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UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 1000
ARLINGTON, TEXAS 76012

May 8, 1980

In Reply Refer To:
RIV
Docket Nos. 50-498/IE Information Notice No. 80-20
50-499/IE Information Notice No. 80-20

Houston Lighting & Power Company
ATTN: Mr. E. A. Turner, Vice President
Power Plant Construction and
Technical Services
Post Office Box 1700
Houston, Texas 77001

Gentlemen:

The enclosed IE Information Notice provides early notification of an event that may have safety significance. Accordingly, you should review the Information Notice for possible applicability to your facility.

No specific action or response is requested at this time; however, contingent upon the results of further staff evaluation, a Bulletin or Circular recommending or requesting specific licensee actions may be issued. If you have questions regarding this matter, please contact me.

Sincerely,

Karl V. Seyfrit

Karl V. Seyfrit
Director

Enclosures:
1. IE Information Notice
No. 80-20
2. List of Recently Issued
IE Information Notices

SSINS No.: 6870
Accession No.:
8002280671

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
WASHINGTON, D. C. 20555

IE Information Notice No. 80-20
Date: May 8, 1980

LOSS OF DECAY HEAT REMOVAL CAPABILITY AT DAVIS-BESSE UNIT 1 WHILE IN A REFUELING MODE

Description of Circumstances:

On April 19, 1980, decay heat removal capability was lost at Davis-Besse Unit 1 for approximately two and one-half hours. At the time of the event, the unit was in a refueling mode (e.g., RCS temperature was 90°F; decay heat was being removed by Decay Heat Loop No. 2; the vessel head was detensioned with bolts in place; the reactor coolant level was slightly below the vessel head flanges; and the manway covers on top of the once through steam generators were removed). (See Enclosure A, Status of Davis-Besse 1 Prior to Loss of Power to Busses E-2 and F-2 for additional details regarding this event.)

Since the plant was in a refueling mode, many systems or components were out of service for maintenance or testing purposes. In addition, other systems and components were deactivated to preclude their inadvertent actuation while in a refueling mode. Systems and components that were not in service or deactivated included:

Containment Spray System;
High Pressure Injection System;
Source Range Channel 2;
Decay Heat Loop No. 1;
Station Battery 1P and 1N;
Emergency Diesel-Generator No. 1;
4.16 KV Essential Switchgear Bus C1; and
13.8 KV Switchgear Bus A (this bus was energized but not aligned).

In brief, the event was due to the tripping of a non-safeguards feeder breaker in 13.8 KV Switchgear Bus B. Because of the extensive maintenance and testing activities being conducted at the time, Channels 1 and 3 of the Reactor Protection System (RPS) and Safety Features Actuation System (SFAS) were being energized from only one source, the source emanating from the tripped breaker. Since the SFAS logic used at Davis-Besse is a two-out-of-four input scheme in which the loss (or actuation) of any
of all four output channels (i.e., Ch
loss of power to Channels 1 and 3 bis
Channels 2 and 4. The actuation of S
Decay Heat Loop No. 2, the operating

Since the initiating event was a loss
were actuated (i.e., Level 1 - High P
tion; Level 3 - Low Pressure Injecti