

September 2, 1982

Docket No. 50-237
LS05-82-09-018

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

Dear Mr. DeGeorge:

SUBJECT: SEP TOPIC VI-10.A, TESTING OF REACTOR TRIP SYSTEM
AND ENGINEERED SAFETY FEATURES, INCLUDING RESPONSE
TIME TESTING, REVISED SAFETY EVALUATION REPORT FOR
DRESDEN UNIT 2 NUCLEAR POWER STATION

The enclosed revised staff safety evaluation is based on a contractor document that has been made available to you previously, test procedure DSI 500-9, and our review of this topic for Palisades.

As a result of our review, we find that your facility satisfies our requirements with the exception of response time testing of the sensors.

This safety evaluation will be a basic input to the Integrated Safety Assessment for your facility. This assessment may be revised in the future if your facility design is changed or if NRC criteria relating to this subject are modified before the Integrated Assessment is completed.

Sincerely,

Original signed by:

Paul W. O'Connor, Project Manager
Operating Reactors Branch No. 5
Division of Licensing

SEOY
DSU WE (16)

Enclosure:
As stated

cc w/enclosure:
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*See previous concurrence

OFFICE	SEP B *	SEP B *	SEP B <i>CH</i>	SEP B <i>WR</i>	ORB#5 <i>PO</i>	ORB# <i>DC</i>	AD: SA <i>DL</i>
SURNAME	RScholl:bl	GCwalina	RHermann	WRussell	PO'Connor	DCritchfield	Tippolito
DATE	8/17/82	8/17/82	8/19/82	8/19/82	8/1/82	8/2/82	8/2/82

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LS05-82

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

Dear Mr. DelGeorge:

SUBJECT: SEP TOPIC VI-10.A, TESTING OF REACTOR TRIP SYSTEM
AND ENGINEERED SAFETY FEATURES, INCLUDING RESPONSE
TIME, REVISED SAFETY EVALUATION REPORT (DRESDEN 2
NUCLEAR POWER STATION)

The enclosed revised staff safety evaluation is based on a contractor document that has been made available to you previously, test procedure DSI 500-9, and our review of this topic for Palisades.

As a result of our review, we find that your facility satisfies our requirements and is, therefore, acceptable.

This safety evaluation will be a basic input to the integrated safety assessment for your facility. This assessment may be revised in the future if your facility design is changed or if NRC criteria relating to this subject are modified before the integrated assessment is completed.

Sincerely,

Paul O'Connor, Project Manager
Operating Reactors Branch No. 5
Division of Licensing

Enclosure:
As stated

cc w/enclosure:
See next page

OFFICE ▶	SEPB:DL	SEPB:DL	SEPB:DL	SEPB:DL	ORB#5:PM	ORB#5:BC	AD:SA:DL
SURNAME ▶	R80:dk	Gowatina	RHermann	WRussell	PO'Connor	DCrutchfield	GLainas
DATE ▶	8/15/82	8/17/82	8/ /82	8/ /82	8/ /82	8/ /82	8/ /82

Mr. L. DelGeorge

cc

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SYSTEMATIC EVALUATION PROGRAM

TOPIC VI-10.A

DRESDEN 2

TOPIC: VI-10.A, TESTING OF REACTOR TRIP SYSTEM AND ENGINEERED SAFETY FEATURES, INCLUDING RESPONSE TIME TESTING

I. INTRODUCTION

The purpose of this topic is to review the reactor trip system (RTS) and engineered safety features (ESF) test program for verification of RTS and ESF operability on a periodic basis and to verify RTS and ESF response time in order to assure the operability of the RTS and ESF. Response times should not exceed those assumed in the plant accident analyses. Accordingly, the test program of the RTS and ESF was reviewed in accordance with the Standard Review Plan, including applicable Branch Technical Positions.

II. REVIEW CRITERIA

The review criteria are presented in Section 2 of Lawrence Livermore Laboratory Report UCID 1889, Volume II, "Systematic Evaluation Program Review of NRC Safety Topic VI-10.A Associated with the Electrical, Instrumentation and Control Portions of the Testing of Reactor Trip System and Engineered Safety Features, Including Response Time for the Dresden Station, Unit 2 Nuclear Power Plant.

III. RELATED SAFETY TOPICS AND INTERFACES

Topic VI-7.A.3 discusses the question of testing protection systems under conditions as close to design condition as practical. There are no topics that are dependent on the present topic information for their completion.

IV. REVIEW GUIDELINES

Review guidelines are presented in Section 3 of Report UCID 18698, Volume II.

V. EVALUATION

Report UCID 18698 notes that Dresden 2 complies with the current licensing criteria, except for IEEE Std 338-1975, Section 6.3.4 (response time testing). The staff's review of response time testing at Dresden 2 has shown that mechanical systems that provide the major time delays such as the control rod drive system, diesel generators and the major ECCS valves and pumps and containment isolation valves are response time tested. In addition, test procedure DIS 500-9 is used to response time test the reactor protection system logic relays.

The sensors, however, are not tested. Based on the limited risk assessment that was done on Palisades it is the staff's opinion that response time changes in this type of instrumentation is a small contributor to core damage. Therefore, the resolution of this item can be delayed until the Integrated Safety Assessment.

VI. CONCLUSION

As a result of our review of the work of our contractor and our own review of response time testing, the staff has concluded that Dresden 2 satisfies our review guidelines with the exception of response time testing of the sensors. This issue will be addressed in the Integrated Safety Assessment for Dresden 2.