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 MECREDY, R.C. Rochester Gas & Electric Corp.
 RECIP. NAME RECIPIENT AFFILIATION
 VISSING, G. Project Directorate I-1 (PD1-1) (Post 941001)

SUBJECT: Provides util response to 960924 request for SW heat exchanger thermal performance test reviews & plans for completing initial thermal performance test program.

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ROBERT C. MECREDDY
Vice President
Nuclear Operations

January 31, 1997

U.S. Nuclear Regulatory Commission
Document Control Desk
Attn: Guy Vissing
Project Directorate I-1
Washington, D.C. 20555

Subject: Letter from Lawrence T. Doerflein, NRC, to Robert C. Mecreddy, RGE, Subject: "NRC Integrated Inspection Report 50-244/96-06 and Notice of Violation", dated September 24, 1996
R.E. Ginna Nuclear Power Plant
Docket No. 50-244

Dear Mr. Vissing:

The purpose of this letter is to provide the RG&E response to the subject letter's request for service water heat exchanger thermal performance test reviews and our plans for completing the initial thermal performance test program. This response is provided in Attachment A.

Very truly yours,


Robert C. Mecreddy

Attachment
REJ\444

xc: Mr. Guy Vissing (Mail Stop 14C7)
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Washington, D.C. 20555

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Ginna Senior Resident Inspector

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Attachment A

The initial test program for Ginna was intended to perform three annual tests. During Engineering review of the performance test results, occasional data anomalies were apparent for some of the heat exchangers. It was decided that additional tests would be performed for these heat exchangers as necessary. A total of 56 performance tests have been completed, covering 17 safety-related heat exchangers served by service water.

The completion status of the initial test program is as follows:

A. Standby Auxiliary Feedwater (SAFW) Pump Room Coolers A and B

The initial test program for SAFW pump room coolers A and B included three performance tests - one each during 1992, 1993, and 1994.

Subsequent to the 1993 test, preliminary analysis of the test data indicated that the coolers may require maintenance. A non-conformance report was initiated which resulted in maintenance cleaning and gasket replacement in these coolers. A test was completed in 1994 after this maintenance.

The data from all three tests has been evaluated and documented in one test report. The conclusion of this test report is that the SAFW Pump Room Coolers were able to perform their safety-related heat transfer function.

Evaluation of the test data has proven inconclusive in establishing a periodic long term testing frequency; therefore, an additional thermal performance test will be completed during the spring of 1997.

B. Spent Fuel Pool (SFP) Heat Exchanger B

The initial test program for SFP HX B included four performance tests - one each during 1993, 1994, 1995 and 1996.

Test reports have been completed for the 1993, 1994, 1995, and 1996 tests.

Based on Engineering analysis of initial program test results (1993 - 1995 tests), new temperature instrumentation was permanently installed and an improved test methodology was employed for the 1996 test. Test accuracy was greatly improved. The 1996 test report has concluded that the actual fouling of this heat exchanger is significantly below the design value and that this heat exchanger is capable of performing its intended safety-related heat transfer function.

The initial test program for this heat exchanger is considered complete, and a long term periodic test frequency has been established.

Attachment A

C. CRFC Motor Coolers A, B, C, and D

The initial test program for CRFC motor coolers A, B, C, and D included four performance tests - one each during 1992, 1993, 1994, and 1995. CRFC motor coolers were replaced with new coils in 1992.

The data from all four tests has been evaluated and documented in test reports. The conclusion of these test reports is that the CRFC MCs were able to perform their safety-related heat transfer function.

Evaluation of the test data has proven inconclusive in establishing a periodic long term testing frequency; therefore, an additional thermal performance test will be completed during the 1997 outage.

D. Containment Recirculation Fan Coolers (CRFC) A, B, C, and D

The initial test program for CRFCs A, B, C, and D included three performance tests - one each during 1993, 1994, and 1995. CRFCs A, B, C, and D were replaced with new enhanced design coils in 1993. The enhanced design included a slight increase in heat transfer capacity. The 1993 test was completed after replacement of the coils.

The data from all three tests has been evaluated and documented in test reports. The conclusion of these test reports is that the CRFCs were able to perform their safety-related heat transfer function. For the 1995 test, analysis of the data for the "A" and "C" CRFCs concluded that these heat exchangers may have had fouling factors higher than design values; therefore, additional analyses were performed to evaluate the effect on the plant of these higher fouling factors. The conclusion of the additional analyses was that the CRFCs would have been capable of removing sufficient heat to maintain the plant within analyzed and licensed conditions. Analysis of the data for the 1994 test concluded inconsistencies in the test data precluded meaningful analysis of the data. Therefore, the operability of the CRFCs for 1994 has been judged acceptable based on interpolation of the 1993 and 1995 test results and analysis.

Evaluation of the test data has proven inconclusive in establishing a periodic long term testing frequency; therefore, an additional thermal performance test will be completed during the 1997 outage.

E. Diesel Generator (DG) Jacket Water Heat Exchangers A and B and Lube Oil Coolers A and B

The initial test program for DG Jacket Water/Lube Oil Coolers A and B included three performance tests - one each during 1992, 1993, and 1994.

The data from these tests has been evaluated and documented in test reports. The conclusion of these test reports is that the coolers met their design requirements and would have been able to perform their intended safety-related heat transfer function.

Each of the DG coolers was re-tubed during the 1996 outage, thus restoring the coolers to an essentially clean condition (0 fouling) and restoring margin to their thermal performance. A baseline thermal performance test was completed following the tubing replacement. The test data is currently being evaluated and is scheduled for completion by the end of February 1997.

Evaluation of the test data has proven inconclusive in establishing a periodic long term testing frequency. A further assessment will be made when the 1996 test data analysis is completed. An additional test of these heat exchangers is planned in 1997.

F. Component Cooling Water (CCW) Heat Exchangers A and B

The initial test program for CCW HX A and B included three performance tests - one each during 1993, 1994, and 1995.

The data from all three tests has been evaluated and documented in test reports. For 1993 and 1994, data analysis concluded that the CCW HXs were capable of performing their safety-related heat transfer function. For 1995, data analysis concluded that the "B" HX was capable of performing its safety-related heat transfer function. Analysis of the data for the "A" heat exchanger concluded that this HX may have had a fouling factor higher than the design value; therefore, additional analyses were performed to evaluate the effect on the plant of the high fouling factor for the "A" HX. The conclusion of the additional analyses was that the "A" HX would have been capable of removing sufficient heat to maintain the plant within analyzed and licensed conditions.

Preliminary analysis of test data indicated there was a possibility of degraded heat transfer capability; therefore, CCW HX A and B were eddy-current inspected and cleaned during the 1996 outage.

Evaluation of the test data has proven inconclusive in establishing a periodic long term testing frequency; therefore, an additional thermal performance test will be completed during the 1997 outage.