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To: [Gregory Hisel \(Gregory.Hisel@ibamolecular.com\)](mailto:Gregory.Hisel@ibamolecular.com)
Cc: [Gaskins, Farrah](#)
Subject: Amendment request to remove facility
Date: Thursday, September 17, 2015 4:23:00 PM

License No. 45-25221-01MD
Docket No. 03032974
Mail Control 588167

Mr. Hisel,

Thank you for the additional information regarding transfer of the sources. In order to complete our review of the vacated facility, please provide the following additional information:

1. Confirmation of receipt of the sources listed in your inventory dated May 21, 2014 at the IBA Molecular facility located at West Virginia University.
2. Were the charcoal filters, filter banks, and filter housing located on the roof for the effluent system measured prior to disposal/transfer? If so, please provide the results of the measurements.
3. Please provide the certificate of calibration for the Ludlum Model 19 used for surveys.
4. Please indicate whether equipment located in the radiopharmacy (hoods, glove box, waste storage drums, dose calibrators, etc.) was surveyed to ensure free of contamination and provide the results of the surveys.
5. It is unclear whether the insides of the ducts and the drains were measured for contamination. Please confirm and provide survey results.
6. Please provide the units for dose rate measurements documented in Survey Units 1-6.
7. The survey results for Survey Unit 1 indicates that no elevated gamma was noted. Please confirm that no elevated beta was also noted.
8. The historical assessment indicates that the facility was previously operated as Eastern Isotopes, Inc. Please confirm that the list of radionuclides includes those previously used by Eastern Isotopes, Inc. If not, please provide a revised list.
9. Please submit records of spills or other unusual occurrences important to decommissioning to the NRC as described in 10 CFR 30.35(g)(1). Alternatively, you may confirm that spills were decontaminated as they occurred with no remaining contamination after cleanup.

In addition please note that contrary to the statement on Page 1 of your Final Status Survey Report, where it indicates that MARSSIM was used in the design of the survey plan; the plan does not follow MARSSIM in a few respects. For instance: (i) it is unclear whether surveys in the Class 3 unit were conducted in areas of highest potential contamination (e.g., in corners and inside drains) as noted on Page 2-33 of NUREG-1575, Rev. 1; (ii) it appears that walls below 8 feet and ceilings were excepted from the survey for Class 1 units in conflict with the guidance provided in MARSSIM to cover 100% of surfaces for Class 1 units and 10-50% for Class 2 units (Page 5-48 and 5-49); (iii) the DCGLs (or action levels) appear to be adopted from Regulatory Guide 1.86 (1974) and not from more applicable documents on developing DCGLs; and (iv) it is unclear whether surface scans included penetrations in floors and walls for piping, conduits, and areas downwind of stack release points. However, a less rigorous survey plan is acceptable since: (i) the longest

half-life of the radionuclides used at the facility was less than 65 days; (ii) approximately 10 half-lives have passed since the last use of material; (iii) the probability of any trace radionuclides is low due to cyclotron activities being conducted at another licensed location; and (iv) the survey results are at background levels when decayed 10 half-lives.

Your assistance is appreciated. You may either fax the additional information to my attention to 610-337-5269 or email a signed pdf letter enclosing the information. Please call with any questions.

Penny Lanzisera
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U.S. NRC Region I