

WOLF CREEK

NUCLEAR OPERATING CORPORATION

Robert C. Hagan
Vice President, Engineering

September 14, 1995

ET 95-0098

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Station P1-137
Washington, D. C. 20555

Reference: Letter NA 94-0089, dated May 24, 1994, to NRC Document Control Desk, from R. C. Hagan
Subject: Docket No. 50-482: Revision to Technical Specification 3/4.5.5, "Emergency Core Cooling Systems - Refueling Water Storage Tank"

Gentlemen:

This letter transmits an application for amendment to Facility Operating License No. NPF-42 for Wolf Creek Generating Station (WCGS). This license amendment request proposes revising Technical Specification 3/4.5.5, "Emergency Core Cooling Systems - Refueling Water Storage Tank." The proposed change would increase the allowed outage time of the Refueling Water Storage Tank, for adjustment of boron concentration, from one hour to eight hours. This proposed change is consistent with NUREG-1431, "Standard Technical Specifications - Westinghouse Power Plants."

The Reference submitted proposed revisions to the WCGS Technical Specifications to incorporate improvements in scope and content endorsed by the Nuclear Regulatory Commission in its Final Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors. Specifically, the Reference proposed, in part, to relocate Technical Specification 3/4.1.2.6, "Reactivity Control Systems - Borated Water Sources - Operations," to the Updated Safety Analysis Report. Technical Specification 3/4.1.2.6 provides an allowed outage time of only one hour for an inoperable Refueling Water Storage Tank. Therefore, based on the previous submittal to relocate Technical Specification 3/4.1.2.6 to the Updated Safety Analysis Report, and its expected approval prior to the approval of this request, no changes to this technical specification have been proposed by this submittal.

Attachment I provides a description of the proposed change along with a Safety Evaluation. Attachment II provides a No Significant Hazards Consideration Determination. Attachment III provides the Environmental Impact Determination. The specific change to the technical specifications proposed by this request is provided as Attachment IV.

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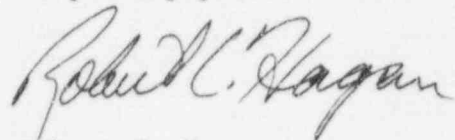
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ADD 1/1

In accordance with 10 CFR 50.91, a copy of this application, with attachments, is being provided to the designated Kansas State official. This proposed revision to the Wolf Creek Generating Station Technical Specifications will be fully implemented within 30 days of formal Nuclear Regulatory Commission approval.

If you have any questions concerning this matter, please contact me at (316) 364-8831, extension 4553, or Mr. Richard D. Flannigan, at extension 4500.

Very truly yours,



Robert C. Hagan

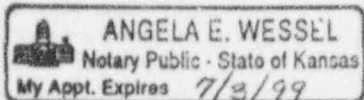
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Attachments: I - Safety Evaluation
 II - No Significant Hazards Consideration Determination
 III - Environmental Impact Determination
 IV - Proposed Technical Specification Change

cc: G. W. Allen (KDHE), w/a
 L. J. Callan (NRC), w/a
 D. F. Kirsch (NRC), w/a
 J. F. Ringwald (NRC), w/a
 J. C. Stone (NRC), w/a

STATE OF KANSAS)
) SS
COUNTY OF COFFEY)

Robert C. Hagan, of lawful age, being first duly sworn upon oath says that he is Vice President Engineering of Wolf Creek Nuclear Operating Corporation; that he has read the foregoing document and knows the content thereof; that he has executed that same for and on behalf of said Corporation with full power and authority to do so; and that the facts therein stated are true and correct to the best of his knowledge, information and belief.



By Robert C. Hagan
Robert C. Hagan
Vice President
Engineering

SUBSCRIBED and sworn to before me this 14th day of Sept., 1995.

Angela E. Wessel
Notary Public

Expiration Date 7-3-99

ATTACHMENT I
SAFETY EVALUATION

Safety Evaluation

Proposed Change

This license amendment request proposes revising Technical Specification 3/4.5.5, "Emergency Core Cooling Systems - Refueling Water Storage Tank." The proposed change would increase the allowed outage time of the Refueling Water Storage Tank (RWST) for adjustment of boron concentration from 1 hour to 8 hours. Specifically, the current action statement would be deleted and replaced with two action statements. Action statement (a) would specify the requirements when the RWST is inoperable due to the boron concentration not being within the specified limits. The action statement would provide 8 hours to restore the boron concentration to within the required limits. If the boron concentration was not restored within 8 hours, the action statement requires that the unit be in Hot Standby within 6 hours and in Cold Shutdown within the following 30 hours. Action statement (b) would specify the requirements when the RWST is inoperable due to reasons other than the boron concentration not being within the specified limits. This approach is consistent with NUREG-1431, "Standard Technical Specifications - Westinghouse Power Plants."

