

Policy Title:	Management of Polychlorinated Biphenyls [PCBs]
Policy Number:	EHS-2009-01
Office Responsible:	Chemical Control Centre
Executive Responsible:	Vice-President, Administration & Finance
Last Approval Date:	January 13, 2009
Last Revision Date:	January 13, 2009

1.0 POLICY STATEMENT

The University of Windsor is committed to ensuring that polychlorinated biphenyls (PCBs) located across campus are managed in an environmentally responsible manner. This policy outlines how PCB-contaminated waste materials generated in laboratories, other academic areas and facilities and services operations are to be managed.

2.0 PURPOSE

Polychlorinated biphenyls, commonly known as chlorobiphenyls or PCBs, are industrial chemicals that were synthesized and commercialized in North America starting in 1929. They were used in the manufacturing of electrical equipment, heat exchangers, hydraulic systems, and several other specialized applications up to the late 1970s. They were never manufactured in Canada but were widely used in this country.

PCBs are very persistent both in the environment and in living tissue. The most obvious signs of environmental harm caused by PCBs are in aquatic ecosystems and in species that eat primarily aquatic organisms. Canadian legislation has allowed owners of PCB equipment to continue using PCB equipment until the end of its service life. The storage of PCBs has been regulated since 1988. Handling, transport and destruction of PCBs are also regulated, mostly under provincial regulations.

The handling of PCB-contaminated waste materials requires special consideration. Many provincial and federal environmental requirements apply. It is important for the University to recognize and identify possible sources of contaminated PCB wastes and implement appropriate handling requirements for such wastes.

This policy outlines the requirements for the management of PCB-contaminated waste materials generated in laboratories, other academic areas and facilities and services operations. The identification of possible sources of PCB-contaminated materials, analysis and administrative requirements are outlined. Decontamination procedures as they apply to emergencies are also addressed. Waste that is not immediately shipped for destruction must be stored on University property. Exportation of PCB wastes outside the country is not allowed. Disposal options for such wastes are limited and expensive.

3.0 SCOPE

This policy applies to all academic, administrative, and research units of the University of Windsor.

4.0 EXCEPTIONS TO THE POLICY:

None.

5.0 CROSS-REFERENCES

Canadian Environmental Protection Act, 1999 (CEPA 1999)
Chlorobiphenyls Regulations (1977, revised 1980, 1985, consolidated 1991)
Environmental Contaminants Act (ECA 1976)
Environmental Protection Act of Ontario - Ontario Regulation 362 - PCB Waste [RSO 1990]
Export and Import of Hazardous Waste and Hazardous Recyclable Material Regulations (2005)
McDonald, C.J. "Identification of fluorescent lamp ballasts containing PCBs", Environment Canada, Commercial Chemicals Branch (1991).
PCB Waste Export Regulations (1996)
Storage of PCB Material Regulations (1988)
University of Windsor OHS-4.7.1 "Emergencies" (2008, pending approval)
University of Windsor's "Spill Response Manual" (2008)

6.0 DEFINITIONS

Askarel: A generic name for synthetic electrical insulating dielectric materials that when decomposed by an electric arc, evolve only non-explosive gases or gaseous mixtures. Mixtures containing PCBs and chlorinated benzenes are the most common examples of askarels.

PCB: as any monochlorinated or polychlorinated biphenyl or any mixture that contains one or more of them. This includes equipment, solids [including empty containers] and contaminated liquids.

PCB Equipment: Any manufactured item, other than PCB packaging, that contains PCB liquids or PCB solids and whose surfaces have been in direct contact with PCBs. Examples include transformers, capacitors, heat transfer systems, vapour diffusion pumps, electromagnets, and hydraulic systems.

PCB Liquid: Any liquid containing more than 50 ppm (50 mg/kg) by weight of PCBs.

PCB Waste: Any PCB liquid, PCB solid, or PCB equipment that has been taken out of service for the purpose of disposal.

Special handling and storage requirements apply to any waste material with a concentration greater than 50 ppm of polychlorinated biphenyls [PCBs]. The handling of

PCB wastes is subject to Ontario Regulation 362 - PCB Waste Management under the Environmental Protection Act of Ontario [RSO 1990]. If the PCB waste cannot be decontaminated, it must be stored in a registered PCB site on the generator's property. The required environmental precautions vary due to the type of storage and type of PCB material being stored.

