

Calvin College Hazardous Waste Policy			
Prepared by: Env. Health and Safety	Date: 2/8/2018	Approved by:	Date:

1.0 POLICY

It is the policy of Calvin College to comply with the Resource Conservation and Recovery Act (RCRA) and 40 CFR Part 260.

2.0 PURPOSE

Calvin College is committed to the safe and proper handling, storage, and disposal of all hazardous waste generated at Calvin College. This policy is written to provide the management process for hazardous waste.

3.0 DEFINITIONS

Asbestos - The name given to a number of naturally occurring fibrous minerals with high tensile strength, the ability to be woven, and resistance to heat and most chemicals.

Biological/Infectious Waste - Solid waste that contains pathogens with sufficient virulence and in sufficient quantity that exposure of a susceptible human or animal to the solid waste could cause the human or animal to contract an infectious disease.

Central Accumulation Area – This refers to SB 055. All hazardous waste is stored in this room to await proper disposal by Calvin’s waste hauler, Drug & Lab Disposal. Waste accumulated in satellite accumulation areas must be moved to the CAA within 3 days of the waste container becoming full. This room is specially keyed restricting to access to most of the Calvin community. If you need to dispose of hazardous waste, contact Jennifer Ambrose at 6-6342 for waste collection.

Hazardous Waste - Waste materials that are either listed wastes or display any of the following characteristics:

- **IGNITABLE** - Includes flammable liquids (flash point ≤ 140 F°), flammable solids, flammable gases, and oxidizers.
- **CORROSIVE** - Chemicals that have a pH ≤ 3 or ≥ 12 , when they are liquid. Most acids and bases (alkalis) fall into this category.
- **REACTIVE** - Chemicals which are normally unstable and readily undergo violent chemical reaction. This group includes: solid picric acid, many cyanides and sulfides, explosives and chemicals that are air or water reactive.
- **TOXIC** - Chemicals containing the following constituents are considered toxic by EPA:

Arsenic	Hexachlorobenzene
Barium	Hexachlorobutadiene
Benzene	Hexachloroethane

Cadmium	Lead
Carbon tetrachloride	Lindane
Chlordane	Mercury
Chlorobenzene	Methoxychlor
Chloroform	Methyl ethyl ketone
Chromium	Nitrobenzene
o-Cresol	Pentachlorophenol
m-Cresol	Pyridine
p-Cresol	Selenium
Cresol	Silver
2,4-D	Tetrachloroethylene
1,4-Dichlorobenzene	Toxaphene
1,2-Dichloroethane	Trichloroethylene
1,1-Dichloroethylene	2,4,5-Trichlorophenol
2,4-Dinitrotoluene	2,4,6-Trichlorophenol
Endrin	2,4,5-TP (Silvex)
Heptachlor (and its epoxide)	Vinyl chloride

Highly Toxic Material - Any chemical which is either specifically identified by the Environmental Protection Agency (EPA) as an "acute hazard" or has a Lethal Dose 50 (LD₅₀) of 50 mg/kg or less oral-rat. Samples include inorganic cyanides, many pesticides, arsenic compounds, etc. A listing of EPA listed "acute hazards" may be obtained from EHS.

Lead-Based Paint - Lead is a toxic metal that was used for many years in products found in and around our homes; it may cause a range of health effects, from behavioral problems and learning disabilities, to seizures and death.

Satellite Accumulation Areas- generators may accumulate up to 55 gallons of hazardous waste (or 1 quart of acute hazardous waste) in containers that are:

- at or near any point of generation,
- under the control of the operator.

In the SAA,

- containers must be compatible with the waste and kept closed/sealed when not in use; and
- once full, the container(s) must be moved to the central accumulation area (SB 055) within 3 days

Small Quantity Generator (SQG) - Generate more than 100 kilograms, but less than 1,000 kilograms, of hazardous waste per month. Calvin is a SQG of hazardous waste. As required by law, SQGs must not accumulate hazardous waste for longer than 180 days.

Solid Waste - Any garbage, refuse, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility and other discarded materials including solid, liquid, semi-solid, or contained gaseous material, resulting from industrial, commercial, mining and agricultural operations, and

from community activities, but does not include solid or dissolved materials in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges.

