

ENCLOSURE

SAFETY EVALUATION REPORT

MASONRY WALL DESIGN, IE BULLETIN 80-11

CRYSTAL RIVER UNIT 3

DOCKET NO. 50-302

The findings reported in this Safety Evaluation Report (SER) are based on the attached Technical Evaluation Report (TER), Attachment 1, prepared by Franklin Research Center (FRC) as a contractor to NRC. This TER contains the details of construction techniques used, technical information reviewed, acceptance criteria, and technical findings with respect to masonry wall construction at the Crystal River Plant. The staff has reviewed this TER and concurs with its technical findings. The following is our summary of the major technical findings:

1. Initially, the licensee identified five masonry walls in the control complex building as safety-related. Three walls in the instrument room of the turbine building, a non-safety-related structure, were also evaluated as a result of the upgrade to the emergency feedwater system. Based on a later inspection, the licensee concluded that the collapse of two walls (No. 2 and No. 3) in the control complex building will have no adverse effect on the safety-related equipment in the area. As discussed in item 2 below, Wall No. 1 was modified so that it will not interact with the safety-related equipment. For the remaining walls, the results from the licensee's working stress analysis indicate that the

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calculated stresses in these walls comply with the intent of the staff acceptance criteria (Appendix A of the TER).

2. The only safety-related equipment associated with Wall 1 of the control complex is the ventilation system main supply air duct. The collapse of Wall 1 could possibly damage the vertical section of this duct. However, the licensee has modified this wall by removing a portion of the wall that could impact the duct. Thus, the potential interaction between the duct and the wall has been eliminated. Additionally, the licensee performed slight modifications to Walls 2 and 3 to ensure that the safety-related electrical conduits which penetrate these walls at the top boundary are not in contact with these walls. As discussed in item 1, these walls are no longer considered safety-related walls. The licensee has also changed engineering procedures to assure that the safety-related equipment will not be placed in the vicinity of these walls in the future.

Based on the above findings, the staff concludes that Items 2(b) and 3 of the IE Bulletin 80-11 have been fully implemented at Crystal River 3 and that there is a reasonable assurance that the safety-related masonry walls at Crystal River 3 will withstand the specified design load conditions without impairment of (a) wall integrity or (b) the performance of the required safety functions.