CONNECTICUT VETERINARY CENTER
470 OAKWOOD AVENUE
WEST HARTFORD, CT 06110
860-233-8564
FAX 860-233-3206

Q-5

Docket No. 030-37465
Control No. 140471

L 31245
030 37522
02400

Betsy Ullrich
Senior HealthPhysicist
Nuclear Regulatory Commission
475 Allendale Rd
King of Prussia, PA

(06-31245-02)

Ms. Ullrich:

This letter is in reply to your letter dated 29th May 2007 regarding the Connecticut Veterinary Center (CVC) application for a license to handle and work with radioactive material specifically Iodine 131. I am aware that this letter is late per your original letter but have contacted your office for an extension which was granted.

1) We will be using Iodine 131 in a bound form to treat cats for hyperthyroidism. We do not plan at this time to house more than 3 cats undergoing treatment. Each cat should be receiving a one time injection of 4-6 milicuries per cat depending on the cat's weight and thyroid level at the time of treatment. All of the cats will be treated on the same day making the maximum amount of the I 131 at 12-18 milicuries per treatment day/week. After day one, the cat's waste material should be the main source of the Iodine and will be maintained within the room in which the cats are being treated. Once the cat's body scan is lower than 0.5 millirem, the cats will be released to their families with the waste being maintained within the treatment room until which time it can safely be disposed of using the decay in storage method.
2) The equipment to be used will include: gloves, gowns, thyroid shields; and a dose calibrator. The gowns and gloves will be obtained from the same company whom we obtain our standard x-ray protective gear from. The dose calibrator will be the Atomlab 200 dose calibrator from JZ Imaging and Consulting.
3) Part A: The cats will be housed in a ward separate from the main hospital located in the basement of our facility. The ward will be divided into two separate sections with the foremost section being devoted to holding the supplies for the cats (food, dishes, litter, litter pans etc) and a desk with filing drawers to store documented material, treatment cases, etc. The foremost section will be separated from the actual treatment area by a door which is specified to prevent radiation leakage. The treatment area will consist of two larger cages each measuring 4

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feet by 3 feet with a smaller cage located on the top of the lower cages which measures 2 feet by 2 feet. The remainder of the area above the bottom cages will be used for treatment of the cats. This section of the ward will also house the radiation supplies: gowns, gloves, thyroid shields, safety shield, Geiger counter and the waste material to be disposed of via the DIS method. The entire ward measures 7.5' by 17' by 6 3/4 '. The ward will have a lock on the outside with the keys being in the possession of the RCO, AU or manager on duty only. The ward will be locked at all times if not in use.

Part B: We plan to have a limited number of individuals involved in the care and treatment of the cats receiving the Iodine 131. The individuals involved will be trained by the radiation safety officer in a lecture format. The training will be conducted for any new individuals working with the cats, anytime new changes are made in connection with the cats and their treatment as well as annually for refresher courses. The actual injections will be done exclusively by either Dr. Masloski or Dr. Crevier and will not be performed at any time by lay personnel. The staff should have no direct contact with the radioactive material with the exception of waste material and handling the cats themselves. All of the contamination will also be addressed exclusively by the above veterinarians following standard guidelines of appropriate disposal and clean up. We currently have special thickness chemotherapy gloves to be used with the cats and for clean ups if needed. The contaminated clean up supplies will be added to the waste for DIS purposes.

The training will therefore cover:

1) protection from radiation exposure including use of the shield while restraining the cats for injection while wearing protective clothing in order to limit radiation exposure. The personnel will also be required to wear a dosimeter to measure radiation exposure while working with or in contact with the cats. Personnel will also be instructed as to who to contact and what steps to take if an accidental contamination occurs.
2) biological effects of radiation exposure and contamination on the individuals exposed during treatment and care of the cats
3) proper disposal and labeling of radioactive waste materials
4) proper record keeping to track all the cats treated as well as all the Iodine 131 that comes into and out of the building.
5) Ensuring that the ward is locked at all times when the room is not being used.

Part C: a copy of the instructions for the animal caretakers appears at the end of this application.

Part D/E: The cats will be maintained in the facility for a minimum of 96 hours post receiving the iodine 131. Following the 96 hour period, the cats will be monitored for levels of radiation. Once they have reached a level at or below 0.25mR at a distance of one foot, they may be released to their families. The families of the released cats will be instructed in the following precautions: use of flushable cat litter to avoid radioactive waste material accumulating in the home; keeping all small children and infants away from the cats for a minimum of one month; NO close contact with the cat (ie face to face, sneezing from the cats, contact with any body fluids) for at least one month after

discharge; restricting as much as possible, the contact between the treated cat and other animals in household; limiting the treated cat to indoor only activity for at least one month.

