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facsimile transmittal

To: Toye Simmons

Fax: 630-515-1078

From: Laura t. smith

Date: 2/16/2009

Re:

Pages: 4

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Urgent

For Review

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Notes: Ms. Simmons Control # 317746 - this is in regards to the request for Dr. marshal to one time treat the tamarind monkey at the Childrens Zoo. I hope we have answered all of your questions. Please contact me by cell phone to expedite any requests you might have 586 215-5947 pager 313 609-2038.

Thank you,

6308299842



Radiological Physics Service, Inc.

3839 Napier Road
Plymouth, MI 48170
(734) 455-4730
Fax: (734) 453-8851

February 15, 2008

US NRC

Materials Licensing Branch

US Nuclear Regulatory Commission, Region III

2443 Warrenville Road, Ste 210

Lisle, IL 60532-4352

Attn: Toye Simmons control # 317746

PHYSICISTS:

MICHIGAN

Ray A. Carlson, M.S.
Cell: (734) 395-7361
rcarlson@voyager.net

Laura T. Smith, M.S.
Cell: (586) 215-5947
LSphysics@comcast.net

Vincent McCormick, M.S.
Cell: (737) 395-9323
V_mccormick@comcast.net

Joshua D. Hack, B.S.
Cell: (734) 645-9991
Joshua.hack@utoledo.edu

SOUTH CAROLINA
Dan L. Marx, M.S.
Cell: (810) 730-6004
dmarx@voyager.net

GEORGIA
Diane Griffiths, M.S.
Cell: (770) 355-7709
dianegriffiths@comcast.net

MONTANA/CALIFORNIA
Bruce Austin, PhD
Cell: (909) 273-4613
banstin1@earthlink.net

This letter is pursuant to a license request for material license #21-26539-01, issued to Dan H. Marshall. Procedures for this specific Tamarind treatment will be as follows:

- The 1mCi dose will be ordered at Cats Vets, received as appropriate at Cats Vets, it will then be driven to the Alpena Zoo by Dr. Marshall (Authorized User) and at least one physicist – either Laura T. Smith, or Ray Carlson of RPS. A Bicon End Window GM survey meter will accompany the transfer to the location, a second meter – GM will also be brought – most probably a Ludlum 14C with End Window GM.
- Once arrival at Alpena zoo occurs the physicist will confirm the facility meets all requirements of Radiation Safety and ability to treat the Tamarind monkey. The physicist will also confirm with the single staff individual that they will be the only individual caring for this animal. The physicist will confirm there are no further outstanding questions regarding this treatment or Radiation Safety. Once all questions have been answered to everyone's satisfaction – the ok to proceed will occur from the Radiation Safety perspective.
- The doctor will examine the Tamarind and give the 1mCi I-131 dose by capsule with a capsule gun (used for treating animals). A waiting period of one hour will occur to assure the monkey is reacting properly with no side effects.
- A survey of the monkey and all surrounding areas will occur to assure within safe exposures limits.
- The empty package will return to Cats treatment center in Clinton Twp, MI.
- Alpena Zoo staff will keep one survey meter for their own survey capability.
- The exposure from the one monkey is not expected to ever be over 2mR/hour at the closest the staff can get the monkey from the exterior of the cage at any time during the entire procedure.
- The zoo is expected to re-open the monkey exhibit after Memorial Day May 25, 2009. At this point the monkey should be at background exposures.

If there are any questions, please contact Laura T. Smith, physicist at 586 215-5947, pager 313 609-2038 or Dr. Dan H. Marshall DVM, at 586-463-9550.





CATS RADIO-IODINE TREATMENT CENTERS

Dr. Dan H. Marshall 1-800-853-CATS 43727 Grafton, Clinton Twp., MI 48036

2/16/2009

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Lisle, IL 60532-4352

Dear Sirs:

In response to your inquire on treating the Cotton-top Tamarinds at the Children's Zoo at Celebration Square located in Saginaw, Michigan.

First this will be one time procedure, no other animals will be treated other than this one day unless requested through NRC and approved.

The Tamarinds would need to be treated at the Zoo as my small animal hospital is not equipped to house them nor is my staff trained in handling or the care of these exotic animals.

As to surveys we felt that none would be required due to the low doses being used (1 mCi) and that the zoo is only opened one day this winter, which is the 21st of February. This and the fact that Tamarinds cannot be on display in cold weather and are kept in very isolated housing that is many yards from any public walk bys we felt that the public's safety is being protected without.

The waste of feces and urine will be handled as it is now with the rinsing by hose the housing floor, which is tiled/cement, into a continuous floor drain that runs the breadth of the housing unit.

The dosages will be 1 mCi given by subcutaneous injection.

We thank you for your help in treating these magnificent animals.

Dan H. Marshall, DVM, RSO



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Ray A. Carlson, M.S.
Cell: (734) 395-7361
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This letter is pursuant to a license request for material license #21-26539-01, issued to Dan H. Marshall. In response to questions from Ms. Toye Simmons:

- There is only one individual at the zoo that will assist with this procedure – all other work performed with the treated animal will be with Dr. Marshall and his staff. The one individual has had all appropriate training, which includes: Radiation Safety concepts and principles, radiation terminology, Characteristics of Ionizing Radiation, ALARA (minimize Time, maximize Distance, maximize shielding, minimize Contamination), Radiation Emergency situations, Units of Radiation dose and quantities, exposure monitor use, wear and reading of exposure reports, basic atomic physics, Radiation detection instrumentation, I-131 properties, biological hazards of exposures to radiation, and NRC and State of Michigan regulations.
- Procedures we will use for this treatment are attached.
- Transportation of the Iodine-131 will be performed by Dr. Marshall, and at least one other physicist either Laura T. Smith or Ray Carlson of Radiological Physics Service, Inc. The attending physicist will also oversee any radiation safety issue at site prior to dosing.

If there are any questions, please contact Laura T. Smith, physicist at 586 215-5947, pager 313 609-2038 or Dr. Dan H. Marshall DVM, at 586-463-9550.

Sincerely,

Dan H. Marshall, DVM
Radiation Safety Officer

Sincerely,

Laura T. Smith, MS, DABR
Site Physicist

