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 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  
 CRUTCHFIELD, D. Operating Reactors Branch 5

SUBJECT: Forwards addl info re SEP Topic III-3.C, "Inservice Insp of Water Control Structures," per request at 811201-03 meeting. Info includes Martin & Graf Diving 810424 rept of underwater photographic insp of impellers & screens.

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NOTES: 1 copy: SEP Sect., Ldr.

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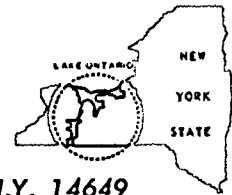
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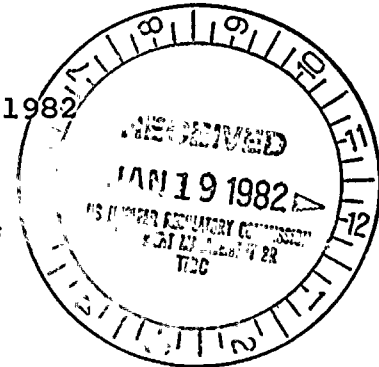


ROCHESTER GAS AND ELECTRIC CORPORATION • 89 EAST AVENUE, ROCHESTER, N.Y. 14649

JOHN E. MAIER  
Vice President

TELEPHONE  
AREA CODE 716 546-2700

January 15, 1982



Director of Nuclear Reactor Regulation  
Attention: Mr. Dennis M. Crutchfield, Chief  
Operating Reactors Branch No. 5  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Subject: SEP Topic III-3.C, Inservice Inspection of Water  
Control Structures  
R. E. Ginna Nuclear Power Plant  
Docket No. 50-244

Dear Mr. Crutchfield:

During the initial Ginna Integrated Assessment meeting, held in Bethesda from December 1 through December 3, 1981, a request for additional information regarding the October 12, 1981 Rochester Gas and Electric safety assessment for SEP Topic III-3.C was made. A response to this request is included in the attachment.

This information should be sufficient for the NRC to develop a draft Safety Evaluation Report for this SEP topic.

Very truly yours,

*John E. Maier*  
John E. Maier

Attachment

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PDR

MEMORANDUM FOR THE RECORD

SUBJECT: [Illegible]

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6. [Illegible]

7. [Illegible]

8. [Illegible]

9. [Illegible]

10. [Illegible]

Attachment: RG&E Response to NRC Request for  
Additional Information, SEP Topic III-3.C

ITEM 1

Concern

Regulatory Guide 1.127 suggests that a detailed checklist be developed and used for inspection of each water control structure, paying particular attention to detecting evidence of leakage, erosion, seepage, slope instability, undue settlement, displacement, tilting, cracking, deterioration, and improper functioning of drains and relief wells. Although the Licensee's submittal identified a few of the items to be inspected for each water control structure, the list was not comprehensive.

Request

Provide evidence, such as a copy of the inspector's checklist review sheet, indicating the items or features subjected to review or scrutiny during inspection of water control structures at the Ginna Nuclear Plant. If a detailed checklist is not used, provide the mechanism used by the inspector to report his findings.

RG&E Response

The listing of features of the water control structures at Ginna to be inspected is provided in the purchase order to the inspectors, Martin and Graf Diving. A copy of the 1981 inspection report is provided. The objectives of the inspection, detailed in the Inspection Report, were developed by the divers, based on extensive experience, both of Ginna and other nuclear facilities.

No such formal procedures is in place for inspection of the revetment. Periodic walkdowns of the revetment are expected to detect any obvious physical degradation.

ITEM 2

Concern

Regulatory Guide 1.127 suggests that the inspection of water control structures should be conducted under the direction of qualified engineers experienced in the investigation, design, construction, and operation of such facilities. No statement indicating compliance with this principle was made in the Licensee's submittal.

Request

Identify the quality assurance personnel who are responsible for the ultimate assessment of the water control structures on the plant site. Give their qualifications and state whether they are licensed professional engineers.



RG&E Response

The Ginna inspection program is directed by the plant Maintenance Engineer. The present Maintenance Engineer has a Bachelor of Science Degree in Nuclear Engineering, as well as a Senior Reactor Operator License. He is not a licensed Professional Engineer.

However, any unusual findings by the diving team would be reported to the RG&E Engineering Department (Civil Engineering Section). The Manager of Civil Engineering is a licensed Professional Engineer.



MARTIN & GRAF

Dayle O. Martin

Richard C. Graf

## Diving

P.O. Box 4713 • Rochester, New York 14612  
(716) 621-2021

UNDERWATER PHOTOGRAPHIC INSPECTION

of

90 INCH CIRCULATING PUMP IMPELLERS  
TRAVELING SCREENS (4)  
SERVICE WATER PUMP INTAKE SCREENS (4)  
FIRE PUMP SCREENS (2)

at

R. E. GINNA NUCLEAR PLANT

for

ROCHESTER GAS & ELECTRIC CORP.  
ROCHESTER, NEW YORK

April 24, 1981

Authorization: P.O. CZ14619





10/10/74

10/10/74

ORIGINATING DEPT.



MARTIN AND GRAF DIVING  
P.O. BOX 4713  
ROCHESTER, NY 14612

PURCHASE ORDER NO. 02-1-619

**BILL TO**

ROCHESTER GAS AND ELECTRIC CORPORATION  
89 EAST AVENUE  
ROCHESTER, NEW YORK 14649  
ATTENTION: PURCHASING DEPT.

