



DEPARTMENT OF THE ARMY
HEADQUARTERS, TRIPLER ARMY MEDICAL CENTER
TRIPLER AMC, HAWAII 96859-5000

REPLY TO
ATTENTION OF:

August 26, 1986

Radiation Protection
Office

United States Nuclear Regulatory Commission, Region V
ATTN: Mr. David D. Skov
1450 Maria Lane, Suite 210
Walnut Creek, California 94596

Dear Mr. Skov:

Request that Item 6 of United States Nuclear
Regulatory Commission (USNRC) Byproduct Material License
53-00458-05 be amended to include the irradiation of
human blood and blood products.

This procedure requires that the blood be irradiated
with 1000 Rad. The blood is irradiated one package at a
time. The field size is determined to cover the entire
package. Midway through the treatment, the package is
inverted to ensure an equal dose distribution to the
blood elements. The time required to deliver 1000 Rad is
derived using the following equation:

TIME=	TOTAL DOSE		
Calibration	Inverse	Field Size	Backscatter
dose rate	square	Dependence	Field

The procedure is performed by the same technologists
that perform teletherapy procedures on Tripler Army
Medical Center's (TAMC) patients, under the supervision
of the approved user. The beam is never taken off of the
beam stop for this procedure. The teletherapy unit is
operated with the gantry at 0 degrees and the teletherapy
head at 0 degrees.

The average time required to deliver 1000 Rad to the
packages of blood is 8 minutes. The maximum anticipated
workload is 25 packages of blood per week. This requires
an on-time of less than 45 hours per quarter.

FEE EXEMPT

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REGS LIC30 PDR
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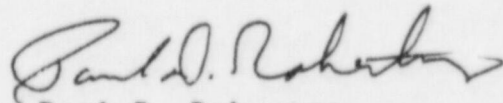
REGION V USE

Utilizing the radiation exposure readings in Table 2 Item 9 (i.e., gantry and teletherapy head in the most adverse position and the beam stop in the beam) and assuming an occupancy factor of 1, the greatest exposure that any individual may receive as a result of this procedure is 9 milli-rem per quarter. This is of-course well below the requirements of 10CFR20.

This procedure has been performed in the past at TAMC, as a previous Radiation Protection Officer (RPO) judged it to be "human use". A telephone conversation between Mr. David Skov of the USNRC and Captain Douglas G. Ashby, the current TAMC RPO, indicated that an amendment to the license would be required for TAMC to continue to perform this procedure.

For further information on this contact Captain Douglas G. Ashby at (808) 433-6925.

Sincerely,



Paul D. Robertus
Major, U.S. Army
Chief, Administrative Services

Copy Furnished:

United States Army Health Services Command (HSCL-P)