

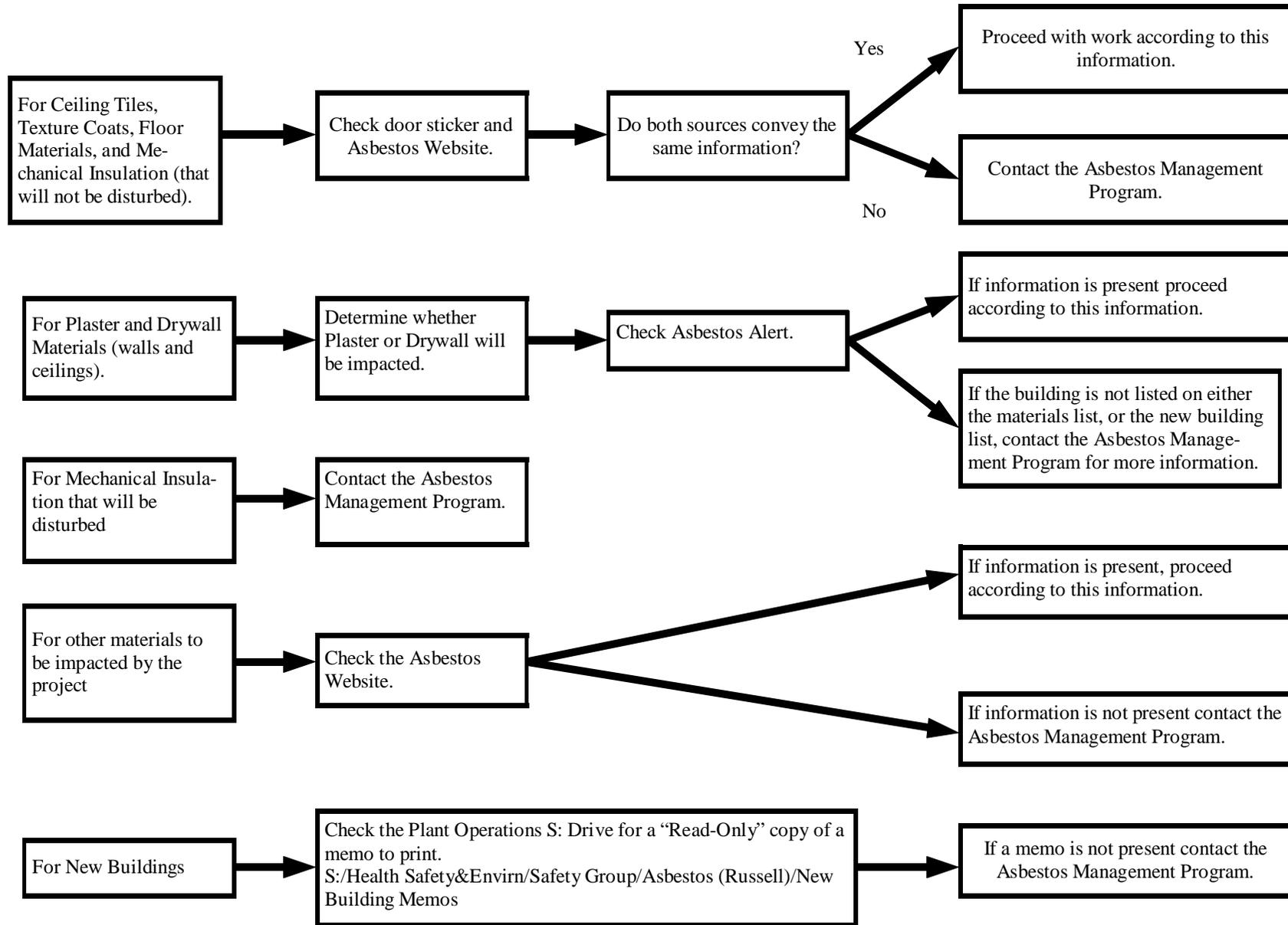
UBC Plant Operations Asbestos Work Procedures

April 2004

These Procedures are for use by UBC Plant Operations, Utilities, Housing & Conferences, and IT Services only and are not intended for use by other parties.

