

ENGINEERING BRANCH
DIVISION OF OPERATING REACTORS
OCONEE UNITS 1, 2 and 3
DOCKET NOS. 50-269, 50-270, AND 50-287
CASK DROP INTO SPENT FUEL ASSEMBLIES

DESCRIPTION OF PROPOSAL

An analysis has been performed to determine the maximum number of fuel assemblies which could be damaged during a postulated spent fuel cask drop accident into spent fuel assemblies. The most conservative approach, and the one utilized, was to project the maximum plan area of the spent fuel cask, load block, and lifting yoke over the spent fuel storage racks in such a manner as to contact the maximum number of fuel storage cells. The weight of the various components is assumed to be uniformly distributed over the area of the cask, yoke, and load block. Other assumptions made in the analysis are also conservative. The result of the analysis shows that a total of 76 cells are affected during the accident. Only the Oconee Unit 3 spent fuel pool was considered since the higher fuel storage density will make this unit the worst case.

ASPECTS OF REVIEW

The analysis submitted by the applicant including the assumptions made concerning the worst postulated drop accident of the cask, yoke, and load block, was reviewed. We have concluded that the analytical techniques utilized are acceptable and they adequately predict the number of assemblies affected.

EVALUATION

The analysis of the postulated cask drop accident submitted by the applicant utilizes conservative assumptions to obtain the maximum number of fuel cells affected. We have concluded that the assumptions and the analytical techniques utilized are acceptable and they adequately predict the fuel assemblies affected.

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