

Public Health



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Final Report of Radiation Protection Evaluation of Washington
Technical Institute Buildings, Formerly Occupied by NBS.

In the absence of Mr. John V. Brink, Chief, Bureau of Public Health Engineering of this Department, I was asked to report to you our findings and recommendations with respect to the radioactive contamination of the subject buildings.

There is attached a copy of a letter from Mr. Brink, (Attachment 1) which briefly outlines the problem initially discussed with you in February. Following the first discussions of this problem with Dr. Schwebel, Chief, Health Physics Section of the National Bureau of Standards, our staff made an exhaustive survey of all buildings formerly occupied by NBS and scheduled for release to your Department. Our findings were reported to Dr. Schwebel who arranged for decontamination of the facilities.

There is enclosed a copy of the final report of Dr. Schwebel following the completion of the decontamination. (Attachment 2) Following these cleaning operations by Dr. Schwebel's staff, members of our Division made a final reevaluation of all areas. We are in substantial agreement with the conclusions of Dr. Schwebel, however there remain three areas of concern, all located in Building #2:

1. Room 507

Although we do not feel that a radiation hazard exists in this room at the present time, radiation measurements show that an unknown quantity of radium is still present in cracks, pits, holes, and painted cinderblock. This material is largely fixed contamination and is no hazard as long as it remains fixed. Unfortunately, however, the normal aging processes coupled with the possibility of unusual use or wear and tear may uncover this radium creating a hazardous, or at least, an alarming condition. For this reason and the fact that this space does not appear to be very useful, we recommend that the doorway be bricked over and the skylight sealed to permanently eliminate the availability of this room.

2. Room 522

The ventilation or hood ducts located in this room and extending down to the fourth floor have levels of radioactivity which cannot be easily quantitated or decontaminated. We recommend, therefore, that these ducts be permanently sealed.

3. Roof area near the skylight over Room 507

There is contaminated gravel on the roof around the skylight. The individual pieces of gravel probably have considerably less than would be found on a radium dial wrist watch, however due to the type of material involved and the large equipment and trash on the roof, it is a virtually impossible problem to evaluate. We recommend, therefore, that the large equipment be disposed of. Also, fresh tar and at least an inch of fresh gravel should be poured on the roof covering the area from the skylight out to the edge of the roof on all sides, but it is not necessary to exceed a distance of 10 feet from the skylight.

4. Room 504

This room had shelves and old pieces of equipment left in the area by NBS. Because of the presence of low levels of contamination covering wide areas of the floor, we would like to evaluate this area further after the equipment and shelves have been removed.

In conclusion, although there does remain small amounts of activity in a few isolated areas, the levels are within safe limits. We have used as guidelines the recommendations of the U.S. Public Health Service as indicated on Attachment 3. Also enclosed is a copy of an article by H.F. Klein and G.D. Schmidt which provides information on contamination limits used by other agencies. The guidelines of the U.S. Public Health Service, and the ones used in our evaluation were lower than those used by most other agencies. We feel, therefore, that no radiation hazard exists in any of the buildings evaluated. (See list below.) Furthermore, subject to the recommendations discussed above, we believe that no radiation hazards from this contamination will recur in the future.

Buildings surveyed:

Building #2
" #3
" #4
" #7
" #18
" #45
" #129
" #2100
Tunnel between Bldg. #2 and #4