



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064**

April 18, 2002

MEMORANDUM TO: Donald A. Cool, Director
Division of Industrial and Medical Nuclear Safety, NMSS

FROM: Dwight Chamberlain, Director */RA/*
Division of Nuclear Materials Safety

SUBJECT: RESPONSE TO TEMPORARY INSTRUCTION 2800/031,
"EXTREMITY EXPOSURE MONITORING"

The licensees on the attached list were inspected in accordance with the subject. With the exceptions noted below, each licensee inspected was providing appropriate extremity monitoring, the dosimetry was located to reflect the highest exposure, processing was timely, appropriate shields and remote handling tools were used and necessary procedures were in place.

During an inspection at the Pacific Radiopharmacy, Ltd., in Honolulu, Hawaii, the inspector observed a radiopharmacist drawing doses using a vial shield which did not contain a shielded lid. The radiopharmacist held the vial in the vial shield with his finger. This resulted in a situation where the extremity dosimeter worn by the radiopharmacist significantly understated the dose to his finger. Based upon calculations performed by the licensee's consultant, the dose to the radiopharmacist's extremity was estimated to be approximately 700 rems for 2001 and approximately 140 rems for 2002 (through March 13th). See Preliminary Notification PNO-IV-02-017 for additional information. This inspection is currently still open.

During an inspection at the Department of Veterans Affairs in Temple, Texas, the inspector also observed a radiopharmacist drawing doses using a vial shield which did not contain a shielded lid. As in the previous case mentioned above, the radiopharmacist held the vial in the vial shield with his finger. This resulted in a situation where the extremity dosimeter worn by the radiopharmacist also understated the dose to his finger. The licensee's dose estimate is currently being evaluated by Region IV. At this time, it does not appear that the dose to this individual's extremity was greater than 50 rems during a calendar year; however, we do believe that the doses received may be well in excess of the doses reported by the licensee's dosimetry vendor. Please note that this inspection is also currently open.

During an inspection at the Alaska Radiological Pharmacy, Ltd., in Anchorage, Alaska, the inspector observed another radiopharmacist drawing doses using a vial shield which did not contain a shielded lid. As in the previous two cases described above, the radiopharmacist held the vial in the vial shield with his finger. Also, as in the previous two cases described above, this resulted in a situation where the extremity dosimeter, worn by the radiopharmacist, understated the dose to his finger. Based upon calculations performed by the licensee's consultant, and evaluated by Region IV, the dose to the radiopharmacist's extremity was determined to be 25.5 rems during calendar year 2000, rather than the 0.7 rem reported by the

dosimetry vendor. This inspection is closed.

During inspections at Deaconess Billings Clinic Health Systems in Billings, Montana, and at the Veterans Administration Medical Center in Houston, Texas, the inspector observed individuals preparing radiopharmaceuticals without using syringe shields. In both cases, the individuals were wearing extremity monitors (ring badges), and the doses were determined to be representative of the actual doses received, and well within the regulatory limit of 50 rems. Both of these inspections are closed.

If you have any questions regarding this memorandum, please contact Mark R. Shaffer at (817) 860-8287.

Attachment: As stated

bcc w/attachment via E-mail distribution:

DDChamberlain

MRShaffer

FDBrown, NMSS/IMNS

MLFuller

NMIB

RIV File (5th Floor)

DOCUMENT NAME: C:\ORPCheckout\FileNET\ML021080870.wpd

RIV:DNMS:NMIB	C:NMIB	D:DNMS
MLFuller	MRShaffer	DDChamberlain
/RA/ MRShaffer for	/RA/	/RA/
04/18/02	04/18/02	04/18/02

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ATTACHMENT

Region IV Licensees Inspected Under TI 2800/031

02500 - Nuclear Pharmacies

Radiopharmacy of Boise, Inc (inspected twice under TI)
11-27664-01MD

Alaska Radiological Pharmacy, Ltd.
50-29096-01MD

Syncor International
04-26507-01MD11

Syncor International
04-26507-01MD12

PSI, Inc.
11-27705-01MD

Pacific Radiopharmacy, Ltd.
53-16991-01MD

Scela, Inc., dba Alaska Radiological Pharmacy
50-29096-01MD

Other Program Codes

Magic Valley Regional Medical Center
11-27082-01

V.A. Medical Center
17-01322-07

Glendive Medical Center
25-17265-01

Department of the Army
35-10202-01

Hot Springs County Memorial Hospital
49-26949-01

Lander Valley Medical Center, LLC.
49-17813-01

V.A. Medical Center
42-00084-06

St. Mary's Healthcare Center
40-07328-03

Rapid City Regional Hospital
40-11256-01

New Mexico V.A. Healthcare System
30-01747-02

Memorial Hospital of Sweetwater County
49-17940-01

Teton County Hospital District
49-18276-01

Department of Veterans Affairs
27-23287-02

Department of the Air Force
42-23539-01AF

Guam Medical Imaging Center
56-27702-01

St. Vincent Healthcare
25-07553-01

Deaconess Billings Clinic Health System
25-01051-01

Dept. of V.A. South Texas Veterans Healthcare System
42-15881-01

Dept. of V.A. South Texas Healthcare System
42-17691-01

Wyoming Cardiopulmonary Services, PC
49-27711-01

Campbell County Memorial Hospital
49-18030-01

Department of the Army -- Darnell Army Community
42-19113-01

Department of Veterans Affairs
42-10739-03