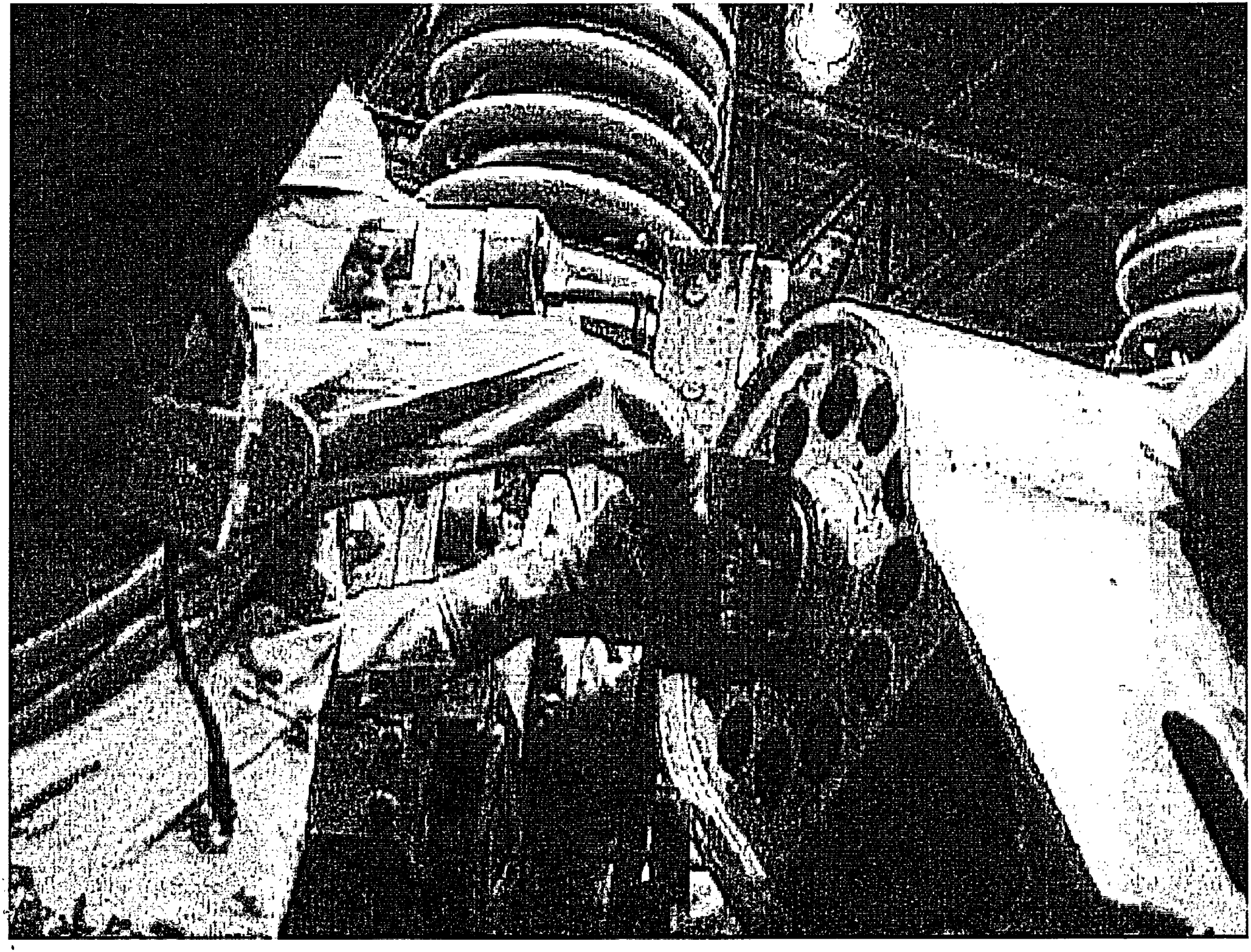
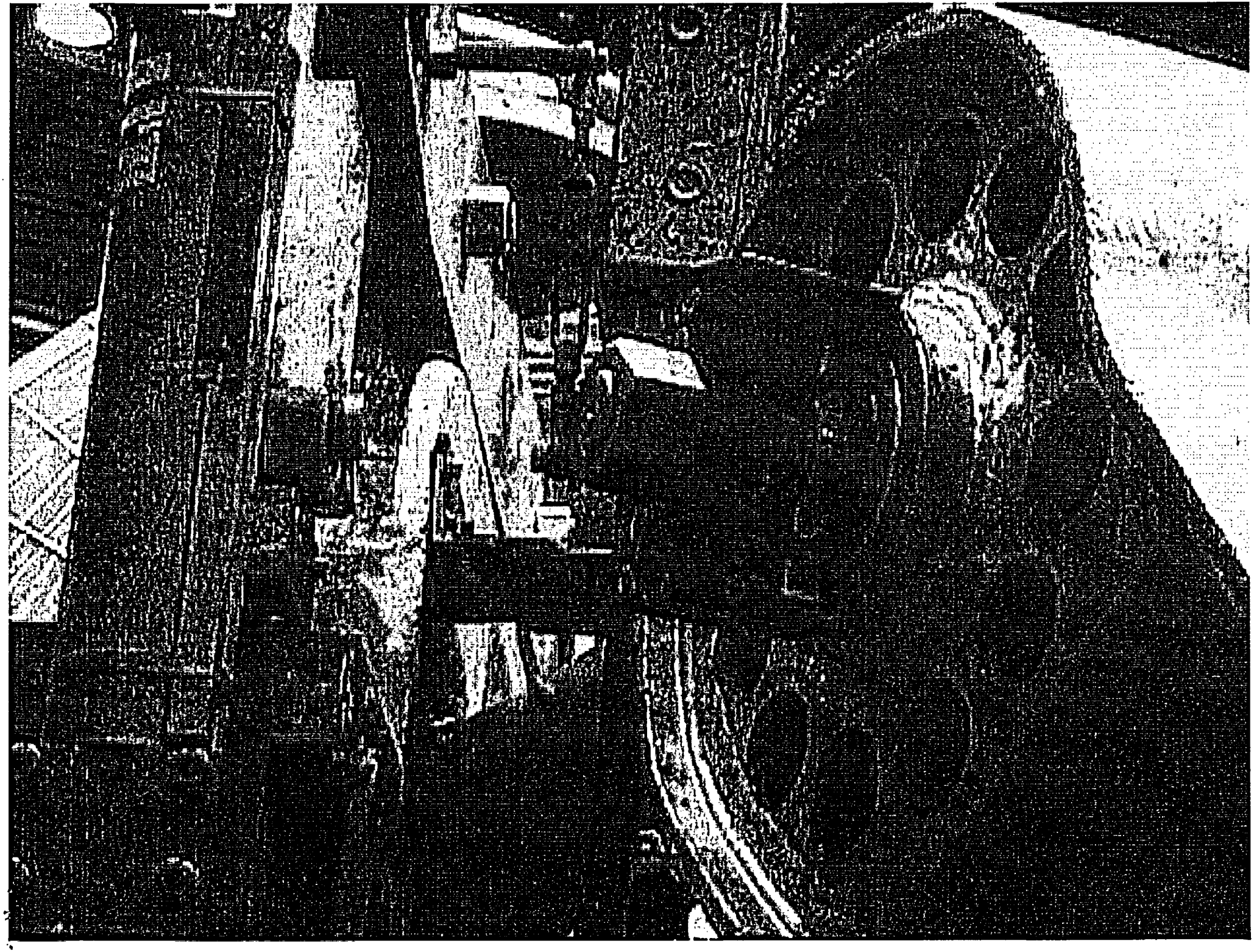
