

A unit of American Electric Power

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AEP-NRC-2010-2 10 CFR 50.90

June 22, 2010

U. S. Nuclear Regulatory Commission ATTN: Document Control Desk Washington, DC 20555-0001

SUBJECT: Donald C. Cook Nuclear Plant Unit 1 and Unit 2 Docket Nos. 50-315 and 50-316 License Amendment Request Regarding Containment Spray Nozzle Surveillance Requirement

Dear Sir or Madam:

Pursuant to 10 CFR 50.90, Indiana Michigan Power Company (I&M), the licensee for Donald C. Cook Nuclear Plant (CNP) Unit 1 and Unit 2, proposes to amend the Appendix A Technical Specifications (TS) to Facility Operating Licenses DPR-58 and DPR-74. I&M proposes to replace the current fixed 10-year Frequency for testing the containment spray nozzles in Surveillance Requirement (SR) 3.6.6.5 with an event-based Frequency. I&M has evaluated the proposed changes in accordance with 10 CFR 50.92 and concluded that they involve no significant hazards consideration.

Enclosure 1 to this letter provides an affirmation statement pertaining to the information contained herein. Enclosure 2 provides I&M's evaluation of the proposed TS change. Attachment 1 to this letter provides Unit 1 TS pages marked to show the proposed changes. Attachment 2 to this letter provides Unit 2 TS pages marked to show the proposed changes. New clean Unit 1 and Unit 2 TS pages with proposed changes incorporated will be provided to the Nuclear Regulatory Commission (NRC) Licensing Project Manager when requested. Associated TS Bases changes will be made in accordance with the CNP Bases Control Program.

I&M requests approval of the proposed change by July 1, 2011, which would eliminate the requirement to perform the fixed Frequency surveillance testing of the Unit 2 containment spray nozzles during the Spring 2012 Unit 2 refueling outage. The proposed change will be implemented within 90 days of NRC approval.

Copies of this letter and its enclosures and attachments are being transmitted to the Michigan Public Service Commission and Michigan Department of Environmental Quality, in accordance with the requirements of 10 CFR 50.91.

U. S. Nuclear Regulatory Commission Page 2

There are no new regulatory commitments made in this letter. Should you have any questions, please contact Mr. Michael K. Scarpello, Regulatory Affairs Manager, at (269) 466-2649.

Sincerely,

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Joel P. Gebbie Site Vice President

HLE/jmr

Enclosures:

- 1. Affirmation
- 2. Proposed License Amendment Request Regarding Containment Spray Nozzle Surveillance Requirement.

Attachments:

- 1. Donald C. Cook Nuclear Plant Unit 1 Technical Specification Pages Marked To Show Proposed Changes
- 2. Donald C. Cook Nuclear Plant Unit 2 Technical Specification Pages Marked To Show Proposed Changes
- c: J. T. King MPSC
 S. M. Krawec, AEP Ft. Wayne, w/o enclosures & attachment
 MDNRE WHMD/RPS
 NRC Resident Inspector
 M. A. Satorius, NRC Region III
 P. S. Tam NRC Washington DC

AFFIRMATION

I, Joel P. Gebbie, being duly sworn, state that I am Site Vice President of Indiana Michigan Power Company (I&M), that I am authorized to sign and file this request with the Nuclear Regulatory Commission on behalf of I&M, and that the statements made and the matters set forth herein pertaining to I&M are true and correct to the best of my knowledge, information, and belief.

Indiana Michigan Power Company

Jul P. Kulijs

Joel P. Gebbie Site Vice President

SWORN TO AND SUBSCRIBED BEFORE ME

THIS ZZ DAY OF June, 2010 Bully June, 2010 Notary Public

My Commission Expires 6 10 2013

Proposed License Amendment Request Regarding Containment Spray Nozzle Surveillance Requirement

Documents referenced in this enclosure are identified in Section 6.0.

1.0 SUMMARY DESCRIPTION

Pursuant to 10 CFR 50.90, Indiana Michigan Power Company (I&M), the licensee for Donald C. Cook Nuclear Plant (CNP) Unit 1 and Unit 2, proposes to amend the Appendix A Technical Specifications (TS) to Facility Operating Licenses DPR-58 and DPR-74. I&M proposes to replace the current fixed 10-year Frequency for testing the containment spray nozzles in Technical Specification (TS) Surveillance Requirement (SR) 3.6.6.5 with an event based Frequency.

