

Brookhaven National Laboratory/ Photon Sciences Directorate			
Subject:	COMPRESSED GAS CYLINDER STORAGE POLICY		
Number:	PS-ESH-PRM-2.5.0	Revision: 1	Effective: 04/19/2012
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Prepared By: R. Kiss		Approved By: A. Ackerman	
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*Approval signatures on file with master copy.

1. **Purpose:** To define and provide requirements for the storage of Compressed Gas Cylinders at the NSLS.
2. **Scope:** This policy covers all areas of the NSLS complex, and applies to all NSLS Staff, and Users.
3. **Policy:** It is the policy of the NSLS to provide safe, controlled storage of compressed gas cylinders as defined in the BNL SBMS.
4. **Reference:**

SBMS: [Compressed Gas Cylinders and Related Systems](#)

SBMS: [Chemicals, Working with](#)

SHSD: [Chemical Management System](#)

Procurement & Property Management, SOP 105.2 [Compressed Gas Cylinder Tagging and Control](#)

5. **Definitions:** Research Gas: Any compressed gas other than BNL Inventory Stock gas. Any gas purchased through BNL PPM or other means, delivered to and used at the NSLS.

Static Inventory Gas: Any cylinder listed in the BNL Inventory of stock gas cylinders.

Compressed Gas Cylinder: Any size compressed gas cylinder including Lecture Bottles.

6. **Procedure:**
 - 6.1 **Location:** Compressed Gas Cylinders not in service shall be stored in the Compressed Gas Cylinder storage cages and racks located outside the West Roll up Doors. Cylinders not in use shall not be stored inside the building in storage cabinets, lab spaces, and general storage areas.
 - 6.2 **Keys:** Keys to the storage cages are available for sign out from the NSLS Control Room. Different cages are used to store specific classes of gases, e.g., Flammable, Inert, and Oxidizers. Cylinders shall be placed in the proper cage to avoid mixing of incompatible cylinder contents.
 - 6.3 **Labeling:** All cylinders must have a cylinder status tag. This tag indicates “Full,” “In-use” or “Empty.” All cylinders shall have a legible content label. All cylinders must be labeled with local contact owner contact information: Name, Beam Line, and

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Date. Labels should be weatherproof, to ensure that the labels can withstand exterior storage. Compressed Gas Cylinder Tagging and Control

6.4 Inspection/Testing: All cylinders are required to undergo a periodic hydrostatic test. Cylinders in storage that have passed their test date OR show signs of damage or deterioration shall be returned to the supply company.

6.5 Purchase of Compressed Gases: (other than those in BNL Inventory)

- User initiates a Purchase Order to BNL Gas supplier GTS-WELCO; www.gts-welco.com . This requires an open BNL Account. (Note: if using other supply sources PO must include cost of delivery and return. Contact the supplier for these charges)
- ALL Cylinders shall be delivered to BNL Shipping and Receiving Warehouse Building 98
- Receiving Warehouse arranges for CMS to register the cylinder
- The cylinder is delivered to the NSLS New Cylinder storage rack
- NSLS Stockroom Clerk notifies User that the Cylinder has arrived

It is recommended that all compressed gasses be purchased through the BNL Purchasing system using the BNL gas Supplier, GTS-WELCO. There are no delivery or pick-up charges associated with GTS-WELCO. Purchases of gas cylinders from any other supplier must include all delivery and return charges. ALL cylinders MUST be delivered to the BNL Shipping and Receiving Warehouse Building 98.

6.6 Chemical Management System: All compressed gas cylinders shall be registered with the CMS. A CMS barcode label shall be securely fastened to each cylinder. Care must be taken to ensure that CMS labels stay attached to the cylinder. Upon completed use of the cylinder, the CMS barcode must be removed and returned to the CMS system to remove the cylinder from inventory. CMS must be notified of any major changes in the maximum quantities of Static Inventory gases at the beam lines so that the Static inventory listing can be updated.

6.7 Cylinder rental and disposal fees: The purchaser of the compressed gas cylinder is responsible for all cost associated with its use. This includes but is not limited to any monthly charges from the supply company, fees associated with the return of the cylinder, fees associated with testing required for disposal of cylinders.

6.8 Return of cylinders:

Returning the BNL supplier: GTS WELCO. www.gts-welco.com

- User must remove CMS Barcode and submit the CMS Deletion paperwork to remove the cylinder from the CMS inventory.
- Remove “Full and IN-USE” portion of status tag leaving the “EMPTY” Status tag attached to the Cylinder
- Place cylinder with cylinder cap fully installed in proper “Return Rack”

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- BNL Cylinder Truck Driver picks up and transports cylinder to the cylinder warehouse for pick-up by Gas Supplier

Returning to other supplier than GTS-WELCO

- User initiates a Purchase Order (If not part of original PO) to cover the cost of shipment, requires open BNL Account.
- User creates Shipping Memo, include the appropriate PO #.
- Remove “Full and IN-USE” portion of status tag leaving the “EMPTY” Status tag attached to the Cylinder
- User contacts Gas Supplier where cylinder was purchased and makes arrangements for pick-up from BNL Shipping and Receiving Warehouse Building 98.
- User must remove the CMS barcode and submit the CMS Deletion paperwork to remove the cylinder for the CMS inventory.
- Place cylinder with cylinder cap fully installed in proper “Return Rack” with a copy of shipping memo.
- BNL Cylinder Truck Driver picks up and transports cylinder to the BNL Shipping and Receiving Warehouse Building 98 for pick-up by Gas Supplier

6.9 Disposal of cylinders: Owners are responsible for all cost associated with the disposal of any cylinder not returned to the supply company. This shall include any testing to determine contents, etc.

6.10 Periodic Area Inspections: The NSLS Research Space Manager or designee shall perform periodic inspections of each storage area. Any cylinder found that does not meet the requirements of this policy shall be removed from storage, the cylinder status tag marked "hold," and the cylinder placed in the return rack. If the proper owner cannot be determined and notified by the Research Space Manager or Designee, the cylinder will be disposed of through the proper channels.

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PHOTON SCIENCES DIRECTORATE REVISION LOG		
Document Number:	COMPRESSED GAS CYLINDER STORAGE POLICY	Review Frequency
Subject:	PS-ESH-PRM-2.5.0	3 Years
Review signatures on file with master copy of controlled document		
Rev	Description	Date
1	Original Document. Replaces LS-ESH-PRM-2.5.0 Rev.1 Changes were made detailing the purchase and return of cylinders.	04/19/12