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Procedures for Assessing the Asbestos Content of Single Building Materials





University of British Columbia

Memo
Plant Operations
2329 West Mall
Vancouver, BC
V6T 1Z1

To: Managers, Trade Heads, and Supervisors

From: Russell English
Health, Safety & Environment
Date: March 19, 2003

RE: Standing Notice of Project Asbestos (SNOPA).

The Asbestos Management Program (AMP) has renewed the SNOPA for Plant Operations. This document allows Plant Operations to undertake a number of work procedures on asbestos materials without advance notification to the Workers Compensation Board providing that a logbook of all activity is maintained by the AMP. The WCB has requested that a copy of our SNOPA logbook be forwarded for inspection every three months.

The attached table details work that may be conducted under this notice. The table includes a list of work procedures approved by the WCB. Also included is a list of procedures with an inherently lower risk of asbestos exposure than those reviewed by the WCB.

I would also like to take this opportunity to remind all supervisors of the following:

- Only workers who have received Moderate Risk Asbestos Removal training may work on Asbestos Containing materials.
- All work on Asbestos Containing materials must either be logged with the AMP under the SNOPA, or requires that a Notice of Project Asbestos (NOPA) be filed with the WCB 24 hours in advance of the work.
- The following information must be supplied when logging work under the SNOPA: Date; Location; Department or crew responsible; Names of the supervisor and workers involved, and procedure being followed.
- Work requiring a NOPA should only be requested by supervisors. This notice will be time specific and requires a commitment that the work will be conducted at that time.

If you have any further questions please contact me at 822-8772.

2004 Standing Notice of Project: (to be updated annually).

Material	Procedure #	Procedure:	Notes:
Floor Tiles	1.1	Work up to, and including, removal of attached vinyl asbestos floor tiles.	May include removal of loose tiles (1.2), mounting and removal of fixtures (1.3, 1.4).
Drywall	4.1	Work up to, and including, removal small portions of drywall walls.	May include attaching fixtures (4.3, 4.4), removing fixtures (4.5), and repair of cracks and joints (4.6, 4.7).
Fire Doors	6.1	Machining, drilling, cutting into fire doors.	
Transite	7.1	Work up to, and including removal of transite with danger of breaking or from a fume hood.	
Gaskets	11.1	Removal of asbestos gaskets.	
Glazing Putty	13.1	Removal of Glazing Putty.	
Mastics	13.2	Removal of Asbestos Containing mastics.	May be done by cutting ductwork only, scraping of mastics is not permitted.
	14.2	Entry into contaminated ceiling spaces.	Includes entry into spaces with overspray Texture Coat.
	14.1	Entry into contaminated crawl spaces.	

- All work conducted under the procedures on this table must be logged with the AMP. Authorization for work on asbestos materials not covered by the procedures above may only be requested by the supervisor responsible for the project.
- Any work to be conducted on asbestos materials not covered by procedures on this table will require advance notice to the AMP so that a minimum of 24 hours advance notice may be provided to the WCB.

Written work procedures identified on this table may be modified by the AMP in response to project specific circumstances different from those for which a procedure is intended. The AMP may reduce, or increase the requirements of any procedure. Any increase in the requirements of a procedure will require a minimum of 24 hours advance notification to the WCB.

Definitions

<i>“asbestos-containing material”</i>	means any manufactured article or other material which contains 1% or more asbestos by weight at the time of manufacture, or which contains 1% or more asbestos.
<i>“low risk work activity”</i>	means work activity in proximity to friable asbestos-containing material, where the material is not disturbed and there is no significant release of asbestos fibre.
<i>“moderate risk work activity”</i>	means work activity involving the handling of asbestos-containing material or working in proximity to friable asbestos-containing material, not otherwise classified as low or high risk work activities.
<i>“high risk work activity”</i>	means work activity involving the handling of asbestos-containing material or working in proximity to friable asbestos-containing material, where there is a high level of control necessary to prevent exposure to excessive concentrations of airborne asbestos fibre.
<i>“friable material”</i>	means any material which, when dry, can be easily crumbled or powdered by hand pressure, or a material that is crumbled or powdered.
<i>“HEPA vacuum”</i>	means a vacuum cleaner equipped with a High Efficiency Particulate Air Filter. The vacuum equipment shall have a filtering system capable of collecting and retaining fibres greater than 0.3 microns in diameter with 99.97% efficiency.
<i>“damp wiping/mopping”</i>	means a cleaning process for removing residual asbestos contamination using cloths, sponges, or mops.
<i>“amended water”</i>	means water containing a wetting agent.
<i>“wetting agent”</i>	means a 50% polyoxethylene ester and 50% polyoxethylene ether or other product approved by HSE mixed with water in concentration to provide total penetration and wetting of asbestos fibre.
<i>“HEPA filter”</i>	means a High Efficiency Particulate Air Filter capable of trapping and retaining fibres greater than 0.3 microns in diameter with 99.97% efficiency.

