

PETNET Solutions

December 6, 2013

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

Re: PETNET St. Louis Effluent Control and Monitoring Issue for Radioactive Materials License No. 41-32720-03 – Effluent Capture Status Update

Dear Mr. Null:

Please accept this letter as a status update for PETNET's proposed solution to reducing the amount of radioactivity released from the filtered effluent exhaust system located at the PETNET St. Louis facility.

On October 10, 2013 a Tedlar[®] Bag Gas Capture System (Attachment A) was installed for trapping and storing the radioactive gas produced during FDG synthesis, which occurs within the Explora Chemistry Box. A graph showing the radioactivity measured by the radiation effluent monitoring system is provided as Attachment B. These data show up to a 75% reduction in released radioactive effluent.

Please note that PETNET also produces F-18 Florbetapir (Amyvid [AV-45]), which uses a different chemistry box. The effluent from this production process is not currently being trapped. Upon NRC's approval, Siemens' plan is to install gas capture bags for all chemistry boxes with the goal of significantly reducing effluent concentrations below regulatory constraints.

The St. Louis pharmacy staff will receive procedural and policy training on properly using the Tedlar[®] Bag Gas Capture System from Siemens PETNET's Engineering & Development (E&D) Department and the Radiation Protection Department. At this time, the E&D Department is writing a formal procedure, which will be available for review upon request.

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.

RECEIVED DEC 13 2013

Sincerely,



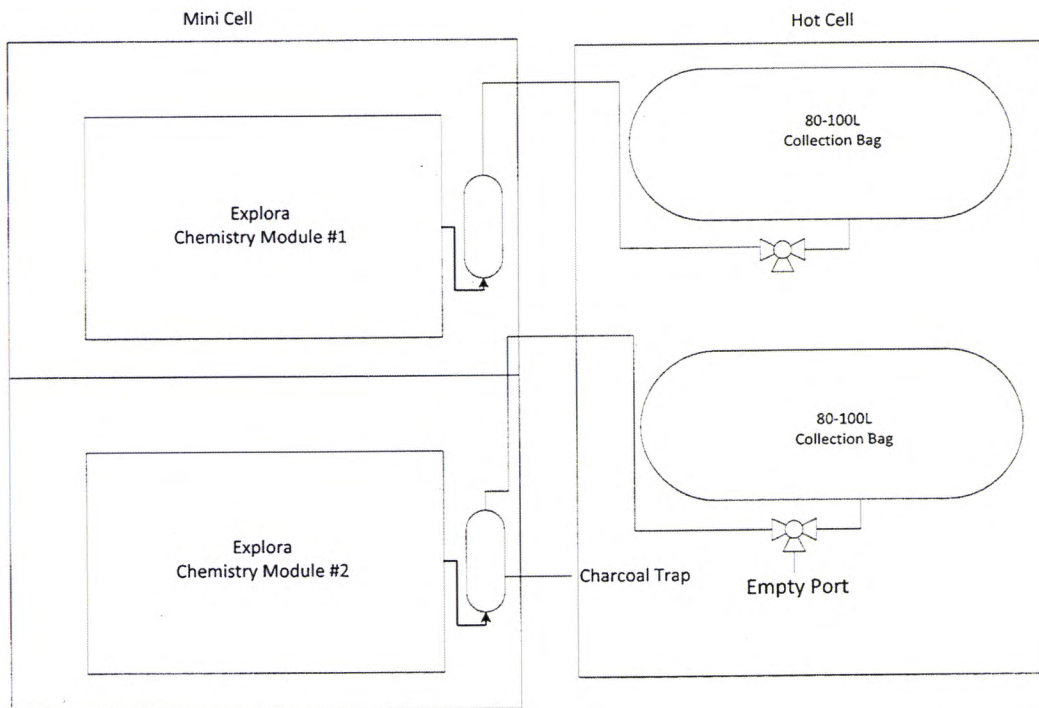
*Ramón Davila
For April Chance*

April Chance, CHP
Senior Manager of Radiation Protection/Environment, Health & Safety
Molecular Technologies Division of Siemens Molecular Imaging
(PETNET, Cyclotrons and Sources)
810 Innovation Drive
Knoxville, TN 37932
(865) 308-3887 mobile
(865) 218-6355 office
april.chance@siemens.com

