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SUBJECT: Forwards addl info to 890106 response to Insp Rept 50-244/88-22.

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February 17, 1989

Mr. William T. Russell
Regional Administrator
U.S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, Pennsylvania 19406

Subject: Supplemental Information
Inspection Report 88-22
R.E. Ginna Nuclear Power Plant
Docket No. 50-244

Dear Mr. Russell:

Following submittal of our response, dated January 6, 1989 to Inspection Report 88-22, we have discussed with members of your Staff both the specific issues raised in the Inspection Report and the more general subject of the Condensate Storage Tank design and operational considerations. Based on these discussions and our further review, we believe it appropriate to clarify and supplement our previous response. The additional information generally falls in three areas.

First, we are clarifying our response to indicate that on October 5, 1988, manual valve 4318A was being maintained as a closed valve. Subsequently, and prior to our response to the Inspection Report, valve 4318A was locked in the closed position and was added to our locked valve program.

Second, we have performed a 50.59 safety evaluation of the presence of manual valve 4318A in the Condensate Storage Tank system. Based on reviews to date, we have determined that valve 4318A has been installed at the plant for a number of years, however, we have not been able to document whether it was part of the original plant design or was installed after initial licensing. Therefore, we have performed the attached 50.59 safety evaluation and have determined that the presence of the valve does not constitute an unreviewed safety question or involve a change in the plant Technical Specifications.

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Finally, we wish to re-emphasize a point contained in our original response. In addition to the specific reviews which we have performed as identified in our previous response and in this response, we are performing a comprehensive review of the Condensate Storage Tank including all connecting lines. This review is considering all previous plant design requirements and also Station Blackout (loss of all AC) considerations. Our responses to the Inspection Report do not affect our intent to complete this important evaluation.

Please contact us if you or members of your Staff have further questions or concerns.

Very truly yours,

Robert C. Mecredy
General Manager
Nuclear Production

RCM\021
Attachments

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ATTACHMENT I

Violation

"10 CFR 50, Appendix B, section III requires, in part, measures shall be established to assure that appropriate quality standards are specified and included in design documents, and deviations from such standards are controlled. The Quality Assurance Manual Ginna Station, section 3, step 3.1.3 requires modifications involving a change to the facility as described in the Updated Final Safety Analysis Report (UFSAR) have a safety evaluation in accordance with 10 CFR 50.59."

"Contrary to the above, on October 5, 1988 a modification involving a change to the Condensate Storage Tank, described in Chapter 10 of the UFSAR as the main source of water for the Auxiliary Feedwater System, was installed without a safety evaluation in accordance with 10 CFR 50.59."

Response

RG&E denies this violation. RG&E agrees that the Ginna QA manual specifies that a 50.59 evaluation should be performed for any facility modification involving a change to the facility as described in the UFSAR. However, we do not agree that the addition of the Tygon tubing to the Condensate Storage Tanks constitutes such a change.

What is shown in the UFSAR and was existing plant configuration is a 3/4 inch sampling line which is isolated by closed manual valve 4318A (UFSAR Figure 10.7-5). This configuration was not changed by the addition of the Tygon tube on October 5, 1988. The Tygon tube has been added downstream of this valve and does not affect the CSTs as explicitly described in the UFSAR. Even if we consider (and we did) the applicability of 10 CFR 50.59 to items implicitly described in the UFSAR, current draft (December 1988) industry guidance defines this implicit inclusion or description as follows: "If the change alters the design, function, or method of performing the function of the larger structure, system, or component [in this case the CSTs] as described in the SAR then a safety evaluation is required." Because the Tygon tube was installed beyond a manual closed valve it was and still is understood that this modification does not alter the CSTs' design function or method of performance. In addition, any failure of the Tygon tubing cannot interact with the CSTs or affect any of the surrounding equipment. (It should be noted that valve 4318A is now maintained locked closed under our locked valve program.)

