

August 22, 2018

Bryan Parker, Senior Health Physicist
U.S. Nuclear Regulatory Commission, Region III
2443 Warrenville Road, Suite 210
Lisle, IL 60532-4352

Re: Additional Information Regarding Justification of Shielding Thickness for Hot Cells for NRC RAM License 13-35179-03.

Mr. Parker,

Zevacor Molecular would like to provide justification for the shielding thickness for the hot cells requested on the most recent license amendment letter, dated July 31, 2018, for NRC RAM License 13-35179-03.

During the design phase, Zevacor Molecular rigorously debated upon the shielding thickness for the hot cells. Knowing our production yields of our isotopes as well as our production schedule, we determined a radiation worker could have the potential to stand in front of a hot cell 1 day (8 hours) per week for 50 weeks with while having a 91.2 Ci target in the hot cell. Zevacor Molecular's ultimate goal was to keep the radiation worker's yearly exposure, in the above assumption, to be less than the 10% of the annual dose limits set by the NRC.

While using the Microshield software (Version 10), Zevacor Molecular discovered that 6 inches of lead and 16 inches of lead glass would result in the potential of 488mR of occupational exposure for the year. 488mR per year is less than 10% of the annual dose limit set by the NRC.

The actual Microshield report was submitted to the NRC in the letter dated July 31, 2018.

Additionally, Zevacor has been utilizing hot cells with the same design and specifications in our facility as the hot cells mentioned above for approximately 2 years.

If you have any questions, please contact me at the information provided below.

Sincerely,



Matthew Trusner
Corporate Radiation Compliance Officer
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