UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
631 PARK AVENUE
KING OF PRUSSIA, PENNSYLVANIA 19406

September 13, 1978

Docket No. 30-7022

Radiation Technology, Inc.
ATTN: Dr. Martin A. Welt
President
Lake Denmark Road
Rockaway, New Jersey 07866

Gentlemen:

We have reviewed your letter dated June 26, 1978, which responded to our letter and Notice of Violation resulting from our last routine inspection of your licensed activities. As a result of this review, along with a review of your license and procedures, we have withdrawn two of the items of noncompliance, and a third, although technically an item of noncompliance, will not be made a part of your enforcement history. These actions and their bases are explained in the following discussion.

We find in some instances, however, that you did not provide all of the information needed for us to determine final disposition for certain items of noncompliance. Therefore, please provide the additional information required by 10 CFR 2.201, as requested in two of the following paragraphs.

With regard to Item A, we acknowledge that Mr. Robert Buckley was added to your license as an authorized user of licensed material by Amendment No. 13, dated June 21, 1978. At the time of the inspection, Mr. Buckley was not named in your license and this was the basis for our citation. Recognizing the delay encountered in processing your request for this amendment, this item will not be made a part of your enforcement history. Nonetheless, we expect that appropriate steps will be taken to assure that this problem does not recur.

Referring to Item B.1, you offered an interpretation of your procedure for performing checks of interlocks on any given day, saying that, "On any given day," refers to any day chosen by the licensee. We believe that our letter of October 6, 1977 provided sufficient notice to you regarding testing of interlocks for proper functioning prior to initial operations on any day on which operations are conducted in the in-air

irradiator. Relative to this matter, we would like to point out that the need for testing of interlocks prior to initial operation each day is considered to be of such importance that it is now required by 10 CFR Part 20, Section 20.203(c)(6)(vii). The testing of interlocks described in our letter of October 6, 1977 is consistent with this regulation and the letter was written with the proposed regulation in mind. We have no further questions on this item.

With regard to Item B.2, we are withdrawing it as an Item of Noncompliance because it is closely related to Item B.1. In connection with this item, we would like to point out that equipment failures identified during routine performance of required testing of your interlock system, which are corrected prior to operation, would not normally be considered to be items of noncompliance.

The citation of noncompliance in Item B.3 is withdrawn. We conclude that Condition 13.A of your license which requires water sampling at intervals not to exceed six months, is the effective requirement in this matter.

On the same subject of water sampling, you took exception to our mention of your procedure of analyzing a 40 milliliter sample of water versus a 100 milliliter sample as required by the procedure incorporated into your license. Although this was technically an item of noncompliance, we did not cite it as such because we agree (as you noticed in your letter) that the procedure used for analysis of a 40 milliliter sample is entirely adequate for detection of contamination of pool water. We were pointing out a discrepancy between your actual practices and the specific requirement of the license, and advised that a change in your procedures should be submitted to the NRC to resolve the discrepancy.

We have not withdrawn Item B.4, but we have no further questions regarding this item of noncompliance.

We have not withdrawn Item B.5. We acknowledge that since the demineralizer was not in service, weekly radiation surveys of the demineralizer would not have produced the desired result of early detection of cobalt activity in the pool water. However, based on the results of our inspection, we were unable to conclude that there was an adequate substitute for the required weekly direct radiation surveys of the demineralizer during the period in question. From a telephone contact, between you and Mr. M. Slobodien of this office, on August 22, 1978, we understand that the demineralizer has been operational since July 15, 1978, and that pool water conductivity is now 5 micromhos per centimeter. We have no further questions concerning this item.

The citation of noncompliance in item B.6 was based on the inspection findings that the performance of training had not been documented or recorded as required by the license. Your reply implied that you may have these records of training. To achieve final disposition of this item of noncompliance, please provide with your reply to this letter any documents you have which record the performance of training of employees after October 1977.

Your letter dated June 26 did not contain a response to the last paragraph on page 2 of our letter which requested information about those actions you have taken to assure the radiation monitor alarm in your R&D irradiator room will function as intended. Please include in your response to this letter the actions taken, including frequency of testing, to prevent recurrence of undetected failures of this monitoring equipment.

On page six of your letter, the first paragraph requests clarification of what is expected regarding the radiation dose received by an individual in September 1977. We believe that the medical data to which you refer, time and distance studies, and information about partial shielding of the individual's film badge, indicate the absorbed dose was in excess of that reported by the company that supplies and processes your film badges. Since, in this case, the film badge is only one data point that has to be evaluated to determine the true exposure, you should revise the dosimetry records for this individual to indicate the best evaluation of the dose. We do not view an accurate evaluation of a medically significant exposure to radiation to be a "non-essential study".

In the first and closing paragraphs of your letter you imply that there was improper conduct on the part of the NRC regarding the timing and handling of the inspection and the subsequent Notice of Violation. A hearing does not cause a cessation of NRC inspection. The inspection which concluded on April 27, 1978, was a routine inspection of your licensed activities as opposed to the special inspections, specific in nature, performed subsequent to the overexposure incident. The scope and timing of the April inspection is consistent with NRC inspection policy. I assure you, without reservation, that that inspection was not motivated or designed in any way to interfere with the hearing. The inspection findings, including each item of noncompliance described in the Notice of Violation, were discussed with you at the conclusion of the inspection, nine days prior to commencement of the hearing. And we purposely delayed sending the Notice of Violation until the hearing was completed because the inspection and findings were not related to the hearing and wished to avoid any impact it might have on the hearing and, indeed, even an implication that there was a connection between the inspection and hearing.

We have requested information about two of the items in the previous paragraphs. Please provide a response within thirty (30) days of the receipt of this letter. If you have any questions regarding these matters, we would be pleased to discuss them with you.

Sincerely,

Boyce H. Grier
Director