Docket No. 50-237 LS05-84-01-035

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

Dear Mr. Farrar:

SUBJECT: NUREG-0823 SECTION 4.21-SEP TOPIC VI-7.C.1, APPENDIX K-ELECTRICAL INSTRUMENTATION AND CONTROL (EI&C) RE-REVIEWS

In a letter dated December 30, 1983, Mr. B. Rybak responded to the issue raised in Section 4.21 of the Integrated Plant Safety Assessment Report (NUREG-0823) for Dresden Unit 2. That issue related to protective relay coordination.

As a result of our review of that submittal, the staff concludes that adequate relay coordination exists, as described in the enclosed Safety Evaulation. Therefore, the staff considers the issue raised in Section 4.21 to be adequately resolved.

Sincerely,

Original signed by/

Dennis M. Crutchfield, Chief Operating Reactors Branch #5 Division of Licensing

Enclosure: As stated

cc w/enclosure:
See next page

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PDR

	SEE PREVIOUS SEP:DL RScholl:dm 1/W/84	CONCURRENCE. SEPB:DL D. Chery* 1/11/84	SEP:DL (G7) CGrimes 1/J 4 /84	0F 845- DL RGilbert 1/14/84	ORB#570DL DCFutchfield 1/24/84
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Docket No. 50-237 LS05-84

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

Dear Mr. Farrar:

SUBJECT: NUREG-0823 SECTION 4.21-SEP TOPIC VI-7.C.1, APPENDIX K-ELECTRICAL INSTRUMENTATION AND CONTROL (EI&C) RE-REVIEWS

The enclosed staff Safety Evaluation has been prepared to reflect the additional information provided in Mr. B. Rybak's letter of December 30, 1983.

As a result of the material provided in Mr. Rybak's letter we have concluded that adequate relay coordination exists if ground fault protection is not provided for the circuits in question. The resident inspector will be requested to verify the completeness of your response in this regard.

Sincerely,

Dennis M. Crutchfield, Chief Operating Reactors Branch #5 Division of Licensing

Enclosure: As stated

cc w/enclosure:' See next page

1:dm CGrimes /84

ORB#5:DL RGilbert 1/ /84 ORB#5:DL DCrutchfield 1/ /84 Mr. Dennis L. Farrar

cc Isham, Lincoln & Beale Counselors at Law One First National Plaza, 42nd Floor Chicago, Illinois 60603

Mr. Doug Scott Plant Superintendent Rural Route #1 Morris, Illinois 60450

U. S. Nuclear Regulatory Commission Resident Inspectors Office Dresden Station RR #1 Morris, Illinois 60450

Chairman Board of Supervisors of Grundy County Grundy County Courthouse Morris, Illinois 60450

U. S. Environmental Protection Agency Federal Activities Branch Region V Office ATTN: Regional Radiation Representative 230 South Dearborn Street Chicago, Illinois 60604

James G. Keppler, Regional Administrator Nuclear Regulatory Commission, Region III 799 Roosevelt Road Glen Ellyn, Illinois 60137

Mr. Gary N. Wright, Manager Nuclear Facility Safety Illinois Department of Nuclear Safety 1035 Outer Park Drive, 5th Floor Springfield, Illinois 62704

SYSTEMATIC EVALUATION PROGRAM TOPIC VI-7.C.1

DRESDEN UNIT NO. 2-

NUREG-0823 SECTION 4.21 - SEP TOPIC VI-7.C.1. APPENDIX K - ELECTRICAL, INSTRUMENTATION AND CONTROL (EIC) RE-REVIEWS)

I. INTRODUCTION

The staff's original Safety Evaluation Report (SER) on this subject, for Dresden 2, was issued in a February 5, 1982 letter to the licensee. As a result of that SER, NUREG 0823 "Integrated Plant Safety Assessment Dresden Nuclear Power Station, Unit 2" Section 4.21 required that the licensee provide additional analyses for the protective relay coordination of the 125 and 250 v-dc chargers and an automatic bus transfer in the 125 v-dc system. The results of these studies were provided by a licensee letter dated December 30, 1983.

II. REVIEW CRITERIA

Review criteria that govern the subject safety topic are identified in Section 8.3.1, Part II, Items 1 and 2 and Section 8.3.2, Part II, Items 1 and 2 of NRC the Standard Review Plan.

III. RELATED SAFETY TOPICS

The related safety topics are identified in the original SER.

IV. REVIEW GUIDELINES

The review was limited to considering the degree to which redundant instrument supplies were protected from single events in common equipment. The review was based on the assumption that the same types of equipment that were reviewed were used in other safety systems and subjected to the same periodic inspection, testing and maintenance as other similar safety equipment.

V. EVALUATION

By letter dated December 30, 1983 the licensee submitted the results of three analyses. For each of these analyses, the licensee provided a one line diagram and protective relay coordination plot and identified the basic assumptions and the results of a short circuit analysis.

Our audit of the material provided indicates that the relay coordination has a suitable margin for much larger faults than those calculated and that the calculated currents are reasonable in view of the assumptions made. Furthermore, the assumptions of charger response appear to be based on the physical characteristics of the devices and reflect sound engineering judgement.

VI. CONCLUSIONS

The licensee has addressed the staff's concerns with regard to protective relay coordination. Furthermore, the licensee has indicated that ground fault protection is not provided for the circuits involved. The staff has confirmed with the Resident Inspector that ground fault protection devices are not provided by design. Based on the nature of the equipment in these systems, the staff concludes that set-point drift does not pose a significant problem.

Accordingly, the staff concludes that adequate protective relay coordination exists and sufficient margin has been provided to accomodate expected set-point drift.