7.0 PROCEDURE

7.1 RESPONSIBILITIES

1. The Chemical Control Centre's - Environmental Protection Services will oversee the institution's PCB management, coordinating sampling & disposal, conducting audits, spill response, reviewing work plans, reporting, and ensuring compliance with the regulations.
2. Managers, supervisors, including faculty members that operate a research laboratory, shall ensure that PCB waste generated in their area of responsibility is safely contained, identified, and disposed of in accordance to the guidelines stipulated in this policy.
3. Facility Services - Maintenance Department shall be responsible for the following:
 - a. Development and implementation of site-specific procedures for the University of Windsor's PCB Storage site.
 - b. Inventorying all electrical equipment containing PCBs in a concentration of 50 mg/kg or more.
 - c. Overseeing the replacement of oil-filled electrical equipment with PCB contamination during maintenance projects involving electrical upgrades.
4. Facility Services – Planning, Design, and Construction is responsible for ensuring that the disposal of PCBs conducted by third-party contractors is conducted in a manner respective of the University of Windsor's policies related to PCBs and all relevant federal, provincial, or municipal regulations.
5. Occupational Health and Safety is responsible for implementing a fire & emergency action plan to outline the procedures to be taken in the event of an emergency involving PCBs.
6. Research laboratories that possess PCBs for the purpose of research, to determine the effects of PCBs or products on human health or the environment, must receive authorization to use PCBs for that purpose and/or conform to internationally recognized guidelines on best laboratory practices.

7.2 GUIDELINES

7.2.1 IDENTIFICATION OF PCBs

Of the total PCBs used in the industrial/commercials sectors, Environment Canada has estimated that the educational sector accounts for 4% of the PCB inventory in all of

Canada. It is important to be able to identify the potential sources of these contaminated materials that may likely be encountered at the University. Historically, the major source of PCB waste at the University has been created when PCB equipment has been removed from service or decommissioned.

Any suspected PCB equipment or material should be referred to the Chemical Control Centre. A test will be performed to indicate the presence or absence of PCBs. There is no charge for this test.

A. Laboratory and Operational Sources

PCBs were used in a variety of applications including additives in lubricants, heat transfer dielectric fluids, adhesives etc. All these uses were banned in Canada in 1977. Hydraulic equipment, oil-filled electromagnets, circuit breakers, voltage regulators, cables and vacuum pumps may contain PCB liquid.

The age of the equipment is a good indicator of potential PCB contamination. Equipment manufactured prior to 1980, is likely to have used PCB-contaminated fluids. Special attention should be paid to diffusion pumps and vacuum pumps. In the past, the University has produced these pumps that were contaminated with PCBs.

Older equipment suspected of containing PCB materials, being removed from laboratories for scrap or decommissioning, must be carefully screened for PCBs.

PCBs were sold in North America under the trade name AROCLOR. They were defined by a 4-digit code of which the last 2 digits represent the % by weight of the chlorine content. For example, an Aroclor containing 60% PCB would be designated Arocolor 1260.

Contaminated laboratory samples may also be produced from calibration samples. If a laboratory sample is labelled as PCB, Polychlorinated biphenyls, chlorinated biphenyl, Aroclor samples, the sample should be suspect as containing PCBs.

Any empty containers suspected of previously containing PCBs should be considered as PCB-contaminated waste material.

B. Transformers

Since the 1930's, a generic fluid called "askarel" containing 40-70% PCBs were used in high voltage transformers. Commercial Aroclors were blended with trichlorobenzene. Askarel is the generic term used to identify the combination of Aroclor and trichlorobenzene. A typical Askarel transformer may contain 30-40% PCBs and as high as 65%. Contaminated mineral oil usually contains < 1% PCBs.