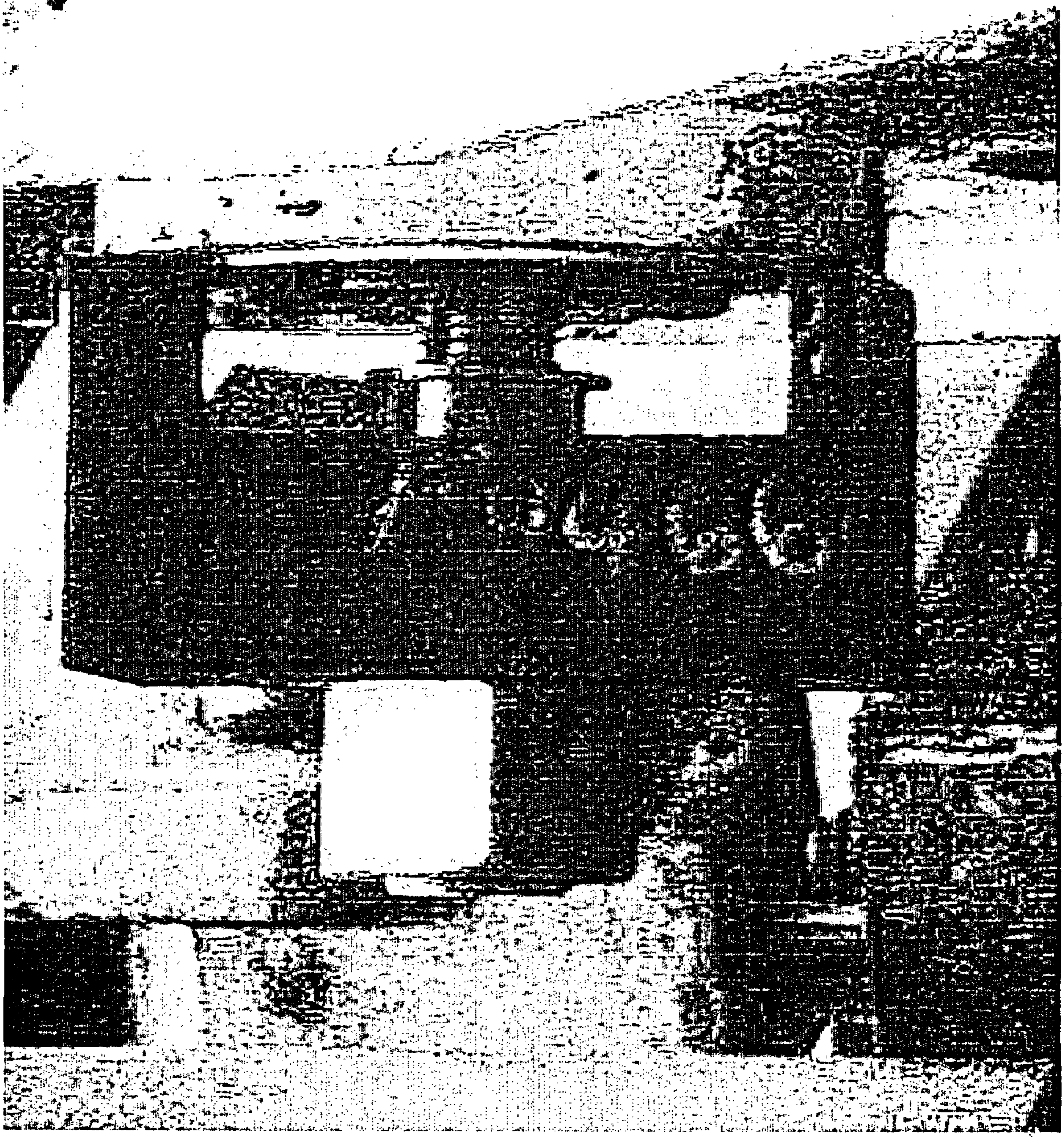