2.0 DETAILED DESCRIPTION

2.1 Proposed Change

TS SR 3.6.6.5 currently requires verification that each spray nozzle is unobstructed. I&M proposes to change the specified Frequency of this verification from "10 years" to "Following maintenance which could result in nozzle blockage." Therefore, the surveillance would not be required unless foreign material exclusion control was lost or compromised during maintenance or modification activities on the Containment Spray System (CTS) spray headers or nozzles.

Attachments 1 and 2 to this letter provide the Unit 1 and Unit 2 TS pages, respectively, marked to show proposed changes. New text on these pages is enclosed in a single-line border. New clean Unit 1 and Unit 2 TS pages with proposed changes incorporated will be provided to the Nuclear Regulatory Commission (NRC) Licensing Project Manager when requested. Associated TS Bases changes will be made in accordance with the CNP Bases Control Program.

2.2 Background

Containment Spray System Description

The CTS is a safety-related system that provides spray cooling water to the containment atmosphere during a loss of coolant accident (LOCA) or steam line break accident inside containment. This cooling water limits the peak pressure in the containment to below the containment design pressure. A secondary function of the CTS is the removal of radioactive iodine isotopes from the containment atmosphere during a LOCA. The CTS is part of the plant's Engineered Safety Features (ESF), which are designed to prevent the occurrence or to mitigate the effects of serious accidents.

The system consists of two independent 100% capacity flow trains with diverse power sources. Each train includes a pump, heat exchanger, sets of spray nozzles and ring headers, with the

associated piping, valves, and instrumentation necessary for operational control. Refer to Figure 1 shown at the end of this enclosure. The Refueling Water Storage Tank (RWST) provides the source of borated water for the CTS during the injection phase of an accident when pressure in lower containment exceeds 2.9 psig. The Spray Additive System, which is supported by the CTS, provides a Sodium Hydroxide (NaOH) solution in a single spray additive tank that can be mixed into both spray headers via a spray additive eductor during this mode of operation. Once the supply of water is exhausted, the CTS takes suction from the water accumulated in the containment recirculation sump. Additional spray ring headers in upper containment, supplied by the Residual Heat Removal (RHR) System, supplement the CTS and are subject to the surveillance requirements of TS SR 3.6.6.5.

The spray nozzles are Sprayco 1713A ramp bottom design. They are made from stainless steel, equipped with a 3/8-inch diameter orifice and are not susceptible to being clogged by particles less than ¼ inch in maximum dimension. Each train of CTS supplies 91 nozzles distributed among four spray ring headers in upper containment, 60 nozzles distributed among 15 spray headers in lower containment and 12 nozzles on a separate spray ring header in the annular region of containment. Each RHR System spray train/header supplies 150 nozzles distributed among 3 ring headers in upper containment

The CTS has been modified four times. In 1998, a test line with isolation valves that was believed to be leaking by was removed from service to prevent water from filling a normally empty spray ring and subsequently dripping out of spray nozzles in the annular region of lower containment. Inspection inside this spray ring to determine if this condition had resulted in boric acid accumulating inside the pipe led to discovering foreign material that was left behind from the original construction era. This discovery led to a modification that installed clean-out ports on every spray header inside containment. In 2000, a full flow test circuit was installed for each pump in the Auxiliary Building. Lastly, in 2002, all four CTS pumps were equipped with a new impeller having one additional vane. These last two modifications were installed during the third 10-year inspection interval to address historical vibration issues.

The CNP Updated Final Safety Analysis Report (UFSAR), Section 6.3, provides additional detailed information on the CTS.

Current TS Requirement

Currently TS SR 3.6.6.5 requires verification every 10 years that the containment spray nozzles are unobstructed. This verification is normally achieved by performing an air or smoke test through each spray header and verifying that each spray nozzle is unobstructed. Such testing provides no quantitative data on flow rates exiting the spray nozzles and only verifies that there is flow. The frequency of this testing is consistent with NUREG-1366, "Improvements to Technical Specifications Surveillance Requirements," and NUREG-1431, "Standard Technical Specifications Westinghouse Plants."

Both Unit 1 and Unit 2 CTSs were demonstrated to be operable prior to initial plant startup. Since then, four successful air or smoke tests have been performed on Unit 1 and three on Unit 2. The CNP Unit 1 and Unit 2 containment spray nozzles were last verified to be unobstructed in February 2009 and May 2000, respectively.

