

**Nuclear Imaging Group, Inc.**

27 Carey Lane  
Jenkins Township, PA 18640-3225

Tel 570.299.9535

Fax 570.883.0207

July 6, 2007

Mr. Tom Thompson  
Radiation Safety Section  
U. S. Nuclear Regulatory Commission  
Region 1  
475 Allendale Road  
King of Prussia, PA 19406

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REGION 1

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Mail Control No. ~~14325~~  
RE: License No. 37-30868-01

Dear Mr. Thompson:

*03036473*

Pursuant to our recent telephone conversation, may I take this opportunity to further delineate and expound upon the scope of our veterinary imaging services which is reflected in two distinct categories: Small Animals (Dogs and Cats) and Equine.

**Small Animals (Dogs and Cats)**

The procedures performed and dosages include Bone Scan (<20 mCi), Renal Scan (3 mCi), Liver Scan (2 mCi), Portosystemic Shunt (2 mCi), HIDA Scan (3 mCi), and First Pass Studies (<1 mCi).

A licensed veterinarian shall order all studies. No single unit dose shall exceed 20 mCi with a daily total of < 400 mCi with decay factored in for transportation to job site. Individual dosages will range from 0.5 mCi to 20 mCi depending on the type of scan.

All temporary job sites encompassing scanning room, examination room and holding cages, shall be wiped and surveyed. The area shall be released at <2000dpm/100cm<sup>2</sup> and back-ground respectively.

If any area is above these limits, it shall be cleaned and re-wiped and monitored. If the area is still above the limits, the area shall be quarantined and put out of use for 24 hours until it is below said levels.

The animal shall be released at 0.5 mR/hr at 1 meter. (Ref 37-31077-01)

The owner shall be instructed on how to properly care for their pet and must agree to the 60 hour limited quarantine instructions. Enclosed is a copy of the Radiation Safety Instructions.

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All waste (gloves, pads, litter, IV's etc.) shall be removed from the site and securely stored for 60 hours. It shall then be disposed of accordingly. As stated, the refuse shall be contained in a locked cabinet at our Lackawanna Medical Group site, 201 Smallacombe Drive, Scranton, Pennsylvania.

In the event of an expired or euthanized animal, the animal shall be held in storage for 60 hours, and only then shall it be disposed of accordingly.

The owner shall also be instructed to limit the amount of travel with the animal. If travel is necessary, documentation shall be provided to include the radiopharmaceutical injected, half life, time of injection, and ending time of limited quarantine.

### **Equine**

The study that shall be ordered most often shall be the Bone Scan. We intend to do only one equine bone scan per diem, only totaling 1-4 per month.

A temporary job site shall be established for the time of scanning and quarantine. The stall shall be posted with signage stating radiation area established, time of injection, radiopharmaceutical injected, and end of quarantine time. This area shall be off limits to all personnel with the exception of feeding. Rubber boots, gloves, and waterproof aprons shall be worn to prevent contamination of skin and clothes.

An authorized animal handler shall be established and shall be instructed on the proper care of the animal. The instruction will address radiation safety, waste handling, and ALARA. All shall be under the direction of Nuclear Imaging Group Inc. The animal handler shall be issued a dosimetry badge which shall be returned and processed following the end of the quarantine.

As stated, all studies shall be ordered by a licensed veterinarian. A unit dose of 200 mCi of HDP/MDP-TCOH shall be administered, not to exceed 400 mCi reflecting travel time. The animal shall be injected and scanned approximately 2-2 1/2 hours later.

A 24-hour quarantine shall commence at the point of injection. This protocol was established by Mauricio Solano, M.V., Diplomate ACVR, Assistant Professor of Radiology, Tufts University, Cummings School of Veterinary Medicine, 200 Westboro Road, North Grafton, Massachusetts. At this point the animal and stall are off limits except for food and water. Drawing blood shall be permitted only if it is critical to the care of the animal during this period.

At the end of the 24 hour quarantine, the animal shall be released for normal activity. The horse must be  $<2$  mR/hour at skin level. The horse may graze as normal with no further maintenance necessary.

Following the quarantine period, all waste from the stall including gloves, IV's, and any other waste shall be contained for 60 hours and then routinely disposed. Animal waste (manure and urine) will be contained separately and posted as radioactive for the 60 hours. After the 60 hours it shall routinely be disposed. If it is used for fertilizer, the area shall be recorded for future reference.

At the end of the quarantine period and waste removal, the stall shall be wiped and surveyed. The limits shall not exceed 2000 dpm/100 cm<sup>2</sup> and background. If any limit is exceeded, the stall shall be re-cleaned, re-wiped, and re-monitored.

Travel should be limited to emergency only. Documentation shall be provided to the owner including radiopharmaceutical injected, half life, time of injection, and ending time of quarantine.

Disposal of an expired horse shall be 60 hours post injection.

Should there be any further questions, please feel free to contact me at 570-299-9535 or Mr. Ramsey at 570-977-6449.

Sincerely

A handwritten signature in black ink that reads "David N. Culp". The signature is written in a cursive style with a large, sweeping initial "D".

David N. Culp  
President & CEO

Encl.

cc: John C. Ramsey, Radiation Safety Officer

**Nuclear Imaging Group, Inc.**

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## **RADIATION SAFETY INSTRUCTIONS FOR OWNER OR ANIMAL HANDLER**

Animal Released at 0.5 mR/hr at 1 meter.

Your pet has received a small amount of a radioactive tracer. The present level requires your pet to remain in isolation for **60 hours**. Therefore, you must agree to the following safety precautions. If you feel that you can not abide by the following conditions, you must notify a member of the Animal Facility immediately to make alternative arrangements for your animal.

### **LIMITED QUARANTINE**

**This period of isolation for your pet is sixty (60) hours.**

**Date & Time of Injection** \_\_\_\_\_

**Date & Time of End of Isolation** \_\_\_\_\_

### **Precautions for the next 60 hours include:**

- ✓ Anyone who is pregnant or under the age of 16 shall have no contact with the pet for the entire isolation period.
- ✓ Do not hold your cat or dog except to provide care. Do not allow your dog or cat to sit on your lap. Provision must be made for separate sleeping quarters..
- ✓ Maintain a litter pan for cat urination/defecation. Use litter pan liners (insert pan into a plastic trash bag, and then fill with litter.) Changing of litter daily is recommended. Wear rubber gloves when changing and disposing of litter. Keep all litter during this 60 hour period together. At the end of the 60 hour isolation, the last litter and all litter you have stored must be held for an additional 60 hours. **This is very important.** You may dispose your litter as normal after the final 60 hour period.
- ✓ Your dog may be leash-walked outside to eliminate. No further maintenance is required.
- ✓ If your dog or cat vomits or soils in the house, wear gloves and use normal cleaning procedures. Put all soiled cleaning materials into a plastic bag and hold for 60 hours.
- ✓ **Always wash your hands after contact with your pet or their eliminations.**
- ✓ If you have any questions regarding radiation safety, please call Nuclear Imaging Group Inc. at 570-954-6476.

\_\_\_\_\_  
Owner or Animal Handler

\_\_\_\_\_  
Date

\_\_\_\_\_  
Nuclear Imaging Group Inc.

\_\_\_\_\_  
Date