

1.0 Statement

All nuclear substance stock vials and kits shall be purchased through the Radiation Safety Officer (RSO). Each vial and kit shall have a unique HSMS inventory number and shall be associated with an Internal Permit. The Permit Holder shall ensure that the nuclear substances registered to the permit are used and stored in a safe and secure manner. Every transfer and/or order of nuclear substances shall be pre-approved by the RSO. This will ensure that Memorial University's Canadian Nuclear Safety Commission (CNSC) license limits are not exceeded by controlling the inventory of open source nuclear substances in order to minimize the radiation exposure of all staff, students, the public and the environment and comply with all applicable regulations.

This procedure applies to all purchases of nuclear substances and radiation devices at Memorial University.

2.0 Responsibilities

2.1 Dean, Directors, Radiation Safety Officer and Permit Holders

It is the Dean's, Directors' and RSO's responsibility to ensure that this procedure for purchase and inventory control of open source nuclear substances is followed via the promulgation to permit holders and university staff and students. It is the responsibility of permit holders to ensure that these procedures are followed by those authorized to purchase or work with nuclear substances under the authority of the internal Radioisotope User Permit.

2.2 Department of Health and Safety, Radiation Safety Officer

- a) The Health & Safety Management System (HSMS) generates a unique inventory number for every nuclear substance stock vial or kit entered. The HSMS shall serve as the primary inventory record to log usage and the ultimate disposal of individual nuclear substance stock vials or kits. Paper inventory/disposal records must also be maintained for each stock vial.
- b) Provides pre-approval and procurement of every transfer or order of nuclear substances and radiation devices.

2.3 Permit Holder

The Permit Holder is responsible to ensure:

- a) Procurement/transfer requests are placed only for nuclear substances listed as approved on the current Radioisotope User Permit and the approved container/item and possession limits are not be exceeded. The Permit Holder shall ensure that every transfer or purchase of nuclear substances and radiation devices has radiation safety pre-approval from RSO.
- b) Every nuclear substance stock vial or kit in the possession of the lab has its own unique HSMS inventory number generated by the HSMS.
- c) All records, both paper and electronic are up to date and available for review at all times.
- d) The Radiation Safety Officer is immediately informed of any radioactive stock vial or kit in the lab that does not have a unique HSMS inventory number.

Open Source – Purchasing and Inventory

- e) The required information is accurately recorded in the HSMS inventory. Discrepancies between the original order information and the item as received shall be recorded and reported to Radiation Safety Officer.
- f) Ensure Serial Number/Identification number on the nuclear substance corresponds to that which is recorded in the HSMS inventory
- g) An accurate record of each use/disposal of nuclear substance is maintained on the HSMS inventory.

Note: Empty stock vials and kits must have all radiation warning labels/symbols removed/defaced prior to disposal.

- h) An annual Inventory Verification Report shall be completed and returned to Radiation Safety Officer upon request. At the time of annual reconciliation, a physical inventory shall be taken including stock vials in long term storage. Contamination monitoring of the storage location is required at this time.
- i) All transfers of nuclear substance stock vials or kits shall be recorded on the HSMS inventory including the permit numbers of the receiving and transferring permit holders. Transfers must not exceed recipient permit holder possession limits and require pre-approval from the Radiation Safety Officer.
- j) All movement of nuclear substances and radiation devices to and from the University shall be coordinated in advance with the Department of Health and Safety, Radiation Safety Officer.
- k) The Radiation Safety Officer shall be informed of all scintillation counters, gamma counters and radiation survey meters in your department whether they are in use or not. The Radiation Safety Officer shall be informed of newly acquired equipment as well as equipment that is leaving the department. The Radiation Safety Officer will assist in making the proper arrangements for discard or transport.

3.0 Procedure

3.1 Open Source Nuclear Substance Purchasing Procedure

Orders for nuclear substance stock vials or kits shall be placed through the HSMS “Requisitions” tab. **No other means of purchasing radioisotopes is accepted.**

3.2 Replacement/Standing orders

When a replacement order is required from the vendor, the Permit Holder or designate shall immediately inform the RSO, who will arrange for the replacement.

3.3 Nuclear Substance Stock Vials or Kits that are not arranged via Purchasing

The transfer of nuclear substances and radiation devices to or from the University shall be pre-approved by RSO. Nuclear substances and radiation devices must be transferred from one appropriately licensed facility to another, and surface or air transport regulations must be met. Documentation, labeling and placarding may be required. The RSO will generate the required documentation. Nuclear substances arranged outside of the normal purchasing option must be entered into HSMS inventory by the RSO.