When this modification was made by RG&E, the appropriate consideration was given to the governing requirements of 10 CFR 50.59. Appropriate screening criteria were applied to determine the applicability of 10 CFR 50.59. Although the documentation maintained for screening this modification and concluding that 50.59 did not apply was brief, good engineering judgment was implemented and documentation was provided. RG&E believes that the documentation supporting this modification adequately addresses the safety issues. Because we believe in the importance of properly applying the 50.59 requirement,we have continued to institute additional programmatic guidance on implementing 10 CFR 50.59.

Additional Review

A more detailed review of the addition of the Tygon tubing has been documented (see Attachment III). Even under the scrutiny of a 50.59 safety evaluation (as enclosed), an Unreviewed Safety Question (USQ) does not result.

Programmatic Improvements

As discussed in Attachment II, a programmatic approach to 50.59 has been and is continuing to be developed at Ginna. Procedures have been written to ensure that appropriate screening criteria forms are filled out in accordance with the Ginna 50.59 program. These screening forms provide adequate basis for applying 50.59 on a case-by-case basis, and will provide for an adequate documentation of the basis for the conclusions of the applicability screening in those cases where 50.59 does not apply. In addition, RG&E is instituting training programs on the implementation of 50.59 to make certain that all personnel involved in performing such evaluations understand the RG&E 50.59 program and the technical considerations involved in applying the programmatic guidance. In the future, RG&E will be considering the consolidation of the several existing 50.59 review programs, such as those for procedure reviews and Nonconformance Report reviews, into a single program. The current programs do, however, adequately address the required reviews.

Date of Full Compliance

RG&E believes it is currently in compliance with 10 CFR 50.59 and with the Ginna Quality Assurance Manual as it relates to the issues identified.

ATTACHMENT II

I. Introduction

In addition to addressing the Notice of Violation, we are responding to some of the Staff's associated concerns raised within the inspection report itself. We would like the Staff to understand the status of our programs, including the critical review of our modification process and the institution of our 50.59 process. We believe that it is evident that RG&E has a clear understanding of not only the concerns expressed in this inspection report, but the evolving concerns that relate to these industry wide issues. It is our intent that the Staff understand that we have made strides in developing comprehensive programs that not only address concerns in a specific manner, but look at the broader picture and can be seen as an overall improvement.

II. 50.59 Program Improvements

In the body of Inspection Report 88-22, the NRC expressed a concern that RG&E's failure to perform Safety Evaluations has been an NRC identified concern for more than 20 months and is indicative of programmatic weakness in the control of station modifications.

Ginna Station procedures are clear in the requirement to develop a Safety Evaluation in support of modifications. In addition to reviewing physical changes, RG&E has a detailed screening program and 50.59 guidance for revisions made to procedures. The safety evaluation process for both modifications and procedure changes has been improved through the continuing development of detailed guidance. This guidance documents the impacts that each evaluator must consider for a specific type of change. Specific examples for these changes are also provided. RG&E has taken a positive approach to dealing with the 10 CFR 50.59 process. In many respects, this has been difficult because of the evolving nature of NRC/industry guidance in this area. This is evidenced by the fact that even the most recent industry guidance is still considered a draft.

Also, as part of this effort, RG&E will conduct the retraining of affected personnel. This will include discussion of specific procedural requirements, identified interfaces, and the requirements of the Ginna 50.59 program.

Another concern expressed by the staff was that RG&E is not performing 50.59 evaluations for all modifications that involve plant equipment described in the UFSAR. RG&E is committed to the requirements to perform 50.59 evaluations, but does not base this decision to perform a 50.59 evaluation simply on whether or not the

equipment is described in the UFSAR. It is our position that if a change affects the facility, as described in the UFSAR, either explicitly or implicitly, a 50.59 evaluation should be completed. This is not our last determining factor, however. RG&E conservatively applies the requirements of 50.59 without losing perspective on the intent of the regulation. RG&E believes that this regulation must be applied so that it remains meaningful. We have developed clear safety evaluation guidance, and extensive screening criteria to accomplish this goal. We have done this in an effort to not rely excessively upon the high level of engineering expertise of our existing personnel, but to furnish clear programmatic controls. We understand that this program development has taken time and is still underway, but we believe that the Staff should be aware that we saw the need for such guidance and have taken appropriate steps. RG&E has neither ignored nor downplayed the Staff's concerns, but has systematically set up an overall system to address the root cause of those problems.

