

<b>Policy Hierarchy link</b>	<a href="#">Work Health and Safety Act 2011</a> <a href="#">Work Health and Safety Regulation 2011</a> <a href="#">Work Health and Safety Policy</a>		
<b>Responsible Officer</b>	Director, UNSW Safety and Sustainability		
<b>Contact Officer</b>	Manager, UNSW Health & Safety		
<b>Superseded Documents</b>			
<b>File Number</b>	2016/00369		
<b>Associated Documents</b>	<a href="#">HS332 Hazardous Substances and Dangerous Goods Procedure</a> <a href="#">HS421 Chemical Spills Guideline</a> <a href="#">HS321 Laboratory Hazardous Waste Disposal Guideline</a>		
<b>Version</b>	<b>Authorised by</b>	<b>Approval Date</b>	<b>Effective Date</b>
2.4	Director, UNSW Safety and Sustainability	30 March 2016	30 March 2016

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## 1. Purpose and Scope

The purpose of this procedure is to inform any person who could come into contact with PCB containing material of the appropriate action to take to protect themselves from any health risks. This procedure applies to all UNSW facilities and operations where equipment containing PCB material is used or stored.

## 2. Definitions

PCB is the abbreviation for Polychlorinated Biphenyls (PCB's), a group of synthetic chlorinated organic compounds which were commonly used as dielectric fluids in electrical equipment such as transformers and capacitors.

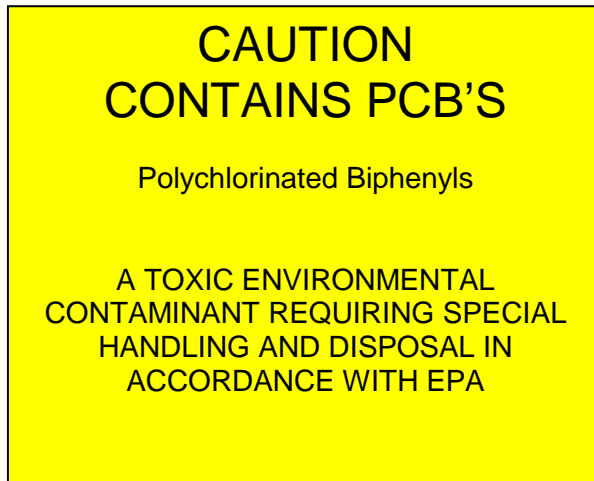
## 3. Procedure

### 3.1 Spill Response

If a spill occurs, every effort shall be made to prevent the spill from spreading.

#### If a minor spill occurs:

- use absorbent material to cover the spill if possible. Otherwise form a bund wall 'downstream' of the spill. Suitable absorbent material includes commercial absorbent, kitty litter or a diatomaceous earth. **Absorbent material is located in the main facilities store.**
- Non –porous surfaces should be cleaned with an organic solvent and the solvent collected and disposed of as PCB containing liquid. Kerosene is suggested as the organic solvent by ANZECC but care should be taken during its use and storage as it has a low flash point and thus will ignite readily if sources of heat or ignition are present.
- Using protective equipment as listed above, place absorbent in a strong sealed polythene bag (**available from Facilities Store**) which is then placed in a sound sealable metal drum and labelled as follows:



**If a major spill occurs:**

- Remove any person from the area likely to come into contact with the spill.
- Contact security on 56666 to coordinate the situation. They will alert trained emergency personnel to undertake the spill clean-up procedure
- If safe to do so (i.e. no risk of contact with the material) use any available absorbent to prevent PCB materials from entering storm-water drains, gullies, etc until security arrives.
- Follow the directions of security once they arrive.
- With a major spill there may be an inhalation risk and in such cases local exhaust ventilation may be necessary.

**3.2 Disposal of PCB Waste**

The table below outlines the procedure to be followed depending on the material containing the PCB.

Material	Methodology	Drum Storage Location
Capacitors (and other similar equipment) ◇ <b>Undamaged</b>	<ul style="list-style-type: none"> <li>• Place in 200 litre <b>solids</b> PCB drum.</li> <li>• Ensure drum lid is secure on leaving.</li> </ul>	<i>Facilities to decide</i>
◇ Damaged (leaking)	<ul style="list-style-type: none"> <li>• Drain any oil (if possible) into 200 litre <b>liquid</b> PCB drum.</li> <li>• Place the capacitor into a polyethylene bag which is then sealed and placed into 200 litre <b>solids</b> PCB drum.</li> <li>• Add a quantity of suitable absorbent to the solids drum once a damaged capacitor is added. Ensure the absorbent is added in enough quantity to stop any leakage from the bags.</li> <li>• Ensure drum lid is secure on leaving.</li> </ul>	<i>Facilities to decide</i>
Oil	<ul style="list-style-type: none"> <li>• All oil is to be drained into 200 litre <b>liquid</b> PCB drum.</li> <li>• Any transportation of PCB oil to the PCB collection point should be via a sealable metal container then transferred to the PCB liquid waste drum. Transport container then treated as per contaminated equipment.</li> <li>• Ensure drum lid is secure on leaving.</li> </ul>	<i>Facilities to decide</i>
Contaminated Absorbent	<ul style="list-style-type: none"> <li>• Place all rags or absorbent used to clean up or contain PCBs into polyethylene bags then inside 200 litre <b>solids</b> PCB drum.</li> </ul>	<i>Facilities to decide</i>

