

Memo

date: December 15, 2008

to: H. Kahnhauser

from: D. Beavis 

subject: Posting Threshold for Uncontrolled Areas

During the CA Radiation Safety Committee (RSC) meeting¹ of Nov. 20, 2008 it was noted that there is a blanket policy to post all areas above 50 microrem per hour as Controlled Areas. This discussion arose in regards to the areas adjacent to the U line. Would you please provide me with a copy of the policy or procedure for implementing this control.

I would recommend that the policy/procedure be changed to accommodate the appropriate use of occupancy factors. Based on the RSC meeting discussion it appeared that this policy was the response to an earlier issue with the occupancy level changing for an Uncontrolled Area. I would note that sometimes the response to such incidents can be overly conservative and as time allows a more versatile policy can be implemented.

I would recommend that the policy/procedure procedure be revised to provide additional flexibility. The U line operates on a 24/7 basis for less than 32 weeks per year. Based on this an appropriate occupancy factor² assuming a building is placed against the U line fence would be 0.1465 corresponding to a chronic dose rate of 341 microrem per hour. Naturally, the RSC has no intention of allowing chronic dose of this scale into an occupied building in an Uncontrolled Area. However, the RSC would like more flexibility than applying a fixed threshold of 50 microrem. If the current procedure allows for a case-by-case evaluation then consider this the request.

In the meantime we will continue to work on the changes to the U line and until we hear otherwise will design to the present policies.

References

1. [RSC Minutes of Nov. 20, 2008.](#)
2. NCRP Report No. 151, Structural Shielding Design and Evaluation for Megavoltage X- and Gamma-Ray Radiotherapy Facilities, National Council on Radiation Protection and Measurements, 2005, see page 10-11.

CC: RSC