Reason for Requested Change

Performance of this surveillance is limited to refueling outages. The performance of the surveillance affects the logistics of refueling activities in the reactor containment building. For example, personnel entry into containment, other than those conducting the test, during the air flow test is prohibited due to the increased possibility of airborne contamination. Additionally, the surveillance involves working at heights, which presents a personal safety risk for individuals building the scaffolding and checking the nozzle air flow. Based on this, the increased risk and cost associated with performing this test is not commensurate with the safety benefit unless there has been an activity that could result in nozzle blockage due to introduction of foreign material.

3.0 TECHNICAL EVALUATION

3.1 Technical Basis for Change

There are four mechanisms that could potentially contribute to obstruction of the CTS nozzle flow path: corrosion debris, boric acid deposits, construction era debris, and debris introduced during the maintenance and modification process. These mechanisms are addressed separately below.

Corrosion Debris

The CNP Unit 1 and Unit 2 CTSs are maintained dry from the inlet of the heat exchangers, located in the Auxiliary Building, to the spray nozzles in containment. This portion of the system is passive and is not vulnerable to any form of service-induced degradation. The system piping and nozzles are fabricated of stainless steel, which is highly resistant to corrosion, especially in a low-stress application such as at CNP. Conditions for stainless steel corrosion, i.e., stress, temperature, and chlorides, are not present. Therefore, the nozzles are unlikely to become obstructed due to corrosion.

Generic Letter 93-05 (Reference 2) describes a problem at San Onofre that was caused by sodium silicate, a coating material applied to the containment spray system carbon steel piping, clogging seven spray nozzles. The containment spray piping and nozzles at CNP are made from stainless steel and are not coated. Therefore, this concern from GL 93-05 does not apply.

Boric Acid

The possibility of solid boron deposits completely blocking the flow stream is also deemed improbable. There have been instances at CNP where water was discovered dripping from one or more spray nozzles located above the containment lower ventilation units in the lower containment annular region. Investigations determined this can occur if a valve relied upon to isolate a portion of the system leaks by, or if the heat exchanger tubes are not completely drained after being leak tested during a refueling outage. An inspection was performed inside the spray ring for the Unit 1 west train after discovery of dripping water. This inspection confirmed the presence of a highly borated water solution, but no solid crystals of boron. If

Construction Debris

In developing NUREG-1366, NRC staff reviewed industry experience regarding issues identified during spray nozzle testing and found that the only problems in pressurized water reactor containment spray systems were those associated with construction activities. All foreign material left in the spray rings for both Unit 1 and Unit 2, from the original construction era was removed during an extended outage period for both Unit 1 and Unit 2 (1998 to 2000), after construction material was identified in a Unit 1 lower ring header while inspecting for boric acid deposits. Maintenance has not been performed inside any spray header since that time. Based upon air flow tests before and after discovery of this construction debris, this condition had no affect on test results.

Maintenance and Modification

A review of the maintenance history for the CTS indicates that a number of work orders have been performed on the CTS since the last air flow test, but none that breached the spray rings and nozzles that could have inadvertently introduced foreign material.

Unit 1 and Unit 2 have had modifications to CTS as discussed in the previous section. One of the modifications was the installation of clean-out ports on the CTS spray headers to facilitate debris removal. This modification was implemented to support clean out of construction era debris that had been identified in 1998. No modifications have been made to the CTS spray headers since that time.

Since the last nozzle surveillance per TS SR 3.6.6.5 was performed in October 2009 for Unit 1 and May 2000 for Unit 2, there has been no maintenance or modification to the system that would have potentially impacted the nozzles or spray rings. Cleanliness control and foreign material exclusion practices, including post-work inspections, have ensured that system cleanliness requirements continue to be met.

Foreign Material Control Program to Prevent Introduction of Blockage Material

The CNP foreign material exclusion (FME) program will prevent debris from remaining in the containment spray system piping, headers, and nozzles following maintenance, testing, or inspections which result in opening the system. Approved procedures establish the administrative structure, requirements, and expectations that define processes and guide worker behaviors regarding (FME), Cleanliness and Housekeeping/Material Condition. The FME program provides the requirements for preventing the uncontrolled introduction of foreign materials into an open system, component, associated areas, or specifically designated areas. The procedure establishes FME guidelines, work control plans/processes, work practices, the use of barrier devices, inspection requirements, and guidance for recovery from loss of integrity relevant to the control of foreign materials. The CNP corrective action process is used when unexpected foreign material is found or introduced into an identified open FME controlled system, structure, or component.