- “encapsulant/sealant”*** means a material which can be applied to asbestos-containing material and which controls the possible release of asbestos fibres from that material.
- “work area”*** means designated rooms, spaces, or areas of the project in which removal procedures are to be undertaken or which may become contaminated as a result of such procedures.
- “removal”*** means all herein specified procedures necessary to remove or modify asbestos containing materials within the designated work area and the appropriate disposal of waste materials generated by this work.

Moderate Risk Asbestos Removal – Required Equipment List

PPE:

- Personal dual cartridge, half face respirator equipped with HEPA filters.
- Tyvek disposable coveralls with a hood + spare.
- Rubber boots or disposable tyvek boot covers.

HEPA equipped vacuum:

- Available from the tool crib.
- The tool crib is **not** responsible for cleaning the vacuum. It will be a part of the work procedure to clean the vacuum and change the bag before it is returned for the next user.
- New vacuum bag and spare.

Barrier tape and signs:

- Asbestos caution tape.

Construction grade polythene sheets:

- 6-mil poly is the minimum acceptable grade.
- Take enough to completely cover your work area and to wrap any materials that will not fit into waste disposal bags.

Wash bucket, soap, and water.

- Liquid hand soap will fill most needs during moderate risk work.

Duct tape, and masking tape:

- Masking tape to affix your barrier tape and drop sheets to painted surfaces.
- Duct tape to fix poly to unpainted surfaces, fix holes in suites and to seal waste bags.

Waste disposal bags:

- At least two.
- All asbestos waste must be double bagged.

