



Asbestos Handling

Document Number:
LMP0001A

Procedure – Administrative

Applies To:
Environmental Health and Safety

Revision Date: **2016/08/12**
Revision: **1**
Review Cycle: **3 Years**

Document Owner (Title):
Manager, EH&S Industrial Hygiene

Summary of Changes

Rev No.	Section Changed	Revisions Made
1		Previous revisions not recorded

Scope

This procedure is part of the Oil Sand EHS management system and applies to all Suncor Energy Inc. Oil Sands employees, contractors, vendors and visitors required to work with asbestos.

Purpose

To ensure the safe and efficient handling of asbestos to comply with all related Government Regulations and Suncor Energy Standards.

Compliance

- Failure to comply with an Administrative Procedure, without an approved deviation, may result in a hazardous situation which could result in:
 - Personnel injury or death
 - Harm to the environment
 - Equipment or property damage.
- Failure to comply with an Administrative Procedure, without an approved deviation, may result in disciplinary actions.

Roles and Responsibilities

The following individuals and groups have the following roles and responsibilities:

Document Owner

- Ensures this document is reviewed according to the required revision cycle.
- Ensures the document is updated to accommodate changes to Suncor, provincial, and federal regulation.
- Ensures the document is updated to mitigate risks found as the result of an incident.

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Roles and Responsibilities *Continued*

- | | |
|----------------------------------|---|
| Document Approver | <ul style="list-style-type: none"> • Ensures this procedure is necessary and that it aligns with management and company direction. |
| Oil Sands Line Management | <ul style="list-style-type: none"> • Ensuring the implementation and adherence to this procedure. • Ensure all concerned parties are aware of the requirements for the removal and disposal of asbestos for the project. |
| Area Permit Center | <ul style="list-style-type: none"> • Removal Supervisor is aware of the hazards of asbestos and of the personal protective equipment requirements in the area. • Removal Supervisor is advised about concerns pertaining to the area's machinery and the shutting down of mechanical ventilation and power. • Request from the Removal Supervisor a completed Asbestos Project Notification Form and corresponding Asbestos Project Notification Acknowledgement form from Alberta Human Resources and Employment. These documents must be attached to the work permit. • Issue specific work permits to the Removal Supervisor as required. |
| Contract Supervisor | <ul style="list-style-type: none"> • All removal workers have a current Asbestos Worker card for the Occupational Health and Safety for the Asbestos Worker course from an accredited agency. In addition, the removal workers must receive instruction on Suncor Asbestos Handling Procedures. All training requirements are outlined in Appendix 7. • This procedure, related site standards and legislated requirements are understood and adhered to. • Industrial Hygienist for the area is informed of the intention to perform asbestos work using these procedures at least 72 hours in advance of the work starting, by completing the Asbestos Project Notification Form and sending it to the appropriate Area Hygienist. • Removal workers have been fit tested for the appropriate respiratory protection. • Removal workers have had the required physical assessments as outlined in Part 4, Chemical Hazards, Biological Hazards and Harmful Substances, of the Occupational Health and Safety Code and Suncor Energy LMS0052A Respiratory Protection Standard. • Appropriate Suncor Energy work permit is obtained and that the removal workers are advised of the requirements of the permit. • Supply the required personal protective equipment for the job. • Supply all the equipment necessary to complete the removal work. • Appoint a Removal Supervisor/Foreman to manage and be responsible for the entire job. Removal Supervisor/Foreman must be made aware of the scope of removal work and this procedure. |

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Roles and Responsibilities *Continued***Removal Supervisor/Foreman**

- Workers are wearing the appropriate personal protection for the level of abatement being undertaken and that workers perform a seal check with their respiratory protection.
- Restricted work area is designated and banner-guard and warning signs are placed at the entrance of all access points into restricted work area.
- All personnel entering the restricted work area have a current Asbestos Worker card and Suncor Asbestos Handling Procedure.
- Designate a location within the restricted work area as a staging zone for the double bagged waste and ensure the concerned parties are aware of the location.
- Make available a copy of this procedure and the Occupational Health & Safety Act, Regulation and Codeto all personnel entering the restricted work area.
- Obtain from the Area Permit Centre authority and instructions before sealing, removing or shutting down ventilation system, electrical system, or similar system within the restricted work area.
- All electrical equipment brought on to the site is intrinsically safe and grounded.
- Provisions are made for the drainage of water and clean up of excess water, (for wet removal only). All contaminated water shall be removed as waste or shall be filtered through a 10 um filter before passing into the sewer systems.
- Arrange for the transportation of the double bagged asbestos material to the Suncor Energy Asbestos Landfill site. The landfill must receive at least 48 hours of notice prior to delivery. Estimate volume, condition and identification of the asbestos need to be provided.
- Conduct pre-abatement and daily inspection of the restricted area and abatement work activities.