Letter NA 94-0089, dated May 24, 1994, submitted proposed revisions to the Wolf Creek Generating Station Technical Specifications to incorporate improvements in scope and content endorsed by the Nuclear Regulatory Commission in its Final Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors. Specifically, the Reference proposed, in part, to relocate Technical Specification 3/4.1.2.6, "Reactivity Control Systems - Borated Water Sources - Operations," to the Updated Safety Analysis Report. Technical Specification 3/4.1.2.6 provides an allowed outage time of only 1 hour for an inoperable Refueling Water Storage Tank. Therefore, based on the previous submittal to relocate Technical Specification 3/4.1.2.6 to the Updated Safety Analysis Report, no changes to this technical specification have been proposed in this submittal.

Background

The RWST, which contains approximately 400,000 gallons of borated water with a boron concentration between 2400 and 2500 ppm, is a passive component of the emergency core cooling system (ECCS). The RWST provides storage for borated demineralized water to supply to the refueling pool during refueling, to the chemical and volume control system (CVCS) during abnormal operating conditions, and to the containment spray system and the emergency core cooling system during accident conditions.

During normal plant operations (except for refueling and testing), the RWST performs no plant functions and is aligned to provide borated water to the containment spray pumps, safety injection pumps, and residual heat removal pumps. Each redundant pump is individually fed by a separate line, containing a check valve and a motor operated valve, from the RWST supply header. Except for the centrifugal charging pump suction valves, all emergency core cooling system and containment spray system pump suction valves are in a normally open position.

The centrifugal charging pump suction isolation valves from the RWST are normally closed to allow suction from the volume control tank. If a low-low level in the volume control tank is reached, these valves automatically open to provide an alternate source of charging water from the RWST. Upon receipt of the low-low signal, the suction valves from the volume control tank close. These valves are interlocked to preclude closure prior to full opening of the RWST suction valves.

Evaluation

The RWST must meet the water volume, and boron concentration limits specified in Technical Specification 3/4.5.5 in order to be considered operable. Technical Specification Surveillance Requirement 4.5.5 requires, in part, that the boron concentration and water volume of the RWST be verified to be within the required limits at least once per 7 days. With the RWST water volume or boron concentration not within the specified limits, they must be returned to within the limits within one hour per the requirements of Technical Specification 3/4.5.5. Otherwise the unit must be placed in at least Hot Standby within the next 6 hours and in Cold Shutdown within the following 30 hours.

The short time limit of one hour to restore the RWST to an operable status is based on the premises that neither the ECCS nor the containment spray system can perform its design function. Therefore, prompt action must be taken to restore the tank to an operable condition or to place the unit in a mode in which the RWST is not required. However, it is believed that a longer time limit would be more appropriate for an RWST declared inoperable due to the boron concentration being outside the specified limits. Increasing the RWST allowed outage time from 1 hour to 8 hours for an out-of-tolerance boron concentration would provide a more reasonable time frame to diagnose a problem, determine corrective actions, obtain administrative clearances, complete corrective actions, and, when appropriate, perform a post maintenance verification. The additional time limit proposed would reduce the probability of unnecessary plant transients and plant shutdowns, thus potentially improving plant safety and increasing plant availability.

Increasing the allowed outage time is also consistent with the recommendations of NUREG-1024, "Technical Specifications - Enhancing the Safety Impact." NUREG-1024 states, "Allowable outage times that are too short will subject the plant to unnecessary trips, transients, and fatigue cycling. Outage times that are too short also may result in less thorough repair and post-repair testing before equipment is returned to service."

The allowed outage time limit change proposed in this license amendment request is consistent with NUREG-1431, "Standard Technical Specifications - Westinghouse Power Plants." Specifically, NUREG-1431 states that the 8 hour limit to restore the boron concentration to within limits was developed considering the time required to change the boron concentration and the fact that the contents of the tank are still available for injection.