III. GDC-34 Concerns

Another issue raised as part of the Inspection Report is that the RG&E review "does not address whether good commercial-grade engineering practices meets the requirements of General Design Criterion (GDC) 34". The following discussion provides supplemental information to clarify this terminology and place it in a context that more accurately reflects RG&E's past practices regarding the design and quality assurance controls applied to the CSTs.

The R.E. Ginna Nuclear Power plant was designed to the proposed AIF GDC issued for comment on July 10, 1967. It should be noted that there is no comparable 1967 AIF GDC which addresses the residual heat removal issue identified in GDC 34. The plant was not originally designed to meet the General Design Criteria (GDC) of Appendix A of 10 CFR 50, including GDC 34, since these criteria were issued in February of 1971.

Specifically, the AFW CSTs were designed to the American Water Works Association Standard (AWWA) D100, 1965 edition. Since issuance of the Ginna Provisional Operating License, the AFW System has been scrutinized as part of the TMI NUREG-0737 effort and the Ginna Systematic Evaluation Program (SEP). During the SEP review of Topic III-1 (Classification of Structures, Components, and Systems - Seismic and Quality), the Franklin Research Center recognized that the CSTs as originally designed might not be capable of meeting current compressive stress requirements. Additional information regarding the compressive stress capabilities of the CSTs was requested in the NRC SER on this topic. The information supplied by RG&E was accepted by the NRC.

The CSTs, due to their location in the Service Building (non-seismic structure), lack of protective features, and their original design pedigree, have the potential for being rendered inoperable by the effects of several postulated hazards (i.e., safe shutdown earthquake, tornadoes, floods, missiles, high energy line break effects on the AFW System). It should be noted that these postulated hazards are remote events with low probability of occurrence during the lifetime of the plant. The Ginna Station design accommodates these remote occurrences by incorporating a Seismic Category I source of water (Service Water System) available to the suction of the AFW pumps and by having available a second "Standby" AFW System. (The SAFW System permits delivery of AFW flow to the Steam Generators assuming the occurrence of a high energy line break in the Intermediate Building.) In addition, another source of water available is the yard fire hydrant system which can function independent of all AC power. As a result, the CSTs are not required to remain functional following these postulated hazards. With the use of independent AFW Systems and the availability of independent and redundant sources of water, means are available at Ginna Station to remove reactor decay heat from the secondary side of the Steam Generators at a rate sufficient to achieve and maintain a safe shutdown condition following any design basis event.

As stated in 10 CFR 50, Appendix B, Section III, design and quality assurance controls should be "commensurate with those applied to the original design", including all regulatory commitments made since Ginna Provisional Operating License. These controls assure that the CSTs and changes made thereto meet quality standards at least as stringent as those originally applied to the CSTs. The QA controls placed on the CSTs are commensurate with the controls necessary to assure that the CSTs will properly function for the design basis events that require their operability while being subjected to the effects of these same design basis events. The CSTs function for UFSAR Chapter 15 events, unmitigated fires, and station blackout. The adverse effects of these events have a limited impact on the operability of the CSTs, due to the CSTs' location in the Service Building and the assumptions made for these event scenarios (for instance, the assumption of a coincident loss of offsite power, but not the assumption of a coincident hazard such as a safe shutdown earthquake). Section 2.2 of the R. E. Ginna QA manual recognizes that the CSTs are safety related, but not Seismic Category I and identifies the controls that apply to these tanks.

