

PETNET Solutions

May 28, 2015

Mr. Kevin Null
US Nuclear Regulatory Commission
Region III
2443 Warrenville Road, Suite 210
Lisle, IL 60532-4352

Re: Reply to the NRC Form 699 Conversation Record (Docket No. 030-38230) dated May 28, 2015 regarding the termination of PETNET St. Louis RAM Licenses 41-32720-03 (Production) and 41-32720-04MD (Nuclear Pharmacy).

Dear Mr. Null:

Please accept this letter as PETNET's response to the Nuclear Regulatory Commission's (NRC) Conversation Record (Docket No. 030-38230) dated and received on May 28, 2015.

Action #1

Since you still have authorization to possess and store licensed material, some level of radiation and contamination surveys, and audit programs should remain active until the licenses are terminated. Please submit a description of a program for conducting periodic radiation and contamination surveys, and a description of an audit program until the licenses are terminated.

Response to Action #1

PETNET will perform monthly radiation and contamination surveys within the cyclotron vault where the radioactive waste is properly packaged, stored, and waiting to be disposed by the decommissioning vendor. As of January 30, 2015, the facility's operation was shut down and the cyclotron ceased further production of radioactive material.

PETNET's site engineer, Nick Ackles, has been responsible for safeguarding the pharmacy and cyclotron contents during the closure transition. In addition, he is performing weekly inspections of the facility's inventory of radioactive materials and ensuring the facility remains secure. PETNET will perform a quarterly oversight audit covering the following areas: Security of radioactive materials, Review of the weekly inspection, review instrumentation in use (day of use checks and calibration), dosimetry results, and will perform a radiation level survey of the facility. A checklist and report will be maintained at the site for review until termination of the license. The corporate radiation department will provide oversight throughout the decommissioning process.

Action #2

Both licenses authorize an unsealed form of hydrogen-3. Please describe the current inventory of tritium under both licenses. This inventory should include material in storage, contamination, waste, etc. Also, describe any disposal pathways (both air and/or liquid effluent) that have been, or will be used for this material.

Response to Action #2

During the cyclotron irradiation of ^{18}O (target material) labelled water by protons to produce ^{18}F FDG, Tritium (^3H) is one of the radioactive by-products produced by the nuclear reaction $^{18}\text{O}(p,t)^{16}\text{O}$. The target material, including ^3H , is transferred to the chemistry processing unit (i.e., Explora module). The unused ^{18}O liquid is collected in a recovery vial and other liquid waste from the chemistry process is collected in a waste vial. This liquid waste, with a ^3H concentration averaging $0.0406 \mu\text{Ci/ml}$, is collected and stored in waste containers on-site for disposal. The St. Louis facility has shipped all remaining ^{18}O water to Siemens for recycling.

The site currently possesses one liquid waste container containing ^3H with a total inventory of approximately 4.6 mCi.

Should you require additional information, please feel free to contact me at the number listed below or Ramón Davila at 865-218-3295 or ramondavila@siemens.com.

Sincerely,



Roger Moroney, CHP
Sr. Manager Radiation Protection/Corporate RSO
PETNET Solutions, Inc.
Voice: 865-218-2595
Fax: 865-218-3018
william.moroney@siemens.com

cc: Tigran Sinanian, RPh, BCNP, Sr. Director of Manufacturing Operations
Ramón Davila, MBA, RRPT, Regional Health Physicist

Sandrik, Lauren

From: Null, Kevin
Sent: Friday, May 29, 2015 7:21 AM
To: Sandrik, Lauren
Subject: FW: Record of conversation on May 28, 2015
Attachments: 2015-05-28 Response to NRC form 699_PETNET St Louis_additional requests for license termination.pdf

From: Davila Jr, Ramon [<mailto:ramondavila@siemens.com>]
Sent: Thursday, May 28, 2015 5:30 PM
To: Null, Kevin
Cc: MORONEY Jr, Roger; Doshi, Niraj
Subject: RE: Record of conversation on May 28, 2015

Kevin,

The response to the NRC conversation record (030-38230) dated May 28th, 2015 is attached for your review.

If you have any concerns or need additional information, please call me anytime.

Take care!

Ramón Davila, MBA, RRPT | Regional Health Physicist
PETNET Solutions | A Siemens Company
810 Innovation Drive | Knoxville, TN 37932 USA
865.218.3295 Office | 865.332.6594 Mobile
ramondavila@siemens.com | www.petnetsolutions.com

From: Null, Kevin [<mailto:Kevin.Null@nrc.gov>]
Sent: Thursday, May 28, 2015 10:04 AM
To: Davila Jr, Ramon
Subject: RE: Record of conversation on May 28, 2015

thanks

From: Davila Jr, Ramon [<mailto:ramondavila@siemens.com>]
Sent: Thursday, May 28, 2015 8:56 AM
To: Null, Kevin
Subject: RE: Record of conversation on May 28, 2015

Okay, spoke to Roger this morning and we will do our best to get a response back to you later today.

From: Null, Kevin [<mailto:Kevin.Null@nrc.gov>]
Sent: Thursday, May 28, 2015 8:54 AM
To: Davila Jr, Ramon
Subject: Record of conversation on May 28, 2015

Ramon,

Attached is a record of our conversation from today. Please confirm receipt.

Please call or e-mail if you have any questions.

Let me know when you think you can submit a response.

You can e-mail your response as long as the cover letter is scanned in with an original signature.

Thanks,

Kevin
630-829-9854

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