Since the RWST is a passive component, the boron concentration is not expected to change due to changing plant conditions. Boron concentration is established within the proper range, and valves, with the exception of the ECCS pump suction valves, are closed to isolate the tank. Some closed lines may be administratively opened if required to provide recirculation for pump testing or to allow operation of the purification system. In those cases, the water from the tank is returned to the tank without changing the boron concentration.

Boron concentration of the RWST can be affected by the addition of water (makeup or leakage) that is at an improper boron concentration. However, the makeup procedure includes a number of checks for proper setup and function. Boric acid from the boric acid storage tanks and primary water are blended to the correct boron concentration in the CVCS and added to the RWST. Makeup is a manual operation requiring setting of flow rates to the blender, determining the amount of water to be blended, and operation of various valves. Based on the number of actions required to makeup to the RWST, inadvertent makeup to the RWST through a single incorrect action or equipment malfunction is unlikely.

By procedure, the RWST is isolated after makeup is completed. The boron concentration in the RWST is then sampled. If the sample indicates the boron concentration is outside the acceptable range, the boron concentration is adjusted. Since the RWST is not normally used, any makeup to the tank would be small. The boron concentration of the RWST can be changed through in-leakage with water of less boron concentration than that in the tank. One possibility of this would be check valve leakage, which would allow the diluted reactor coolant system water to pass through the interconnected systems to the RWST. Any boron concentration changes due to check valve leakage are likely to be small and are not expected to increase significantly in the additional 7 hours of allowed outage time. Assuming a scenario that an unidentified reactor coolant system leakage of 1 gpm (Technical Specification 3.4.6.2 limit) with 0 ppm starts to develop immediately following the completion of a weekly surveillance test which indicated that the RWST boron concentration was at the lower technical specification limit of 2400 ppm, the RWST boron concentration would be reduced by approximately 58 ppm during the 7 day surveillance interval. Increasing the allowed outage time of the RWST for adjustment of boron concentration from 1 to 8 hours would result in an additional 2.4 ppm reduction. With this small in-leakage rate, the RWST high level alarm setpoint corresponding to a water volume of 413,000 gallons would be reached within 4.2 days if the volume increase started from the normal RWST water level (i.e., 407,000 gallons).

A change in RWST boron concentration could potentially affect the following accidents that result in a safety injection:

- Loss of Coolant Accident (LOCA)
- Inadvertent ECCS actuation
- Main Steam Line Break
- Feedwater Line Break
- Steam Generator Tube Rupture

The potential affects of small changes in RWST boron concentration on these accident analyses, reactivity control/emergency boration, and the Probabilistic Risk Assessment are evaluated as follows:

LOSS OF COOLANT ACCIDENT

Large Break LOCA

The current large break LOCA analysis was performed with the NRC Approved 1981 Evaluation Model with BASH. The large break LOCA analysis presented in the Updated Safety Analysis Report (USAR) does not take credit for the negative reactivity introduced by the soluble boron in the ECCS water in determining the reactor power during the early phases of a postulated LOCA. The large break LOCA also does not take credit for the negative reactivity introduced by the control rods. During a large break LOCA, the reactor is brought to a subcritical condition by the presence of voids in the core. Since credit was not taken for the soluble boron that is present in the core, a change in the RWST boron concentrations will have no effect on the current USAR large break LOCA analysis.

Small Break LOCA

The current small break LOCA analyses were performed with the NOTRUMP Evaluation Model, which assumes the reactor core is brought to a subcritical condition by the trip reactivity of the control rods. There is no assumption requiring the presence of boron in the ECCS water or the need for negative reactivity provided by the soluble boron. Thus the changes in the RWST boron concentrations do not alter the conclusions of the small break LOCA analysis.

Post-LOCA Long-term Core Cooling/Subcriticality

10 CFR 50.46, "Acceptance Criteria for Emergency Core Cooling System for Light Water Nuclear Power Reactors," paragraph (b), item (5), sets forth the requirements for post-LOCA long-term core cooling. To satisfy the requirements, the core is maintained in a shutdown state solely by the soluble boron contained in the ECCS water after a LOCA because credit for the shutdown provided by the control rods was not taken for cold leg breaks ≥ 3.0 ft², or hot leg breaks ≥ 1.0 ft². Since safety injection flow is drawn from the containment sump following switchover from the RWST, the containment sump post-LOCA boron concentration must be higher than the boron concentration required to ensure subcritical conditions.

