



TUFTS UNIVERSITY

Physical Plant Department

April 5, 1982

U. S. Nuclear Regulatory Commission
Region I
631 Park Avenue
King of Prussia, Pa. 19406

ATTENTION: Thomas T. Martin, Director
Division of Engineering & Technical Programs

Ref Docket # 30-01801 - 30-14561 - 30-11729 - 30-06932

Subject: Inspection 82-01

Dear Mr. Martin:

In response to your letter of March 17, 1982, following are our comments on each of the violations cited:

- A. As explained in the initial application for this license, air sampling is not attempted for each iodination, particularly considering the safety of individuals in the roof-top sampling sites during snow-cover in the winter. Rather, attempts are made to provide initial sampling for new procedures to establish adequacy of procedures, and to sample whenever reasonable there after. Review of our records by Mr. Masse, Radiation Safety Officer, who was not present during the inspection, indicates that 24 hour stack sampling was performed on December 10, 1981 in M & V 319 and on December 28, 1981 in Stearns 810 during iodinations. In both cases, discharge concentrations were well within permissible limits. Nonetheless, it is our stated intent to monitor for maximum discharge concentrations during training of new people during their initial iodination procedures and we will continue to strive to achieve this goal. We are in compliance with this section at this time.
- B. The tritium action level we have been working with for bioassay performance is the 10 millicurie level listed in the NRC's current Regulatory Guide on tritium bioassay. The fact that the license restricts us to performance of tritium bioassays at one millicurie and above is an oversight that will be corrected by requesting a license amendment. Compliance with this regulation will be achieved by instituting such bioassays at 1 mCi action

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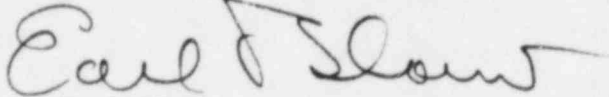
level immediately, and relaxing to the 10 mCi action level once the license amendment is secured. With respect to the thyroid measurements, Mr. Masse also reviewed this data carefully and found that there was some confusion with respect to the dates involved. Specifically, iodination materials typically arrive on Fridays, iodinations are performed on Mondays or Tuesdays, and thyroid measurements are made within twenty four hours. For example: stock solutions of radiiodine were received on December 4, 1981, December 23, 1981 and January 13, 1982, and January 19, 1982. Thyroid measurements were made on December 8, 1981, December 29, 1981 and January 19, 1982. We are unable to verify a violation on the dates cited by the inspector, but will be vigilant in this regard in the future. Since all shipments of radiiodine are ordered and reviewed by Health Physics, the system includes an automatic alert of the involved parties whenever a thyroid measurement is likely to be warranted. We feel that we are in compliance with this regulation at this time.

- C. Control of this heavily used facility has become difficult in recent months with the retirement of the faculty member who was most involved and interested in its applications. His presence on campus has gradually diminished and access has become less well controlled. We therefore propose to change control of this device such that the keys are held in departmental headquarters to be issued only to persons cleared and trained by Health Physics. A listing of all such persons will be provided at Departmental Headquarters. Further, the control key for the irradiator has been separated from the room key and clear instructions have been posted in the area that the room must be locked whenever people leave the facility. It should be emphasized that this is a completely self contained device that emits no more radiation in its operational mode than when it is turned off. Full compliance with the issues in this violation will not be technically achieved until an amendment to the irradiator license is issued by NRC. The safety improvements that are desired will be accomplished immediately with the implementation of this program and an amendment application will be forwarded to NRC immediately.

Finally, we are unable to comment specifically on the contamination you refer to in your covering letter, since no numbers were stated but only the results of your wipe test as "in excess of generally acceptable guidelines for removable contamination". We note that the area wiped was inside a hood that is regularly used for iodinations and that it was pointed out to the inspector as an area that is well known to be potentially contaminated. As such, we allow higher contamination levels than general work areas or areas that are generally accessible to all personnel. Following receipt of your letter we again surveyed this area and found contamination to be within the limits established for such areas under our program. We will continue to observe this area and all similar work areas closely.

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Sincerely,

A handwritten signature in cursive script that reads "Earl Blount". The signature is written in dark ink and is positioned to the right of the word "Sincerely,".

Earl Blount
Administration Chairman
Radiation Hazards Control Group

EB/emf

cc: Nuclear Safety Information Center
Commonwealth of Massachusetts