

COLLIN COLLEGE
EPA COMPLIANCE TOOLKIT

THE EPA COMPLIANCE TOOLKIT

The Program

Recently, the EPA has directed enforcement initiatives at colleges and universities and the result has been significant fines and penalties on schools in the northeastern, mid-west, and southeast EPA regions. Larger fines have ranged from \$500,000 to more than \$2 million in recent multi-media inspections (a joint approach to several environmental media, such as air, water, and land).

Now the EPA has focused its attention on the Southwest region. In an effort to both comply with regulations and avoid potentially significant fines, Collin College is participating in a new cooperative program with the EPA and other colleges and universities in the Southwest. Referred to as the **EPA Environmental Compliance Peer Audit Program**, it allows participating schools in the region to essentially inspect each other using their own trained auditors and consultants. Then the college or university self-reports to the EPA any violations found and a plan to correct the problems, with the understanding that this may mitigate EPA imposed fines.

Collin College is scheduled for our first in-depth peer audit in the spring of 2011 and will include campus laboratories, maintenance areas, and equipment, art departments as well as areas where we generate, manage or store regulated waste. Faculty and staff will be asked questions and be asked to produce training records or other documentation related to an EPA audit.

To help with the preparation, we have created this toolkit and have began meeting with departments all over the district, trying to answer questions and distribute as much information as we can to help the affected departments prepare for the inspection and maintain ongoing compliance with EPA regulations. If you have questions about the EPA Peer Audit Program and would like to know how it might impact you or your department please call 972-377-1691 or 972-881-5696

Collin College's involvement in this program is a serious endeavor to bring the campuses into compliance with air and water regulations, and avoid non-compliance penalties. Being a member of the ICUT Environmental Compliance Project will give us time to understand the regulations, do a one-time cleanup, adjust our campus culture and initiate an Environmental Management System (EMS). **"The commitment to compliance must be equal to the task and the task is huge."**

EPA COMPLIANCE TOOLKIT

The Audit Process

The following is a brief description of the EPA Peer Audit process that is scheduled to take place on Collin College Campuses in the spring of 2011.

A schedule and locations of campus spaces/areas that are to be audited will be distributed to the campus community prior to the start date of the audit/s.

The outside auditors, consultants, and Collin College staff who have been trained in the EPA peer audit process will set up an Audit Command center to coordinate the campus inspections.

Collin college staff will always escort EPA Peer Auditors and consultants during the inspections.

Auditors will ask specific questions related to the type of work that is performed in any inspected space/area. Anyone working in the area may be asked questions. Data collected during the audit will be used to generate a final report that will be submitted to the EPA.

The auditors will address the main compliance items listed below:

- Medical or infectious waste,
- Hazardous waste
- Management of satellite accumulation areas
- Universal Waste
- Training with emphasis on:
 - Documentation
 - Proper signage
 - Labeling
 - Storage
 - Waste container management

THE EPA COMPLIANCE TOOLKIT

What are your responsibilities?

Regulations are written in such a way that fines may be levied against an institution or the researcher, as the generator of hazardous waste. This has happened many times in the past and it is therefore extremely important to adhere to the following:

Be sure everyone in your area having responsibility for hazardous waste handling has been properly trained and that training has been documented.

Ensure bottles or collection containers are in good condition and are compatible with the material being contained in them.

Keep waste types separated to the fullest extent possible. Do not mix solvent waste with metal waste unless it is an integral part of the experiment.

Labeling Requirements for Chemical Containers:

1. Chemical Name-- Spell out the name correctly and completely. Abbreviations or chemical formulas alone are not sufficient.
2. Concentration-If the chemical is in solution, indicate the solution concentration.
3. Hazards—List in clear terms how the chemical can hurt you and what target organs would be affected.
4. Date Prepared-Knowing the date the chemical was prepared is very important, especially for those that have a limited shelf life or form hazardous by-products over time.
5. All original (manufacturer) labels should be left in-tact and must be replaced with the information listed above if missing, defaced or illegible.

