ATTACHMENT I

Columbia University in the City of New York Health Sciences Division

INDIVIDUAL
Laboratory Safety and Chemical Hygiene Plan

Principal Investigator_____ Date filed_____

Department _____ Building/Floor/Room _____

E-mail address _____Phone _____ Facsimile _____

Laboratory Safety Manager_____ Phone _____

Laboratory Name _____ Building/Floor/Room _____

Departmental Safety Officer_____ Phone _____

E-mail address _____Phone _____ Facsimile _____

****

Please complete and forward the attached pages to Environmental Health & Safety, Mailbox 8. Keep a copy in the laboratory.

The **Principal Investigator** and/or the **Laboratory Safety Manager** have personally discussed the hazards and the proper procedures for using and storing hazardous substances with all personnel who are or will potentially be exposed to such hazards. The Principle Investigator has reviewed this plan and certifies that it reflects the current condition of his/her laboratory.

Principal Investigator's Signature: _____ Date:_____

Principal Investigator's Signature: _____ Date:_____

Principal Investigator's Signature: _____ Date:_____

Principal Investigator's Signature: _____ Date:_____

Principal Investigator's Signature: _____ Date:_____

Principal Investigator's Signature: _____ Date:_____

Attachment I (con't)

List of Laboratory Personnel

Department: _____ Building: _____ Floor/Room: _____ Extension: _____

	NAME	Cunix ID (e-mail)	Read Plan (Signature & date)	LSCH* Training (date)	Degree	Fire Dept COF #
P.I.						
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

(Each lab worker, including P.I., must provide this information)

* Laboratory Safety & Chemical Hygiene Training (see schedule via EH&S website)

Attachment I (con't)

LOCATION OF THE NEAREST SAFETY EQUIPMENT

Department: _____ Building/Floor/Room: _____ Extension: _____

Eye Wash Station _____

Safety Shower _____

Fire Blanket (if chemical fume hood present) _____

Fire Extinguisher _____

Spill Clean-up Kits:

Acids _____

Alkalis _____

Organic Solvents_____

Mercury _____

Personal Protective Equipment (PPE)

Safety eye wear (glasses/goggles) _____

Gloves _____

Aprons/Laboratory Coats_____

Face Shields _____

Mask/Respirator_____

Laboratory Safety and Chemical Hygiene Plan_____

Reference Safety Manual _____

POST a copy of this page in a conspicuous place in the LABORATORY

Attachment I (con't)

Chemical Inventory Form

An inventory of all hazardous substances is required to comply with the New York City Community Right to Know Law (Local Law 26, 1988). A hazardous substance, according to the New York City Community Right to Know Law, is defined as one that presents a physical or health hazard and is listed in the hazardous substance list. Chemicals that exhibit the properties of flammability, corrosivity, reactivity, or toxicity, are examples of hazardous substances that must be listed in your inventory. In addition, include known and suspected carcinogens, mutagens, and teratogens that may not be listed in the hazardous substance list. For a complete list of hazardous substances that must be included in your inventory, please refer to the EH&S website (http://cpmcnet.columbia.edu/dept/ehs).

The inventory must include:

- The proper chemical name or active ingredient (if material is a commercial product).
- The Chemical Abstract Service Number (CAS#). If the chemical is a mixture, as opposed to a pure substance, the CAS# for each hazardous substance in the mixture must be included.
- The physical state (solid, liquid, or gas) of the hazardous substance or mixture.
- Average quantity, in pounds, of the hazardous substance used or stored.
- Maximum quantity, in pounds, of the hazardous substance used or stored.
- Container type (glass, plastic, metal) in which your hazardous substance is stored.
- Manufacturer name and catalog number, if available.

The Laboratory Chemical Inventory (page 47) must be complete, updated and a copy submitted to EH&S on an annual basis.

In addition, Chemicals must be properly labeled with the chemical name and Chemical Abstract Service Number and a copy of the MSDS* for each hazardous substance listed in the inventory must be available in the laboratory.

Please refer to F. Procedures for Hazardous Substances (page 22), G. Laboratory Waste Disposal Policies (page 26), **Attachment VI,** Particularly Hazardous Substances or the Chemical Safety portion of the EH&S web site for a more in depth discussion of hazardous materials.