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

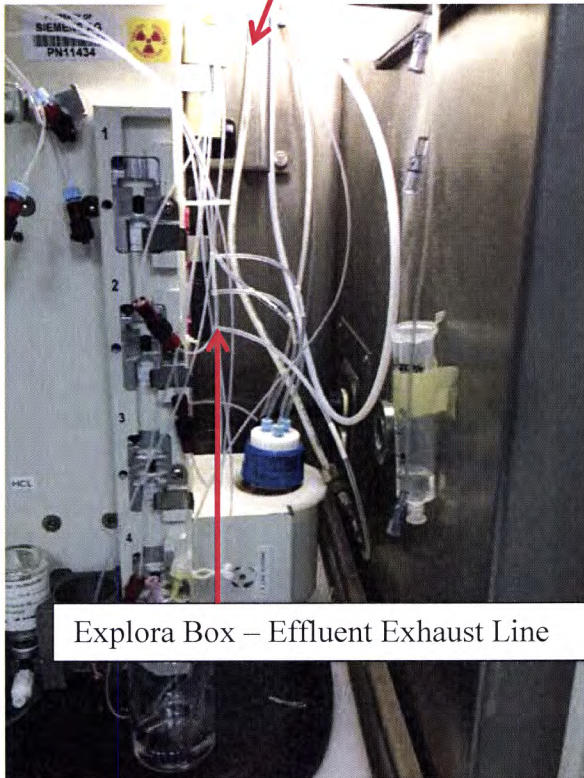
Attachment A

Tedlar Bag Gas Capture System

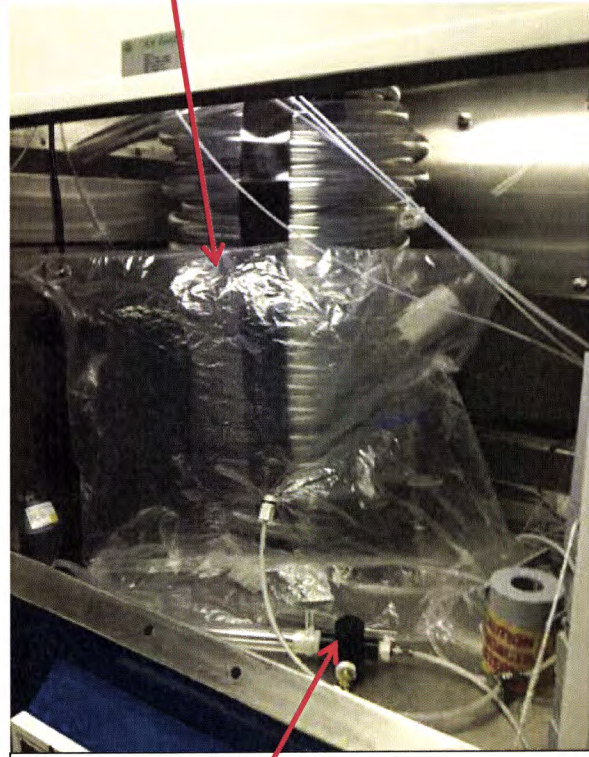


Attachment A, continued

Explora Box – Effluent Exhaust Line to Bag

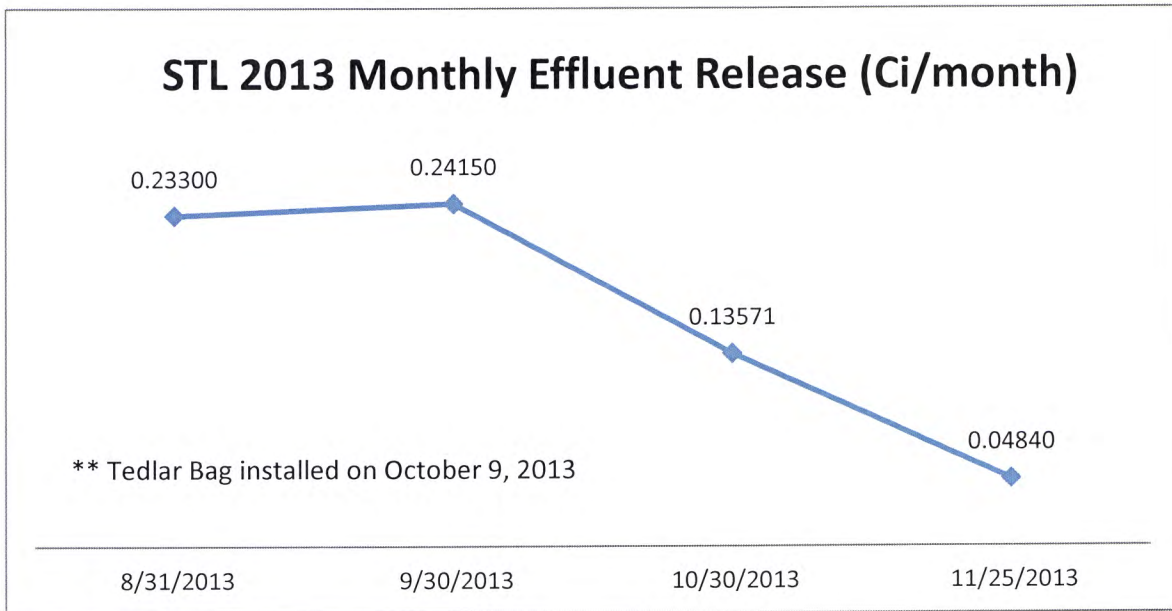


Tedlar® Bag within Hot Cell



Two Way Valve for Releasing Decayed Gas

Attachment B
Historical Effluent Graph



From: (865) 218-8355
April Chance

Origin ID: RKWA



810 Innovation Drive
Knoxville, TN 37932

Ship Date: 11DEC13
ActWgt: 0.5 LB
CAD: 105091792/NET3430

Delivery Address Bar Code



SHIP TO: (630) 829-9854

BILL SENDER

Kevin Null
US Nuclear Regulatory Comm. RII
2443 WARRENVILLE RD STE 210

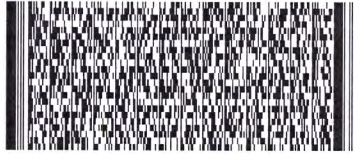
LISLE, IL 60532

Ref # St Louis
Invoice #
PO #
Dept #

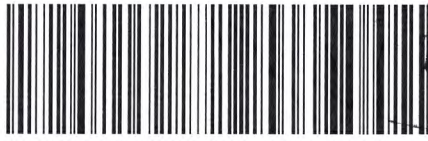
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