PCB-contaminated transformers can usually be distinguished by the nameplate on the transformer located on the outside casing. If the following brand names appear on the nameplate, the transformer contains PCBs:

Table 1: Trade names of PCB-contaminated transformers

Apirolio [Italian]	Elemex	Pydraul
Aroclor	Eucarel	Pyralene
Asbestol	Fenclor [Italy]	Pyroclor
Chorextol	Hyvol	Saf-T-Kuhl
Chorinol	Inerteen	Santotherm FR [Japan]
Clophen [German]	Kaneclor [Japan]	Sorol
Diaclor	Montar	Therminol FR
DK (decachlorodiphenyl) [Italy]	NoFlamol	
Dykanol	Phenoclor [France]	

In addition, the "Type Number" also indicates if the transformer contains PCBs. Any Type Number beginning with "L" indicates that the transformer is PCB-contaminated. Some Type Numbers are: LFAF, LFAN, LFWN, LNAF, LNP, LNS, LNW, and LNWN.

C. Capacitors

Almost every capacitor manufactured between 1930-1980 contains PCB dielectric liquids. Capacitors in electrical equipment vary in sizes from ice cubes to larger than refrigerators. Capacitors are classified as large when they contain > 0.5 kg of PCBs. Small capacitors are generally associated with electronic or lighting equipment. Fluorescent light ballasts also contain capacitors. Light ballasts are discussed below.

Capacitors may be found in a variety of locations within a building for example connected to A.C. motors > 30 hp wired to the electrical terminals. A capacitor often can be recognized by the letters KVAR stamped on its nameplate. Capacitors may vary in size from 5 KVAR to 200 KVAR range. Capacitors are hermetically sealed to reduce leakage. Unless clearly indicated on the equipment, or the date of purchase can be confirmed to be after 1980, most capacitors in use must be assumed to be contaminated with PCBs unless tests have verified their absence.

D. Ballasts

Fluorescent light fixtures may contain several ballasts. Fluorescent lighting ballasts are easily identifiable containing PCBs or non-PCB. The small capacitors inside the ballasts are contaminated with high levels of PCB liquid if they were manufactured prior to 1980. At the University over the years, these ballasts have been used from a wide variety of manufacturers.

Please see Environment Canada's – Identification of Lamp Ballasts Containing PCBs.

7.2.2 ANALYSIS

Unless suspect equipment or laboratory sample has been verified as being PCB-free through an accredited laboratory, it is advisable that a sample be sent for analysis to determine the extent of PCB contamination or to verify the absence of PCBs. Contact the Chemical Control Centre to arrange for an analysis (see Appendix 1: Chemical Control Centre Sample Analysis Request Form – EHS-2008-04).

The Chemical Control Centre have all analysis completed by a laboratory that is accredited by the Canadian Association from Environmental Analytical Laboratories Inc. (CAEAL) for which the scope of the accreditation shall include the analytical method used to determine the concentration of PCBs in a mixture.

7.2.3 PROTECTIVE CLOTHING AND APPARATUS

Only individuals who have been trained in handling liquids containing PCBs should handle this material. Routine precautions should be observed while handling liquids containing PCBs. The protective clothing to be worn will vary with individual circumstances, including concentration, quantity, and form. Gloves (neoprene, nitrile rubber, or vitron), boots, disposable coveralls, aprons, and eye protection should be worn as necessary.

7.2.4 STORAGE

The University of Windsor operates a PCB storage site located at Facility Services (2601 Union Street). Access to this site is monitored by Campus Community Police and restricted to only individuals authorized by Facility Services – Maintenance Services. No other waste is to be stored within the institution's PCB storage facility. The entrance to the PCB storage area is to be clearly labelled to warn individuals of the presence of PCBs. In addition, personnel protective equipment and clean-up kits for PCB spill are to be located within easy access to the storage facility.

All PCB waste is to be placed on skids or pallets and stored within the designated containment area to ensure that PCBs will not be released to the environment. All PCBs or products that are not processed or used shall, within 30 days, deposit them to the University of Windsor's PCB storage site. PCBs or products can be removed from storage and placed back into service, if necessary.

A. Capacitors

Sealed capacitors are to be stored in labelled UN approved 205L No. 18-gauge steel drums that have been either painted or treated to prevent rusting. The drum must be fitted with removable steel lids and gasket made of material that is resistant to PCBs or the products containing PCBs that are stored within the drum.

Capacitors should be stored with the terminals up to prevent leakage from the capacitor bushing. Leaking capacitors should be drained then placed in individual heavy-duty polyethylene bags prior to storage in drums. Drums containing leaking capacitors should be packed with sorbent materials to absorb PCBs that may escape from the bags.

