



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

FEB 25 1986

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

Mr. Dennis L. Farrar
Director of Nuclear Licensing
Commonwealth Edison Company
Post Office Box 767
Chicago, Illinois 60690

Dear Mr. Farrar:

SUBJECT: BYRON/BRAIDWOOD, UNITS 1 and 2, SUPPLEMENTAL SAFETY
EVALUATION REPORT FOR PHYSICAL IDENTIFICATION AND
INDEPENDENCE OF REDUNDANT SAFETY-RELATED ELECTRICAL
SYSTEMS

The enclosed Supplemental Safety Evaluation Report addresses the applicant's electrical separation criteria utilized in the design and construction of Byron and Braidwood Stations.

The NRC staff has evaluated the applicant's criteria established in the Byron/Braidwood Stations FSAR for separation between redundant Class 1E cables and raceways. However, the criteria for separation of non-Class 1E from Class 1E cables were established at reduced distances from those specified in Regulatory Guide 1.75.

The specific issues identified during the Construction Appraisal Team (CAT) inspection concerning electrical separation criteria were discussed during a site visit to Braidwood Station on May 21-23, 1985. As a result of this site visit, we found it necessary to reevaluate the applicant's separation criteria of Class 1E cables from non-Class 1E cables to eliminate any discrepancies and misinterpretation of the separation requirements in this area.

The applicant justified the lesser physical separation by testing and analyzing various test configurations. The NRC staff has evaluated the test program and results for the selected test configurations to assure that the cable arrangements tested satisfactorily represent actual plant design. Based on our review, the NRC staff has determined that the test program and results are acceptable. Therefore, the subject cable separation criteria have been found acceptable. These lesser cable separation criteria must be specified in the Byron/Braidwood Stations FSAR.

8603050106 860225
PDR ADOCK 050C0454
P PDR

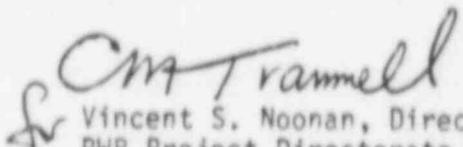
FEB 25 1996

Mr. Dennis L. Farrar

-2-

Another issue identified during the CAT inspection involved the applicant's use of the term "quasi safety-related." The applicant has stated that the term is used to identify safety-related circuits qualified to Class 1E requirements which are installed in a non-Seismic Category 1 building. As previously discussed, this term must be defined in the Sargent and Lundy design criteria manual.

The enclosed evaluation will be incorporated in the next published Supplemental Safety Evaluation Report.


Vincent S. Noonan, Director
PWR Project Directorate #5
Division of PWR Licensing-A

Enclosure: SSER on Cable Separation

cc: See next page

FEB 25 1986

Mr. Dennis L. Farrar

-2-

Another issue identified during the CAT inspection involved the applicant's use of the term "quasi safety-related." The applicant has stated that the term is used to identify safety-related circuits qualified to Class 1E requirements which are installed in a non-Seismic Category 1 building. As previously discussed, this term must be defined in the Sargent and Lundy design criteria manual.

The enclosed evaluation will be incorporated in the next published Supplemental Safety Evaluation Report.

Vincent S. Noonan, Director
PWR Project Directorate #5
Division of PWR Licensing-A

Enclosure: SSER on Cable Separation

cc: See next page

Distribution:

Docket File

NRC PDR

Local PDR

PD#5 Reading File

T. Novak

OELD

E. Jordan

B. Grimes

J. Partlow

L. Olshan

M. Rushbrook

ACRS (10)

S. Rhoads

S. Treby

* See next page concurrences

PD#5

LOlshan*

2/24/86

PD#5

JStevens*

2/25/86

EID

STreby*

2/25/86

PD#5 DIR

V. Noonan

2/25/86

Handwritten signature and date:
VINCENT S. NOONAN
2/25/86

FEB 25 1986

Mr. Dennis L. Farrar

-2-

Another issue identified during the CAT inspection involved the applicant's use of the term "quasi safety-related." The applicant has stated that the term is used to identify safety-related circuits qualified to Class 1E requirements which are installed in a non-Seismic Category 1 building. As previously discussed, this term must be defined in the Sargent and Lundy design criteria manual.

The enclosed evaluation will be incorporated in the next published Supplemental Safety Evaluation Report.

Vincent S. Noonan, Director
PWR Project Directorate #5
Division of PWR Licensing-A

Enclosure: SSER on Cable Separation

cc: See next page

Distribution:

Docket File

NRC PDR

Local PDR

PD#5 Reading File

T. Novak

OEID

E. Jordan

B. Grimes

J. Partlow

L. Olshan

M. Rushbrook

ACRS (10)

S. Rhow

S. Treby

PD#5

L. Olshan

2/24/86

PD#5

J. Stevens

2/25/86

ELD

S. Treby

2/23/86

PD#5/DIR

V. Noonan

1/86

Mr. Dennis L. Farrar
Commonwealth Edison Company

Byron/Braidwood

cc:

Mr. William Kortier
Atomic Power Distribution
Westinghouse Electric Corporation
Post Office Box 355
Pittsburgh, Pennsylvania 15230

Dr. Bruce von Zellen
Department of Biological Sciences
Northern Illinois University
DeKalb, Illinois 61107

Joseph Gallo, Esq.
Isham, Lincoln & Beale
1120 Connecticut Avenue, N. W.
Suite 840
Washington, D. C. 20036

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

C. Allen Bock, Esquire
Post Office Box 342
Urbana, Illinois 61820

Ms. Diane Chavez
528 Gregory Street
Rockford, Illinois 61107

Thomas J. Gordon, Esquire
Waler, Evans & Gordon
2503 S. Neil
Champaign, Illinois 61820

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

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

Douglass Cassel, Esq.
109 N. Dearborn Street
Suite 1300
Chicago, Illinois 60602

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

Ms. Pat Morrison
5568 Thunderledge Drive
Rockford, Illinois 61107

David C. Thomas, Esq.
77 S. Wacker Drive
Chicago, Illinois 60601

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

Elena Z. Kezelis, Esq.
Isham, Lincoln & Beale
Three First National Plaza
Suite 5200
Chicago, Illinois 60602