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REGION V

UNIVERSITY OF ALASKA, FAIRBANKS
Fairbanks, Alaska 99701

June 27, 1985

ATTN: DAVID D. SKOV

U.S. Nuclear Regulatory Commission
Region V
1450 Maria Lane, Suite 210
Walnut Creek, CA 94596

Dear Sirs:

The present letter concerns the recent NRC inspection of Licenses 50-02430-09 and 50-02430-07 on June 20 and 21, 1985 and provides corrective measures taken to alleviate non-compliance items found during that inspection.

NRC 50-02430-09 (Co-60 Irradicators)

The item of non-compliance was failure of performing leak test within each 6 month period. A leak test and site survey has been completed and a copy of these records are enclosed. A "Caution Radioactive Materials" sign has been posted next to the "Caution Radiation Area" sign as suggested.

Our misunderstanding concerning the 6 month leak test stems from item 16 of Amendment 04 which refers to the renewal request of January 20, 1983 in which we specifically requested that leak test not be performed during periods of non-use. We realize now that this request was not granted.

NRC 50-02430-07 (University Broad-Scope License)

A recent copy of form NRC-3, an attached document identifying Room 403, Irving Building where all pertinent licenses, regulation etc. can be inspected, and a copy of "Safe Handling - Emergency Procedures" has been posted in all radioisotope use areas.

Temporary labels identifying the source, activity, date, University, emergency contacts and a "Caution Radioactive Materials" label have been placed on the Cesium-137 source (5 mCi - No. NER572). Also a temporary label has been placed on the Am-241 source (110 mCi) identifying source and activity. We are in the process of obtaining permanent metal labels for these sealed sources.

Six month inventory forms have been sent to all authorized users for the period January 1, 1985 through June 30, 1985. A complete internal audit of all authorized users will be completed in early July 1985.

All areas, including field-sites where radioactive materials are used or stored will be posted with a "Caution Radioactive Materials" sign if quantities exceed the amounts as specified in 10 CFR 20.203(e). This requirement has not been specifically excluded from our license for field-sites.

Sincerely,

Dan Holleman

Dan Holleman
Radiation Saftey Officer
Institute of Arctic Biology
University of Alaska
Fairbanks, AK 99701

DH/na

Jan 10, 1985

These Co-60 sources have not been used during this 6 month period therefore no leak test will be conducted. Leak test will be preformed Summer 85 although no use is expected in the foreseeable future

D. Hollerman

June 21, 1985 - Licence 50-02430-09 Co-60 irradiators was inspected by NRC David Skov. He informed me that ~~no~~ exclusion from the 6-month leak test was not granted to this licence, although the source was not in use. Leak test will be conducted in the immediate future

D. Hollerman

June 24, 1985

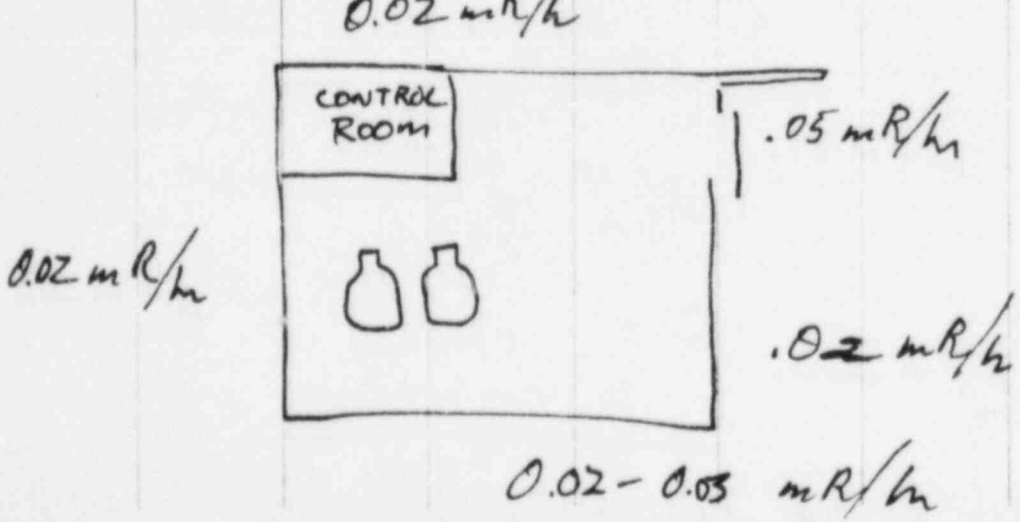
The Co-60 sources were operated to the "irradiated" and shield position for several cycles. Wipes were taken from the port of each irradiator and counted along with blank wipes and the Co-60 check source (1 μCi Co-60 1960 - present activity 0.036 μC Background was 167 cpm. Samples

June 24, 1985 (continued)

were counted on the Nuclear Data Multi-channel Analyzer and Results were

Sample	cpm	net cpm	activity μCi
Bkg	167		
0.036 μCi Std.	—	66552	0.036 μCi
Wipe 1 irradiator 1	190	23	$< 2 \times 10^{-5}$ μCi
Wipe 2 irradiator 2	170	3	$< 1 \times 10^{-5}$ μCi

A survey was conducted with the irradiators (outside the building) in the irradiate position - readings were as indicated (Survey Meter NC 2560 was used)



June 24, 1985 (continued)

The sources were returned to the shielded position and plugs replaced. No readings above normal background were recorded outside the building (0.01 - 0.02 mR/hr). The highest reading possible is by laying the detector on the shield directly above the shield. This reading was 0.7 mR/hr.