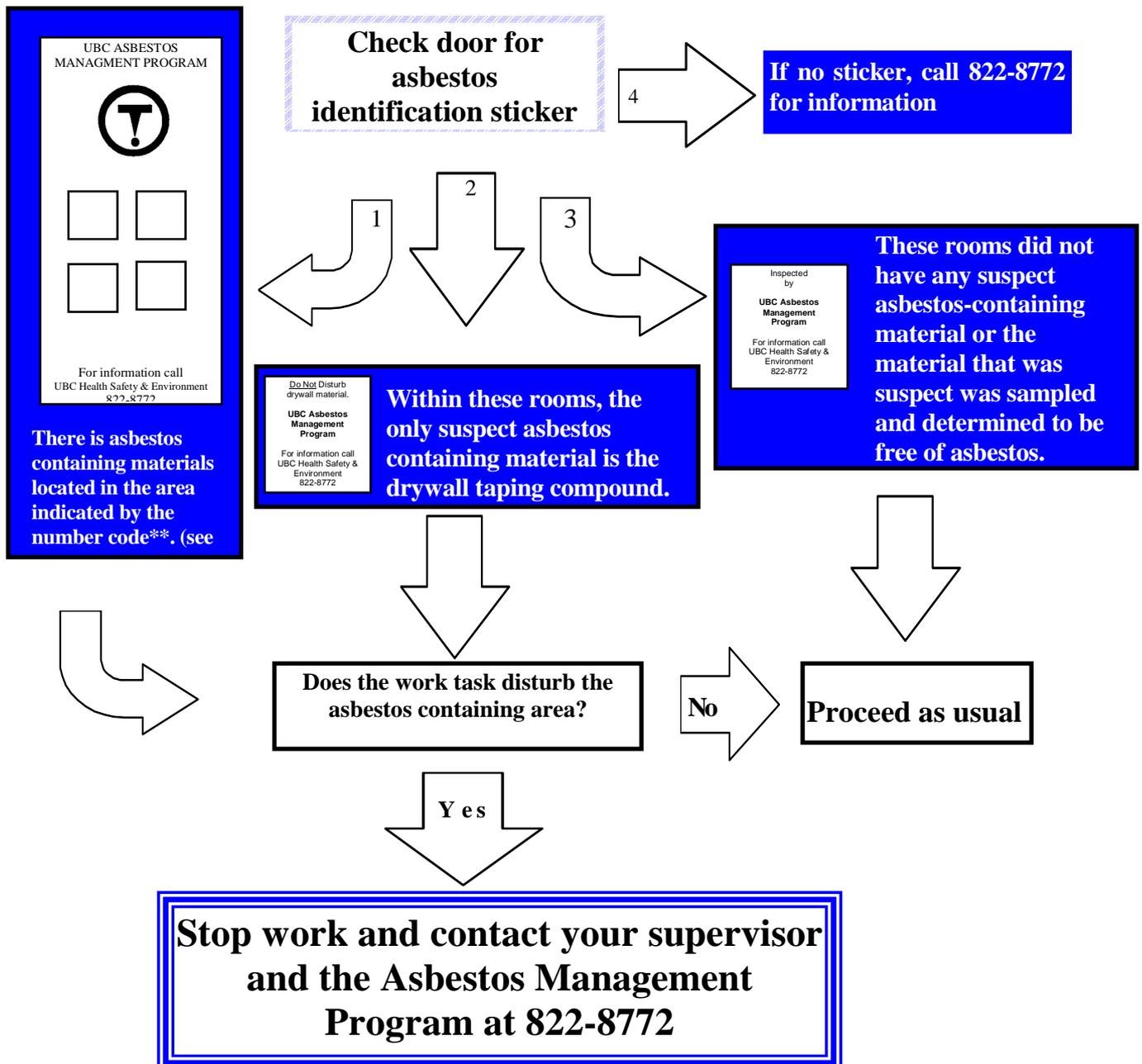
Spray bottle with water:

- Mix some liquid hand soap into the water. This will bind asbestos fibers to a surface better than regular water.
- We would call this amended water.

Notice of project form and written safe work procedures:

- A copy of the NOPA and procedures must be available on site for inspection at all times.

Procedure for Worker's Response to Asbestos Containing Materials



**Asbestos Number Code

- 1 = Asbestos in above ceiling spaces
- 2 = Asbestos on ceiling surfaces
- 3 = Asbestos on walls (drywall or cement board)
- 4 = Asbestos in below floor areas
- 5 = Asbestos on visible piping and/or ducting
- 6 = Asbestos in flooring material
- 7 = Asbestos in firedoors

References and Resources:

- WCB Occupational Health & Safety Regulation; BC Regulation 296/97 as amended by BC Regulation 185/99.
- WCB Publication: Safe Work Practices for Handling Asbestos, 2001 Edition.
- UBC Asbestos Web Page: www.hse.ubc.ca
- Asbestos Alert Bulletin: Summary report of selected asbestos materials in campus buildings. Available from the Asbestos Management Program and on the website.
- UBC Asbestos Management Program: (604) 822 - 8772

