

MICHIGAN STATE UNIVERSITY

July 11, 2006

Peter Lee, Health Physicist
Decommissioning Section
U.S. Nuclear Regulatory Commission
Region III
Lisle, IL 60532-4352

Dear Peter:

This letter is to provide information regarding the final close-out surveys performed by the Michigan State University radiation safety staff at Michigan Biotechnology Institute, License # 21-246360-01, located in East Lansing, Michigan 488823.

You received the copies of our surveys and requested the following information.

1. How we do our surveys, list minimum detectable activities:

When doing a decommissioning survey our staff uses a variety of survey instruments appropriate to measure the types and kinds of radioisotopes used in that location. In the case of MBI, they used only Carbon 14. Therefore, we used the following instruments, with associated backgrounds and minimum detectable activities.

Instrument	Background	Radioisotope	Efficiency	MDA
Ludlum Model 3 Geiger Counter with Beta Pancake	30-60 CPM	Carbon 14	5%	<1200 DPM/100 cm ² , < 5.4 E ⁻⁵ uCi/100 cm ²
Packard 2900 TR Liquid Scintillation Counter	5-30 CPM	Carbon 14	96%	<31 DPM/ 100 cm ² , <1.4 E ⁻⁵ uCi/100 cm ²

2. What was the number of wipes taken in each room?

Four wipes were taken in each room. Then, we wipe floors, doorways and knobs, benches, and any other equipment in the room. If a wipe revealed contamination, we would return to the location and break down into smaller areas to locate and decontaminate any radioactivity that was present.



**OFFICE OF
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3. Our basic procedure

We survey the entire room, all surfaces, cupboards, equipment, benches, floors, doorknobs, etc. with the Geiger counter and beta pancake. We perform the survey with the portable GM survey equipment, moving slowly at about 0.5 – 1.0 cm distance from the surface. Then, we take wipes of all the same areas. No contamination was present using either survey technique in any location surveyed at MBI. As our survey records state, all areas surveyed were less than twice background. The survey record contains the instrument, efficiency and background readings to document these data and to enable MDA calculation by reviewers.

If you have any further questions, please advise me or Phil Hegge, of MBI, and we will be pleased to help you. Thank you for your work in decommissioning this license.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kristin Erickson', with a stylized flourish at the end.

Kristin Erickson
Radiation Safety Officer

Cc: Phil, Hegge, Safety Rep, MBI
Gale Harris, Chairperson, MSU Radiation Safety Committee
John Parmer, Director, ORCBS