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ROBERT C. MECREDY
Vice President
Nuclear Operations

December 23, 1999

U.S. Nuclear Regulatory Commission
Document Control Desk
Attn: Guy S. Vissing
Project Directorate I
Washington, D.C. 20555

Subject: LER 1999-012, Opening Control Room Ventilation System for
Filter Replacement Resulted in Plant Being Outside Design
Basis
R.E. Ginna Nuclear Power Plant
Docket No. 50-244

Dear Mr. Vissing:

The attached Licensee Event Report LER 1999-012 is submitted in accordance with 10 CFR 50.73, Licensee Event Report System, item (a) (2) (ii) (B), which requires a report of, "Any event or condition ... that resulted in the nuclear power plant being ... In a condition that was outside the design basis of the plant".

Very truly yours,



Robert C. Mecredy

xc: Mr. Guy S. Vissing (Mail Stop 8C2)
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
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U.S. NRC Ginna Senior Resident Inspector

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FDR DDOCK 05000244

NRC FORM 366 (6-1998)	U.S. NUCLEAR REGULATORY COMMISSION	APPROVED BY OMB NO. 3150-0104 EXPIRES 06/30/2001 Estimated burden per response to comply with this mandatory information collection request: 50 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Forward comments regarding burden estimate to the Records Management Branch (T-6 F33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to the Paperwork Reduction Project (3150-0104), Office of Management and Budget, Washington, DC 20503. If an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.
LICENSEE EVENT REPORT (LER) (See reverse for required number of digits/characters for each block)		

FACILITY NAME (1) R. E. Ginna Nuclear Power Plant	DOCKET NUMBER (2) 05000244	PAGE (3) 1 OF 7
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TITLE (4)
Opening Control Room Ventilation System for Filter Replacement Resulted in Plant Being Outside Design Basis

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
11	24	1999	1999	012	00	12	23	1999	FACILITY NAME	DOCKET NUMBER 05000
									FACILITY NAME	DOCKET NUMBER 05000

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)									
		20.2201(b)		20.2203(a)(2)(v)		50.73(a)(2)(i)		50.73(a)(2)(viii)			
POWER LEVEL (10)	100	20.2203(a)(1)		20.2203(a)(3)(i)		<input checked="" type="checkbox"/> 50.73(a)(2)(ii)		50.73(a)(2)(x)			
		20.2203(a)(2)(i)		20.2203(a)(3)(ii)		50.73(a)(2)(iii)		73.71			
		20.2203(a)(2)(ii)		20.2203(a)(4)		50.73(a)(2)(iv)		OTHER			
		20.2203(a)(2)(iii)		50.36(c)(1)		50.73(a)(2)(v)		Specify in Abstract below or in NRC Form 366A			
		20.2203(a)(2)(iv)		50.36(c)(2)		50.73(a)(2)(vii)					

LICENSEE CONTACT FOR THIS LER (12)

NAME John T. St. Martin - Technical Assistant	TELEPHONE NUMBER (Include Area Code) (716) 771-3641
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX

SUPPLEMENTAL REPORT EXPECTED (14)				EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE).	<input checked="" type="checkbox"/>	NO						

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On November 24, 1999, the plant was in Mode 1 at approximately 100% steady state reactor power.

As part of the Work Control System process, Work Order #9902102 was reviewed by the Shift Supervisor prior to authorizing the start of the work. This work order consisted of inspecting and replacing, as necessary, the Control Room HVAC air filters. In order to inspect these filters, small access covers in the side of the HVAC unit have to be removed. During this pre-job review on November 24, it was discovered that performing this work would cause a breach in the integrity of the Control Room HVAC system ductwork. The Shift Supervisor denied permission to perform the work on the basis that removing the filter bank access covers would be equivalent to opening the Control Room HVAC system envelope.

At various times in the past such a breach was permitted to occur when this work was performed. This breach could have allowed in-leakage in excess of the assumed leak rate listed in the Ginna Station Updated Final Safety Analysis Report. It was concluded that the system may have been outside the design basis at those times in the past, and that it had not been recognized that the plant was outside its design basis during those times.