The Ginna AFW design was found to be acceptable as originally licensed in 1969, as reviewed against NUREG-0737, Items II.E.1.1 and II.E.1.2, following the TMI accident, and as reviewed against SEP Topics X, "Auxiliary Feedwater System", and V-10.B, "Residual Heat Removal System Reliability". (Note that the TMI and SEP reviews essentially reviewed the Ginna AFW Systems against the criteria of BTP ASB 10-1, and BTP RSB 5-1.) As a result of NUREG-0737 and the SEP effort, RG&E made numerous commitments and upgrades to the AFW Systems. These upgrades were reviewed by the

staff and approved in accordance with the issuance of Ginna's full term operating license in December 1984. The QA and design controls applied to the AFW System, including the CSTs, are consistent with these commitments and the design baseline established with the approval of the full term license.

RG&E is aware of the safety importance of the CSTs and believes that the quality assurance controls applied to the CSTs meet the original design basis, as well as the regulatory commitments made since the Provisional Operating License was issued. When considered within the overall context of the Ginna Station design, the QA requirement applied to CSTs are appropriate. Due to the issuance recently of 10 CFR 50.63, and Regulatory Guide 1.155, RG&E is performing an additional review of the design controls placed on the CSTs in the context of this regulatory guidance and will include appropriate upgrades.

IV. Evaluation of CST Modifications

Another issue discussed in the inspection report was that a technical evaluation for the installation of Tygon tubing downstream of manual valve 4318A and copper piping had not been provided at the end of the inspection period. RG&E has performed these 50.59 safety evaluations for both of these concerns (see also the response to the Notice of Violation regarding the Tygon tubing, which contends that a proper 50.59 screening was performed for the addition of the Tygon tubing prior to its installation). For both the Tygon tubing and the installation of the Hot Water System the safety evaluations conclude that no unreviewed safety questions have been introduced. These evaluations are provided in Attachment III. In addition, as a result of your request, a 50.59 safety evaluation has been provided for the installation of manual valve 4318A. This evaluation also concludes that no unreviewed safety question exists and is also contained in Attachment III.

ATTACHMENT III

Safety Evaluation for the Hot Water System Connection

The Hot Water system connections to the CSTs are shown on P&IDs 33013-457 and 1234. Suction to the hot water circulation water pump (MK102) is taken from the CSTs through manual valves 8271, 8275 (CST B), 8270, 8274 (CST A), and 8276. Hot water is recirculated back to the CSTs through 8299J, 8282 (CST A), and 8283 (CST B).

The following sections evaluate the impact to plant safety of the connection of the Hot Water system to the main AFW CSTs.

Postulated Hazards and Safe Shutdown Capability

The following discussion applies to the postulated Hazards listed below:

- Adverse weather phenomena including floods, high winds, snow, and tornadoes
- Safe Shutdown Earthquake
- High Energy Line Breaks
- Externally or internally generated missiles

The Hot Water system is located adjacent to the CSTs in the Service Building. As a result, the adverse effects of postulated hazards that can potentially fail the Hot Water system (and thereby introduce a potential interaction with the CSTs) also have the potential to fail the CSTs, since in both cases:

1. Neither the CSTs nor the Hot Water system are required to be designed to withstand the effects of the hazards postulated for the R. E. Ginna plant.

2. Neither the CSTs nor the Hot Water system are protected by design features such as physical barriers to preserve their integrity following postulated hazards. The Service Building is not a Seismic Category I structure capable of withstanding adverse weather effects or natural phenomena.

For postulated hazards that potentially fail the CSTs, an alternate and independent means of achieving and maintaining a safe shutdown condition (the safe shutdown function of concern is the removal of reactor decay heat) is available via the Service Water system supplying water to either the main or standby AFW systems.

As a result, no significant degradation in the capability of achieving and maintaining a safe shutdown condition will result due to the hot water modification interface with the CSTs. The contingency actions and alternate means of removing reactor decay heat following a postulated hazard remain valid for the current CST configuration.