	<ul style="list-style-type: none"> <li>No absorbent is to be washed, swept, or by any other means, placed into an area where it may enter the environment. All absorbent must be contained and disposed of as above.</li> <li>Ensure drum lid is secure on leaving.</li> </ul>	
Contaminated equipment	<ul style="list-style-type: none"> <li>Cleanse with an organic solvent (e.g. kerosene).</li> <li>The solvent waste is then disposed of as per oil above.</li> </ul>	<i>Facilities to decide</i>
Contaminated Clothing	<ul style="list-style-type: none"> <li>Remove without allowing contaminated side of clothing to come into contact with skin.</li> <li>Place in polyethylene bag then in 200 litre <b>solids</b> PCB drum.</li> <li>Ensure lid is secure on leaving.</li> </ul>	<i>Facilities to decide</i>
Transformers	<ul style="list-style-type: none"> <li>For small units (able to fit in one 200 litre drum), they may be disposed of as per damaged/undamaged capacitors above as applicable.</li> <li>Larger units should be left on site and the HS Unit contacted immediately to arrange for collection of equipment for removal by licenced EPA contractor. If unit is leaking, oil must be contained either in metal container for transport and disposal or with absorbent (follow procedures for oil or contaminated absorbent as applicable)</li> </ul>	<i>Facilities to decide</i>
Contractor Generated wastes	Must be taken off site and disposed of by contractor in accordance with all relevant legislation.	N/A

- All metal drums containing PCB contaminated waste, labelled as above, should be stored in the Facilities PCB collection point (*to be advised by Facilities*) and HS unit notified of details so that arrangements can be made for pick-up by University's EPA Licenced Waste Removal Contractor who will responsible for safe disposal.
- If any safety clothing becomes damaged (tears or splits) while working with PCBs, they must be replaced immediately. At the end of the job, any protective clothing that has become contaminated with PCBs must be disposed of as PCB contaminated waste (as per table above).
- The PCB collection point shall be bunded and signposted. PCB waste should be stored in a cool, dry location away from oxidising agents, acids, alkalis, direct sunlight, heat or ignition sources and foodstuffs.

### 3.3 Personal Protection Equipment (PPE)

The PPE listed below should be used for handling PCB contaminated material (to be donned before removing damaged or leaking components) depending on the risk.

The minimum safety requirements are:

- Tyvek or similarly chemically impervious disposable overalls, Type 3-4, 5-6.
- Gloves – Splash proof - Mid arm (with gauntlets if required). Suitable material for gloves includes Viton, polyethylene, polyvinyl alcohol (PVA), polytetrafluoroethylene (PTFE), butyl rubber, nitrile rubber or neoprene disposable gloves [**NOTE do not use PVC or latex gloves**].
- Full face shield and hair protection if working overhead (e.g. light fixtures). If not working overhead safety glasses shall be used as a minimum.
- If vapours are suspected, use a respirator with cartridges suitable for chlorinated vapours. (do not attempt to control a spill unless the persons

doing so are experienced in cleanup and control of PCBs and are competent to use the advised PPCE).

A quantity of an absorbent material shall be accessible nearby for use if a spill occurs.

Personal hygiene is very important after handling PCB's, even if gloves are worn, wash hands well before eating, drinking, smoking or using the toilet. Consideration should be given for a shower and full change of clothing following any spill containment exercise.

### 3.4 Register of Equipment containing PCB's

Facilities department must maintain a register which identifies if transformers have PCB's or not. A register has not been developed for electrical light fittings as they are present in almost every building. However UNSW's plan is for light fittings to be inspected for PCB's if leaking and replaced with non PCB material. The ANZECC's PCB Management Plan sets out deadlines for the completion of particular actions up to and including the removal from service of all equipment containing scheduled PCB material. This will largely be the responsibility of UNSW Facilities. Where there is PCB containing material / equipment which is owned by the local area, then the head of that area becomes responsible for the removal from service of this equipment.

## 4. Review & History

This procedure will be reviewed in accordance with the HSMS Review procedure.

## 5. Acknowledgements

Australian And New Zealand Environment And Conservation Council (ANZECC)  
PCB Management Plan  
Booklet For Electricians And Electrical Contractors

## Appendix A: History

Version	Authorised by	Approval Date	Effective Date	Sections modified
1.0 (draft)	Director, Human Resources	30 May 2000	30 May 2000	New Document
0.1	Director, Human Resources	1 November 2006	1 November 2006	Formatting changes only. Released for consultation purposes
2.0	Director, Human Resources	1 January 2007	1 January 2007	No change from consultation process
2.1	Director, Human Resources	16 December 2010	16 December 2010	Document reformatted in line with University template
2.2	Director, Human Resources	1 March 2013	1 March 2013	Updated with WHS legislation references. Minor grammar and re-wording changes Updated Branding Logo in accordance with UNSW Branding Guidelines. Modified the document identifier from OHS to HS in accordance with WHS legislation review
2.3	Director, UNSW Safety and Sustainability	30 April 2014	30 April 2014	Reviewed for administrative updates
2.4	Director, UNSW Safety and Sustainability	30 March 2016	30 March 2016	Reviewed for administrative updates, minor changes