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Norman Regional Hospital 

March 28, 2000

APR 18 2000

Jacqueline Cook, Health Physicist
Medical Licensing
United States Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 400
Arlington, Texas 76011

Reference Norman Regional Hospital License Number 35-14145-01, Docket 030-08009

1. Plans to relocate nuclear medicine to new laboratory
2. Change for dose calibrator linearity testing

Dear Ms Cook:

We have constructed a new nuclear medicine facility and plan to move into the area in the near future. The plans were officially approved by the Radiation Safety Committee on December 6, 1999. A copy of the plans are enclosed for your review. Below please find a list of features of the new facility.

1. The new lab consists of three imaging rooms (Camera I, II and III), two stress labs (Tread Mill and Stress Lab), injection room, hot lab and decay in storage. There is an office, technologist area, linen storage and restroom as well. All floors are tile. Access to Nuclear Medicine is through two lockable doors off main corridors on the first floor of the building which is an addition to the existing Norman Regional Hospital.
2. Lead shielding is provided around the decay in storage lab, partially around the hot lab to protect public access areas and in the imaging rooms to minimize background in each imaging room which may originate from an adjacent room. We have calculated that the radiation levels in public access areas around the laboratory will meet the requirements of 10CFR20.1301. This calculation is based on 20 mCi open in the imaging rooms continuously for 8 hours per day, 5.5 days per week. Accounting for inverse square, the exposure would be 4 mR per week. Given an occupancy in the hall ways of 0.25, public dose would be 50 mR per year. There will be further reduction when gypsum wall board is accounted for.
3. Radioactive materials will be maintained in the decay in storage room and in the hot lab. The hot lab is designed to receive and process unit doses of radioactive materials which are delivered several times daily. It is accessed through two lockable doors. A dose calibrator, 2 GM survey meters, L block and sink will be available in the room but the sink is for hand washing, not for disposal of radioactive wastes.

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Norman Regional Hospital 

APR 13 2000

4. The decay in storage room is like the one that we are currently using except it is much larger and will allow us to better arrange and manage waste materials as well as store flood sources and camera QC phantoms.
5. The decay in storage, hot lab and each of the imaging rooms have dedicated air exhaust directly to the outside which will be sufficient to maintain negative air pressure in the rooms thus accommodating our use of 133Xe. We also utilize a Pulmonex 133Xe dispenser and charcoal filter trap system which was described in our original license application.

In our NRC license application we committed to doing the dose calibrator linearity testing following Regulatory Guide 10.8, Rev 2 specifically testing linearity down through less than 10 uCi. We now request approval to follow 10 CFR 35.50.b.3.

If you have questions about this request, please contact Ms. Burdel Harris at 405 307 1655.

Sincerely,



Eric Wollman, M.D.
Radiologist, Radiation Safety Officer

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