Removal Workers or Persons Entering a Restricted Work Area

- Asbestos Worker Card is current if entering the restricted area of a high risk abatement project. If entering moderate or low risk abatement projects, all personnel must have received training on the hazards and proper methods of working with asbestos.
- Personal protective equipment that is appropriate for the level of abatement is worn.
- A seal check to assure the fit of the respirator is performed prior to entering a restricted work area.
- Leave the restricted work area immediately if problems develop with the respirator or in the event of an emergency.
- Determine and confirm with the Removal Supervisor/Foreman that the removal will be done using either wet or dry techniques.

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Roles and Responsibilities *Continued***Industrial Hygiene Department**

- Receive and review the completed Asbestos Project Notification Form from the Removal Supervisor.
- Inform Alberta Workplace Health and Safety of the asbestos removal within 72 hours of the start of the project.

References

- [Alberta Employment and Immigration, Alberta Asbestos Abatement Manual, October, 2012.](#)
- [LMS0052A](#) - Respiratory Protection Standard

Terms, Definitions and Acronyms

The following terms, definitions and acronyms are used in this procedure:

Clean Room

The uncontaminated area of a decontamination facility in which workers change into their disposable clothing and back into their street clothes. It is adjacent to the shower room and opens to the outside of the decontamination facility.

Qualified Asbestos Individual / Firm

Can be an industrial hygienist with sufficient asbestos training and knowledge or an experienced asbestos abatement contractor with their workers holding valid Alberta asbestos worker cards.

Enclosure / Containment

A structure built to completely seal asbestos containing materials behind airtight, impermeable, permanent barriers..

Partial Enclosure / Containment

Having a roof, four walls, floor lined with 6 mil polyethylene sheets, turn-up of 30 cm where floor joins the walls, and an onsite donning/doffing room beside the boundary of abatement areas. This structure is not airtight as hepa negative air units are not used.

Restricted Area

An area of the work site where there is a reasonable chance that the airborne concentration of asbestos exceeds or may exceed the 8-hour occupational exposure limit. In the case of full containment, restricted area is the containment itself. In abatements without containment, a partial enclosure will be considered as the restricted area. The perimeter of the abatement will be considered as a restricted area when no partial enclosure is present.

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Procedure**1. Asbestos Handling Decision Tree****Step****Action**

- 1.1 Determination of the specific abatement procedures to follow will be derived from the Asbestos Handling Decision Tree found in Appendix 1

2. High Risk Abatement Procedures

Note: Activities where there is a high risk of exposure to airborne asbestos fibres include:

- Removing, encapsulating or enclosing areas 0.09 m² (1 ft²) in size or greater of friable asbestos-containing materials during the repair, alteration, maintenance, demolition, or dismantling of a building, structure, machine, tool or equipment, or part of it.
- Cleaning, maintaining or removing air-handling equipment in buildings where sprayed fireproof asbestos-containing material has been applied to airways or ventilation ducts.
- Repairing, altering or dismantling a boiler, furnace, kiln or similar device, or part thereof, where asbestos-containing materials have been used or applied.
- Demolishing, dismantling, altering or repairing any building or structure, or part of it, in which insulating material containing asbestos was used or in which asbestos products were manufactured.
- Removal of more than 9.3 m² (100 ft²) of contiguous ceiling tile containing asbestos or sheet vinyl flooring having an asbestos backing.
- Dry removal of friable asbestos-containing material.
- Abatement activities involving any type of project where there is a reasonable chance of the concentration of airborne asbestos exceeding the 8-hour OEL: i.e. a “restricted area”.

