REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:8012160429 DOC.DATE: 80/12/04 NOTARIZED: NO DOCKET #
FACIL:50-244 Robert Emmet Ginna Nuclear Plant, Unit 1, Rochester G 05000244
AUTH.NAME AUTHOR AFFILIATION
MAIER,J.E. Rochester Gas & Electric Corp.
RECIP.NAME RECIPIENT AFFILIATION
CRUTECHFIELD,D. Operating Reactors Branch 5

SUBJECT: Forwards info re util rept on adequacy at station electric distribution sys voltages. Info provided to assure reviewers of rept that analyses are consistant w/NRC guidelines for voltage drop calculations.

DISTRIBUTION CODE: A015S COPIES RECEIVED:LTR 1 ENCL 0 SIZE: 1
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	MPA	18	1	~~1~~	NRC PDR	02	1	~~1~~
	OELD	17	1	~~1~~	OP EX EVAL BR11		1	~~1~~
	OR ASSESS BR	12	1	~~1~~	POWER SYS BR	14	1	~~1~~
	REG FILE	01	1	~~1~~				
EXTERNAL;	ACRS	16	16	~~16~~	LPDR	03	1	~~1~~
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JOHN E. MAIER
VICE PRESIDENT

TELEPHONE
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December 4, 1980

50-244

Director of Nuclear Reactor Regulation
Attention: Mr. Dennis M. Crutchfield, Chief
Operating Reactors Branch #5
Division of Operating Reactors
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Rochester Gas and Electric's Report, Adequacy of Station Electric Distribution Systems Voltages, dated December 6, 1979.

References:
1. Letter dated, August 8, 1979, from William Gammill to all power reactors.
2. Enclosure 2, Guidelines for Voltage Drop Calculations, of reference 1.

Dear Mr. Crutchfield:

In accordance with discussions held on October 14, 1980 with your consultants at Lawrence Livermore National Laboratories who are responsible for reviewing the subject report, the following information should be forwarded to your reviewers:

Section 6 of reference 2 requires, in part, that voltages should be calculated for each safety load at the terminals of each load (i.e. motors). However, the data supplied by RG&E in the subject report included bus voltages on all safeguards buses for all required operating modes and it appears that no allowance was made for voltage drops that occur on the feeder cables. The purpose of this letter is to assure the reviewers that RG&E's analyses are consistent with the NRC's Guidelines. Initially, all feeder cable data was included in a load flow program. However, the cable size and lengths were such that the voltage drops in the feeder cables were less than .01 p.u. volts (RCP feeder starting = .00094 p.u., S.I. feeder starting = .0085 p.u.). This is less than the minimum necessary for convergence to distinct voltages for the bus and motor terminal loads and the program would not terminate. The program was run again assuming the bus and motor terminal to be a common node. Therefore, all bus voltages can be assumed to be very close to the motor terminal voltages. This condition was later confirmed by field measurements.

I hope that this clarification resolves the comments made by Mr. James Selan of Lawrence Livermore.

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John Maier
J. E. Maier

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December 4, 1980 50-244

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