All secondary containers are subject to these labeling requirements. Dropper bottles, vials, wash bottles, centrifuge tubes and flasks are not exempt from these requirements and must include the appropriate secondary label.

Be sure to maintain all manifest records on past disposals to the waste facility and remember waste that is corrosive, reactive, ignitable, or contains a toxic constitu-

ent such as lead, chromium, silver, chloroform, or benzene, is considered hazardous and must be manifested to the waste facility.

Store waste in a secure location under strict control of laboratory staff and away from high foot traffic.

Past lab audits at other institutions have indicated that improper labeling, open containers, and containers in poor condition are the more noted items that need attention. Remember that signs of spilled material at the base of containers are indications of a potential release to the environment in the eyes of a Peer Auditor.

THE EPA COMPLIANCE TOOLKIT

Training for Labs

Training lab personnel on the proper handling of hazardous chemicals and hazardous waste doesn't have to be time-consuming. This type of training, however, is an annual requirement of the Resource Conservation and Recovery Act (RCRA) and the Occupational Safety and Health Administration (OSHA). Training can take the form of classroom training, web-based training and even on-job training. But it must always be documented.

Only individuals who are trained in the hazards of the materials they could be using should be permitted to use these materials. MSDS sheets provide supplemental information, but should not be used in lieu of formal training.

Training should include the use and selection of proper personal protective equipment, laboratory safety equipment, such as fume hoods, emergency eyewash and shower units, emergency evacuation routes and spill response procedures.

Persons working in laboratories should be trained before they start work in all aspects of laboratory safety, including laboratory-specific practices. Annual training programs for laboratory workers should be conducted.

Training for Non-Lab Areas

Training personnel on the proper handling of hazardous chemicals and hazardous waste doesn't have to be time-consuming. This type of training however is an annual requirement of the Resource Conservation and Recovery Act (RCRA) and the Occupational Safety and Health Administration (OSHA). Training can take the form of classroom training, web-based training and even on-the job training. But it must always be documented.

Only individuals who are trained in the hazards of the materials they could be using should be permitted to use these materials. MSDS sheets provide supplemental information, but should not be used in lieu of formal training.

Training should include the use and selection of proper personal protective equipment, safety equipment, such as fume hoods, emergency eyewash and shower units, emergency evacuation routes and spill procedures.

Persons working in areas where hazardous chemicals are used should be trained before they start work, in all aspects of safety including job-specific practices.

Annual training programs for workers should be conducted.

THE EPA COMPLIANCE TOOLKIT

What will I be asked?

Anyone in your work area could be asked question or asked to produce documentation as part of the audit.

Examples:

1. Do you have written manifests for hazardous wastes you have disposed of? You must have three (3) years of records readily available.
2. Do you have a written or electronic chemical inventory?
3. Any controlled substances on site that require a DEA license?
4. What wastes are generated on site?
5. Do you have documentation of proper chemical and hazardous waste? Training for all appropriate staff?
6. Do you have a satellite accumulation area for hazardous waste and / or universal waste?
7. Are wastes properly packaged, labeled, and under required volume limits?
- 8 How do you handle spills of hazardous waste?

9. What are you allowed to pour down the sink?

THE EPA COMPLIANCE TOOLKIT

Chemical Inventory

Laboratories at Collin College are now being asked to submit copies of their chemical inventories during the Compliance audit. A basic inventory only requires a few elements:

Name of each chemical

CAS number— Most of the regulations Collin College must comply with use CAS numbers as the primary identification for materials. Some materials will not have CAS numbers, so include a notation on the inventory.

Quantity--Calculate the total quantity of each chemical campus wide and verify, by notation whether any are stored in quantities greater than 10,000 pounds, or above the lesser of 500 pounds or the Threshold Planning Quantities (TPQ) for an EHS. The EHS list of chemicals and their respective TPQ can be found on the “List of Lists” at <http://yosemite.epa.gov/oswer/lol.nsf/homepage>.