Equipment that is too small, including light ballasts, do not need to be individually labelled provided that they are placed within a container that bears a PCB label (see section 7.3.1. Labelling)

B. Transformers

Small transformers can be stored or transported in leak-proof containers, without draining, in a manner similar to capacitors. Larger transformers do not need to be drained, provided

that they are structurally sound and all cooling tubes, valves, and gauges are sealed and protected from damage and the weather.

C. Liquid PCBs

All PCBs or products containing PCBs that are in a liquid form are to be stored in properly labelled sealed containers or drums. Sealed containers to store liquid PCBs or products containing PCBs must be made of steel or other metals that provide sufficient durability and strength to prevent the contents to be affected by weather or released. Drums used for storage must be a closed-head double-bung drum made of steel having a gauge of 16 or heavier, painted or treated to prevent rusting, and not have a capacity greater than 205L

7.2.5 DECONTAMINATION

Decontamination is a process whereby PCBs are removed from equipment by solvent extraction. Solvents that are used for PCB decontamination should be disposed of as PCB waste when they contain more than 50 ppm (by weight) of PCBs.

For more information, please contact the Chemical Control Centre's – Environmental Protection Services.

7.2.6 FIRE RESPONSE

The Office of Occupational Health and Safety is responsible for the generation of an emergency plan to address events involving PCBs. This information is to be contained within the University of Windsor's Maintenance Building Fire Plan. It includes information related to the following:

- emergency actions that should be taken in the event of a PCB spill or fire;
- personal protection equipment to be used during an emergency response;
- corporate personnel who can be contacted on a 24-hour basis to supervise emergency actions; and
- regulatory notification requirements detailing who must be notified in the event of an emergency

The PCB Storage Site is equipped with a security and fire alarm system that is directly connected to the building management system. Campus Community Police shall contact the Manager of Maintenance Services in the case of activation of either the entry alarm and/or area fire alarm.

7.2.7 SPILL RESPONSE

Spills of PCB liquid must be acted upon and cleanup operations commenced as soon as possible after detection. In an emergency or cleanup situation, an assessment should first be made of all possible hazards associated with the situation so that appropriate safety procedures and protective equipment may be used.

Spill cleanup procedures presented in this section address spills of PCB liquids such as askarel, decontamination flushings, and contaminated mineral oil. Spills of PCB-contaminated solid materials have less-tendency to spread and are considerably easier to clean up than spills of liquids. Cleanup procedures for spills of PCB solids are discussed within the University of Windsor's Spill Response Manual, including:

- stopping source of spill;
- controlling further spread of the spill;
- notification of authorized personnel of the spill and cleanup intentions;
- consultation procedures for working with the provincial environment authority on the cleanup procedures;
- removal of PCBs from the surface where they have spilled; and
- sampling procedures for testing for the completeness of the cleanup.

A. Spread Control

Immediate action should be taken to limit the spread of contamination by using dykes and drain plugs, as available, by removing articles that are not yet contaminated, and by any other action that can be readily undertaken.

B. Notification

Immediately notify Campus Community Police (from a campus phone, dial 911) to ensure that the appropriate individuals are informed about the PCB spill and that all cleanup resources are made available.

Campus Community Police will notify the Chemical Control Centre's – Environmental Protection Services to respond to the spill emergency and/or give cleanup advice to on-site personnel. On-site personnel should assess the situation and contact other emergency agencies (fire or police) as warranted.

The Chemical Control Centre will determine if the appropriate provincial environmental authority should be informed of all spills and the cleanup measures being taken. Ministry of the Environment Spill Action Centre should also be contacted if information on emergency and spill cleanup procedures is needed (800-268-6060). Transportation accidents involving PCB spills should be reported to local police and fire departments, and appropriate provincial/territorial authorities at the telephone numbers given on the TDG Waste Manifest.

C. Spill Removal

PCB liquids should be removed from the contaminated area to as large an extent as possible using pumps and sorbent materials (Appendix 2). These materials all absorb PCBs to create a "quasi-solid" product that can be placed into a container for disposal. Adequate supplies of sorbent material should be kept close to PCB equipment at all times. Other spill cleanup equipment including pumps and barrels should also be made readily available.

