

EDO Principal Correspondence Control

FROM: DUE: 07/21/03 EDO CONTROL: G20030384  
DOC DT: 06/30/03  
FINAL REPLY:

Debbie B. Grinnell  
C-10 Research and Education Foundation

TO:

Chairman Diaz

FOR SIGNATURE OF : \*\* PRI \*\* CRC NO: 03-0435

Chairman Diaz

DESC:

Steam Generator Tube - Seabrook

ROUTING:

Travers  
Paperiello  
Kane  
Norry  
Dean  
Burns/Cyr  
Thadani, RES  
Miller, RI

DATE: 07/09/03

ASSIGNED TO: CONTACT:  
NRR Collins

SPECIAL INSTRUCTIONS OR REMARKS:

Template: SECY-017

E-RIDS: SECY-01

**OFFICE OF THE SECRETARY  
CORRESPONDENCE CONTROL TICKET**

*Date Printed: Jul 08, 2003 17:06*

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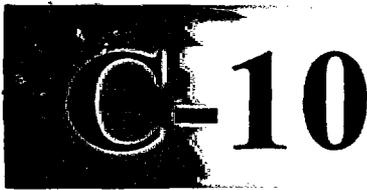
**PAPER NUMBER:** LTR-03-0435 **LOGGING DATE:** 07/08/2003  
**ACTION OFFICE:** EDO

**AUTHOR:** Debbie Grinnell  
**AFFILIATION:** MA  
**ADDRESSEE:** Nils Diaz  
**SUBJECT:** Seabrook nuclear power station

**ACTION:** Signature of Chairman  
**DISTRIBUTION:** RF, SECY to Ack

**LETTER DATE:** 06/30/2003  
**ACKNOWLEDGED:** No  
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**DATE DUE:** 07/23/2003 **DATE SIGNED:**



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*"dedicated to radiological monitoring, research, and education since 1991"*

CHAIRMAN REC'D  
03 JUL -7 AM 9: 50

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June 30<sup>th</sup>, 2003

Nils J. Diaz, Chairman  
U.S. Nuclear Regulatory Commission  
1 White Flint North  
11555 Rockville Pike  
Rockville, Maryland 20852-2738

Dear Chairman;

The C-10 Foundation recently became aware of a critical safety issue at the Seabrook nuclear power plant through an April 1, 2003 "NRC Information Notice 2002-21, Supplement 1: Axial Outside-Diameter Cracking Affecting Thermally Treated Alloy 600 Steam Generator Tubing". Of particular concern to us was the fact that the tube cracking at Seabrook was both "unexpected and unusual" and the means of detecting these tube crackings with current technical specification requirements using the eddy current offset technique is inadequate, as stated in your notice.

In investigating what your agency was doing in response to this critical new finding at Seabrook, we contacted NRC staff to pursue what actions have been taken by the NRC to require "the highest quality standards practical" for steam generator tubing and to assure that the technical specifications required are adequate to assure that steam generator tubes have "an extremely low probability of abnormal leakage" as stated in Title 10 of the Code of Federal Regulations. We were directed by your staff to review the information available in your "Steam Generator Action Plan", which we did.

As we researched the Indian Point 2 steam generator leakage event which caused your agency to develop "action items" and pursued the research documentation, we discovered a letter from J. Hopenfeld "Differing Professional Opinion On Steam Generator Tube Integrity Issues" which clearly stated that excessively degraded tubes was an issue of grave concern to NRC staff and had been for a decade. According to your staff, the issue of allowing plants with these degraded steam generator tubes to stay in service and continue to threaten public safety was a violation of 10 CFR PART 100 and presented an unacceptable safety risk.

We continued to review NRC documentation within the "Steam Generator Action Plan" materials and found a letter from Louise Lund on your staff to James Riley at NEI where she is quoted as saying "the NRC staff is relying on the industry's initiative to maintain tube integrity by considering the NRC staff's comments in the enclosures 1-4. She states that it would be "highly desirable for the industry to address these issues". We then

reviewed "Enclosure 4 – Priority Guideline Issues" which states "it would be important that inspection techniques employed during each inspection are capable of detecting active and potential degradation mechanisms which can occur over the lifetime of the steam generators at all locations where such mechanisms may potentially occur". I ask you, Chairman Diaz, when did it become voluntary for the nuclear industry to come into compliance with Federal Code requirements? Who is mandated under the law to assure public health and safety here, the NRC or NEI? Under your leadership the operational mode of your agency, when the industry to the NRC's knowledge, is not in compliance with Federal Codes, is to enforce them through polite suggestion.

It is more than important...it is imperative under the Federal Codes to understand that your agency is in violation of its mandate if it does not issue clear orders to assure that the industry comes into compliance with the Federal Codes. It is your duty to issue a proposed rule to ensure public safety and regulate the integrity of steam generator tubes and do it in a reasonable time frame.

When your staff has identified solutions and technology currently available to better manage tube degradation and the Advisory Committee on Reactor Safeguards has stated in publicly available NRC documents that the NRC does not have a defensible basis for determining that steam generator tube degradation will not experience multiple tube ruptures in an accident, you have a moral imperative but more significantly as an agency a requirement under the Federal Codes to issue an order to correct this critical safety issue in a reasonable timeframe. You have been aware as an agency that the current requirements contained in NRC technical specifications to the industry to assess tube integrity are inadequate and have not definitively acted on it. Had you issued a license amendment years ago and taken appropriate action to assure steam generator tube integrity, the issues would not have crept up and worsened. Had you allowed the NRC staff to keep pace with the corrective actions needed to assure tube integrity, you may have been able to head off the likelihood of the accidents that have already occurred and to also head-off the potential increase in the frequency of future steam generator tube accidents.

Public confidence in the ability of the NRC to be an unbiased and effective regulator is significantly damaged by such Commission stall tactics. We are well aware that such tactics gamble with public safety by favoring the financial interests of utilities operating nuclear reactors with defective generator tubes. Growing public concerns demand that those within the Commission who would obfuscate such hazards step down in order to make way for an agency that heeds its public safety mandate.

Seabrook will be refueling in October, what formal NRC request to FPL Seabrook operators has been made to ensure that a full inspection of all steam generators is accomplished in response to the "unanticipated and unusual tube cracking"? Will you "ensure that inspection techniques and personnel used for the detection and sizing of flaws

are appropriate for all existing and potential degradation mechanisms”, as stated in “Enclosure 3 ‘NRC Staff Comments Pertaining to EPRI PWR Steam Generator Examination Guidelines, Revision 6’”? Will you request that “array probes be used to inspect for all degradation mechanisms at speeds comparable to a bobbin, as the bobbin is not qualified to detect these degradation types and locations”, according to your staff? Through our research of NRC documents, we are now all aware that Revision 5, which clearly identifies who and what is capable of assessing tube degradation, needs to be implemented with this new finding at Seabrook. Will you request that the following conditions of plant operations be evaluated in-depth and reported “by qualified personnel and inspection techniques: high operating temperature, off-nominal chemistry, high stress, micro-structural variability associated tube fabrication and heat treatment”, as proposed by your staff in Enclosure 3?

Chairman Diaz, would you forward to us your agency’s request of the Seabrook operator’s for a steam generator inspection action plan for this October outage and the written results of your investigation of tube degradation, as well as a response to our questions. Thank you.

Sincerely,



Debbie B. Grinnell  
Research Advocate  
C-10 Research and Education Foundation

cc; Sandra Gavutis, Ex. Dir., C-10 Foundation  
Congressman John F. Tierney  
Congressman Edward J. Markey