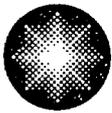


Joseph A. Widay
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Constellation Energy

R.E. Ginna Nuclear Power Plant, LLC

November 8, 2004

Mr. Robert L. Clark
Office of Nuclear Regulatory Regulation
U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555-0001

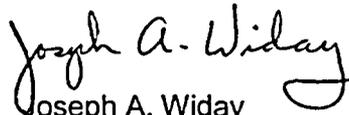
Subject: Bulletin 2003-01 RAIs
R.E. Ginna Nuclear Power Plant
Docket No. 50-244

References: 1. Letter from Robert Clark to Mary G. Korsnick, "Request for Additional Information Regarding Bulletin 2003-01, "Potential Impact of Debris Blockage on Emergency Sump Recirculation at Pressurized-Water Reactors" (TAC No. MB9578), dated September 9, 2004

Dear Mr. Clark:

This letter is in response to your request for additional information, transmitted per Reference 1 above, regarding implementation of measures to reduce the interim risk associated with potentially degraded ECCS/CSS recirculation functions. This information is provided in the attachment. Response 2 of this attachment also addresses a Regulatory Commitment made in our August 23, 2003 response to Bulletin 2003-01 regarding the submittal to the NRC of plant evaluations and scheduling of procedure changes.

Very truly yours,


Joseph A. Widay
Acting Site VP

1001186

A103

STATE OF NEW YORK :
: TO WIT:
COUNTY OF WAYNE :

I, Joseph A. Widay, being duly sworn, state that I am Acting Vice President – R.E. Ginna Nuclear Power Plant, LLC (Ginna LLC), and that I am duly authorized to execute and file this response on behalf of Ginna LLC. To the best of my knowledge and belief, the statements contained in this document are true and correct. To the extent that these statements are not based on my personal knowledge, they are based upon information provided by other Ginna LLC employees and/or consultants. Such information has been reviewed in accordance with company practice and I believe it to be reliable.

Joseph A. Widay

Subscribed and sworn before me, a Notary Public in and for the State of New York and County of Monroe, this 8 day of November, 2004.

WITNESS my Hand and Notarial Seal:

Sharon L. Miller
Notary Public

My Commission Expires:

12-21-06
Date

SHARON L. MILLER
Notary Public, State of New York
Registration No. 01M16017755
Monroe County
Commission Expires December 21, 2006

Attachments

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Attachment RAIs and Responses

1. On page 2 of Attachment 1 of your Bulletin 2003-02 response, you discussed, among other operator lesson plan areas, operator responses to sump blockage. Specifically, a new step being added to the emergency operating procedures (EOP) ES-1.3, "Transfer to Cold Leg Recirculation", which states "If blockage is indicated, reduce flow to minimum for decay heat removal and consult with the Technical Support Center (TSC) for further actions". On page 3 of Attachment 1 of your Bulletin 2003-02 response, you state that this reduction in flow is consistent with ECA-1.1 "Loss of Emergency Coolant Recirculation", and that "EOP ES-1.3 includes instruction to transition to ECA-1.1 in the event recirculation capability is lost". However, your response does not completely discuss the response actions the operators are instructed to take in the event of sump clogging and loss of ECCS recirculation capability. Please provide a detailed discussion of these ECA-1.1 response actions.

Response

As noted in Ginna's response to Bulletin 2003-02, a new step was added to ES-1.3, TRANSFER TO COLD LEG RECIRCULATION. This new step directed the operator to monitor for indications of Sump B blockage using RHR pump motor current and pump discharge flow as indicators of possible blockage. If sump blockage is indicated, then the actions are to reduce flow as low as possible, consistent with guidance already contained in ECA-1.1, and to consult with the TSC.

However, if sump blockage results in the loss of recirculation, Ginna ES-1.3 foldout page contains a transition to ECA-1.1. The foldout page item states "IF emergency coolant recirculation is established and subsequently lost, THEN go to ECA-1.1, LOSS OF EMERGENCY COOLANT RECIRCULATION, Step 1." This is consistent with WOG guidance of the generic WOG ERG ES-1.3 step 4 RNO column. That step states "IF at least one flow path from the sump to the RCS can NOT be established or maintained, THEN go to ECA-1.1, LOSS OF EMERGENCY COOLANT RECIRCULATION, Step 1."

This transition clearly indicates that WOG ERG intends that ECA-1.1 be used for any inability to establish or maintain sump recirculation. This is not a new strategy, but historically has been an integral part of the WOG ERGs. The major action categories of ECA-1.1, as identified by WOG are:

- Continue attempts to restore emergency coolant recirculation
- Increase/conserves RWST level
- Initiate cooldown to cold shutdown
- Depressurize RCS to minimize RCS subcooling
- Try to add makeup to RCS from alternate source
- Depressurize SGs to cool down and depressurize RCS
- Maintain RCS heat removal

Ginna's plant specific ECA-1.1 is consistent with the generic ERG guidance with one exception. The WOG ERG ECA-1.1 stops all pumps taking suction from the RWST upon reaching the "RWST empty alarm" (for Ginna, the low-low level alarm), which results in stopping all injection to the core. Ginna has taken the approach that one SI pump should be run in the injection mode as long as possible to provide core cooling during the loss of recirculation event. Therefore, after reaching the RWST low-low level alarm, Ginna's plant-specific ECA-1.1 stops all pumps taking suction from the RWST with the exception of one SI pump. This pump remains in service until there is indication that the suction source is lost.