To determine if the requirements of the post-LOCA long-term core cooling subcriticality is met, a calculation is performed for each core reload to determine the boron concentration required to keep the core subcritical ($K_{eff} < 1.0$) and the mixed mean boron concentration of the post-LOCA sump water. The calculation is documented in the cycle-specific Reload Safety Analysis Checklist to confirm that the post-LOCA sump mixed mean boron concentration is greater than the core boron concentration to ensure that the condition of $K_{eff} < 1.0$ will be met. The post-LOCA long-term core cooling critical boron is determined at the most reactive time in life, assuming all rods out with no xenon for a post-LOCA fluid temperature range of 68-212°F. The calculation considers all sources of water that may eventually reside in the containment sump at cold leg recirculation switchover time and their respective pre-accident boron concentrations. The lower RWST boron concentration limit of 2400 ppm is used in this calculation to determine the post-LOCA sump boron

concentration necessary to ensure subcriticality. Since the RWST water volume is the dominant source, a small decrease in its concentration would cause the equilibrium post-LOCA sump solution mixed mean boron concentration value to be reduced accordingly. However, if a postulated LOCA occurred during the time that the RWST was slightly less than its minimum technical specification value, the design margin associated with the conservative assumptions used in the determination of post-LOCA boron requirements would be sufficient to offset the possible effects of a slight reduction in the mixed mean boron concentration of the sump water. Therefore, a small change in the boron concentration of the RWST would not have a significant effect on the capability of maintaining the core subcritical.

Hot Leg Switchover to Prevent Boron Precipitation

A hot leg recirculation switchover time analysis was performed to determine the time following a LOCA that hot leg recirculation should be initiated to avoid boron precipitation in the core following the accident. This time is dependent on decay heat level, and the reactor coolant system (RCS), RWST and accumulator water volumes and boron concentrations. For the Wolf Creek Generating Station, the hot leg recirculation switchover time after a design basis large break LOCA is conservatively calculated to be 10 hours based on a maximum RWST boron concentration of 2700 ppm. In view of this assumption, there is significant margin in the calculated switchover time if the RWST boron concentration increases slightly beyond its maximum technical specification value since the maximum technical specification value for the RWST boron concentration is only 2500 ppm. On the other hand, a lower pre-accident boron concentration in the RWST would result in a decrease in the post-accident sump boron concentration, which in turn would delay the buildup of boron concentration as a result of boiling off in the core and thus increase the allowable time for operator action to initiate hot leg recirculation.

Sump pH Value

A maximum boron concentration limit is also established to control the pH of the sump solution recirculated through the engineered safety feature systems and components during the recirculation mode of ECCS operation following a hypothetical LOCA. The pH of the sump solution needs to be controlled within an acceptable range to ensure that significant long-term iodine re-evolution does not occur and to minimize the effect of chloride and caustic stress corrosion on mechanical systems and components. A chemical additive is added to the containment sump, in part, for pH control following a LOCA. The equilibrium post-LOCA sump solution pH value is determined by the boron concentration of all water sources (i.e., RWST, accumulators and RCS) and the amount of the chemical additive introduced into the containment sump during the injection phase of ECCS and containment spray operations. A small decrease in the RWST boron concentration would not have a significant effect on the pH in the sump and therefore, would have an insignificant effect on the effectiveness of iodine retention and the operability of mechanical systems and components following a LOCA.

INADVERTENT ECCS ACTUATION

As a result of an inadvertent actuation of the ECCS, borated water from the RWST would be injected into the RCS while the plant was at power. If the ECCS signal did not generate a reactor trip signal, the borated water would decrease the reactor power. However, the steam flow to the main turbine would not decrease for approximately 25 seconds after an inadvertent ECCS actuation. As a result of the mismatch, T_{avg} , pressurizer level, and pressurizer pressure would decrease. Since the rod control system is assumed to be in manual, the control rods would not compensate for the decreasing T_{avg} . The reactor would trip on low pressurizer pressure.

The time required to reach the low pressurizer pressure reactor trip setpoint is dependent upon the rate of change of reactor power. The rate of change of reactor power is dependent upon the boron concentration of the RWST water injected into the RCS. However, the inadvertent ECCS actuation analysis concludes that the analysis results are relatively independent of reactor power. Consequently, the small changes that would occur in RWST boron concentration would have no significant effect on the analysis results.

