May 6, 1992

Docket Nos. STN 50-454
STN 50-455
STN 50-456
and STN 50-457

Mr. Thomas J. Kovach
Nuclear Licensing Manager
Commonwealth Edison Company-Suite 300
OPUS West III
1400 OPUS Place
Downers Grove, Illinois 60515

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Docket File	NRC & Local PDRs
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B. Clayton, RIII	PDIII-2 Plant File(2)
D. Hagan	G. Hill(8)
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OPA	OC/LFMB

Dear Mr. Kovach:

SUBJECT: TECHNICAL SPECIFICATIONS BASES CHANGES (TAC NOS. M82932, M82933, M82934 AND M82935)

In response to your letter dated March 4, 1992, enclosed are the corrected Byron and Braidwood Technical Specifications Bases pages. The change to Bases page 3/4 3-3 removes the Low T (average) signal reference in the description of the P-4 Interlock Functions. The change to Bases page 3/4 3-4 deletes magnetic tape as the medium for recording seismic data. These changes were the result of modifications which the licensee had evaluated pursuant to 10 CFR 50.59. This action closes TAC Nos. M82932, M82933, M82934 and M82935.

Sincerely,

Original signed by:

Robert M. Pulsifer, Project Manager
Project Directorate III-2
Division of Reactor Projects - III/IV/V
Office of Nuclear Reactor Regulation

Enclosure: Bases pages

cc w/enclosure:
See next page

NRC FILE CENTER COPY

* Please see previous concurrence

OFC	LA:PDIII-2	PM:PDIII-2	D:PDIII-2	OGC *	
NAME	CMOORE	RPULSIFER:jar	RBARRETT	BMB	
DATE	5/1/92	5/5/92	5/5/92	4/6/92	

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PDR ADOCK 05000454
P PDR

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Mr. Thomas J. Kovach
Commonwealth Edison Company

cc:

Mr. William P. Poirier
Westinghouse Electric Corporation
Energy Systems Business Unit
Post Office Box 355, Bay 236 West
Pittsburgh, Pennsylvania 15230

Joseph Gallo, Esquire
Hopkins and Sutter
888 16th Street, N.W., Suite 700
Washington, D.C. 20006

Regional Administrator
U. S. NRC, Region III
799 Roosevelt Road, Bldg. #4
Glen Ellyn, Illinois 60137

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

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

U. S. Nuclear Regulatory Commission
Resident Inspectors Office
Rural Route #1, Box 79
Braceville, Illinois 60407

Mr. Ron Stephens
Illinois Emergency Services
and Disaster Agency
110 East Adams Street
Springfield, Illinois 62706

Robert Neumann
Office of Public Counsel
State of Illinois Center
100 W. Randolph, Suite 11-300
Chicago, Illinois 60601

EIS Review Coordinator
Environmental Protection Agency
Region V
230 S. Dearborn Street
Chicago, Illinois 60604

Attorney General
500 South 2nd Street
Springfield, Illinois 62701

U. S. Nuclear Regulatory Commission
Byron/Resident Inspectors Office
4448 North German Church Road
Byron, Illinois 61010

Ms. Lorraine Creek
Rt. 1, Box 182
Manteno, Illinois 60950

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

Douglass Cassel, Esquire
17 East Monroe Street, Suite 212
Chicago, Illinois 60603

Michael Miller, Esquire
Sidley and Austin
One First National Plaza
Chicago, Illinois 60690

George L. Edgar
Newman & Holtzinger, P.C.
1615 L Street, N.W.
Washington, D.C. 20036

Commonwealth Edison Company
Byron Station Manager
4450 North German Church Road
Byron, Illinois 61010

Illinois Dept. of Nuclear Safety
Office of Nuclear Facility Safety
1035 Outer Park Drive
Springfield, Illinois 62704

Commonwealth Edison Company
Braidwood Station Manager
Rt. 1, Box 34
Braceville, Illinois 60407

Chairman, Ogle County Board
Post Office Box 357
Oregon, Illinois 61061

Chairman
Will County Board of Supervisors
Will County Board Courthouse
Joliet, Illinois 60434

Engineered Safety Features Actuation System Interlocks

The Engineered Safety Features Actuation System interlocks perform the following functions:

P-4 Reactor tripped - Actuates Turbine trip, closes main feedwater valves, prevents the opening of the main feedwater valves which were closed by a Safety Injection or High Steam Generator Water Level signal, allows Safety Injection block so that components can be reset or tripped.

Reactor not tripped - prevents manual block of Safety Injection.

