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LCV-1259-A

Docket Nos. 50-424
56-425

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555

Ladies and Gentlemen:

VOGTLE ELECTRIC GENERATING PLANT
REQUEST TO REVISE TECHNICAL SPECIFICATIONS
LIMITING CONDITION FOR OPERATION (LCO) APPLICABILITY LCO 3.0.4
REVISION TO PROPOSED AMENDMENT

By letter dated April 13, 1999, (LCV-1259) Southern Nuclear Operating Company (SNC) proposed to revise the Vogtle Electric Generating Plant (VEGP) Unit 1 and Unit 2 Technical Specifications (TS) Limiting Condition for Operation (LCO) Applicability LCO 3.0.4 and Surveillance Requirement (SR) Applicability SR 3.0.4. The proposed changes would update the versions of LCO 3.0.4 and SR 3.0.4 that appear in the existing VEGP TS to be in accordance with the versions of LCO 3.0.4 and SR 3.0.4 as they appear in Revision 1 to NUREG-1431. Recently, SNC and the NRC staff have discussed the proposed changes over the telephone, and, in response to comments from NRC staff reviewers, SNC is providing the following revisions to our April 13, 1999 submittal.

The April 13, 1999, submittal proposed to add a Note to modify Condition C of LCO 3.3.1. The Note as originally proposed was as follows:

"With Function 1, 17, 18, or 19 in Table 3.3.1-1 not met, do not close the reactor trip breakers."

The NRC staff reviewer was concerned that the Note as expressed above was not consistent with a Note already approved by the NRC staff in the same application for several other plants that were also using the Improved Technical Specifications as represented by NUREG-1431. Therefore, SNC has enclosed marked-up pages from the VEGP TS and Bases reflecting the following Note as applied to LCO 3.3.1, Condition C.

"While this LCO is not met for Functions 1, 17, 18, or 19 in MODE 5, closing the reactor trip breakers is not permitted."

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The only real difference between the two versions of the Note is that the revised version enclosed with this letter only applies in Mode 5. The reason for adding a Note is that Functions 1, 17, 18, and 19 are required to be operable in Modes 3, 4, and 5 with the reactor trip breakers closed and the rod control system capable of rod withdrawal. Closing the reactor trip breakers in these modes would constitute entry into the LCO Applicability for these Functions. However, the proposed change to LCO 3.0.4 would make LCO 3.0.4 only applicable in Modes 1 through 4. Therefore, a restriction is necessary for Mode 5, since LCO 3.0.4 would no longer apply to Mode 5. It is not necessary to add a restriction for Modes 3 and 4 since LCO 3.0.4 would continue to apply in these modes.

The April 13, 1999 submittal proposed a Note that modified Condition A of LCO 3.3.8, High Flux at Shutdown Alarm (HFASA). The proposed Note was as follows:

"With one channel of HFASA inoperable, entry into the Applicability and MODE transition within the Applicability is permitted provided that Required Actions B.1 and B.2 and their associated Completion Times are met within the time of entry into the Applicability or the MODE transition, as applicable."

The NRC staff reviewer concurred with the intent of the Note, but commented that the Note more properly modified Required Action A.1 rather than Condition A itself. In addition, the reviewer felt that the Note could be expressed in simpler terms, and he requested that the Bases provide a more detailed discussion of the reason for the Note. In response, the enclosed pages from LCO 3.3.8 and Bases have been marked-up to apply a Note to Required Action A.1, and the Note has been simplified to read as follows:

"Exception to LCO 3.0.4: MODE changes are only permitted when Required Actions B.1 and B.2 are met."

The basis for adding the Note is as follows. LCO 3.0.4 allows Mode changes when the associated Actions to be entered provide for continued operation for an unlimited period of time, or to comply with Actions, or to facilitate a shutdown of the unit. The associated Actions of LCO 3.3.8 provide for continued operation for an unlimited period of time. Therefore, with one channel of HFASA inoperable, LCO 3.0.4 would permit entry into the Applicability of LCO 3.3.8 and Mode changes within the 48 hour Completion Time allowed by Required Action A.1, before Condition B and Required Actions B.1 and B.2 would become applicable. In particular, when transitioning down through Modes 3, 4, and 5, the shutdown margin requirements become more restrictive to compensate for a postulated boron dilution event. Required Action B.1 is a periodic verification of shutdown margin, and Required Action B.2 ensures that the unborated water source isolation valves are shut, precluding a boron dilution event. With one channel of HFASA inoperable, it is prudent to take the compensatory actions of Required Actions B.1 and B.2 if Mode changes are desired or required. The Bases have been marked-up to include the above explanation.

