

ALLIANCE IMAGING

100 Bayview Circle
Newport Beach, CA 92660

October 30, 2008

P-7

U.S.N.R.C.
Region I
Attn: Thomas Thompson
475 Allendale Road
King of Prussia, PA 19406

03035774

RE: License # 47-25570-01 - Control No. 142671

Dear Mr. Thompson,

This information is being provided in response to your request for additional information dated October 24, 2008. All responses are in order of receipt.

- 1. The calculations for the release of patients administered F-18 are based upon equation 3 in NRC Regulatory Guide 8.39 for nuclides with a half life of < 1 day. A conservative amount of 20 mCi and an occupancy factor of 1.00 was used for this calculation

Regulatory Guide 8.39 Page 8.39-2

For radionuclides with a physical half-life less than or equal to 1 day, it is difficult to justify an occupancy factor of 0.25 because relatively long-term averaging of behavior cannot be assumed. Under this situation, occupancy factors from 0.75 to 1.0 may be more appropriate.

For radionuclides with a physical half-life less than or equal to 1 day and if an occupancy factor of 1.0 is used:

Assuming a dose of 20 mCi of F-18

$$D_{\infty} = \frac{34.6 \cdot I \cdot Q_0 \cdot T_p \cdot (1)}{100 \text{ cm}^2} \quad (\text{Equation 3})$$

$$D_{\infty} = \frac{34.6 \times 6 \times 20 \times 0.076 \times 1}{10000}$$

D_∞ 31.6 mrem (< 500 mrem)

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2. Mobile PET coaches are designed and shielded to accomplish maximum exposure protection while still assuring that they can attempt to meet the weight limits for over the road travel.

a/b Typical measurements in mR/hr at the coach surface with 2 patients onboard are as noted below. All areas around are restricted by physical barriers at distances to assure that no member of the general public receives exposures in excess of those identified in 10 CFR Part 20. The restricted area is monitored by coach personnel each time a patient either enters or exits the vehicle.

- Hot lab 5 mR/hr surface of the coach.
- Scan room sides 0.05 mR/hr surface of the coach.
- Entry door 0.2 and 0.08

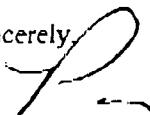
- 3/4. The authorized users for Alliance Imaging are those identified on client licenses thus the typical response time for authorized users is immediate. As noted in a prior response the Radiation Safety Officer is available at any time by telephone, facsimile or e-mail to respond to emergencies however since this is a mobile service covering a multistate area additional safeguards have been implemented to assure adequate emergency response. Alliance Imaging has regional managers who are trained in radiation safety procedures. These individuals or their trained designees are available immediately by mobile telephone and can be on site within 2-4 hours. Additionally all technologists on the coaches are provided with annual radiation safety training. These individuals are immediately available on site.

Emergency procedures including emergency transportation procedures are attached.

5. Records are available at the regional managers offices and/or on each individual coach. The commission can contact the manager in inspection State by telephone. The manager will then direct the inspector to the location of either the office or the coach site. A list of all coach sites was previously submitted. A list of manager telephone numbers is attached
6. Item # 6 was responded to on 10/24/08.

If you have any questions or need any additional information, Sharon Long @ (888) 456-5255 or me @949-242-5588.

Sincerely,



Patricia A. Williams
Vice President, Asset Management

Enclosure

cc: Sharon Long
Mike Culley
RAML - Region I

Alliance Imaging
Nuclear/PET/ PETCT Policy and Procedure Manual
 Policy and Procedure Manual

Procedure Title:	Transporting Of Radioactive Material - Emergency Procedure		
Category:	Radiation Safety		
Policy No:	NM RS 0021		
Issue No.:	1	Effective Date:	01/01/2001
		Reviewed Date:	01/15/2003
		Reviewed Date:	03/01/2007

TRANSPORTING OF RADIOACTIVE MATERIAL – EMERGENCY PROCEDURE

Unauthorized passengers are not permitted in delivery vehicles.

Lock vehicle when it is left unattended.

Keep packages only in area designated by license.

In the event of an accident or emergency, notify the Radiation Safety Officer, Manager of Operations or Director of Operations at once. If radioactive material has been spilled, obtain instructions from the RSO. Contain the spill if possible with the emergency spill kit stored in the passenger area of the vehicle. Wait for help of further instructions.

Attend annual refresher courses for radiation safety training.

Emergencies Involving Motor Vehicles Acting as Carriers of Radioactive Materials

Because of the nature of these kinds of emergencies, the following is a complete sample of a self-containing set of instruction, which will be carried in every vehicle used while transporting radioactive substances. These instructions are to be read and followed by all personnel in the event of an emergency. A calibrated survey meter is available on the PET unit. Emergency telephone numbers for Alliance emergency contacts and NRC and state agencies are also posted on the PET unit

Driver is to take the following immediate action:

Do not touch any open or broken containers.

Call the RSO, Manager of Operations (MO) or Director of Operations (DO) immediately. If you must use a telephone to notify the RSO, MO, or DO, if possible, have someone maintain security over the vehicle and radioactive material and keep bystanders away while calls are being made.

Keep all people away from the radioactive material

Stay at the scene until the Alliance representative arrives

RSO, MO or DO are to take immediate action:

Dispatch car with qualified person to assist the driver. Take emergency kit, including monitor in the event the ones on-board are damaged.

If the spill meets the criteria in CFR Title 10, Section 20.403, or applicable agreement state regulation:

All traffic should be detoured around the scene of an accident. If this is not possible, vehicles should be moved the shortest distance necessary to clear the right-of-way. If radioactive material is spilled, passage through areas should be prevented unless absolutely necessary. If the right-of-way must be cleared before assistance has arrived, the spill should be washed to the shoulders of the right-of-way with minimum dispersal of wash water, or covered with at least four inches of earth or sand.

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Nuclear/PET/ PETCT Policy and Procedure Manual

Policy and Procedure Manual

The nearest Nuclear Regulatory Commission Office operations center or State Agency is to be notified as soon as possible.

If the accident involves wreckage and a person are believed to be alive and entrapped, every possible effort should be made to rescue him/her.

The area of the accident should be restricted. The public should be kept as far from the scene as is practicable. Local authorities should make only necessary entries and investigations into the accident area. No attempt should be made to open or examine contained material. No attempt should be made to clean up any debris or material involved in the accident prior to the arrival of experienced help.

Any persons who have possible contact with the radioactive material should be segregated and confined until they can be examined further. The names and addresses of those involved should be obtained.

The injured should be removed from the area of the accident with as little contact as possible and held at a transfer point. All life-saving measures should be performed promptly, but elective first aid and surgical procedures should be delayed until advice or help can be obtained from a physician familiar with radiation medicine. Except in extreme emergency, patients should not be moved to local hospital or doctor's office before a radiological survey has been made.

If the accident involves fire attempts to extinguish it should be made from as great a distance as possible. The fire should be treated as one involving toxic chemicals. Suspected material should not be handled until it has been monitored and released by monitoring personnel. Clothing and tools used at the fire should be segregated until they can be checked by the monitoring teams.

Eating, drinking, or smoking in the area of the accident is prohibited. Food or drinking water, which may have been in contact with material from the accident, cannot be used.

Careful attention and consideration should be given in matters of the public relations to:

- transmission of information to the public by press, radio and television, and
- tactful handling of volunteers and crowds of curious onlookers.