Ref to G Tharpe 5-96-55

AUG 22 1984

FCUP:GHB
70-2998

Gulf States Utilities Company
ATTN: Mr. J. E. Booker
Manager - Engineering
Nuclear Fuels and Licensing
Review Board Nuclear Group
P. O. Box 2951
Beaumont, Texas 77704

Gentlemen:

We have identified additional information which is needed to complete our review of your application dated April 16, 1984, license to store unirradiated fuel at the River Bend Station - Unit 1. This information is identified in the enclosure to this letter.

If the information is reviewed by September 24, 1984, we will attempt to process your application by December 1, 1984.

This information request has been discussed with Mr. Mark Henkel of your staff.

Sincerely,

/S/

George H. Bidinger
Uranium Fuel Licensing Branch
Division of Fuel Cycle and
Material Safety, NMSS

Enclosure: As stated

DISTRIBUTION w/encl:
Docket 70-2988
Dcoket 50-458
NMSS R/F
FCUP R/F
GHBidinger(2)
VLTharpe
Region IV
LCobb, IE
PDR

OFFICE	FCUP	FCUF	FCUP				
SURNAME	GHBidinger	VLTharpe	WCrow/df				
DATE	8/22/84	8/22/84	8/22/84				

Request for Additional Information
River Bend Station - Unit 1

1. In Section 2.2.2, the shipping container and crates are identified by two General Electric drawing numbers. Because we are unable to identify the shipping containers by these numbers, please identify the packagings by the Nuclear Regulatory Commission Certificate of Compliance numbers.

2. In Section 2.2.3.1, criticality safety of the New Fuel Vault is based on fuel which is either dry or fully flooded. Dryness is assured by 12 separate steel covers which are arranged in an overlapping fashion. The design does not assure nuclear criticality safety from optimum moderation when the doors are open. In Section 1.2.3.6 (page 15), it is stated that, when the covers are not in place, a fire retardant material will cover the fuel.

   Our assessment confirms that the vault would not be subcritical if optimum density moderator were introduced into a full vault. At the same time, the description of the 12 separate but overlapping doors may require removal of all 12 doors to enter the vault. Discussion with Mr. Henkel indicates that the overlapping doors would be opened in groups of 3. In addition, it is not clear how many fuel assemblies will be uncovered when using the fire retardant material.

   Your safety analysis should be revised to specify the maximum number of fuel elements which may not be covered at any one time. The analysis should describe the administrative controls to assure that no more than the specified number of elements will be uncovered. If more than 3 elements are to be uncovered at any one time, the k-eff of the array should be provided.

3. In Section 2.2.3.2, the physical dimensions of the poisoned fuel racks and the chemical composition of the neutron absorber material should be provided so that we can independently verify the k-eff of the fuel in the racks.

4. In Section 2.2.3.3, nuclear criticality safety of the containment fuel storage racks is based on dryness or fully flooded conditions. Dryness is assured by use of a fire retardant cover when the pool is not flooded. As in Item 2 above your safety analysis should be revised to specify the maximum number of elements which may be uncovered, the administrative controls, and a k-eff calculation if more than 3 elements are permitted to be uncovered.