D. Decontamination solvents

After the liquid PCBs have been removed through the use of sorbents or pumps, the affected surfaces must be thoroughly decontaminated. Surfaces that do not absorb PCBs, such as steel or PCB-resistant concrete, should be decontaminated by thoroughly rinsing with a solvent, such as Varsol, turpentine, No. 1 fuel oil, or kerosene, until the PCBs are removed. PCB-contaminated solvents and cleaning rags should be disposed of as a PCB waste. Materials that absorb PCBs, such as wood, asphalt, concrete, soil and sediments, should be examined to determine the depth of PCB penetration. The contaminated surface layer should be decontaminated or physically removed to meet provincial requirements. The material removed should be dealt with as a PCB waste when it contains more than 50 ppm PCB. Less contaminated material should be handled and disposed in a manner acceptable to provincial authorities.

E. Spill Control Kit

Equipment and materials for the cleanup of PCB spills, such as sorbents, pumps, solvents, cleaning rags, plugs for blocking drains, and portable dykes, should be stored together as a PCB "spill control kit" within easy access of a PCB storage area.

All persons authorized to work within a PCB storage or disposal area should be familiar with the location of the "spill control kit" and be thoroughly trained in its use. They should also be familiar with methods of packaging and handling of PCB contaminated waste generated in the cleanup.

7.3 ADMINISTRATION

7.3.1 LABELLING

All in-service PCB equipment should be labelled to help ensure that it is properly identified when it enters the waste stream. In addition, labeling alerts individuals to the presence of PCBs in equipment and assists in inventory control while in-service, and later, during handling, storage, and disposal.

The University of Windsor uses four (4) different labels for PCB equipment. Serialized labels, issued by Environment Canada, are for tracking askarel equipment and liquids (Figure 1 – Large pieces of askarel equipment and Figure 2 – Smaller items). A non-serialized version (Figure 3) is to be used as general warning label and placed in a visible position at the entrances to locations where PCB equipment is located, including storage compounds, electrical rooms, and transformer vaults.

In cases where it is suspected that a piece of equipment may be contaminated with PCBs testing is conducted to determine the PCB concentration of the liquid contained within the equipment. If PCBs are found, a PCB warning label (Figure 4), for contaminated equipment is placed on the equipment and completed, including PCB concentration, date of analysis, company name, and signature of an authorized company official. This label is also used to

identify drums or packaging where contaminated liquids or other low level PCB-contaminated wastes are stored.

Contact the Chemical Control Centre's – Environmental Protection Services to request PCB labels.



Figure 1: Serialized label for large pieces of equipment.

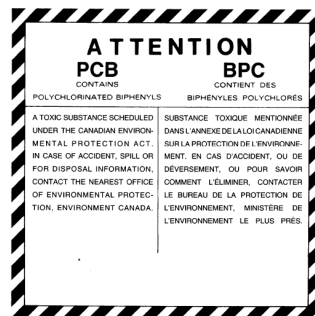


Figure 3: PCB general warning label

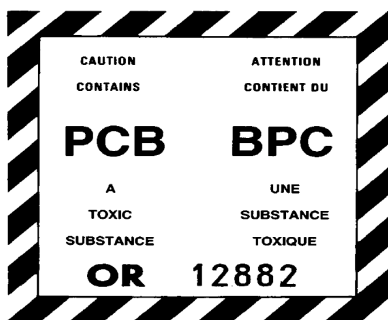


Figure 2: Serialized Environment Canada PCB label for small pieces of equipment



Figure 4: PCB warning label for contaminated equipment

7.3.2 INSPECTIONS – PCB STORAGE SITE

The University of Windsor's Facility Services – Maintenance Services is to complete a monthly inspection of the institution's PCB storage site (see Appendix 3 – Monthly PCB Storage Site Inspection Form – EHS-2008-02). A copy of the inspection report is to be forwarded to the Chemical Control Centre's Environmental Protection Services where they are to be maintained for a minimum of five (5) years.

7.3.3 INVENTORY RECORDS

The University of Windsor is required to keep records of all PCB waste that are held by the institution. Inventory records (see Appendix 4: PCB Inventory Tracking Sheets – EHS-2008-03) are to be maintained by Facility Services and audited by the Chemical Control Centre's – Environmental Protection Services and include the following information:

- Description of the PCB waste, including quantity and concentration of PCBs, name plate description where applicable;
- Method and dates that all PCB waste was transferred to the storage site;
- Unique identification number for the PCB waste;
- Date and name of individual who transported the material to the site;
- Location of the waste; and
- Methods for storage

All completed records are forwarded to the Chemical Control Centre, prior to pick-up by an authorized vendor, where they are to be maintained for a minimum of five (5) years.

