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CHICAGO, ILLINOIS 60611

March 7, 1980

Chief, Materials Branch  
Division of Fuel Cycle  
and Material Safety  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

AND

Director, Region III  
Office of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission  
799 Roosevelt Road  
Glen Ellyn, IL 60137

Re: Closeout radiation survey of Nuclear Pharmacy, Inc. - Elmhurst, IL facility  
Ref: License 12-18044-OIMD

Gentlemen:

This report represents the results of our closeout radiation survey of the following facility:

Identification: Nuclear Pharmacy, Inc.  
770 Church Road, Suite F  
Elmhurst, IL 60126

Decontamination Effort Description

1. All furniture, equipment and radioactive materials were transferred to the new Nuclear Pharmacy, Inc. facilities, recently licensed at 319 West Ontario Street; Chicago, IL 60611. This move included the work benches, sink and fume hood and essentially left the Elmhurst facility completely bare.
2. Since the primary liquid radionuclides handled at the Elmhurst facility were diagnostic medical compounds of Tc99m, significant contamination was not expected and extraordinary scrubbing procedures were considered unnecessary. However, the facility was locked, left unused, and within 2 weeks thereafter, the radiation surveys described herein were performed.

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Scope of Surveys and General Procedures Followed

1. First, Ken Barat and Stan Huber of S.A. Huber Consultants, Inc. - New Lenox, IL used a low-level, thin-end window, G.M. survey meter with pancake detector head (Ludlum Model 2) on the most sensitive scale range (0 to 0.5 mr/hr) and surveyed every square foot of the floor of the facility in a grid pattern. They also surveyed the walls, pipes, door knobs, adjoining offices and 3 phones that remained to be removed. No readings above normal background ( $< 0.05$  mr/hr) were found. (Mrs. Barat did phase one of this survey in late January 1980, and Mr. Huber completed phase two on March 7, 1980.)
2. Then, Mr. Huber and Mr. Barat used a series of alco-wipes, with 1 swab for each square foot of tile surface in the facility. Each wipe swab was then pushed with a yard stick to wipe a grid of tile squares the entire length of each room. The swab width was 3.5 cm and the minimum length of wipe in any room was 11 feet or 335 cm. In smaller rooms, we simply rewiped until at least 11 feet were covered. This translates to a minimum of 1173 cm<sup>2</sup> surface area covered with each wipe sample. We rounded this figure to 1000 cm<sup>2</sup> per wipe in the attached data sheets for ease in calculating and to be extra conservative. All door knobs were also wipe tested as a group (Sample #37).
3. Finally, the wipe samples were immediately taken to the NPI-Ontario Street facilities for counting in a Ludlum Model 2600 well counter and spectrometer with broad counting window to encompass all radionuclides involved in dose preparations at the radiopharmacy. The well counter efficiency at this setting had recently been determined to be 89% which results in the efficiency factor of 1.12 which we used to convert the scaler displayed CPM to DPM, as shown on the attached data sheets.

Findings of the Survey

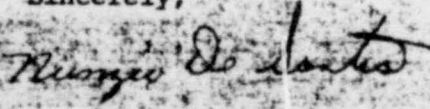
The attached survey data show the results to be well within the acceptable surface contamination levels for removable contamination as defined in Table I of the NRC Draft "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use". The highest reading we obtained was 7 DPM/100 cm<sup>2</sup> which, even assuming the worst case that it was I-131, would still be less than 5% of the acceptable removable contamination for that radionuclide of 200 DPM/100 cm<sup>2</sup>.

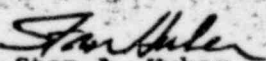
We believe we have thoroughly evaluated this facility as being acceptable to release for unrestricted use and we invite the NRC to visit for confirmation purposes, as they did on February 27, 1980 at the NPI Watertown Place facility.

Within the next month, we intend to apply to NRC-Washington, D.C. for an amendment to remove both the Watertown Place and Elmhurst, IL facilities from our current license.

Thank you.

Sincerely,

  
Nunzio De Santis  
District Manager

  
Stan A. Huber  
Nuclear Consultant

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