

Duke Power Company
Oconee Nuclear Station

Attachment 1

Proposed Technical Specification Revision

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- 3.8.9 If any of the above specified limiting conditions for fuel loading and refueling are not met, movement of fuel into the reactor core shall cease; action shall be initiated to correct the conditions so that the specified limits are met, and no operations which may increase the reactivity of the core shall be made.
- 3.8.10 The reactor building purge system, including the radiation monitor, RIA-45, which initiates purge isolation, shall be tested and verified to be operable immediately prior to refueling operations.
- 3.8.11 Irradiated fuel shall not be moved from the reactor until the unit has been subcritical for at least 72 hours.
- 3.8.12 Two trains of spent fuel pool ventilation shall be operable with the following exceptions:
- a. With one train of spent fuel pool ventilation inoperable, fuel movement within the storage pool or crane operation with loads over the storage pool may proceed provided the operable spent fuel pool ventilation train is in operation and discharging through the Reactor Building purge filters.
 - b. With no spent fuel pool ventilation filter operable, suspend all operations involving movement of fuel within the storage pool or crane operations with loads over the storage pool until at least one train of spent fuel pool ventilation is restored to operable status.
 - c. This specification does not apply during reracking operations with no fuel in the spent fuel pool.
- 3.8.13
- a. Prior to spent fuel cask movement in the Unit 1 and 2 spent fuel pool, spent fuel stored in the first 36 rows of the pool closest to the spent fuel cask handling area shall be decayed a minimum of 55 days.
 - b. Prior to spent fuel cask movement in the Unit 3 spent fuel pool, spent fuel stored in the first 33 rows of the pool closest to the spent fuel cask handling area shall be decayed a minimum of 70 days.
- 3.8.14 No suspended loads of more than 3000 lbm shall be transported over spent fuel stored in either spent fuel pool.
- 3.8.15
- a. No fuel which has an enrichment greater than 4.0 weight percent U^{235} (53 grams of U^{235} per axial centimeter of fuel assembly) will be stored in the spent fuel pool for Unit 3.
 - b. No fuel which has an enrichment greater than 4.3 weight percent U^{235} (57 grams of U^{235} per axial centimeter of fuel assembly) will be stored in the spent fuel pool for Units 1 and 2.

Bases

Detailed written procedures will be available for use by refueling personnel.

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Attachment 2
Technical Justification

Technical Justification

The existing Oconee Nuclear Station Technical Specification 3.8.13.b allows the movement of spent fuel cask in the Unit 3 spent fuel pool only when the first 31 rows of spent fuel adjacent to the spent fuel cask handling area have decayed a minimum of 70 days.

Duke Power Company has evaluated the consequences of a hypothetical cask/heavy-load accident involving the heavier multielement spent fuel casks for Oconee Unit 3 spent fuel pool. As a result, a change of the number of spent fuel rows in Technical Specification 3.8.13.b from 31 rows to 33 rows is necessary before heavier casks can be used in Oconee Unit 3 pool. The following paragraphs summarize the results of this evaluation.

In order to calculate the consequences of a cask drop accident, it is necessary to determine the maximum number of fuel assemblies which could be contacted. The worst case is considered to be a hoist cable failure when the cask is positioned over the fuel pool wall and the cask has an eccentric drop into the wall. In this case, yoke and load block could be deflected onto the spent fuel.

There are 148 fuel storage positions under the projected cask, yoke, and block impact area. These storage racks buckle and deflect into adjacent racks until the total energy of the falling cask is absorbed. In total, 518 fuel storage racks can potentially suffer a loss of integrity during a cask drop accident.

The radiological consequences of the cask drop accident will be mitigated by limiting the age of fuel stored in the first 33 rows. No cask movement will be allowed if fuel in these locations has decayed less than 70 days. The worst radiological consequences experienced would result from 100% of the activity contained in the fission gases trapped in gaps in the fuel stored in the locations being released into the pool water. The exclusion area boundary dose, taking no credit for ventilation system filtration, would be 0.1 rem whole body and 23 rem to the thyroid. These doses are well below 10 CFR Part 100 limits.

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Attachment 3

No Significant Hazards Consideration
Evaluation

No Significant Hazards Consideration Evaluation

Duke Power Company (Duke) has made the determination that this amendment request involves a No Significant Hazards Consideration by applying the standards established by the Commission's regulations in 10 CFR 50.92. This ensures that operation of the facility in accordance with the proposed amendment would not:

- (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or
- (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or
- (3) Involve a significant reduction in a margin of safety.

The proposed Technical Specification addressed in this submittal involves a change that constitutes an additional limitation and a more stringent requirement not presently included in Technical Specifications. Specifically, the requested amendment will change Technical Specification 3.8.13.b by increasing a margin of safety to allow the use of multielement (three fuel assemblies) spent fuel casks in Oconee Unit 3 spent fuel pool for shipment of Oconee spent fuel to McGuire Nuclear Station. Use of such casks will require fewer shipments than the present single assembly cask.

Duke has determined, based on the above discussion and the technical justification contained in Attachment 2 that the requested amendment does not involve a significant increase in the probability or consequences of accidents previously considered, nor create the possibility of a new or different kind of accident, and will not involve a significant decrease in a safety margin. Therefore, Duke concludes that there is a No Significant Hazards Consideration involved in this amendment request.