The cause of the occasional breaches in the integrity of the Control Room HVAC system ductwork was inadequate procedural guidance for conformance with requirements of Technical Specifications.

Corrective action to prevent recurrence is outlined in Section V.B.

LICENSEE EVENT REPORT (LER)
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		1999	-- 012	-- 00	

TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

I. PRE-EVENT PLANT CONDITIONS:

The Control Room HVAC unit supplies conditioned air to the Control Room during normal and accident conditions. The Control Room HVAC unit is designed to isolate and recirculate the air upon receiving an isolation signal indicating the presence of radioactivity or toxic gas. Preventive Maintenance Work Order #9902102 addresses periodic HVAC filter inspections. One of the filter units listed in the work order (WO) for inspection is the Control Room HVAC unit.

As part of the Work Control System process, work orders are reviewed on-shift prior to the start of work. During the midnight shift on November 24, 1999, the plant was in Mode 1 at approximately 100% steady state reactor power. WO #9902102 was reviewed by the Shift Supervisor. This work order consisted of inspecting and replacing, as necessary, the Control Room HVAC air filters, and was scheduled to be worked on the day shift on November 24. In order to inspect these filters, small access covers in the side of the HVAC unit have to be removed.

II. DESCRIPTION OF EVENT:

A. DATES AND APPROXIMATE TIMES OF MAJOR OCCURRENCES:

The Control Room HVAC air filters have been inspected and/or replaced numerous times. A review of documented previous occurrences is listed in Section II.B. below. (Prior to 1995, changing the filters was not specifically documented in the Work Control System.)

- October 1995 through August 1999: Event dates for the past four years.
- November 24, 1999, 0900 EST: Discovery date and time.

B. EVENT:

On November 24, 1999, the plant was in Mode 1 at approximately 100% steady state reactor power. During the midnight shift, WO #9902102 was reviewed by the Shift Supervisor. The Shift Supervisor denied permission to perform the work on the basis that removing the filter bank access covers would be equivalent to opening the Control Room HVAC system envelope.

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The Ginna Station Technical Specifications (TS) Limiting Condition for Operation (LCO) 3.7.9 requires that the Control Room HVAC unit be operable during all plant modes. In accordance with the basis for TS LCO 3.7.9, the Control Room boundary must be maintained, including the integrity of the walls, floors, ceilings, ductwork, and access doors. Removing the filter bank access covers would create an opening in the boundary of the ductwork.

Thus, on November 24, 1999, it was discovered that performing this work would cause a breach in the integrity of the Control Room HVAC system ductwork, which may have placed the plant outside its design basis at various times in the past. The event occurred when the Shift Supervisor identified that inspection of the filters required removal of filter bank access covers on Control Room HVAC system, which would no longer maintain the integrity of the ductwork.

Removal of the filter bank access covers could allow outside air flow into the Control Room HVAC system in the post accident recirculation mode. Evaluations had been previously completed (on August 23, 1999) to determine maximum allowable duct opening when a flexible expansion joint was found ripped, as reported in LER 1999-011. (Refer to Ginna Docket No. 50-244, LER 1999-011.) This evaluation showed that the opening could have allowed in-leakage in excess of the assumed leak rate listed in the Ginna Station Updated Final Safety Analysis Report (UFSAR) Section 6.4, Table 6.4-1. With this information it was concluded that the system may have been outside the design basis at the following times in the past (the plant was in Mode 1 at each of these times):

<u>Event Date</u>	<u>Work Order</u>	<u>Work Performed</u>
October 5, 1995	19504302	Visual inspection - covers removed
September 16, 1996	19602760	Visual inspection " "
December 6, 1996	19604974	Visual inspection " "
April 29, 1997	19700551	Filters replaced " "
June 23, 1997	19700889	Visual inspection " "
October 13, 1997	19701444	Visual inspection " "
December 17, 1997	19702780	Filters replaced " "
February 2, 1998	19703520	Visual inspection " "
May 27, 1998	19801385	Visual inspection " "
August 3, 1998	19802067	Visual inspection " "
September 30, 1998	19803198	Filters replaced " "
December 22, 1998	19803199	Visual inspection " "
June 7, 1999	19804859	Filters replaced " "
August 30, 1999	19900993	Visual inspection " "

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Prior to 1995, changing the filters was not specifically documented using the work control system.