The CNP FME Program also establishes cleanliness inspection criteria, inspection certification and cleanliness methods. In accordance with Cleanliness Control and FME program requirements, the CTS and RHR system would be subject to the highest level of cleanliness criteria and any maintenance or modification activity that breaches CTS or RHR system is required to be controlled to the highest level of FME control criteria.

These administrative controls are considered to be sufficient to assure foreign material is excluded from open systems and components during maintenance and modification activities. Therefore, the FME Program provides adequate assurance that debris or foreign material would not be left in the containment spray system that could prevent the system's ability to perform its intended safety function. These FME controls are in place any time the spray system is opened for maintenance or testing. During any maintenance activity on an open system, should a loss of FME integrity occur, the condition would be entered into the plant's corrective action program. Resolution of the condition would include a recovery plan to retrieve the foreign material and an Engineering evaluation of the impact on system integrity and acceptability for continued operation. The recovery plan considers, among other things, measures to mitigate further spread of the foreign material, evaluation of possible equipment damage caused by the material, and a determination of the need for additional inspections or disassembly. This would apply to the CTS and the required Engineering evaluation would determine the need to conduct a test or inspection to verify that the nozzles remain unobstructed.

The nozzles in upper containment are located near the top of the containment dome. No other equipment is located at this elevation, making access to this area infrequent. Similarly, nozzles near the ceiling in lower containment require scaffolding to access. Other than inspections for the containment divider barrier seals every refueling outage, there is typically no reason for platforms to be constructed that would allow access up to this elevation. The inaccessibility of the nozzles combined with their downward facing orientation render the introduction of foreign material highly unlikely.

As stated earlier, the probability of foreign material intrusion into the CTS spray headers and nozzles is very low. System configuration is such that introduction of foreign material through the nozzles is highly unlikely. The FME Program provides for exclusion, identification, and retrieval of any foreign material introduced or identified within the CTS.

3.2 Conclusions

This license amendment request proposes revising the containment spray nozzle surveillance to require verification that the nozzles are unobstructed following maintenance which could result in nozzle blockage. Both Unit 1 and Unit 2 CTS were demonstrated to be operable prior to initial plant startup. Since then, four successful air or smoke tests have been performed on Unit 1 and three on Unit 2, and extensive cleaning of all ring headers was performed during an extended outage period for both units. Additionally, the design of the system minimizes the likelihood of corrosion, degradation, or inadvertent introduction of foreign material that could adversely affect the CTS spray header flow. Industry experience indicates that maintenance activities are the most likely events that would introduce foreign material to cause nozzle blockage. CNP utilizes a robust FME program during CTS maintenance or modifications that require opening the system. The surveillance requirement proposed by this license amendment requires verification of nozzle operability if maintenance or modification activities could have resulted in nozzle

obstruction (i.e., FME control was lost or compromised during the maintenance or modification activity on the CTS spray headers or nozzles). Operation and maintenance of CNP with the proposed TS revisions will continue to protect the health and safety of the public.

The proposed change potentially reduces the surveillance frequency. Reduced frequency of testing is justified where operating experience has shown that routinely passing a surveillance test performed at a specified interval has no apparent impact on overall component reliability.

The NRC has recognized that nozzle flow testing on a 10-year frequency is not necessary due to the design of the system. In the development of NUREG-1366 (Reference 1), the NRC found that problems identified in pressurized water reactor containment spray systems were typically construction related. Based on this, nozzle blockage is considered unlikely, except as a consequence of maintenance or repair. In response, a number of nuclear power plants have requested and received NRC approval of license amendments which revise their containment spray nozzles surveillance Frequency to "following maintenance which could result in nozzle blockage". Some of these plants are identified below in the discussion of precedents. This license amendment request is submitted to revise SR 3.6.6.5 requirements prior to the next required verification for Unit 2 during the refueling outage scheduled for the spring of 2012.

4.0 **REGULATORY EVALUATION**

4.1 Applicable Regulatory Requirements/Criteria

Title 10 Code of Federal Regulations (CFR) 50.36, "Technical specifications"

Title 10 CFR 50.36 states:

(d) Technical specifications will include items in the following categories:

3) *Surveillance requirements.* Surveillance requirements are requirements relating to test, calibration, or inspection to assure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions for operation will be met.