P-11 On increasing pressure P-11 automatically reinstates Safety Injection actuation on low pressurizer pressure and low steamline pressure and automatically blocks steamline isolation on negative steamline pressure rate. On decreasing pressure; P-11 allows the manual block of Safety Injection low pressurizer pressure and low steamline pressure and allows steamline isolation on negative steamline pressure rate to become active upon manual block of low steamline pressure SI.

P-12 On increasing reactor coolant loop temperature, P-12 automatically provides an arming signal to the Steam Dump System. On decreasing reactor coolant loop temperature, P-12 automatically removes the arming signal from the Steam Dump System.

P-14 An increasing steam generator water level, P-14 automatically trips all feedwater isolation valves and inhibits feedwater control valve modulation.

3/4.3.3 MONITORING INSTRUMENTATION

3/4 3.3.1 RADIATION MONITORING FOR PLANT OPERATIONS

The OPERABILITY of the radiation monitoring instrumentation for plant operations ensures that: (1) the associated action will be initiated when the radiation level monitored by each channel reaches its Setpoint and (2) sufficient redundancy is maintained to permit a channel to be out-of-service for testing or maintenance. The radiation monitors for plant operations senses radiation levels in selected plant systems and locations and determines whether or not predetermined limits are being exceeded. If they are, the system sends actuation signals to initiate alarms and automatic actuation of Emergency Exhaust or Ventilation Systems. The radiation monitor Setpoints given in the requirements are assumed to be values established above normal background radiation levels for the particular area. Radiation monitors ORE-AR055 and 56 serve a dual purpose for plant operations as criticality and fuel handling accident sensors. Although these monitors are designed primarily to detect fuel handling accident releases, they are capable of detecting an inadvertent criticality incident. The Setpoint given in the requirement is established for the fuel handling building isolation function but is also adequate for an inadvertent criticality.

BASES

3/4.3.3.2 MOVABLE INCORE DETECTORS

The OPERABILITY of the movable incore detectors with the specified minimum complement of equipment ensures that the measurements obtained from use of this system accurately represent the spatial neutron flux distribution of the core. The OPERABILITY of this system is demonstrated by irradiating each detector used and determining the acceptability of its voltage curve.

For the purpose of measuring $F_Q(Z)$ or $F^N_{\Delta H}$ a full incore flux map is used. Quarter-core flux maps, as defined in WCAP-8648, June 1976, may be used in recalibration of the Excore Neutron Flux Detection System, and full incore flux maps or symmetric incore thimbles may be used for monitoring the QUADRANT POWER TILT RATIO when one Power Range channel is inoperable.

3/4.3.3.3 SEISMIC INSTRUMENTATION

The OPERABILITY of the seismic instrumentation ensures that sufficient capability is available to promptly determine the magnitude of a seismic event and evaluate the response of those features important to safety. This capability is required to permit comparison of the measured response to that used in the design basis for the facility to determine if plant shutdown is required pursuant to Appendix A of 10 CFR Part 100.

The instrumentation consists of two time-history response spectrum analyzers, a playback unit, three peak recording accelerometers, and six triaxial accelerometers. One time-history recorder and one sensor are located down at the River Screen House. The rest of the equipment, excluding the sensors, is located in the Auxiliary Electrical Room. The remaining sensors are located as follows: three in containment, one in the Auxiliary Building, and one at the free field location 27 + 00N, 41 + 00E. The peak recording accelerometers are passive devices which have no interplay on the rest of the system and are located on reactor equipment, reactor piping, and outside containment on the Category I piping.

The triaxial accelerometer is based on three orthogonal force-balanced servo-accelerometers which generate a voltage signal upon stimulation. The voltage signals are transmitted to the time-history recorder in the Auxiliary Electrical Room, digitized, and recorded.

The time-history recorder is the master control unit for all control timing signals and system data interface. It also contains the system triggers used to actuate the system. The master control unit continually monitors two of the sensor inputs, which are processed through the trigger circuits for comparison to the system actuation level. The time-history recorder also has the ability to record both pre- and post-seismic event data. The other key component in the system is the response spectrum analyzer. This unit determines the variation in the maximum response of a single-degree-of-freedom system system versus its natural frequency of vibration when either of two designated triaxial accelerometers is subjected to a time-history motion of the accelerometer.

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The instrumentation consists of one time-history response spectrum analyzer, a playback unit, three peak recording accelerometers, and six triaxial accelerometers. The above-mentioned equipment, excluding the sensors, is located in the Auxiliary Electrical Room. The remaining sensors are located as follows: three in containment, two in the Auxiliary Building, and one at the free field location 38 + 01S, 34 + 15E. The peak recording accelerometers are passive devices which have no interplay on the rest of the system and are located on reactor equipment, reactor piping, and outside containment on the Category I piping.

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