Reference as to whether the inventoried chemical is an Extremely Hazardous Substance (EHS).

Location--building and room number are sufficient

Contact information--the name and phone number of someone who will be available and can answer questions about the inventory.

The inventory should include all the chemicals in the laboratories.

THE EPA APPLIANCE TOOLKIT

Satellite Accumulation Areas

A Satellite Accumulation Area is a designated area near a process or location that generates hazardous waste where wastes are stored until they are moved to a Hazardous Materials Facility. The Satellite Accumulation Area must be at or near the point of waste generation and it must be under the control of the operator (or lab manager) of the process that is generating waste.

Federal regulations allow generators to store up to 55 gallons of hazardous waste or one quart of an acutely hazardous waste in the satellite accumulation area. There is no limit on the amount of time to accumulate the waste. However once a container is full, the container must be transferred to the Hazardous Materials Facility within 72 hours.

Key elements:

1. The hazardous waste is stored in containers at or near the point of generation
2. No more than 55 gallons of hazardous waste (or one quart of acutely hazardous waste) is stored at each generation point.
3. While the facility is operating, the stored hazardous waste is under control of the operator of the process generating the waste.
4. Storage containers are in good condition and compatible with the waste.
5. Storage containers are kept closed except when waste is added or removed.

6. Storage containers are labeled with the words “Hazardous Waste” or with other words that identify the contents.

THE EPA COMPLIANCE TOOLKIT

Signage

Signs are used to warn employees of chemical and physical dangers, such as designated areas where carcinogens or highly toxic chemicals are used or stored. Principal Investigators, laboratory managers or designee must post all high hazard areas or hazardous chemical storage areas with the proper signs.

Emergency phone numbers and emergency contact numbers of at least two people, with knowledge of the contents of the laboratory, must be posted on all laboratory doors. Someone must be available at all times to answer questions in an emergency.

Labeling of Chemicals

Labels on purchased chemicals must include:

1. The common name of the chemical.
2. The name, address and emergency phone number of the company responsible for the product.
3. An appropriate hazard warning— the warning may be a single word (danger, warning, caution) or may identify the primary hazard, both physical and health.

Most labels provide additional safety information, including, protective measures to be used when handling the material, clothing that should be worn, first aid instructions, storage information and procedures to follow in the event of a fire, leak, or spill.

All labels must remain attached to the original container and must be legible.

If a chemical is transferred to another container, you must label the new container with the same information listed above.

THE EPA COMPLIANCE TOOLKIT

Fluorescent Light Bulb Disposal

Used Fluorescent, high intensity discharge (HID), and UV germicidal lamps are considered a hazardous material and must be collected intact for proper disposal or recycling. Collin College will be collecting these lamps to provide raw materials for new products and, most importantly, to prevent mercury from contaminating the environment.

Procedures for Packing Lamps

Used fluorescent, high intensity discharge (HID), and UV germicidal lamps must be collected in containers that protect the lamps during storage and transportation. The original shipping container is the preferred package for spent lamps. Remove extra cardboard end pieces to assure that lamps fit in the box.

Remove any plastic lamp sleeves and tape from spent lamps when packing for waste collection.

An open top metal drum should be used for other type of lamps such as small lamps, mercury vapor lamps, and other odd shaped fluorescent tubes. In the case of smaller bulbs, additional packing materials such as vermiculite must be added to prevent breakage.

Broken Fluorescent Lamps

When fluorescent lamps and HID, are broken, mercury is released to the environment, but some mercury still remains on the glass surfaces of the glass, phosphor, and the metal or plastic. If a fluorescent, HID, or UV germicidal lamp is broken, all the broken parts must be collected as a hazardous material. Dedicate 30 gallon metal drums labeled with the words "Broken fluorescent Lamps" to collect broken pieces. The drum must be sealed when it is not actively receiving broken bulbs.