Figure 2 - Main Steam Stop Valve







ATTACHMENT 2

MARK-UP OF THE

CNS OPERATING LICENSE

(4) Fire Protection /199

The licensee shall implement and maintain in effect all provisions of the approved fire protection program as described in the Cooper Nuclear Station (CNS) Updated Safety Analysis Report and as approved in the Safety Evaluations dated November 29, 1977; May 23, 1979; November 21, 1980; April 29, 1983; April 16, 1984; June 1, 1984; January 3, 1985; August 21, 1985; April 10, 1986; September 9, 1986; November 7, 1988; February 3, 1989; August 15, 1995; and July 31, 1998, subject to the following provision: /199 /199 /199 /199 /199 /199 /199 /199

The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire. /199 /199 /199 /199

(5) Additional Conditions /178 /178

The Additional Conditions contained in Appendix C, as revised through Amendment No. 178, are hereby incorporated into this license. Nebraska Public Power District shall operate the facility in accordance with the Additional Conditions. /178 /178 /178 /178

(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.~~ Deleted /196 /196 /196 /196 /196 /196 /196 /196

D. (Not Used) /190

NLS2003105
Attachment 3

ATTACHMENT 3

CNS OPERATING LICENSE

AFTER INCORPORATING CHANGES

(4) Fire Protection /199

The licensee shall implement and maintain in effect all provisions of the /199
approved fire protection program as described in the Cooper Nuclear Station /199
(CNS) Updated Safety Analysis Report and as approved in the Safety /199
Evaluations dated November 29, 1977; May 23, 1979; November 21, 1980; /199
April 29, 1983; April 16, 1984; June 1, 1984; January 3, 1985; August 21, /199
1985; April 10, 1986; September 9, 1986; November 7, 1988; February 3, /199
1989; August 15, 1995; and July 31, 1998, subject to the following provision: /199
/199

The licensee may make changes to the approved fire protection program /199
without prior approval of the Commission only if those changes would not /199
adversely affect the ability to achieve and maintain safe shutdown in the event /199
of a fire. /199

(5) Additional Conditions /178
/178

The Additional Conditions contained in Appendix C, as revised through /178
Amendment No. 178, are hereby incorporated into this license. Nebraska /178
Public Power District shall operate the facility in accordance with the /178
Additional Conditions. /178

(6) Deleted

D. (Not Used) /190

Correspondence Number: NLS2003105

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
NPPD will implement the necessary procedure change reflecting the approved manual actions to configure the MSIV Leakage Pathway.	60 days after receipt of License Amendment
Training for CNS personnel that will be implementing [the Turbine Stop Valve shaft alignment] portion of the procedure is being developed and will be made effective after receipt of NRC approval of these manual actions.	60 days after receipt of License Amendment
The manual valves that are either: a) closed to configure the boundaries of the ALT pathway, or b) opened to establish a flow path to the Main Turbine Condenser, will be cycled during each Refueling Outage to assure their functionality.	Each Refueling Outage following receipt of License Amendment
NPPD will describe the testing performed for the manual valves [that configure the MSIV Leakage Pathway] in the USAR.	Within 6 months after receipt of License Amendment