The failure of the Hot Water system following a seismic event which could lead to the draining of the CSTs onto the Service Building floor is bounded by the present analysis of failure of CSTs per EWR 1023, May 20, 1975. This flooding scenario is the same as that previously analyzed since the Hot Water system does not introduce a new source of water. In addition, the Hot Water system does not introduce any high energy line break of concern, or the potential for internally generated missiles.

Fires

The main AFW system taking suction from the CSTs is used to remove decay heat following several postulated unmitigated fires. Unmitigated fires can result in a loss of offsite power which would subsequently result in a loss of the Instrument Air system (IAS). A review of P&ID 33013-457 shows that the "effect" of a fire resulting in a loss of the IAS is minimal on the CSTs as configured with Hot Water system connection. If the Hot Water system is not in use, it can be isolated from the CSTs via manual valves 8275, 8274, and 8299J. If the Hot Water system is in use during a fire, Hot Water pumps (MK102 and 115) would stop on loss of AC power. Although the Hot Water system could become a potential drainage path for CST inventory, the elevation of the hot water users (laundry and hot showers are at an elevation equal to the top of the CSTs) and the flow resistance of the Hot Water system piping essentially make the Hot Water system a closed system to drainage.

Although the Hot Water system introduces combustibles into the Service Building via the gas supply to heater MK106, the safe shutdown components located in the Service Building (CSTs, piping to the AFW pumps) should not be adversely affected. This is in accordance with the existing analysis which deals with fires in the Service Building. These are mechanical components that must maintain their pressure boundary integrity to accomplish their safe shutdown function. The Appendix R analysis for Ginna assumes that exposure fires do not cause mechanical components to lose pressure boundary integrity. As a result, this modification does not affect safe shutdown for fires. For fires requiring operation of the main AFW system, the CSTs will be operable, enabling the removal of reactor decay heat to achieve and maintain a safe shutdown condition during and following postulated fires.

Mitigation of Chapter 15 Events

The following discussion assesses the safety impact of the connection of the Hot Water system to the CSTs for the following postulated UFSAR Chapter 15 events, which are the only events for which the AFW system is relied on as a mitigation feature:

- Main Steam Line Breaks (MSLB)
- Main Feed Line Breaks (MFLB)
- Loss of Normal Feedwater
- Loss of AC to the Station Auxiliaries
- Loss of External Electrical Loads
- Loss of Coolant Accidents (LOCAs)
- Steam Generator Tube Rupture (SGTR)

To assess the potential degradation in the capability of mitigating the above events, the Hot Water system is examined for its potential adverse interaction with the CSTs. The function of the CSTs is to maintain an inventory of 22,500 gallons of condensate-grade water for the removal of reactor decay heat for 2 hours independent of any AC power source (TMI Item II.E.1.1). The CSTs also function as the initial AFW inventory source following the occurrence of any of the above Chapter 15 events (which result in the subsequent loss of main feedwater and auto initiation of AFW). Hence, the adverse "effects" of these Chapter 15 events are examined for the potential to fail the Hot Water system and thereby deplete the CST inventory through an adverse interaction. There are two "effects" that impact the current CST configuration.

1. MSLBs and MFLBs in the intermediate building create adverse effects (pipe whip, jet impingement, temperature, pressure, humidity) that have the potential to fail the main AFW system. All three main AFW pumps (2 motor driven pumps, 1 turbine driven pump) and a significant portion of AFW piping are located in the intermediate building. The effects of some postulated MSLBs and MFLBs can fail the main AFW system.

2. Most of the Chapter 15 events assume the coincident loss of offsite power. Loss of normal AC power results in a loss of the Instrument Air system (IAS) causing air operated valves (AOVs) to fail on loss of supply air.

For the case of MSLBs or MFLBs in the intermediate building, if the main AFW system fails then the CSTs no longer function as the AFW water source. In this case the standby AFW system is placed into service (10 minutes for operator action is available) taking suction from the Service Water system. This equipment is located in the Standby Auxiliary Feedwater Pump Building and is a completely independent means of removing reactor decay heat. Therefore, the potential effects of MSLBs and MFLBs on the Hot Water system have been bounded by the current Chapter 15 analysis.