Finally, the NRC staff expressed concern regarding entry into the Applicability of LCO 3.4.12 (i.e., entry into Mode 4 from Mode 3) with one required power operated relief valve

(PORV) inoperable with respect to the Cold Overpressure Protection System (COPS). After discussion, the NRC staff agreed to allow entry into Mode 4 from Mode 3 in this condition with the following restriction. A Note would be added to LCO 3.4.12 as follows:

“With one required PORV inoperable for the purpose of cold overpressure protection, entry into MODE 4 from MODE 3 is permitted provided that RCS temperature is maintained above 275 °F, and, within 36 hours, either: the PORV is restored to OPERABLE status; or, an RHR suction relief valve is placed in service so that the requirements of LCO 3.4.12 are met. Otherwise, the reactor vessel must be depressurized and vented in accordance with Required Action F.1.”

The current VEGP TS require that the COPS be enabled upon entry into Mode 4, which corresponds to an average reactor coolant temperature of 350 °F. Therefore, the current COPS enable temperature according to the VEGP TS is 350 °F. However, the application of ASME Code Case N-514 would allow the COPS enable temperature to be reduced. Using ASME Code Case N-514, Westinghouse has determined that the most limiting enable temperature for VEGP Units 1 and 2 would be 200 °F. Code Case N-514 does not call for inclusion of instrument uncertainty in the enable temperature, but the NRC staff reviewer asked that instrument uncertainty be included. SNC has not performed formal calculations to determine instrument uncertainty, but an approximate value of 35 °F has been estimated. Therefore, the enable temperature would be approximately 235 °F. This temperature remains well within the restriction of 275 °F proposed by the NRC staff. Therefore, restricting RCS temperature to greater than 275 °F conservatively minimizes the potential for exposure to a cold overpressure event upon entry into Mode 4 with a required PORV inoperable for the purpose of cold overpressure protection.

Similarly, the time that the unit is allowed to be in this condition is limited to 36 hours. The time limit of 36 hours is based on an attempt to balance the following considerations. First, the NRC staff felt that when entering MODE 4 from MODE 3 with a PORV already failed, the overall risk is higher than the case of being in MODE 4 with two PORVs initially available and then one fails. Therefore, a period shorter than the 7 days allowed by existing Condition D of LCO 3.4.12 is appropriate. On the other hand, the time period should be long enough to allow for the contingency that some difficulty might be encountered in either restoring the inoperable PORV or placing RHR in service. Delays can be encountered in placing RHR in service due to problems with the power supplies to the RHR suction isolation valves, warming the RHR system, etc. If the allowed time period is too short, and the inoperable PORV cannot be restored or RHR placed in service, then the only alternative allowed by the TS would be to depressurize and vent the RCS. This process involves taking the RCS to a water-solid condition, which actually increases the risk associated with a cold overpressure event with one PORV inoperable to begin with. SNC believes that a time period of 36 hours minimizes the increase in risk due to entering MODE 4 from MODE 3 with an inoperable PORV by limiting the time allowed to be in this condition while providing sufficient time, with allowance for contingencies, to either restore the inoperable PORV or place RHR in service.

SNC will revise the COPS enable temperature as part of the next update to the pressure and temperature limits for VEGP. By letter dated October 2, 1998, (LCV-1258) SNC projected submittal of the updated pressure and temperature limits for September 30, 1999. The updated pressure and temperature limits are currently projected for submittal in the first quarter of the year 2000.

The enclosed marked-up TS and Bases pages reflect all of the changes discussed above. Only the affected pages from our April 13, 1999 submittal are provided. The remaining pages from the April 13, 1999 submittal are not affected. However, a complete set of clean-typed pages that supercedes the set provided with our April 13, 1999 submittal (reflecting all of the enclosed mark-ups) is enclosed. Please replace the clean typed pages from the April 13, 1999 submittal with the enclosed clean typed pages.

The proposed revisions to our April 13, 1999 submittal do not alter the conclusions of the Significant Hazards Consideration Evaluation provided as part of that submittal.

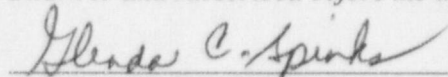
Mr. J. B. Beasley, Jr. states that he is a Vice President of Southern Nuclear Operating Company and is authorized to execute this oath on behalf of Southern Nuclear Operating Company and that, to the best of his knowledge and belief, the facts set forth in this letter are true.

SOUTHERN NUCLEAR OPERATING COMPANY

By: 

J. B. Beasley, Jr.

Sworn to and subscribed before me this 25th day of August, 1999.


Notary Public

My commission expires: 11/10/02

Enclosure: Revised TS and Bases pages
JBB/NJS

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SNC Document Management

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