Section II: Plant Operations Asbestos Work Procedures

Plant Operations Asbestos Work Procedures Risk Level Matrix

Material Type	Work Activity	Risk Level	Notes	Page #
1.0 Vinyl Asbestos Floor tiles	1.1. Removal of Vinyl Asbestos Floor Tiles	Moderate	This procedure may be used to remove both attached and unattached asbestos floor tiles.	1
	1.2. Mounting fixtures to Vinyl Asbestos Floor Tiles	Moderate		4
	1.3. Removal of fixtures from Vinyl Asbestos Floor Tiles	Moderate		7
2.0 Vinyl Asbestos Baseboard	2.1. Removal of Vinyl Asbestos baseboard	Moderate		9
3.0 Vinyl Asbestos Linoleum	3.1. Removal of Vinyl Asbestos linoleum	Moderate	For use when asbestos is present in the matrix only. If asbestos is present in backing, work is not to be attempted.	12
4.0 Asbestos Drywall	4.1. Removal of Asbestos Containing Drywall	Moderate	For small areas only, not to be used to demolish entire walls.	15
	4.2. Removal of Asbestos Containing Drywall Ceilings	Moderate	For use on <u>small</u> ceiling areas only, and/or where the presence of asbestos debris is expected on top of the ceiling.	18
	4.3. Attaching Fixtures to Asbestos Containing Drywall	Moderate		21
	4.4. Attaching Fixtures with Anchors to Asbestos Containing Drywall	None (see note)	To become an asbestos work procedure if in the process of anchor insertion the drywall starts to break or crumble.	23
	4.5. Removal of fixtures from Asbestos Containing Drywall	Moderate		24
	4.6. Repair of cracks and joints in Asbestos Containing Drywall	Moderate		27
	4.7. Repairing hole in Asbestos Containing Drywall using an patch	None (see note)	To become an asbestos work procedure if, in the process of repair, the drywall starts to break or crumble.	30
5.0 Asbestos Texture Coat ceilings	5.1. Application of Coatings to Asbestos Containing Texture Coat Ceilings	Moderate	For applying spray tex or paint to previously sealed texture coat materials	31
6.0 Firedoors	6.1. Installing hardware on Asbestos Cored Fire Doors	Moderate	Cutting lock/ installing lock or panic bars etc. using a HEPA fitted drill	34
	6.2. Removal of hardware from Asbestos Cored Fire Doors	Moderate		37
7.0 Transite Board	7.1. Removal of Transite Board	Moderate	Additional safe work procedures may be required if the board is to be removed from a fume hood.	40
	7.2. Painting damaged or deteriorated Transite Board	Moderate	If transite board is visually assessed to be in good condition no safe work procedures are required.	43
	7.3. Penetrating assembly through Transite Board	(See note)	Remove transite using procedure 7.1, and replace with a non asbestos product.	46
8.0 Roofing Membranes	8.1. Cutting and penetration of Roofing Membranes	Moderate		47
	8.2. Repair of Roofing Membranes without cutting or penetrating	Moderate	To become an asbestos work procedure only if the cutting or penetration of the membrane becomes necessary.	50

Plant Operations Asbestos Work Procedures Risk Level Matrix

Material Type	Work Activity	Risk Level	Notes	Page #
9.0 Asbestos Ceiling Tiles	9.1. Removal of, or working above Asbestos Ceiling Tiles	Moderate	For use with 2' x 4' suspended ceiling tiles.	51
10.0 Elevator Brake Shoes	10.1. Removal of Elevator Brake Shoes	Moderate		54
11.0 Asbestos Gaskets	11.1. Removal of Asbestos Gaskets	Moderate	Procedure is to be followed with both adhered and non-adhered gaskets.	56
12.0 Lamp Heat Shields	12.1. Removal of Lamp Heat Shields	Moderate	Lamp heat Shields may not be cut.	59
13.0 Mastics and Putty	13.1. Removal of Asbestos Containing glazing putty	Moderate		62
	13.2. Removal of Asbestos Containing mastics from ductwork	Moderate	For removal of duct sections using a cut and wrap procedure. Mastics are not to be scraped from ductwork.	65
	13.3. Removal of Mastic from Fiberglass Pipe and Elbow Insulation	Moderate	For removal of fiberglass insulation where an asbestos containing mastic has been applied to the insulation.	68
14.0 Contaminated Spaces	14.1. Entry into Contaminated Crawl or Wall Void Spaces	Moderate	For entry into space to conduct non-asbestos related work. If work on asbestos materials is to be completed within the space, additional work procedures will be required.	71
	14.2. Entry into contaminated Ceiling Spaces, or spaces with Overspray of Asbestos Texture Coat	Moderate	For entry into space to conduct non-asbestos related work. If work on asbestos materials is to be completed within the space, additional work procedures will be required.	74
15.0 Miscellaneous Asbestos Procedures	15.1. Spill clean up	Moderate		77
	15.2. Cleaning a HEPA Vacuum	Moderate	This procedure is also written into each of the above work procedures.	80