***Material Safety Data Sheets -** Material Safety Data Sheets (MSDS's) must be accessible to all laboratory staff and visitors. They are available from the chemical manufacturer or through the EH&S website. EH&S recommends that a copy of the hazardous chemical MSDS be kept on file in the laboratory.

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COLUMBIA UNIVERSITY HEALTH SCIENCES
LABORATORY CHEMICAL INVENTORY

Principal Investigator_____

Building:_____
Fl./Room_____
Date Prepared_____

Chemical Name	CAS#1	CAS#2	CAS#3	State of Matter* (S,L,G)	Average Quantity** (lbs/gal/gr/l)	Maximum Quantity*** (lbs/gal/gr/l)	Container Type (glass, plastic, metal or fiber)	Chemical Supplier/Vendor	Catalog#

*Solid, Liquid or Gas

**Average quantity present in the laboratory during the year

***Maximum quantity present in the laboratory during the year

Return to KOC4@columbia.edu

Attachment I (con't)

Laboratory Equipment

1. Compressed Gas Cylinders
2. Ultraviolet (UV) Light Sources
3. Intense Visible Light Sources (including LASERS)

1. **Compressed Gas Cylinders.** Indicate name of gas, size, and room location. Cylinders must be properly secured and hydrostatically tested every 10 years.

2. **Ultraviolet Light Sources.** The sources listed below emit light with wavelengths in the range from 185-290 nm. The design, use and maintenance of these sources must meet current standards.

Source	Wavelength(s)	Location

3. Intense Visible Light Sources (including LASERS). Please list below the sources that emit or contain devices that emit high intensity light. The design and use of these devices must meet current standards. The use of **a** LASER is controlled by the University's LASER Safety Program. **You must complete Hazardous Agents Appendix D (see next page or access via EH&S website) if using a 3b or 4 non-enclosed Laser.**

Type of Device	Manufacturer & Model #	Wavelength(s)	Location

Attachment I (con't)

ENVIRONMENTAL HEALTH & SAFETY OFFICE
REGISTRATION DOCUMENT FOR THE USE OF LASERS (APPENDIX D)

Principle Investigator **MUST** complete Appendix D when proposed research involves use of laser (class 3b or 4). A separate registration form must be submitted for each piece of equipment in this category. Call EH&S at 305 (5)-6780 or e-mail ehs-hs@columbia.edu if you have any questions or need any assistance. **(PLEASE TYPE.)**

PI NAME:_____DEPARTMENT:_____

BLDG/ROOM: _____ OFFICE PHONE: _____ EMERGENCY PHONE: _____

LASER SYSTEM LOCATION: BLDG_____ FL/ROOM #_____

USER'S NAME _____PHONE # _____

Are safety signs posted on door? Yes No Are safety glasses used? Yes No

Are written SOPs* available? Yes No Are users trained on the SOPs ? Yes No

LASER DESCRIPTION: PLEASE DESCRIBE SPECIFICATIONS/CHARACTERISTICS OF THIS EQUIPMENT:

1. Type: _____
2. Manufacturer: _____
3. MODEL NO: _____ 4. SERIAL NO: _____
5. LASER CLASS: CLASS 3A CLASS 3B CLASS 4
6. TYPES OF OPERATION: (A) C.W. _____ (B) PULSED _____
   (C) MULTIPLE PULSED _____ (D) OTHER _____
7. RATED POWER OR ENERGY OUTPUT:_____8. PULSE REPETITION FREQUENCY: _____
9. OPERATING WAVELENGTHS:_____10. BEAM DIAMETER: _____
11. MAXIMUM EXPECTED EXPOSURE DURATION PER DAY_____
12. OTHER PERTINENT INFORMATION: _____

_____

13. IS SERVICE FOR LASER DONE IN HOUSE? YES NO CONTRACTED OUT YES NO

    IF CONTRACTED OUT, COMPANY_____
14. DATE OF MOST RECENT SERVICE: _____/ _____/ _____

REGISTRANT'S SIGNATURE:_____ DATE: _____

EH&S APPROVAL SIGNATURE:_____ DATE:_____

* SOPs - Standard Operating Procedures