As described in the section on "Fires" above, the loss of normal AC power does not create an adverse interaction between the Hot Water system and the CSTs. The Hot Water system is effectively a closed system. CST inventory will not be depleted as a result of the assumed coincidence of a loss of offsite power for the Chapter 15 events.

In conclusion, the connection of the Hot Water system to the CSTs does not result in additional consequential failures or new failure modes that create the potential for new "worst single failures", or different event scenarios.

Hot Water System Safety Evaluation Conclusion

This section summarizes the safety evaluation of the Hot Water system connection to the CSTs. This summary groups postulated Fires under the category of Hazards.

The connection of the Hot Water system to the CSTs does not increase the probability of occurrence of an accident previously evaluated in the Ginna Updated FSAR. As discussed previously, the failure of the Hot Water system does not create a plant transient requiring a protective response from a safety system.

The connection of the Hot Water system to the CSTs does not increase the consequences of an accident previously evaluated in the Ginna Updated FSAR. As discussed above, the capability to achieve and maintain a safe shutdown condition following the occurrence of postulated hazards is not degraded. The Hot Water system does not adversely interact with CSTs for the Chapter 15 event scenarios. As a result, CST inventory is not degraded, main AFW performance is not impacted, and the capability to remove reactor decay heat during and following the postulated Chapter 15 events is not degraded. Therefore, the integrity of barriers preventing the release of fission products is not impacted.

The connection of the Hot Water system to the CSTs does not increase the probability of occurrence of a malfunction of equipment important to safety previously evaluated in the Ginna Updated FSAR. As discussed above, the effects of postulated Hazards that could fail the Hot Water system would likely also fail the CSTs since the CSTs were not originally designed to withstand such effects. As such the effect of failing the Hot Water system is bounded by the original analysis which assumes failure of the CSTs. The effects of Chapter 15 events have no impact on the capability of CSTs to maintain their inventory for those events requiring the operation of the main AFW system. There is therefore no change in the failure probability of the CSTs for Chapter 15 events.

The connection of the Hot Water system to the CSTs does not increase the consequences of a malfunction of the CSTs for Hazards or Chapter 15 events. The consequences of such malfunctions are therefore unchanged.

The connection of the Hot Water system to the CSTs does not create the possibility of an accident of a different type than any previously evaluated in the Ginna Updated FSAR. The failure of the Hot Water system and its potential for interaction with the CSTs does not create new plant transients requiring mitigation.

The connection of the Hot Water system to the CSTs does not create the possibility of a malfunction of equipment important to safety of a different type than any previously evaluated in the Updated Ginna FSAR. The failure of the Hot Water system is essentially the same as a failure of the CSTs. The installation of the Hot Water system does not introduce a new or different failure mode.

The connection of the Hot Water system to the CSTs does not reduce the margin of safety. The AFW system can still function to mitigate Chapter 15 events, as well as to remove decay heat for 2 hours without an AC power source. In addition, safe shutdown capability is not affected, and the integrity of fission product barriers is not compromised.

Based on the above conclusions, the connection of the Hot Water system to the main AFW CSTs does not introduce an unreviewed safety question as defined by 10 CFR 50.59.

Safety Evaluation for the Addition of Tygon Tubing

Tygon tubing was installed downstream of closed manual valve 4318A to provide a means of local CST level indication independent of any AC power source. Local CST level indication via the Tygon tubing would be used to allow local operators to determine when to align and place into operation the Service Water system following:

1. Control Complex Fires (SC-3.30.1)
2. Cable Tunnel Fires (SC-3.30.2)
3. Auxiliary Building Basement/Mezzanine Fires (SC-3.30.3)

The 22,500 gallon inventory in the CSTs provides for 2 hours of reactor decay heat removal. This is considered sufficient time to align and place into operation the Service Water system in the remote event that an AC power source cannot be restored for 2 hours following the postulated unmitigated fires identified above. Hence, the Tygon tubing is not essential for safe shutdown following fires. However, it can provide operators with CST level information to provide a more accurate means of determining when Service Water should be aligned. It should be noted that the R. E. Ginna Appendix R Alternative Shutdown Report does not identify CST level indication as a plant process parameter that must be monitored for supporting safe shutdown.