C. INOPERABLE STRUCTURES, COMPONENTS, OR SYSTEMS THAT CONTRIBUTED TO THE EVENT:

None

D. OTHER SYSTEMS OR SECONDARY FUNCTIONS AFFECTED:

None

E. METHOD OF DISCOVERY:

During a pre-job review of the WO for inspection and replacement of Control Room HVAC filters, this event was discovered when the Shift Supervisor identified that an opening would be created in the Control Room HVAC system ductwork when this inspection is performed.

F. OPERATOR ACTION:

The Control Room HVAC system was operable at the time of discovery. The Shift Supervisor denied permission to perform Work Order #9902102 on the Control Room HVAC unit filter bank, and no further actions were required. ACTION Report #99-1541 was initiated to review the event.

G. SAFETY SYSTEM RESPONSES:

None

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III. CAUSE OF EVENT:

A. IMMEDIATE CAUSE:

The immediate cause of the plant being in a condition that was outside its design basis at various times in the past was there would have been a breach in the supply air handling ductwork when the Control Room filter bank access covers were opened, and the calculated in-leakage would have been in excess of the assumed leak rate listed in UFSAR Table 6.4-1.

B. INTERMEDIATE CAUSE:

The intermediate cause of the occasional breaches in the Control Room HVAC ductwork was the practice that allowed performance of the WO without maintaining the integrity of the ductwork.

C. ROOT CAUSE:

The underlying cause for allowing this practice is the use of a plant administrative procedure for controlling work on a subcomponent of safety-related equipment and inadequate procedural guidance in the administrative procedure to ensure compliance with Technical Specification (TS) requirements.

Administrative Procedure A-1040 (Filter Inspection and Testing Program) lists filters that are subject to TS and those that are not subject to TS, and describes the activities necessary to inspect and/or replace these filters. The subject filters, in terms of their function, are low efficiency filters and not designed for safeguarding Control Room habitability. Their function is to maintain the cleanliness of the heating and cooling coils and fans. A-1040 lists the subject filters as non-Tech. Spec. related, when they are, in fact, a subcomponent of safety-related equipment.

IV. ANALYSIS OF EVENT:

This event is reportable in accordance with 10 CFR 50.73, Licensee Event Report System, item (a) (2) (ii) (B), which requires a report of, "Any event or condition ... that resulted in the nuclear power plant being ... In a condition that was outside the design basis of the plant". The calculated in-leakage due to an opening that could have been created is greater than the assumed leak rate listed in the UFSAR.

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An assessment was performed considering both the safety consequences and implications of this event with the following results and conclusions:

There were no actual operational or safety consequences and implications attributed to the occasional breaches in the Control Room HVAC ductwork because:

- While it is presumed that the plant was outside its design basis on the dates listed in Section II.B. above, Operations would be notified of the filter change activity and would be aware of the need to reinstall the filter bank access covers upon receipt of a radiation signal. Therefore, Operations could have directed reinstallation of the filter covers, and a maintenance person could have reinstalled the covers in a short amount of time.
- Any event that results in a significant release would require entry into the Nuclear Emergency Response Plan, resulting in continuous Radiation Protection (RP) shift technician coverage in the Control Room. In this situation the Control Room area radiation and airborne activity are continuously monitored. Should the activity concentration reach unacceptable levels, the RP shift technician would implement appropriate protective actions. Some of the contingencies available are respirators and potassium iodide tablets to limit the uptake of radioactive iodine.
- The on-site chemicals which could result in a toxic gas situation (chlorine, ammonia, hydrazine, sulfuric acid, and sodium hydroxide) are in a liquid state. Therefore, due to the slower evaporation rate, the Control Room atmosphere is less likely to reach hazardous airborne concentrations during a spill. In addition, the sulfuric acid and sodium hydroxide tanks in the primary demineralizer room have been emptied and are no longer in use. Similar tanks in the Condensate Demineralizer building are located in separate pits which prevents inadvertent mixing of these chemicals.
- The most likely off-site toxic gas release source is gaseous chlorine located at the Ontario water plant, approximately one mile to the east of the plant. The distance involved would allow significant dilution of the gas in the atmosphere. Also, the water plant is in a location where the prevailing winds in the area tend to blow the gas away from the plant. Finally, the presence of these gasses in the Control Room atmosphere would be readily apparent to the Operators due to the noxious nature of the fumes. There are two Self-Contained Breathing Apparatus (SCBA) units located in the Control Room with additional units located in other areas adjacent to the Control Room.

