



ROCHESTER GAS AND ELECTRIC CORPORATION • 89 EAST AVENUE, ROCHESTER, N.Y. 14649-0001



ROGER W KOBER
VICE PRESIDENT
ELECTRIC & STEAM PRODUCTION

TELEPHONE
AREA CODE 716 546-2700

June 19, 1987

Mr. William T. Russell, Regional Administrator
U.S. Nuclear Regulatory Commission
Region I
631 Park Avenue
King of Prussia, PA 19406

Subject: Inspection Report 50-244/87-10
Notice of Violations
R. E. Ginna Nuclear Power Plant
Docket No. 50-244

Dear Mr. Russell:

Routine Inspection Report 50-244/87-10 Appendix A, stated in part:

"As a result of the inspection conducted on April 13-16, 1987, and in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (Enforcement Policy) (1986), the following violations were identified:

A. Technical Specification 6,8.1 states in part, "Written procedures shall be established, implemented and maintained covering the activities referenced in Appendix "A" of Regulatory Guide 1.33, November 1972...". Appendix "A" of the Regulatory Guide lists "Procedure Review and Approval" and "Modification" among safety related activities to be covered by procedures.

1. Administrative Procedure A-601.4, Procedure Control - Periodic Review, Revision 3, January 29, 1987, paragraph 3.2 states: "... Any procedure may be reviewed when deemed necessary, but must be reviewed, approved and distributed within the next 2, 2 1/2 or 3 year time frame." This procedure requires that Administrative Procedures A-100 through A-1800 be reviewed and issued within a two year time frame.

Contrary to the above, as of April 16, 1987, Administrative procedures A-102.4, A-102.9, A-102.15, A-202, A-205.1, A-701, A-1011, and A-1604 were not reviewed, approved and distributed within the required time frame.

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2. Engineering Procedure QE316, Preparation, Review and Approval of Field Change Requests (FCRs), Revision 5, Paragraph 3.4 states in part:..." The Responsible Engineer, assigned by the Engineering Manager or Lead Engineer, shall review the FCR... FCRs involving changes shall be submitted to the Lead Engineer or the Engineering Manager for review and approval in the "Approved By" block..."

Contrary to the above, as of April 16, 1987, FCRs 3258A-12, 3258-13 and 3258-16 that involved changes were not submitted to the Lead Engineer or the Engineering Manager for review and approval in that the Responsible Engineer signed the "prepared by" block signifying review of the FCR and also signed the "Approved by" block approving the change.

- B. 10 CFR 50, Appendix B, Criterion III states in Part: "Measures shall also be established for the selection and review for suitability of application of materials, parts, equipment, and processes that are essential to the safety-related functions of the structures, systems and components."

The Ginna Station Quality Assurance Manual states in part: "Use-as-is/waiver dispositions shall require an evaluation... The evaluation and technical basis for acceptance shall be documented... The technical basis for use-as-is/waiver dispositions shall demonstrate that the nonconforming item will meet or exceed applicable design requirements for its use or is otherwise acceptable."

Contrary to the above as of April 16, 1987, the following items, purchased as non-safety-related (non QA), were upgraded for safety-related application (QA) by issuing an Nonconformance Report (NCR) for each item and then dispositioning the NCR use-as-is without objective evidence of the required evaluation being accomplished.

1. NCR G87-066, Emergency Power Supply Filter Elements and Gaskets.
2. NCR G87-155, Auxiliary Building Overhead Crane Switch and Contact Block.
3. NCR G86-301, Radiation Monitoring Control Relay.

- C. 10CFR 50, Appendix B, Criterion XIII, requires that stored material and parts be protected from damage or deterioration. Further, the licensee's Quality Assurance Program description commits to ANSI N45.2.2-1972, Packaging, Shipping, Receiving, Storage and Handling of Items, that requires items to be protected from detrimental contamination.

Contrary to the above as of April 16, 1987, safety related



3/4" Schedule 80 Stainless Steel Piping was not protected from detrimental contamination in that it was almost entirely layered by mounds of bird excrement.

- D. 10CFR 50, Appendix B, Criterion VIII, requires controls to prevent the use of defective material.

Contrary to the above, as of April 16, 1987, all elastomeric O-Rings were not controlled to prevent the use of defective material in that they were excluded from established shelf-life controls and no engineering evaluation was performed to determine the effects of aging on these O-rings."

the following responses are provided.