Step**Action****High Risk Abatement with Containment**

- 2.1 All high risk asbestos abatement activities where containment can be constructed will at a minimum follow the high risk abatement procedures outlined in the Alberta Asbestos Abatement Manual (Asbestos Abatement Manual), published by Alberta Employment and Immigration. The restricted area in this case shall be the perimeter of the containment itself. Additional site-specific procedures required at Suncor Energy Inc. are outlined in the steps below.

2.2 Personal Protective Equipment

- Two disposable impermeable coveralls such as white Tyvek, street clothes must not be worn under disposable coveralls.
- Powered Air Purifying Respirator (PAPR), equipped with a P-100 particulate filter.
- Rubber boots.

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Responsibility	Step	Action
	2.3 Pre-Job Planning	<ul style="list-style-type: none"> • Prepare and submit Asbestos Project Notification form. • Develop procedures to deal with emergencies such as fire or injury prior to starting work.
	2.4 Site Preparation	<ul style="list-style-type: none"> • The boundary of the work area shall be physically restricted by the use of two strands of banner guard tape at eye and waist level around the containment. The strands shall consist of a red strand with the phrase "Danger Do Not Enter" and a white/black/red banner guard tape (Appendix 2). • Signs shall be posted at the perimeter of the work area with the wording "Caution, Asbestos Dust Hazard, Authorized Personnel Only". The sign shall be a minimum of 60 cm by 60 cm. • Removal foreman shall conduct a pre-abatement inspection using the Pre Abatement Inspection Checklist (Appendix 3) by the abatement supervisor/foreman. This form must be submitted to the Industrial Hygiene Department 24 hours before starting the job.
	2.5 Work Procedures	<ul style="list-style-type: none"> • Minimal water quantities are to be used on stainless steel piping. Clean exposed piping or heat tracing by damp wiping or with a HEPA vacuum. • A daily inspection of the restricted work area and the work activities during the abatement shall be conducted by the Removal Supervisor/Foreman. The Daily Asbestos Inspection Checklist (Appendix 4) shall be completed and submitted to the Industrial Hygiene Department within 24 hours of the inspection. • Bagged asbestos waste must be removed from the staging zone within 24 hours of its removal. • Abated asbestos material that has been double bagged shall be transported from the staging zone to the Landfill. The landfill must receive at least 48 hours of notice prior to delivery. Estimate volume, condition and identification of the asbestos need to be provided. Covered vehicles are to be used to transport asbestos waste and must be thoroughly washed after job is complete. • Personnel loading or unloading asbestos waste shall follow low risk abatement procedures as outlined in Major Step 4 below.

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Responsibility	Step	Action
High Risk Abatement without Containment	2.6 Decontamination	<ul style="list-style-type: none"> • The outer layer of disposable white coveralls will be removed and placed inside a waste asbestos bag for disposal. • A disposable Tyvek or equivalent coveralls coloured blue will then be put on over top of the inner disposable clothing. The blue coveralls indicate that the worker has cleaned off and removed the outer clothing used during the removal and can now proceed to the decontamination facility. • Removal workers would then proceed to the three-stage decontamination facility and decontaminate as per the high risk abatement procedures in the Asbestos Abatement Manual.
	2.7 Air Monitoring	<ul style="list-style-type: none"> • Air monitoring shall be conducted for all high risk abatement activities as per the Asbestos Abatement Manual. • Industrial Hygiene shall investigate all instances where ambient air monitoring outside the containment are greater than 50% of the Occupational Exposure Limit. Work practices and procedures will be investigated to determine the reason for elevated exposures outside the containment. • A daily inspection of the restricted work area and the work activities during the abatement shall be conducted by the Industrial Hygiene Department or its designated or by the abatement supervisor/foreman. Daily Inspection Checklist is found in Appendix 4.
	2.8	<p>This procedure can only be applied when containment cannot be constructed around piping due to operational constraints, accessibility restrictions, or safety concerns (such as hot pipes or presence of heat tracing).</p> <p>Abatement workers entering the restricted area (see Definitions Section) of high risk abatement without containment must have the Alberta Asbestos Worker card. Additional site-specific procedures required at Suncor Energy Inc. are outlined in the steps below.</p>
	2.9 Personal Protective Equipment	<ul style="list-style-type: none"> • Two disposable impermeable coveralls such as white Tyvek or equivalent, street clothes must not be worn under disposable coveralls. • Powered Air Purifying Respirator (PAPR), equipped with a P-100 particulate filter. • Rubber boots.
	2.10 Pre-Job Planning	<ul style="list-style-type: none"> • Prepare and submit Asbestos Project Notification form. • Develop procedures to deal with emergencies such as fire or injury prior to starting work.