MAIN STEAM LINE BREAK

A minimum boron concentration of 2000 ppm is an explicit assumption in the main steam line break analysis to ensure the required shutdown capability. During a main steam line break, the RCS experiences a rapid cooldown. This rapid cooldown results in the addition of positive reactivity. The positive reactivity added due to the cooldown is greater than the negative reactivity added by the insertion of the control rods. This could result in a return to criticality of the core if all control rods did not insert. The RWST provides borated safety injection flow to assist in terminating the reactivity transient in the core. However, the magnitude of the return to power following a steam line break is limited by reactor kinetics and steam flow rather than by core boron concentration. Given the system delay time and rate at which the core boron concentration increases, a small variation in boron concentration in the RWST would not adversely affect a steam line break analyzed for either core response or containment mass and energy releases (USAR Sections 15.1.5 and 6.2.1.4, respectively).

FEEDWATER LINE BREAK

During a feedwater line break (USAR Section 15.2.8), RWST inventory is injected into the RCS against high pressure, thus the actual flow injected is small and does not make a significant contribution of negative reactivity. Additionally, the boron content of the RWST water is not required to provide negative reactivity for this event. Therefore, a small change in RWST solution boron concentration would not significantly impact the feedwater pipe break event.

STEAM GENERATOR TUBE RUPTURE

Following a steam generator tube rupture, the reactor is shutdown by a reactor trip. RWST water is injected to makeup RCS inventory; however, RWST borated water is not required for the initial shutdown of the reactor. The control rod insertion provides shutdown margin during the initial recovery operation.

Further, RCS boration would be performed using manual makeup to the RCS. Small changes in the RWST solution boron concentration are within the conservatism of the analysis assumptions. Thus, small changes in RWST boron concentration would not significantly impact the steam generator tube rupture event.

REACTIVITY CONTROL/EMERGENCY BORATION

The CVCS boration subsystem ensures that negative reactivity is available in all modes of plant operation. The sources of borated water are the boric acid storage tanks in the CVCS and the RWST. The RWST source of borated water is available as an alternate source to the boric acid storage tanks. The RWST water can be used in the event of abnormal conditions, including fire and seismic events, that may impair the function of the boric acid storage tanks. The boration subsystem provides the means to meet one of the functional requirements of the CVCS, i.e., to control the neutron absorber (boron) concentration in the RCS and to help maintain the shutdown margin.

In the event that the RWST boron concentration is above or below the limit when the RWST is the selected source of borated water for the boration subsystem, the operator would continue to feed RWST water until the desired boration concentration was reached in the RCS. The amount of RWST borated water used to establish the RCS boron concentration would be greater or less to compensate for a variation in RWST boron concentration. Therefore, changes in the RWST solution boron concentration have a negligible effect on boron dilution assumptions and conclusions.

PROBABILISTIC RISK ASSESSMENT (PRA) EVALUATION

As discussed above for various accident conditions, small deviations of RWST boron concentration beyond the technical specification allowable range are indicated as having an insignificant or negligible impact. An out of tolerance boron concentration condition would not likely render the RWST functionally inoperable even though it may be declared "inoperable" from a technical specification perspective. With the consideration that the RWST is likely to be functionally available with small deviations in boron concentration outside the allowable range, no impact on core damage frequency would be realized. With the magnitude and frequency of RWST boron concentration deviations which have been experienced in the past, and with consideration of the negligible impact of small changes in boron concentration for the various accident conditions discussed above, the overall impact on core damage frequency of the requested change is not significant.

A limit scope evaluation of core damage frequency impact was performed as follows: It was conservatively assumed that assignment of an RWST technical specification "inoperable" designation due to an out of tolerance boron concentration condition would result in the RWST being functionally unavailable. It was also assumed that emergency boration via the chemical and volume control system would be relied on for performance of the reactor coolant system boration function for the time period during which the RWST was considered inoperable. A conservative failure probability of 0.1 was assigned for the emergency boration function based on the Wolf Creek Generating Station PRA fault tree model. A core damage sensitivity was performed by replacing the existing random RWST failure probability with the emergency boration function failure probability of 0.1. Assuming that the RWST boron concentration out of tolerance condition occurs once

during a calendar year, an increase of seven hours allowed outage time would result in an increase in core damage frequency of approximately 2 percent. This increase in core damage frequency is not significant and should be considered an upper bound based on the conservative nature of the above assumptions.