In response to Violation A, Item 1, the cause of this violation was personnel error, in that there was a lack of attention to detail in assuring that procedures are reviewed, approved and distributed as required.

The immediate corrective action taken was that Procedure Change Notices (PCN's) were initiated for these procedures identified as being overdue for two year review and are presently in the review cycle.

A review has been performed of the procedure master index to assure that there were not any other Administrative Procedures in the A-100 through A-1800 series overdue for two year review. All overdue procedures have procedure change notices initiated and are in periodic review.

The Corrective Action taken to prevent recurrence is that a schedule has been prepared for the biennial review of the Administrative A-100 through A-1800 series procedures. This schedule will now enable our administrative procedure reviews to be coordinated with scheduled Quality Assurance Manual revisions. This will also minimize duplicate procedure changes due to QA Manual changes and biennial reviews.

In response to Violation A, Item 2, we acknowledge that the same individual, a Lead Engineer on this project, signed both the "Prepared By" and "Approved By" blocks of the referenced FCRs. The following corrective actions have already been completed:

1. The individual and his manager were reminded that an individual cannot review and approve his own work.
2. The violation was discussed at an Engineering training session on May 11, 1987, and all engineers were reminded that all documents covered by the QA program must receive an independent review and that an



individual cannot review and approve his own work.

No further corrective action is required.

In response to Violation B, while it is true that the Ginna Station Quality Assurance Manual states in part: "Use-as is/waiver dispositions shall require an evaluation... The evaluation and technical basis for acceptance shall be documented.... The technical basis for use-as-is/waiver dispositions shall demonstrate that the nonconforming item will meet or exceed applicable design requirements for its use or is otherwise acceptable", the root cause of this violation lies, not with the upgrading of items purchased as non-safety-related (non-QA) for use in a safety-related application, but rather in the use of the Nonconformance Report (NCR).

The use of the Nonconformance Report (NCR) to identify and correct this discrepant condition was in error. The correct document to identify and correct these deficiencies should have been the Corrective Action Report (CAR).

To prevent recurrence, a review session has been conducted with QC personnel at which the correct use of the Nonconformance Report (NCR) and Corrective Action Report (CAR) to report deficient conditions, materials, parts, and components was discussed. The identified examples were used during this session and all QC personnel were in attendance.

The Ginna Station Quality Assurance Manual requires that upgrades of non-QA material for use in a safety-related application requires the use of a QA-07 form. This form describes the inspection, test and documentation requirements necessary for item acceptance. However, recognizing the potential that the technical basis and justification may have been inadequate for these QA-07's, station Administrative procedure A-401, Procurement Control, will be revised to include the need for a technical basis and justification document.

Likewise, station Administrative procedure A-1502, Nonconformance Reports, will be revised to require the technical basis and justification for use-as-is/waiver disposition to be documented on the Nonconformance Report (NCR) or attachments as necessary and submitted to Central Records as part of the Nonconformance document package.

In response to Violation C, verification of effected pipe has been completed by Quality Control and all potentially degraded material has been scrapped. A protective covering has been installed to protect remaining pipe inventories. A schedule has been enacted to perform an ongoing documented daily work day inspection of the pertinent storage area to assure proper protection is still in place.



In response to Violation D, we take exception to this violation and request this violation be withdrawn from the report. In 1979, inconsistencies within the O-ring manufacturing industry prompted an investigation into proper storage and shelf-life requirements of O-rings. A leading manufacturer of O-rings (Parker Seals) was consulted and offered verbal and documented evidence that the storage conditions of rubber compounds was the most significant attribute to O-ring degradation.

Parker Seal Group Technical Bulletin No. 42 states in part"

"Our customers will benefit by the fact that they no longer need to limit the usage of the O-ring once it is in his stores. Technically, appropriate engineering and storage practices will then take over the control of O-ring stock."

To insure optimal storage conditions, Rochester Gas and Electric Corp. adopted those requirements contained in the Parker Seal O-ring handbook which included;

1. Ambient temperature not exceeding 120° F
2. Exclusion of air
3. Exclusion of contamination
4. Exclusion of light (particularly sunlight)
5. Exclusion of ozone generating electrical devices
6. Exclusion of radiation

In addition, it was at this time that the Senior Products Engineer of Parker Seal offered a method to check for degradation of an O-ring upon issuance to the field and RG&E removed the shelf-life requirement.