2. On page 4 of Attachment 1 of your Bulletin 2003-01 response you state that "After the generic Westinghouse Owners Group (WOG) guidance is approved and issued, RG&E will evaluate which changes (if any) are appropriate to Ginna Station's configuration. This activity is scheduled to be completed by October 31, 2004. After completion of the applicability evaluation, RG&E will provide the NRC Staff a detailed implementation schedule or inform the Staff if it has been determined that no additional changes are required. The WOG has developed operational guidance in response to Bulletin 2003-01 for Westinghouse and CE type pressurized water reactors (PWRs). Please provide a discussion of your plans to consider implementing this new WOG guidance. Include a discussion of the WOG recommended compensatory measures that have been or will be implemented at your plant, and the evaluations or analyses performed to determine which of the WOG recommended changes are acceptable at your plant. Provide technical justification for those WOG recommended compensatory measures not being implemented by your plant. Also include a detailed discussion of the procedures being modified, the operator training being implemented, and your schedule for implementing these compensatory measures.

Response

2. WOG has issued WCAP-16204, Evaluation of Potential ERG and EPG Changes to Address NRC Bulletin 2003-01 Recommendations. Volume 2 of this WCAP is Proposed Changes to Westinghouse Emergency Response Guidelines, and includes DW-03-018 and DW-03-020 which address possible interim changes for individual plants to consider. Those changes include:

- Candidate Operator Action 1A, "Operator action to secure one spray pump". WOG indicates that this action has the potential for a modest increase in the time to initiate recirculation during small-break LOCAs, and a negligible effect on the plant response to a large-break LOCA, and has the ability to reduce the flow and potential pressure differential across the recirculation sump screen.
- Candidate Operator Action 1B, "Operator action to secure both spray pumps".

Although candidate operator actions 1A and 1B have been shown to be acceptable during preliminary simulator demonstrations, significant analysis must yet be performed before implementation can be accomplished. Reduction in containment spray flow would reduce iodine scrubbing from the containment atmosphere into the sump, reduce sodium

hydroxide addition into containment resulting in decreased sump pH, and reduce the rate of containment temperature and pressure reduction thereby affecting the pressure and temperature envelope for Environmental Qualification of in-containment equipment. The analyses to study these effects are scheduled to be performed in the first quarter of 2005, and candidate action implementation will be considered following evaluation of these results against our accident analysis design and licensing basis.

- Candidate Operator Action 5, "Refill of refueling Water Storage Tank". This action is addressed by SBCRG, SUMP BLOCKAGE CONTROL ROOM GUIDELINE, which has been developed by WOG as interim guidance for sump blockage until the sump has been redesigned to prevent blockage. Pending the required analyses, reviews and approvals, Ginna intends to implement this new guideline under the designation of ECA-1.3, RESPONSE TO SUMP B BLOCKAGE.
- Candidate Operator Action 9, "Develop contingency actions in response to: Containment sump blockage, loss of suction, and cavitation". These actions have been included in SBCRF, SUMP BLOCKAGE CONTROL ROOM GUIDELINE. Pending the required analyses, reviews and approvals, Ginna intends to implement this new guideline under the designation of ECA-1.3, RESPONSE TO SUMP B BLOCKAGE.
- Candidate Operator Action 8, "Provide guidance on symptoms and identification of containment sump blockage". WOG notes that for most plants, indication of loss of pump suction is limited to symptoms of pump cavitation. At Ginna, those indications include RHR pump motor current and RHR pump discharge flow. In accordance with WOG DW 03-018, Ginna intends to provide a transition from ES-1.3 to ECA-1.3 based on these symptoms. If other means of detecting loss of pump suction become available, then they will be added to the appropriate diagnosis step of ES-1.3. Following implementation of ECA-1.3, Ginna intends that ECA-1.1 only be used for loss of sump recirculation events (loss of RHR pumps, for example) not caused by sump blockage. Therefore, Ginna does not intend to add sump blockage diagnosis and subsequent transition from ECA-1.1 to ECA-1.3. All diagnosis and transition to ECA-1.3 is by ES-1.3 only.

Other procedure changes considered include:

- Change step sequence in ES-1.3 such that the existing steps that stop RHR pumps, all but one spray pump and all but two SI pumps are moved to earlier in the procedure. This is expected to extend the time until sump recirculation is established while still providing adequate injection flow. Ginna is pursuing this change, pending results of simulator testing and development of supporting documentation.
- Change ES-1.3 step that initiates sump recirculation such that one RHR pump (vice two) is started and pump flow is less than full flow. This change is expected to reduce the debris transport on sump recirculation. Ginna is pursuing this change, pending results of simulator testing and development of supporting documentation.

Operator training includes classroom and simulator training on the new procedure ECA-1.3, as well as related changes to other procedures that address sump blockage. That training is expected to occur no later than training cycle 05-04 from June 13 through July 29. Following training, the procedure changes are planned for implementation no later than the week of August 1.

3. NRC Bulletin 2003-01 provides possible interim compensatory measures licensees could consider to reduce risks associated with sump clogging. In addition to those compensatory measures listed in Bulletin 2003-01, licensees may also consider implementing unique or plant-specific compensatory measures, as applicable. Please discuss any possible unique or plant-specific compensatory measures you considered for implementation at your plant. Include a basis for rejecting any of these additional considered measures.

Response

Ginna Station participated very closely with the WOG regarding the proposed candidate Operator actions that could be taken in the event of a LOCA. Therefore, we have no plant specific interim compensatory measures.