The installation of Tygon tubing downstream of manual valve 4318A does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the Ginna Updated FSAR. The Tygon tubing is isolated from all plant process systems via closed manual valve 4318A. The pressure boundary provided by closed manual valve 4318A precludes the potential for adverse process interactions. The Tygon tubing is a flexible material of low mass that is not capable of physically impacting the systems, structures, or components in the immediate vicinity.

The installation of Tygon tubing downstream of manual valve 4318A does not create the possibility of an accident or malfunction of a different type than any previously analyzed in the Ginna Updated FSAR. As stated above, the Tygon tubing is isolated from all plant systems and therefore does not create the potential for process interactions that can lead to different accidents or malfunctions.

The installation of Tygon tubing downstream of manual valve 4318A does not reduce the margin of safety as defined in the basis of any Technical Specification. The Tygon tubing will provide a local indication of CST level for fires that result in a loss of all AC. This indication provides a better means of determining when to align Service Water in the unlikely event of an unmitigated fire, prolonged loss of all AC, and depletion of the CSTs. Although safe shutdown can be achieved without this local CST level indication, the Tygon tubing is beneficial for fire recovery efforts.

Safety Evaluation for the Addition of Manual Valve 4318A

The following constitutes a 10 CFR 50.59 safety evaluation for the addition of manual valve 4318A to a sampling line on the Auxiliary Feedwater (AFW) pump suction header from the Condensate Storage Tanks. This evaluation is being provided per an NRC request.

The function of manual valve 4318A is to provide a pressure boundary for the AFW CSTs and ensure that CST drainage does not occur via the 3/4 inch diameter sampling line. This evaluation assumes the addition of the manual valve to the existing sampling line.

Manual valve 4318A is normally closed and is only opened to enable local CST level indication via the Tygon tubing. Since the 4318A is normally closed, it is not subject to either a short term active failure or a long term passive failure. Specifically, the valve does not have to change position through a mechanical movement to accomplish a function necessary to mitigate any postulated design basis events for the Ginna facility. (It is not essential to have local CST level indication via the CST Tygon tubing to recover from postulated unmitigated fires. However, this feature does enhance plant safety should such a fire occur.) It is not necessary to postulate a spurious opening of 4318A since it is manually operated. Even if 4318A was inadvertently opened due to an operator error, the assumption that CST drainage goes undetected and that a design basis event subsequently occurs is not credible. If 4318A were to become a drainage pathway, CST level indication would detect the loss of inventory. Therefore, operator action can restore the required quantity of water or provide a supply from the Service Water System. Further, drainage of the CST would not have a detrimental effect on required equipment, as is described in the evaluation of the Hot Water System Connection.

The addition of manual valve 4318A does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the Ginna Updated FSAR. Manual valve 4318A is a normally closed valve that provides a pressure boundary for the AFW system inventory source (CSTs), consistent with commercial grade engineering practice. There is no single active or passive failure which results in 4318A opening. As a result, the installation of 4318A does not impact any design basis event.

The addition of manual valve 4318A does not create the possibility for an accident or malfunction of a different type than any previously evaluated in the Ginna Updated FSAR. Manual valve 4318A is normally closed and no worst single failure that is required to be postulated for the Ginna station can cause the pressure boundary provided by 4318A to be degraded. As a result, the AFW inventory source (CSTs) are not impacted.

The addition of manual valve 4318A does not reduce the margin of safety as defined in the basis of any Ginna Technical Specification. The function of 4318A is to maintain a pressure boundary for the CSTs. The valve does not perform an essential function to mitigate any postulated design basis event for Ginna. Manual valve 4318A in conjunction with the Tygon tubing enhances local indication capability in response to postulated unmitigated fires.