Since that time (~1979) several INPO evaluations and NRC inspections have been conducted with regard to O-ring shelf-life and the above evaluation has been found to be satisfactory. Since the safety inspection of April 13-16, 1987 additional information regarding the effect of age and storage conditions on rubber compounds has been gathered, which reinforces the RG&E position on O-ring control.

The following excerpt from the Parker O-ring Handbook provides the basis of RG&E's position.

"Field experience has demonstrated that STORAGE CONDITIONS, not TIME, determine the useful life of synthetic rubber seals. Control of storage TIME only serves to de-emphasize CONDITIONS, which may result in deteriorated seals, or in wasteful destruction of perfectly good seals."

Parker Technical Bulletin No. 42 has certain exceptions to this policy, however, we have verified that RG&E does not have any of



the compounds in use.

In summary, Rochester Gas & Electric Corp. has reviewed the information available on O-ring storage and has implemented a storage program and degradation check at issue, that complies with the full intent of 10 CFR 50, Appendix B, Criterion VIII and no further actions or limitation apply.

Very truly yours,



Roger W. Kober

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 KOBER, R. W. Rochester Gas & Electric Corp.
 RECIP. NAME RECIPIENT AFFILIATION
 RUSSELL, W. T. Region 1, Office of Director

SUBJECT: Responds to NRC ltr re violations noted in Insp Rept
 50-244/87-10. Corrective actions: procedure change notices
 issued, procedural reviews scheduled, workers counselled &
 retrained & QA personnel reviewed re repts of deficiency.

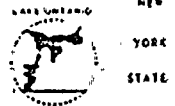
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1. Administrative Procedure A-601.4, Procedure Control - Periodic Review, Revision 3, January 29, 1987, paragraph 3.2 states: "... Any procedure may be reviewed when deemed necessary, but must be reviewed, approved and distributed within the next 2, 2 1/2 or 3 year time frame." This procedure requires that Administrative Procedures A-100 through A-1800 be reviewed and issued within a two year time frame.

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PDR ADDCK 05000244
Q PDR

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The Ginna Station Quality Assurance Manual states in part: "Use-as-is/waiver dispositions shall require an evaluation... The evaluation and technical basis for acceptance shall be documented... The technical basis for use-as-is/waiver dispositions shall demonstrate that the nonconforming item will meet or exceed applicable design requirements for its use or is otherwise acceptable."

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Contrary to the above as of April 16, 1987, safety related



3/4" Schedule 80 Stainless Steel Piping was not protected from detrimental contamination in that it was almost entirely layered by mounds of bird excrement.

- D. 10CFR 50, Appendix B, Criterion VIII, requires controls to prevent the use of defective material.

Contrary to the above, as of April 16, 1987, all elastomeric O-Rings were not controlled to prevent the use of defective material in that they were excluded from established shelf-life controls and no engineering evaluation was performed to determine the effects of aging on these O-rings."

the following responses are provided.

In response to Violation A, Item 1, the cause of this violation was personnel error, in that there was a lack of attention to detail in assuring that procedures are reviewed, approved and distributed as required.

The immediate corrective action taken was that Procedure Change Notices (PCN's) were initiated for these procedures identified as being overdue for two year review and are presently in the review cycle.

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In response to Violation A, Item 2, we acknowledge that the same individual, a Lead Engineer on this project, signed both the "Prepared By" and "Approved By" blocks of the referenced FCRs. The following corrective actions have already been completed:

1. The individual and his manager were reminded that an individual cannot review and approve his own work.
2. The violation was discussed at an Engineering training session on May 11, 1987, and all engineers were reminded that all documents covered by the QA program must receive an independent review and that an



individual cannot review and approve his own work.

No further corrective action is required.

In response to Violation B, while it is true that the Ginna Station Quality Assurance Manual states in part: "Use-as is/waiver dispositions shall require an evaluation... The evaluation and technical basis for acceptance shall be documented.... The technical basis for use-as-is/waiver dispositions shall demonstrate that the nonconforming item will meet or exceed applicable design requirements for its use or is otherwise acceptable", the root cause of this violation lies, not with the upgrading of items purchased as non-safety-related (non-QA) for use in a safety-related application, but rather in the use of the Nonconformance Report (NCR).

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the compounds in use.

In summary, Rochester Gas & Electric Corp. has reviewed the information available on O-ring storage and has implemented a storage program and degradation check at issue, that complies with the full intent of 10 CFR 50, Appendix B, Criterion VIII and no further actions or limitation apply.

Very truly yours,



Roger W. Kober

