



THE PETROLEUM INSTITUTE

NUMBER: PIP 10007

EFFECTIVE: 24-JUNE-2009

REVISED:

SUBJECT: Chemical and Gas Cylinder Handling

REFERENCE:

SECTION 1 PURPOSE

1.1 To establish a policy to handle and store chemicals, gas cylinders, and chemical wastes in the Petroleum Institute's laboratories.

SECTION 2 SCOPE AND APPLICABILITY

2.1 This policy is applicable to the members of the Petroleum Institute faculty, laboratory staff and research students.

SECTION 3 DEFINITIONS

3.1 Laboratory supervisor: Laboratory supervisor is the in-charge of the laboratory and can be the faculty, lab technician, lab engineer or the research student.

SECTION 4 POLICY

4.1 Gas cylinders, chemicals and chemical wastes shall be handled in accordance with the General Provisions section.

SECTION 5 BACKGROUND OR EXCLUSIONS

5.1 To the extent that published information may conflict with this policy, this policy supersedes that information.

SECTION 6 GENERAL PROVISIONS

- 6.1. Chemicals shall be stored securely, in minimum practical quantities, and protected from exposure to excessive heat, cold or damage.
- 6.2. Chemicals shall not be stored on the floor or on shelves with open backs which could allow the chemicals to fall off the back of the shelf.
- 6.3. Incompatible chemicals shall be separated and prevented from coming into contact with each other.
- 6.4. Flammable and combustible liquids used even in relatively small volumes present a fire risk.
 1. Flammable and combustible liquid reagents shall be stored with regard for their flammability, reactivity and toxicological properties.
 2. When flammable liquids are stored in refrigerators or freezers, the unit must be designed for or have been appropriately modified to safely store such materials.
- 6.5. Cylinders of compressed gases shall be secured at all times to prevent the cylinders from toppling over.



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- 6.6. Compressed gases shall be stored with due regard for the flammability, reactivity and toxicological properties of the gas.
- 6.7. Laboratory supervisors shall create and maintain inventories of chemicals present in their laboratories or work areas.
- 6.8. The inventory should contain:
 - a. the name of the chemical
 - b. the supplier
 - c. container size (amount of the chemical)
 - d. storage location (room number)
 - e. date of purchase
- 6.9. At least annually, the laboratory supervisor or unit manager shall provide an updated inventory to the HSE Department for inclusion in the PI's Hazardous Chemical Inventory.
- 6.10. In laboratories where the chemical holdings change rapidly, the supervisor should provide updated inventories more frequently as appropriate.
- 6.11. Individuals departments which use chemicals are responsible for maintaining current inventories and for co-operating with the HSE Department in preparing the PI Hazardous Chemical Inventory.
- 6.12. The HSE Department is responsible for maintaining PI's Hazardous Chemicals Inventory and for ensuring that it is available as required by emergency responders and others with a need to use this information.

SECTION 7 RESPONSIBILITIES AND PROCEDURES

- 7.1. The President shall cause the terms of this policy to be observed.

SECTION 8 CANCELLATION

- 8.1 None.

SECTION 9 REVIEW STATEMENT

- 9.1 This policy shall be reviewed on a regular time frame to be determined by the President. Upon such review, the President may recommend to the Governing Board that the policy be amended or repealed.

SECTION 10 SIGNATURES

Chair of the PI HSE Council

Date



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President

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Governing Board Chair

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