NRC PDR

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

December 8, 1978

Docket No. 50-409

Mr. John P. Madgett
General Manager
Dairyland Power Cooperative
2615 East Avenue, South
La Crosse, Wisconsin 54601

Dear Mr. Madgett:

We have completed our search of the dockets for the SEP Plants for information relative to Topic VIII-4, "Electrical Penetrations of Reactor Containments." The results of this effort has revealed the need for additional information to complete our evaluation of this topic.

Please provide the information identified in the enclosure within ninety (90) days.

Sincerely,

Dennis L. Ziemann, Chief
Operating Reactors Branch #2
Division of Operating Reactors

Enclosure:
Request for Additional
Information

cc:
See next page

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cc
Fritz Schubert, Esquire
Staff Attorney
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La Crosse Boiling Water Reactor
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Coulee Region Energy Coalition
ATTN: George R. Nygaard
P. O. Box 1583
La Crosse, Wisconsin 54601

ENCLOSURE

REQUEST FOR INFORMATION FROM SEP LICENSEES

Topic VIII-4 - Electrical Penetrations of Reactor Containment

We have performed a review of the information contained in your docket concerning electrical penetrations of reactor containment. The objective of this SEP topic is to determine the capability of penetrations to maintain containment integrity during short-circuit current conditions and the worst expected transient fault current resulting from single random failures of circuit overload protection devices. Based on information contained on your docket concerning electrical penetrations we have determined that additional information is necessary to confirm that this objective is satisfied. In this regard, we request that you provide the following information for a typical low-voltage penetration ci it (150-1000 Vac); a typical medium voltage penetration circuit (greater than 1000 Vac); and a typical direct current power penetration circiut (if any).

A. Circuit Information

1. Identify each typical circuit which has been selected.

2. Provide the trip curves (current versus time) for the primary and the secondary protection devices.

3. State the maximum short circuit current available to the selected penetration circuit (the short-circuit current for AC circuits should be expressed in rms symmetrical amperes with the symmetrical current being initially offset by a DC component. The short circuit current for direct current circuits should be based on the current having a constant DC value).

4. State the size of the conductor(s) for the selected circuit (that is, conductor size external to the electrical penetration).

B. Electric Penetration Information

1. State the manufacturer's electrical penetration identification number and provide the size of the conductor(s) in the penetration. Also provide the rated continuous current for each conductor.

2. State the rated short-circuit overload current and the duration of this current.

3. Provide a description of all electrical tests for these penetrations and state the results of these tests.

References:

1. Regulatory Guide 1.63, Revision 2, "Electrical Penetrations in Containment Structures for Water Cooled Nuclear Water Plants."

2. IEEE Standard 317-1976 - "IEEE Standard for Electrical Penetration Assemblies in Containment Structures for Nuclear Power Generating Stations."