REGULATORY FILE COPY

JAN 16 1981

Distribution:
[redacted]
LB#1 Rdg
RPurple
BJYoungblood
ABournia
MRushbrook
PCheck
LRubenstein
ASchwencer
FMiraglia
JMiller
RVollmer
TMurley
DZeiman
DRoss
FSchroeder
JKnight
RTedesco
RHartfield, MPA
VNoonan
OELD
OIE (3)

bcc: TERA
NRC/PDR
NSIC
TIC
ACRS (16)

RECEIVED
JAN 21 1981
U.S. NUCLEAR REGULATORY COMMISSION

Docket Nos.: [redacted]
and 50-374

Mr. J. S. Abel
Director of Nuclear Licensing
Commonwealth Edison Company
P. O. Box 767
Chicago, Illinois 60690

Dear Mr. Abel:

SUBJECT: TMI TASK ACTION ITEM I.G.1 SPECIAL LOW POWER TEST PROGRAM FOR BWRS

By letter dated October 31, 1980, we sent you a copy of NUREG-0737, "Clarification of TMI Action Plan Requirements." Enclosure 2 of NUREG-0737 constitutes a compilation of those items that have been specifically approved by the Commission for implementation as operating license requirements. The purpose of this letter is to provide additional guidance with regard to TMI Task Action Plan I.G.1 as it applies to BWR OL applications. The basic requirements for a special low power test program were provided in NUREG-0694 (referenced as being issued 6/26/80 in Enclosure 2 to NUREG-0737).

NUREG-0694 requires applicants to "define and commit to a special low power testing program approved by NRC to be conducted at power levels no greater than 5 percent for the purposes of providing meaningful technical information beyond that obtained in the normal startup test program and to provide supplemental training".

A low power test program similar to the one developed by TVA for Sequoyah and and consisting of demonstrations of simulated decay heat removal under degraded plant conditions has been approved for PWR applicants. The "degraded conditions" to which PWRs are being subjected include various combinations of natural circulation and reduced saturation margin operations with actual and simulated a. c. power losses, steam generator isolations and boration and cooldown.

In view of the fact that natural circulation and reduced saturation margin conditions are routine to BWR operations, the PWR programs cannot be used for BWRs in their entirety. It would be possible to use the standby boron system to perform a boron mixing test similar to one of the PWR tests, however, the experience gained would not justify the cleanup problem. We consider one of the PWR tests, a simulated loss of all a. c. power, to be feasible and one that should be performed on BWRs. The objective of this test is to familiarize operators with plant response and determine plant limitations in a blackout. To perform such a test, a real or simulated source of decay heat is necessary.

OFFICE							
SURNAME	8101300 818						
DATE							

(In the PWR programs decay heat is simulated by input of fission heat or coolant pump heat.) To use decay heat it will be necessary to defer the test until decay heat is available (as is permitted for one of the PWR tests in which reactivity control would be difficult). If you decide to perform this simulated loss of a. c. power test with decay heat, you should perform this test within the first 1500 MWD/T core exposure and immediately following 7 days of operation at 80 percent rated power or above. If you decide to use a simulated source of decay heat (such as steam from an external source or actual reactor power), you should perform this test during the initial test program.

You should commit to the special low power test program for your facility now. Detailed test procedures and safety analyses should be submitted for our review four weeks prior to licensing. In addition to the above, you should also commit to augmented operator training by participation in the pre-op and startup test programs. Guidelines for the latter will be provided by the BWR Owners' Group. The format for your test procedures should be consistent with Regulatory Guide 1.68. The results of the test program should be documented as part of the "Start-up Test Report" (see Regulatory Guide 1.16).

Taking the above actions will constitute a basis for your satisfactory compliance with Item I.G.1.

Sincerely,

Robert L. Tedesco
Assistant Director for Licensing
Division of Licensing

cc: See next page

OFFICE	DL:LB#1	DL:LB#1	DL:AD/L				
SURNAME	ABournia/ys	BJYoungblood	RLTedesco				
DATE	1/15/81	1/15/81	1/15/81				

Mr. J. S Abel
Director of Nuclear Licensing
Commonwealth Edison Company
Post Office Box 767
Chicago, Illinois 60690

ccs:
Mr. William Kortier
Atomic Power Distribution
Westinghouse Electric Corporation
P. O. Box 355
Pittsburgh, Pennsylvania 15230

Paul M. Murphy, Esq.
Isham, Lincoln & Beale
One First National Plaza
42nd Floor
Chicago, Illinois 60603

Mrs. Phillip B. Johnson
1907 Stratford Lane
Rockford, Illinois 61107

Ms. Julianne Mahler
Center for Governmental Studies
Northern Illinois University
DeKalb, Illinois 60115

C. Allen Bock, Esq.
P. O. Box 342
Urbanan, Illinois 61820

Thomas J. Gordon, Esq.
Waaler, Evans & Gordon
2503 S. Neil
Champaign, Illinois 61820

Ms. Bridget Little Rorem
Appleseed Coordinator
117 North Linden Street
Essex, Illinois 60935

Kenneth F. Levin, Esq.
Beatty, Levin, Holland,
Basofin & Sarsany
11 South LaSalle Street
Suite 2200
Chicago, Illinois 60603

Mr. Edward R. Crass
Nuclear Safeguards and Licensing Division
Sargent & Lundy Engineers
55 East Monroe Street
Chicago, Illinois 60603

Nuclear Regulatory Commission, Region III
Office of Inspection and Enforcement
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Myron Cherry, Esq.
Cherry, Flynn and Kanter
1 IBM Plaza, Suite 4501
Chicago, Illinois 60611

Marshall E. Miller, Esq., Chairman
Atomic Safety and Licensing
Board Panel
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dr. A. Dixon Callihan
Union Carbide Corporation
P. O. Box Y
Oak Ridge, Tennessee 37830

Dr. Richard F. Cole
Atomic Safety and Licensing
Board Panel
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555