This license amendment request proposes to replace the current fixed Frequency for verifying that the containment spray nozzles are unobstructed, with a maintenance or event based Frequency. With these changes, the TS will continue to assure that the necessary quality of this system and its components is maintained and the limiting conditions for operation of this system will continue to be met.

Therefore, the requirements of Title 10 CFR 50.36 continue to be met with the changes proposed in this license amendment request.

General Design Criteria

The construction permits for CNP were issued and the majority of construction was completed prior to issuance of 10 CFR 50, Appendix A, General Design Criteria, in 1971 by the Atomic Energy Commission (AEC). CNP was designed and constructed to comply with the AEC General Design Criteria (GDC) as proposed on July 10, 1967. The application of the AEC proposed General Design Criteria to the CNP is contained in the CNP UFSAR as the Plant Specific Design Criteria (PSDC). Appendix A of 10 CFR Part 50 GDC differ both in numbering and content from the PSDC for CNP.

The impact of the surveillance requirement frequency change proposed in this submittal on the PSDC applicable to this license amendment request is discussed as follows:

PSDC 38 Reliability And Testability Of Engineered Safety Features

All Engineered Safety Features shall be designed to provide such functional reliability and ready testability as is necessary to avoid undue risk to the health and safety of the public.

With the surveillance requirement frequency change proposed in this license amendment request, the CTS will continue to be a reliable system and the system will also continue to be tested and inspected as appropriate during the life of the plant. The testability of CTS is not impacted since this change does not change the design or testing method.

PSDC 60 Testing Of Containment Spray Systems

A capability shall be provided, to the extent practical, to periodically test the delivery capability of the Containment Spray Systems as close to the spray nozzles as possible.

The surveillance requirement frequency change proposed in this license amendment request does not change or affect the testability of the CTS or the surveillance requirements to test the delivery capability of the system upstream of the spray nozzles. Although the periodicity of the nozzle flow surveillance would be changed, it would still have a required periodicity that is event-based. The periodicity of the delivery capability testing of the CTS is not changed.

With the changes proposed in this license amendment request, the requirements of PSDC 38 and 60 continue to be met and the plant TS will continue to provide the basis for safe plant operation.

4.2 Precedent

On July 2, 2007, the NRC issued an amendment (Reference 3) to the Comanche Peak Steam Electric Station, Unit 1 and Unit 2 licenses to require verification that the containment spray nozzles are unobstructed following maintenance activities which could result in nozzle blockage. Based upon review of their license amendment request submitted September 9, 2004 (Reference 4), the Comanche Peak plant appears to be sufficiently similar to the CNP to provide precedent for approval of this license amendment request.

The NRC has also approved similar license amendment requests for other plants, including Arkansas Nuclear One (Accession Nos. ML081540218 and ML071550003), Beaver Valley Power Station (Accession No. ML030580356), Braidwood Station (Accession No. ML022880596), Calvert Cliffs Nuclear Power Plant (Accession No. ML040720077), Crystal River Nuclear Plant (Accession No. ML051710381), R.E. Ginna Nuclear Power Plant (Accession No. ML061980055), Millstone Power Station (Accession No. ML080720304), Palisades Nuclear Plant (Accession No. ML030410045), Prairie Island Nuclear Generating Plant (Accession No. ML082740226), South Texas Project Electric Generating Station (Accession No. ML032340230), and St. Lucie (Accession No. ML072260005).

4.3 No Significant Hazards Consideration Determination

Pursuant to 10 CFR 50.90, Indiana Michigan Power Company (I&M), the licensee for Donald C. Cook Nuclear Plant (CNP) Unit 1 and Unit 2, proposes to amend the Appendix A Technical Specifications (TS) to Facility Operating Licenses DPR-58 and DPR-74. I&M proposes to replace the current fixed Frequency of "10 Years" for testing the containment spray nozzles in Technical Specification (TS) Surveillance Requirement (SR) 3.6.6.5 with an event-based Frequency of "Following maintenance which could result in nozzle blockage". I&M has evaluated whether a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

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

Response: No

The containment spray system and its spray nozzles are not accident initiators and therefore, these changes do not involve a significant increase in the probability of an accident. The revised surveillance requirement will require event based Frequency verification in lieu of fixed Frequency verification. The proposed changes to verify system operability following maintenance are considered adequate to ensure continued operability of the containment spray system. Since the system will continue to be available to perform its accident mitigation function, the consequences of accidents previously evaluated are not significantly increased.

Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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 change does not introduce a new mode of plant operation and does not involve physical modification to the plant. The change does not introduce new accident initiators or impact assumptions made in the safety analysis. Testing requirements continue to demonstrate that the Limiting Conditions for Operation are met and the system components are functional.

Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

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

Response: No

The safety function of the containment spray system is to spray cool water into the containment atmosphere in the event of a loss-of-coolant accident to prevent containment pressure from exceeding the design value and to remove fission products (radioactive iodine isotopes) from the containment atmosphere.

The containment spray system is not susceptible to corrosion-induced obstruction or obstruction from sources external to the system. Maintenance activities that could introduce foreign material into the system would require subsequent verification to ensure there is no spray nozzle blockage. The spray header nozzles are expected to remain unblocked and available in the event that the safety function is required. Therefore, the capacity of the system would remain unaffected.

Therefore, the proposed change does not involve a significant reduction in the margin of safety.

Based on the above, I&M concludes that the proposed amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

4.4 Conclusion

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 CONSIDERATION

A review has determined that the proposed amendment would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

6.0 REFERENCES

- 1. NUREG-1366, "Improvements to Technical Specifications Surveillance Requirements," dated December 1992.
- 2. Generic Letter (GL) 93-05, "Line-Item Technical Specifications Improvements to Reduce Surveillance Requirements for Testing during Power Operation," dated September 27, 1993.
- 3. Letter from M. C. Thadani, NRC, to M. R. Blevins, TXU Power, "Comanche Peak Steam Electric Station (CPSES), Units 1 And 2- Correction of Amendments Re: Containment Spray System Surveillance Requirements For Spray Nozzles (TAC Nos. MC4314 And MC4315)," dated October 14, 2005 (ADAMS Accession No. ML052790509).
- Letter from F. W. Madden, TXU Power, to USNRC, Document Control Desk, "Comanche Peak Steam Electric Station (CPSES) Docket Nos. 50-445 And 50-446 License Amendment Request (LAR) 04-003, Revision to Technical Specification (TS) 3.6.6.8 Containment Spray System," dated September 9, 2004 (ADAMS Accession No. ML 042640018).



Figure 1 - Unit 1 and Unit 2 One-line Drawing of Containment Spray System

Page 11

Attachment 1 to AEP-NRC-2010-2

DONALD C. COOK NUCLEAR PLANT UNIT 1 TECHNICAL SPECIFICATION PAGES MARKED TO SHOW CHANGES

3.6.6-2

SURVEILLANCE REQUIREMENTS (continued)

	SURVEILLANCE	FREQUENCY
SR 3.6.6.3	NOTE In MODE 4, only the manual portion of the actuation signal is required.	
	Verify each automatic containment spray valve in the flow path that is not locked, sealed, or otherwise secured in position, actuates to the correct position on an actual or simulated actuation signal.	24 months
SR 3.6.6.4	In MODE 4, only the manual portion of the actuation signal is required.	
· · ·	Verify each containment spray pump starts automatically on an actual or simulated actuation signal.	24 months
SR 3.6.6.5	Verify each spray nozzle is unobstructed.	10 years Following maintenance that could result in nozzle blockage

Attachment 2 to AEP-NRC-2010-2

DONALD C. COOK NUCLEAR PLANT UNIT 2 TECHNICAL SPECIFICATION PAGES MARKED TO SHOW CHANGES

3.6.6-2

SURVEILLANCE REQUIREMENTS (continued)

•	SURVEILLANCE	FREQUENCY
SR 3.6.6.3	NOTE	
	In MODE 4, only the manual portion of the actuation signal is required.	
	Verify each automatic containment spray valve in the flow path that is not locked, sealed, or otherwise secured in position, actuates to the correct position on an actual or simulated actuation signal.	24 months
SR 3.6.6.4	NOTE In MODE 4, only the manual portion of the actuation signal is required.	
	Verify each containment spray pump starts automatically on an actual or simulated actuation signal.	24 months
SR 3.6.6.5	Verify each spray nozzle is unobstructed.	10 years Following maintenance that could result in nozzle blockage