4) Dr. Anne Masloski is a 1996 graduate of the Tufts University School of Veterinary Medicine. She did a formal residency in small animal internal medicine at the VCA-All Care Animal Referral Center from August of 2002 until October of 2005. Dr. Francois Crevier is a graduate of Ontario Veterinary College at the University of Guelph. He also completed a master's program in Radiologic Health Science which was done co-currently with his formal residency in radiology at Colorado State University of Veterinary Medicine.
5) The veterinary personnel involved will be limited to Drs. Masloski and Crevier. The staff will be monitored on a case by case basis of how they assessed the cats as well as how they cleaned up after the cats and any complications that may have occurred.
6) The instrumentation required to perform surveys will be model 14 C survey meter from Direct Scientific.
7) Written logs will be maintained which will include: date and amount of Iodine 131 ordered; name and description of cat treated; date and amount of Iodine 131 used for each cat; date cat was safely discharged from hospital post treatment; date and time that waste material has been disposed of using the DIS method; weekly survey check readings. This log will be reviewed on a monthly basis to ensure that it is kept up to date, orderly and all information is properly logged. We do not plan on storing ANY material in the ward or hospital. All the iodine will be ordered and scheduled to arrive on the day of it's use with no remainder material to be stored on the premises.
8) Since we do not plan to store any radioactive material on the premises and we are treating a maximum of three cats at a time, we most likely will not be needing to monitor for radiation exposure. However, as a precaution, we will be using both whole body and ring radiation dosimeters for all personnel involved with quarterly checks to ensure that no one is exposed to more than the allowable amount of radiation within a one year period.
9) Since we will have limited amount of Iodine 131 in use at any one time and are expecting all of it to be injected within a few hours of it arriving, the anticipated spills will only occur during treatment of the cats which will be done exclusively by Dr. Masloski or Dr. Crevier as back up. In the event of a missed injection, malfunctioning syringe or other accidental spill, the spilled material will be initially covered with absorbable paper towels to limit spread and wiped clean while wearing protective gloves. The spilled material, paper towel and gloves will be disposed of in a bag labeled as radioactive waste. The area in which the spill occurred will be monitored for spread, clean up efficiency until the area is deemed safe by the RCO. No personnel will be allowed in the area pending the review by the RCO.
10) Surveys will be done on a weekly basis both after the cats have left (approximately 96 hours post treatment) as well as the end of the work week (most likely Friday) and the beginning of the work week (Monday) before

treatment of any cats begins. The monitoring will be done using the survey meter model 14 C. All of the survey reports will be maintained in a log which will be kept locked up in the treatment ward. The surveys will be performed by Dr. Masloski.

I thank you for allowing me the extra time to work on this project and hope that this completes any questions you may have. Please feel free to contact me if you have any additional questions or concerns.

Sincerely,

Anne Masloski, DVM
medical director

CONNECTICUT VETERINARY CENTER
470 OAKWOOD AVENUE
WEST HARTFORD, CT
INSTRUCTIONS FOR WORKING WITH CATS RECEIVING RADIOACTIVE IODINE THERAPY

1) Safety appairal MUST be worn at all times while handling the cats. The required safety apparial includes: protective gloves, protective gowns and thyroid shields all to include lead for protection purposes. In addition, when the cats are being treated, the personnel restraining the cats must be behind a lead based shield to avoid possible contamination and should be wearing protective eye goggles.
2) When cleaning the cat's cages, minimal contact with the cats is the rule of thumb. All of the waste material including used cat litter trays, disposable food dishes and cage cleaning paper towels must be disposed of in the bags labeled for radioactive waste. Once the cats leave the hospital, a thorough cleaning of the cage should be done with a note/tape across the cage afterward stating the last time the cage was occupied.
3) NO close contact with the cats is to take place (ie kissing the cats, allowing the cats to lick or drool on oneself, any urine or fecal material should not come in contact with human skin. IT IS IMPERATIVE TO CONTACT DR CREVIER OR DR MASLOSKI IF ANY FLUID CONTACT OCCURS BETWEEN YOU AND THE TREATMENT CATS.
4) Any animals who die while undergoing treatment should be left in the cage and either Dr. Masloski or Dr. Crevier contacted to dispose of the body.

This is to acknowledge the receipt of your letter/application ~~dated undated~~

RECEIVED 7/31/2007, and to inform you that the initial processing which includes an administrative review has been performed.

☑ NEW LICENSE APPLICATION (03037522)
There were no administrative omissions. Your application was assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

☐ Please provide to this office within 30 days of your receipt of this card

_____.

A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

Your action has been assigned **Mail Control Number** 140887.
When calling to inquire about this action, please refer to this control number.
You may call us on (610) 337-5398, or 337-5260.

NRC FORM 532 (RI)
(6-96)

Sincerely,
Licensing Assistance Team Leader

BETWEEN:

License Fee Management Branch, ARM
and
Regional Licensing Sections

(FOR LFMS USE)
INFORMATION FROM LTS

Program Code: 02400
Status Code: 3
Fee Category: _____
Exp. Date: 0
Fee Comments: _____
Decom Fin Assur Reqd: _

LICENSE FEE TRANSMITTAL

A. REGION I

1. APPLICATION ATTACHED
   Applicant/Licensee: CONNECTICUT VETERINARY CENTER
   Received Date: 20070731
   Docket No: 3037522
   Control No.: 140887
   License No.: 06-31245-02
   Action Type: New License

2. FEE ATTACHED
   Amount: /
   Check No.: /

3. COMMENTS

Transfer fee fromprevious new license appl.140471 abandoned 7/27/2007.

Signed M. A. Sachman
Date 7/31/2007

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered /__/)

1. Fee Category and Amount: _____

2. Correct Fee Paid. Application may be processed for:
   Amendment _____
   Renewal _____
   License _____

3. OTHER _____
   _____

Signed _____
Date _____