MEMORANDUM FOR: SAM CALLAHAN
ACTING DIRECTOR OF SECURITY
OFFICE OF THE ASSOCIATE UNDER SECRETARY
FOR ENVIRONMENT, HEALTH, SAFETY AND
SECURITY

FROM: TRITIUM FOCUS GROUP

SUBJECT: Recommendation for change to DOE G 474.2, Nuclear Material Control and Accountability

The Tritium Focus Group (TFG) recommends that DOE Order 474.2, Nuclear Material Control and Accountability, dated June 27, 2011, be revised to eliminate deuterium from Table B “Other Accountable Nuclear Materials” of Attachment-2 during the five year revision to the Order.

Justification for this recommendation is that there is a significant amount of paperwork associated with tracking deuterium with no concurrent benefit. Deuterium is commonly procured commercially throughout the DOE complex from several vendors and there are no special requirements to procure a cylinder of deuterium. It isn't until the deuterium arrives at a DOE facility that it becomes an accountable material. When a full cylinder of deuterium is connected to a gas manifold it can be removed from the inventory by filling out the appropriate paperwork. This cylinder that is removed from the inventory can then be stored without any security measures in place. There is no difference in the quantity of gas in a full cylinder that is stored in the gas cylinder cage and a full cylinder that is connected to a gas manifold.