

SEP 30 1982

Docket No. 30-04694

License No. 20-11085-01

EG&G Mason Research Institute  
ATTN: Mr. William Woods  
President  
57 Union Street  
Worcester, Massachusetts 01608

Gentlemen:

Subject: Inspection No. 82-01

This refers to the routine safety inspection conducted by Miss J. McGinness of this office on July 30, 1982, of activities authorized by NRC License No. 20-11085-01 and to the discussions of our findings held by Miss McGinness with yourself and Dr. N. Lau of your staff at the conclusion of the inspection.

The inspection was an examination of activities conducted under your license as they relate to radiation safety and to compliance with the Commission's rules and regulations and the conditions of your license. The inspection consisted of selective examinations of procedures and representative records, interviews with personnel, measurements made by the inspector, and observations by the inspector.

Based on the results of this inspection, it appears that certain of your activities were not conducted in full compliance with NRC requirements as set forth in the Notice of Violation, enclosed herewith as Appendix A. These violations have been categorized by severity level in accordance with the NRC Enforcement policy (10 CFR 2, Appendix C) published in the Federal Register Notice (47 FR 9987) dated March 9, 1982. You are required to respond to this letter and in preparing your response, you should follow the instructions in Appendix A.

In addition, one activity appears to be a Deviation from accepted radiological practices. In this regard, the efficiency of the instruments being used for the determination of iodine-125 in the thyroid of workers doing iodinations was not adequately calibrated when thyroid monitoring was performed. Specifically, the thyroid monitor was not calibrated by using a known source placed in a phantom simulating the geometry and density of the neck of a "Standard Man", as documented in American National Standards Institute Publication N44.3-1973, "Thyroid Radioiodine Uptake Measurement Using a Neck Phantom". Please include in your response your comments concerning this Deviation.

During the discussion at the conclusion of the inspection, Miss McGinness expressed our concern regarding the need for an effective management audit system to avoid future items of noncompliance. From these discussions, it is our understanding that you plan to employ a consultant to make periodic audits of your licensed program to assure compliance with NRC's regulations and the conditions of your license. In your reply to this letter, please confirm this

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understanding and describe any other actions taken or planned to improve your radiation safety program.

The responses directed by this letter and the accompanying Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL 96-511.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and your reply will be placed in the Public Document Room.

Your cooperation with us in this matter is appreciated.

Sincerely,

**Original Signed By:**  
**John D. Kinneman**

*for* Thomas T. Martin, Director  
Division of Engineering and Technical  
Programs

Enclosure:  
Appendix A, Notice of Violation

cc w/encl:  
Public Document Room (PDR)  
Nuclear Safety Information Center (NSIC)  
Commonwealth of Massachusetts (2)

bcc w/encl:  
Region I Docket Room (with concurrences)  
Chief, Operational Support Section (w/o encl)

*for* *Kinneman*  
RI:DETP  
McGinness/lp  
9/15/82

*Kinneman*  
RI:DETP  
Kinneman  
9/24/82

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