7.3.4 DISPOSAL

Wastes that are contaminated with PCBs greater than 50 ppm require special destruction. These materials require special handling, storage and notification to the Minister of Environment prior to being removed from a generating site for disposal. Currently disposal of PCB wastes is limited in the number of facilities able to destroy these wastes. The exportation of PCB wastes outside of the country is prohibited. The destruction of high-level wastes is limited to a single facility in Canada. Low-level wastes can be treated on the generator's site using a chemical destruction process.

The disposal of PCB waste is coordinated through the Chemical Control Centre's – Environmental Protection Services. No PCBs or products containing PCBs will be held for disposal for more than one year from the date on which their use is not longer used or processed daily. If any waste materials that are being disposed, the Hazardous Materials Technician, Chemical Control Centre should be notified. This includes all sources of wastes, from laboratories, building renovations and operations.

7.3.5 THIRD-PARTY REMOVAL

Facility Services – Planning, Design, and Construction is responsible for ensuring that the disposal of PCBs conducted by third-party contractors is conducted in a manner respective of the University of Windsor's policies related to PCBs and all relevant federal, provincial, or municipal regulations.

7.3.6 TRANSPORT

Federal Transportation of Dangerous Goods Regulations, and complimentary provincial legislation, and specify standards are requirements for the safe handling and transporting, by all modes of transportation within Canada, of dangerous goods and/or hazardous wastes.

Under TDG regulations, PCBs or articles containing PCBs have a primary classification number of 9.1, as subsidiary classification of 9.2 and UN Product Identification Number of UN2315.

It is necessary for the consignor (generator), carrier, and consignee (receiver) involved in the transportation of PCB wastes and equipment to obtain approvals or licenses.

Transport of PCB wastes across or along public streets must have prior approval from the Ministry of the Environment (MOE).

7.3.7 LONG TERM [>90 days] STORAGE

All wastes contaminated with > 50 ppm PCBs are classified as PCB waste and must be appropriately stored. The Ontario Ministry of Environment [MOE] issues operating conditions for all PCB waste stored for more than 90 days. PCB wastes are subject to MOE as well as Environment Canada guidelines.

8.0 REVIEW PROCESS

This policy will be reviewed every five (5) years with the following exceptions: (1) changes in legislation occur that directly affect this policy; (2) a specific incident triggers a review of this policy; or (3) a request is made by the Executive Responsible or the Board of Governors to review this policy.

9.0 PROCESS FOR COMMUNICATING POLICY

This policy will be posted on the University of Windsor's policy website under "Environmental Health and Safety" within two weeks of the approval of this policy. Public Affairs and Communication will be requested to disseminate this information to the Campus Community via the Daily News. In addition, a memo will be sent to all departments that are directly affected by this policy.

10.0 CONTACT INFORMATION

Chemical Control Centre
Environmental Protection Services
P: 519.253.3000.3523
F: 519.973.7013
E: ccc@uwindsor.ca
www.uwindsor.ca/ccc

Facility Services
Maintenance Services
P: 519.253.3000.2850
F: 519.561.1404
E: probrts@uwindsor.ca
www.uwindsor.ca

PCB Sample Testing Request Form

Name:			
Department:			
Phone No.:		Fax No.:	
Email:		Date:	

Sample #	Description	Volume (ml)	CCC Use Only PCB [] (mg/kg)
1			
2			
3			
4			
5			

Instructions:

Wearing appropriate personal protective equipment, such as gloves (neoprene, nitrile rubber, or vitron), boots, disposable coveralls, aprons, and eye protection, transfer a small sample (approx. 25mL) of the oil into a clean sample vial that is equipped with a screw cap lid to prevent leakage. If you require a sample vial, please contact the Chemical Control Centre.