DATE

3-10-81

SHIP TO

ATTENTION  
ADDRESS

GINNA STATION  
1503 LAKE RD.  
ONTARIO, NY 14519

ROCHESTER GAS AND ELECTRIC CORPORATION

DATE REQUIRED  
BY OUR PLANT  
ON OR BEFORE

4 28 81

ANY QUESTIONS SHOULD BE DIRECTED TO:

P. TUTTOBENE

CALL 716-546-2700

EXT. 2404

AT ONCE

TERMS

15 DAYS

FOB

JOB

ITEM	QUANTITY	DESCRIPTION	BIN NO.	LIST	DISCOUNT
	55263	SUPPLY LABOR AND EQUIPMENT TO VISUALLY INSPECT AND PHOTOGRAPH GENERAL CONDITIONS OF TRAVELING SCREENS (4) AND PUMPS (8) AT GINNA STATION, SCREENHOUSE. WORK TO BE SCHEDULED AT A LATER DATE. (APRIL-EARLY MAY, 1981)			
		PLEASE SUBMIT YOUR CURRENT RATE SCHEDULE TO JOE MILLER, PURCHASING DEPARTMENT			

COMPLETE

APR 23 1981

GINNA STATION

*Joe Miller*

-DEBIT	TAX CODE	STORE NO.	CODE				ACCOUNT		WORK ORDER OR CAR GROUP	JOB NO.
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MARTIN & GRAF

Dayle O. Martin

Richard C. Graf

## Diving

P.O. Box 4713 • Rochester, New York 14612  
(716) 621-2021

April 30, 1981

Mr. Louis Boutwell  
Rochester Gas & Electric Corp.  
Ginna Nuclear Plant  
Ontario, New York

Dear Louie:

Enclosed is our report with photographs of the inspection conducted in the screen house on April 24th.

If you have any questions, please call us.

Very truly yours,

MARTIN & GRAF - DIVING

Dayle O. Martin

DOM/dlm  
Enclosure

1. The first part of the document is a list of names and addresses of the members of the committee.

2. The second part of the document is a list of names and addresses of the members of the committee.



# MARTIN & GRAF

Dayle O. Martin

Richard C. Graf

## Diving

P.O. Box 4713 • Rochester, New York 14612  
(716) 621-2021

Mr. Louie Boutwell  
Rochester Gas & Electric Corp.

### OBJECTIVES:

1. Inspection of the impeller blades and housings of the 90 inch recirculating pumps.
2. Inspection of the up and downstream sides of the traveling screens.
3. Inspection of the intake screens of the four service water pumps.
4. Inspection of the intake screens of the diesel and electric fire pumps.

Photograph unusual as well as typical conditions.

### OBSERVATIONS:

The impeller blades and housings of the two large 90 inch recirculating pump are in a similar or unchanged condition as found in the previous inspection. No unusual conditions were observed. See photographs 1 through 6.

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Mr. Louie Boutwell  
Rochester Gas & Electric Corp.  
Page 2

The traveling screens were observed in normal condition. The floor area on the upstream side of the screens was generally very clean except for a couple pieces of cinder blocks and a few scattered pieces of screen material near screens B and C. The largest piece of screen material was rolled up to about an 18 inch diameter roll and was in front of screen B. See photographs 7, 8.

The diver also inspected the floor area over to and around the intake shaft. No unusual conditions were observed.

The downstream side of the screens was found to have a four to six inch accumulation of silt next to the screens, which tapered off to zero about four feet away. No debris was observed on this side of the screens. Screen A has a seaweed build-up on the lower panel but the other screens (B, C, D) were much cleaner. The red plastic hoses near screens B and D are unchanged since the last inspection. See photographs 9 through 12.

#### Service Water Pump Screens

Intake screen A was found to be about 75% covered with dead fish and small debris. The bottom tab was pulled in somewhat. See photographs 13, 14.

Intake screen B was only covered about 25% with dead fish and most of it on the bottom. The bottom tab was only pulled up slightly. See photograph 15.



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Mr. Louie Boutwell  
Rochester Gas & Electric Corp.  
Page 3

Intake screen C was found almost entirely clean. See photograph 16.

Intake screen D was covered about 65% with dead fish and debris. The bottom of it was totally blocked. See photographs 17, 18.

The two fire pump screens were covered about 25% with seaweed material. Both were physically secure.

Hard packed silt was found in the service water pump bay ranging from about three feet deep near the opening to the circulating water pump bay to several inches under the pump intake screens. Other areas ranged between these depths, but generally about one to two feet deep.

No other unusual conditions were observed.

#### INDEX OF PHOTOGRAPHS

<u>Photo #</u>	<u>Subject</u>
1	Impeller blade next to bell - Pump A
2	Edge of blade next to bell - Pump A
3	Impeller blade and side of housing - Pump A
4	Impeller blade - Pump B
5	Impeller blade and side of housing - Pump B
6	Outside of housing - Pump B
7	Section of rolled up screen, upstream side of B screen

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Mr. Louie Boutwell  
Rochester Gas & Electric Corp.  
Page 4

<u>Photo #</u>	<u>Subject</u>
8	Side of D screen, upstream side
10	Red tubing near A screen, downstream side
11	Lower part of B screen with seaweed, downstream side
12	Red tubing attached to ladder rung, downstream side
13	Side of screen A
14	Bottom of screen A
15	Side of screen B
16	Side of screen C
17	Side of screen D
18	Bottom of screen D

Respectfully submitted,

MARTIN & GRAF - DIVING

*Dayle O. Martin*

Dayle O. Martin