**Open Source Protocol Mandatory Procedures Guidance**

Below is intended to provide guidance on acceptable language for addressing the associated mandatory fields in an open source radioactive material protocol. Italic statements are those that require more dynamic responses from the PI.

**Procedures for Ordering, Receiving and Inventorying of Radioactive Materials**

The RSO will be notified before placing an order for RAM with the isotope, activity and form of the materials. All orders are paid by the research group and sent to:

Attn: Radiation Safety

1160 Research Drive

Bozeman, MT 59717

RAM must be received by an authorized user under this protocol. On the day of receipt of a RAM order the inventory and usage log must be updated. After receipt the RAM must remain in the line of sight of an AU or secured from unauthorized users. Outer packages in which RAM is delivered in should be removed or defaced prior to disposal.

**Usage and Waste Tracking**

After each day of use the usage date, authorized user performing the work, lot/order # the materials came from, activity left in storage for the associated lot/order #, total activity transferred to waste and waste distribution must be entered into the inventory and usage log. When a lot/order has been used up (activity left in storage is zero) the lot/order # will be shaded out to reflect that it is no longer stored inventory.

**Security of Materials**

*10 CFR 20.1801 Security of stored material states “The licensee shall secure from unauthorized removal of or access to licensed materials that are stored in controlled or unrestricted areas.”*

*10 CFR 20.1802 Control of material not in storage states “The licensee shall control and maintain constant surveillance of licensed material that is in a controlled or unrestricted area and that is not in storage.”*

*As each lab situation is unique there is no suggested wording for this section other than the verbiage used in the cited regulations. This applies to inventory storage, during usage and waste storage. Animals are not exempt from this requirement. Locks and security hasps are typical methods for securing RAM during storage. Please describe the methods used to accomplish these two requirements.*

**Labeling, Day of Use Contamination Surveys and Decommissioning Surveys**

All areas (i.e. benchtop work areas, fume hood areas, sinks used for simple instrument washes) and equipment (i.e. centrifuges, beakers, pipettes, animal cages) must be labeled with words caution radioactive materials and the radiation label.

After each day of use the authorized user performing the work must perform a contamination survey and record the results on the inventory and usage log. If contamination is found, the user must attempt to clean the area to background levels. The corrective actions and results must be recorded in the inventory and usage log. If background levels were not achieved, then the RSO must be notified.

*The appropriate survey equipment must be identified here (wipe tests for 3H, Geiger counter with appropriate probe) as well as the minimum detectable activity for the equipment and isotope. Please consult with the RSO for this information.*

Decommissioning, or the process of clearing an area or equipment after radioactive material use has occurred, must be done by radiation safety personnel.

**Volatility of Radioactive Materials**

*The PI must answer the question of whether there will be volatile radioactive materials. If not, justification is required. If there will be, the most common mitigation would be that all work is performed in a good quality chemical fume hood.*