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Based on the above, it can be concluded that there were no unreviewed safety questions, and that the public's health and safety was assured at all times.

V. CORRECTIVE ACTION:

A. ACTION TAKEN TO RETURN AFFECTED SYSTEMS TO PRE-EVENT NORMAL STATUS:

None required.

B. ACTION TAKEN OR PLANNED TO PREVENT RECURRENCE:

- Performance of any WO for inspection of the Control Room HVAC filters has been administratively prevented, and will not be resumed until additional corrective actions are taken, as listed below.
- Procedure A-1040 will be changed to prevent the removal of the filter bank access covers without proper isolation or closure capability.
- Modification PCR 96-125 will be performed to provide suitable boundary isolation to prevent breaching the integrity of the Control Room ductwork when opening the filter bank access covers.

VI. ADDITIONAL INFORMATION:

A. FAILED COMPONENTS:

None

B. PREVIOUS LERs ON SIMILAR EVENTS:

A similar LER event historical search was conducted with the following results: LER 1999-011, ripped ductwork flex-joint, was a similar event with a different root cause.

C. SPECIAL COMMENTS:

None



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ROBERT C. MECREDDY
Vice President
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December 22, 1999

U.S. Nuclear Regulatory Commission
Document Control Desk
Attn: Guy Vissing
Project Directorate I
Washington, D. C. 20555

Subject: Clarification of work performed for Rochester Gas & Electric vendors.
R.E. Ginna Nuclear Power Plant
Docket No. 50-244

Dear Mr. Vissing:

Rochester Gas & Electric (RG&E) was the subject of an inspection (96-201) in 1996 which reviewed monitoring of vendor quality control. In the Nuclear Regulatory Commission (NRC) Inspection Report, dated March 1, 1996 statements were made regarding future avoidance of the perception of conflict of interest. The report included the following text:

"It is our understanding that, in the future, current management will avoid any perception of a conflict of interest with a vendor, will not suggest to their engineers to perform such an audit, and have instructed QA engineers not to perform work for a company that QA was responsible to assess, either as independent consultants or as RG&E employees."

The above content was in response to a situation wherein an auditor had served as an independent (from RG&E) contractor to a vendor and then assessed that vendor's performance for RG&E. That situation did not result in any actual deficiency, but created a perception as a result of an individual who exercised poor judgement.

We would like to clarify our intentions in this area so as to assure that future erroneous perceptions are avoided, without imposing unnecessary constraints. Our intentions are that RG&E will not provide any services to a vendor and then have the vendor evaluated by the same person who performed the services. This addresses the original concern which the NRC

identified in 1996, while not constraining *other* personnel from assisting vendors in improving the quality of their programs. The application of this approach is similar to other activities within the plant where Independent Verification is performed by personnel other than the one who performed the original action.

It is in RG&E's best interest to assure that a conflict of interest does not, either in appearance or in fact, exist. It is also desirable to both RG&E and the industry, that we assist vendors in resolving deficiencies and strengthening their quality program. We will continue to assure the quality of assessments is not compromised and hope that this clarification helps to alleviate any potential concerns which could arise.

Very truly yours,


Robert C. Mecredy

Xc: Mr. Guy S. Vissing (Mail Stop 8C2)
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation
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