Summary and Conclusions

Although the proposed change in the RWST allowed outage time would allow boron concentration to remain out of the technical specification limits for longer than currently allowed, the expected deviation of the boron concentration from the technical specification required concentration would be small. This is due to the passive nature of the RWST. As discussed previously, small changes to the minimum limit on boron concentration for an additional 7 hours would have little effect on the results of the affected analyses. Also, small changes to the maximum limit on boron concentration would not have a significant affect on the post-LOCA sump solution pH value or on the maximum allowable time to switch to hot leg recirculation.

Based on the above discussions and the considerations presented in Attachment II, the proposed change does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the safety analysis report; or create a possibility for an accident or malfunction of a different type than any previously evaluated in the safety analysis report; or reduce the margin of safety as defined in the basis for any technical specification. Therefore, the proposed change does not adversely affect or endanger the health or safety of the general public or involve a significant safety hazard.

ATTACHMENT II

NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

No Significant Hazards Consideration Determination

This license amendment request proposes revising Technical Specification 3/4.5.5, "Emergency Core Cooling Systems - Refueling Water Storage Tank." The proposed change would increase the allowed outage time of the RWST, for adjustment of boron concentration, from 1 hour to 8 hours. Specifically, the current action statement would be deleted and replaced with two action statements. Action statement (a) would specify the requirements when the RWST is inoperable due to boron concentration. The action statement would provide 8 hours to restore the boron concentration to within the required limits. If the boron concentration was not restored within 8 hours, the action statement requires that the unit be in Hot Standby within 6 hours and in Cold Shutdown within the following 30 hours. Action statement (b) would specify the requirements when the RWST is inoperable due to reasons other than boron concentration. This approach is consistent with NUREG-1431, "Standard Technical Specifications - Westinghouse Power Plants."

Standard I - Involves a Significant Increase in the Probability or Consequences of an Accident Previously Evaluated

The increase in the RWST allowed outage time does not alter the plant configuration or operation. The potential for the RWST boron concentration to be outside the technical specification limits is small because the RWST and its contents are not involved with normal plant operation and are not subject to process variations associated with plant operation.

The potential causes of boron concentration deviation have been evaluated with the conclusion that any deviation in RWST boron concentration would not be expected to increase significantly during the proposed 7 hour allowed outage time increase.

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

Standard II - Create the Possibility of a New or Different Kind of Accident from any Previously Evaluated

Increasing the RWST allowed outage time from 1 hour to 8 hours for reasons directly related to boron concentration does not require physical alteration to any plant system and does not change the method by which any safety related system performs its functions. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

Standard III - Involve a Significant Reduction in the Margin of Safety

Increasing the RWST allowed outage time for reasons directly related to boron concentration does not affect any accident analysis assumptions, initial conditions, or results. The margins of safety reflected in the Wolf Creek Generating Station Technical Specifications are not compromised by the 7 hour

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

Based on the above discussions it has been determined that the requested technical specification revision does not involve a significant increase in the probability or consequences of an accident or other adverse condition over previous evaluations; or create the possibility of a new or different kind of accident or condition over previous evaluation; or involve a significant reduction in a margin of safety. The requested license amendment does not involve a significant hazards consideration.

ATTACHMENT III

ENVIRONMENTAL IMPACT DETERMINATION

Environmental Impact Determination

10 CFR 51.22(b) specifies the criteria for categorical exclusions from the requirements for a specific environmental assessment per 10 CFR 51.21. This amendment request meets the criteria specified in 10 CFR 51.22(c)(9). The specific criteria contained in this section are discussed below.

(i) **the amendment involves no significant hazards consideration**

As demonstrated in the No Significant Hazards Consideration Determination in Attachment II, the requested license amendment does not involve any significant hazards consideration.

(ii) **there is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite**

The requested license amendment involves no change to the facility and does not involve any change in the manner of operation of any plant systems involving the generation, collection or processing of radioactive materials or other types of effluents. Therefore, no increase in the amounts of effluents or new types of effluents would be created.

(iii) **there is no significant increase in individual or cumulative occupational radiation exposure**

The requested license amendment involves no change to the facility and does not involve any change in the manner of operation of any plant systems involving the generation, collection or processing of radioactive materials or other types of effluents. Furthermore, implementation of this proposed change will not involve work activities which could contribute to occupational radiation exposure. Therefore, there will be no increase in individual or cumulative occupational radiation exposure associated with this proposed change.

Based on the above, it is concluded that there will be no impact on the environment resulting from this change. The change meets the criteria specified in 10 CFR 51.22 for a categorical exclusion from the requirements of 10 CFR 51.21 relative to specific environmental assessment by the Commission.