Please retain a copy for your records and forward the original along with sample(s) to:

Chemical Control Centre
Environmental Protection Division
In-Person: Essex Hall B-37
(p) 519.253.3000.3523
(f) 519.973.7013
(e) ccc@uwindsor.ca
www.uwindsor.ca/ccc

Reference: *University of Windsor PCB Management Policy (XXXX)*

Chemical Control Centre Use Only

Date Submitted:	
File No:	

Appendix 2: Allowable sorbents for the absorption of PCBs and PCB-contaminated oils

Sorbents: Some of the materials available in Canada and capable of absorbing PCBs and PCB-contaminated mineral oil are:

- sawdust
- vermiculite
- activated charcoal
- Oclansorb (Hi-Point Peat Ltd.)
- Imbibor beads (Dow Chemical Canada Inc., Sarnia)
- Hy-Dry (Termier Absorbent Products Ltd., Hamilton)
- Diasorb (Diamond Shamrock Canada Inc., Cleveland)
- Stay-Dry (Waverly Mineral Products Co., Philadelphia)
- Oil-Dry (Waverly Mineral Products Co., Philadelphia)
- Conwed (C-I-L Inc.)
- 3-M matting OM Canada Inc.)
- Graboil (R.B.H. Cybernetics (1970) Ltd.)

PCB Storage Facility Monthly Inspection Report

Overview: The University of Windsor is required to inspect the institutions' PCB storage site on a monthly basis. This inspection is completed by a qualified individual, recorded below, and forwarded to the Chemical Control Centre as part of the University's PCB Management Program.

Date: _____

No.	Question	Yes	No
1	Signage is posted on the exterior of the PCB storage areas and storage areas are secure and only accessible to authorized personnel.		
2	PCB equipment and containers of PCB material are stored in a manner that makes them accessible for inspection and from catching fire or being released.		
3	PCB storage site is in good condition, including:		
	• Floors		
	• Curbing		
	• Sides		
	• Drains (if present)		
	• Weatherproof roofs and barriers		
	• Fences and walls		
4	Indoor PCB storage sites are equipped with, where practical, an appropriate fire suppression system and alarm system to adequately address the quantities of PCBs stored on site.		
5	Has the fire extinguisher been inspected within the last month? Is it in good condition?		
6	Where PCB equipment that is not in a container (other than drained PCB equipment) and contains PCB liquids, is stored on a floor of steel, concrete or any other similar durable material that is capable of absorbing any PCB liquid. The floor and sides are sealed with an impervious, durable, PCB-resistant coating.		
7	PCB equipment not stored in containers and contains PCB liquids is stored on a floor of steel, concrete or any other similar durable material, is dyked to contain: <ul style="list-style-type: none"> a) for one piece of equipment or container, 125% of the volume of the PCB liquid present; or b) for more than one piece of equipment or container, the greater of twice the volume of the PCB liquid in the largest piece or 25 per cent of the volume of all the PCB liquid stored. 		
8	PCB storage site floor drains, sumps or other openings in the floor are: <ul style="list-style-type: none"> a) closed and sealed to prevent the release of liquids, or b) connected to a closed drainage system suitable for PCB collection that terminates at a location where any spilled 		

No.	Question	Yes	No
	liquids are contained and recovered and where the spilled liquids, and c) will not create a fire hazard or a risk to public health or safety.		
9	PCB equipment or containers are placed on skids or pallets, unless the container or equipment is permanently secured to the floor or a surface.		
10	Stacked containers of PCB material, other than drums, are used only if the containers are designed for stacking, and are stacked not more than two containers high.		
11	Where drums containing PCB material are stacked, separate the drums from each other by pallets and, in the case of drums of PCB liquid, stack the drums not more than two drums high.		

Completed By: _____

Contact Phone: _____

Please retain a copy for your records and forward the original to:

Chemical Control Centre
Environmental Protection Division
In-Person: Essex Hall B-37
(p) 519.253.3000.3523
(f) 519.973.7013
(e) ccc@uwindsor.ca
www.uwindsor.ca/ccc

Reference:

University of Windsor PCB Management Policy (XXXX)

PCB Inventory Record

Location:			
Drum ID:			
Start Date:		End Date:	

Entry	Date	Description (and/or name plate information)	Qty	PCB Concentration* [mg/kg]	Deposited By
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Sheet: # ____ of ____

Reference: *University of Windsor PCB Management Policy (XXXX)*