4.0 RESPONSIBILITIES

- Calvin College administrators, faculty, staff, students, contractors and other parties on campus who handle or generate wastes are required to properly handle, store and label these wastes and to comply with applicable federal and state regulations.
- EHS and campus administration are responsible to ensure that all applicable parties on campus comply with these requirements.
- It is the responsibility of all to see that hazardous wastes are managed in a safe, healthful and environmentally sound manner.

5.0 HAZARDOUS WASTE MANAGEMENT PROCEDURE

Hazardous Waste Compatibility

- Only **compatible** hazardous wastes may be placed into a given container.
See the Chemical Hygiene Plan for a compatibility list.

Labeling Hazardous Waste Containers

- Once hazardous material is declared as hazardous waste, the following steps **must** be followed:
 - Affix a label to the container
 - Labels can be obtained from Dave Ross (6-6494), Lori Keen (6-6080) or Environmental Health & Safety (EHS, 6-8591)
 - Labels must list the material, or mixture, name(s), the date the container became full (or was deemed waste) and the name of the professor (contact person) who generated the waste.

Sample label below

HAZARDOUS WASTE	Calvin College
Department: _____	Accumulation Date: _____
Contact Person: _____	
HAZ Waste #(s): _____	
Specific chemical description: _____	

- Chemistry: Dave Ross (6-6494)
- Biology: Lori Keen (6-6080)

- Art: Betty Sanderson (6-6744)
- Engineering: Robert DeKraker (6-6866)
- All others (or if questions), call Heather Chapman (6-8591) or Jennifer Ambrose (6-6342) in the EHS office.

Storage of Hazardous Waste in the SAAs

- All hazardous waste containers must always be located in the secondary containment bins at the SAA.
- No container having declared hazardous waste can be unlabeled at any time.
- Two or more hazardous waste containers having contents which are incompatible with contents of the other containers cannot be placed into a single secondary containment bin. They must be stored separately.

Movement of Full Hazardous Waste Containers to the CAA

- When a hazardous waste container is full, your appropriate department contact must be notified so that the full container may be moved to the CAA within three days.
- All hazardous waste containers moved to the CAA must have secondary containment and be fitted with appropriate safeguards to prevent spills and container breakage.

Weekly Inspection

- The CAA is inspected weekly by EHS. Any deficiencies are corrected immediately. Records of the inspection are kept on file in the EHS department.
- EHS will maintain the accumulation and storage facilities, container labeling and collection records.

Subcontractors to Calvin College who in the performance of any contract requiring the use of hazardous material which will lead to the generation of hazardous waste will be required to demonstrate certification of hazardous waste training. Subcontractors will be required to remove all hazardous waste which they generate under the contract.

6.0 SPILL CONTROL

- In the event of a hazardous waste spill or leak, the person discovering the release must immediately initiate the following actions:
 - If there is an immediate threat to human health:
 - Evacuate the area.
 - Contact EHS immediately (526.8591 or 734.776.6970).
 - Contact Campus Safety (526.3333).
 - If there is no immediate threat to human health and you are trained:
 - Extinguish all sources of ignition and isolate incompatible or reactive chemical substances.
 - Attempt to stop or contain the spill/release at the source (provided there are no health or safety hazards and there is a reasonable certainty of the origin of the leak).
 - Isolate all potential environmental receptors such as floor drains, catch basins, sumps, exposed soil, and runoff areas.
 - If you are not trained, contact EHS promptly.

7.0 TRAINING

- Documented training is required for personnel involved in the management of hazardous material wastes.
- Training records shall be maintained by EHS.
- Hazardous waste handlers must complete training and on-the-job instruction relevant to their duties to include hazardous waste management procedures and contingency plan implementation.
- Training must be completed before duties are assigned.

8.0 HISTORY

Revision	Date	Description
1	3/25/2010	Reformatting of policy
2	8/20/2012	Added SAA & CAA definitions; rephrased section 2.0; Added new information and reorganized section 5.0; Included cell phone number in section 6.0