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*Continued***Responsibility****Step****Action****2.11 Site Preparation**

- The boundary of the work area shall be physically restricted by the use of two strands of banner guard tape at eye and waist level approximately 10 meters from the removal work area. In consultation with Industrial Hygiene, the boundary may be adjusted depending on perimeter air sampling results, wind speed, and other operational constraints. The strands shall consist of a red strand with the phrase "Danger Do Not Enter" and a white/black/red banner guard tape (Appendix 2).
- Signs shall be posted at the perimeter of the work area with the wording "Caution, Asbestos Dust Hazard, Authorized Personnel Only". The sign shall be a minimum of 60 cm by 60 cm.
- Construct a partial enclosure (see Definitions), where practicable, at least with a sealed floor lined with double-layered 6 mil poly sheets to minimize the release of fibres to the surrounding areas of the abatement work. If a partial enclosure cannot be constructed, complete the form in Appendix 6 to document conditions for variance in consultation with Suncor Industrial Hygiene.
- Conduct a pre-abatement inspection using the Pre-Abatement Inspection Checklist, Appendix 3, by the abatement supervisor/foreman. This form must be submitted to the Industrial Hygiene Department 24 hours before starting the job.

2.12 Work Procedures

- All removal of asbestos is to be performed by wetting the material with a mixture of water and surfactant. A maximum length of 1 meter of asbestos material shall be exposed at any one time. An airless sprayer shall be used to thoroughly wet the cladding and the surface of the exposed asbestos material. The asbestos material must be continuously wetted.
- Bagged asbestos waste must be removed from the staging zone within 24 hours of its removal.
- Abated asbestos material that has been double bagged shall be transported from the staging zone to the Landfill. The landfill must receive at least 48 hours of notice prior to delivery. Estimate volume, condition and identification of the asbestos need to be provided. Covered vehicles are to be used to transport asbestos waste and must be thoroughly washed after job is complete.
- Personnel loading or unloading asbestos waste shall follow low risk abatement procedures as outlined in Major Step 4 below.

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Continued

Responsibility	Step	Action
	2.13 Decontamination	<ul style="list-style-type: none">• The outer layer of disposable white coveralls will be removed and placed inside a waste asbestos bag for disposal.• A disposable Tyvek coveralls coloured blue will then be put on over top of the inner disposable clothing. The blue coveralls indicate that the worker has cleaned off and removed the outer clothing used during the removal and can now proceed to the decontamination facility.• Removal workers will then proceed to the three-stage decontamination facility and decontaminate as per the high risk abatement procedures in the Asbestos Abatement Manual.
	2.14 Air Monitoring	<ul style="list-style-type: none">• Air monitoring shall be conducted for all high risk abatement activities as per the Asbestos Abatement Manual. Frequency of air monitoring may be changed by Suncor Industrial Hygiene based on statistical confidence in the controls.• Industrial Hygiene shall investigate all instances where ambient air monitoring outside the abatement work areas are greater than 50% of the Occupational Exposure Limit. Work practices and procedures will be investigated to determine the reason for elevated exposures outside the containment.• A daily inspection of the restricted work area and the work activities during the abatement shall be conducted by the Industrial Hygiene Department or its designate or by the abatement supervisor/foreman. Daily Inspection Checklist is found in Appendix 4.

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3. Moderate Risk Abatement Procedures

Note: Activities where there is a moderate risk of exposure to airborne asbestos fibres include:

- Using non-powered hand tools to cut, shape, drill or remove a non-friable manufactured product containing asbestos if water is not used to control fibre release.
- Using a mechanical or electrically powered tool, fitted with a HEPA filter dust collector, to cut, shape or grind non-friable manufactured products containing asbestos.
- Removing all or part of a false ceiling to gain access to a work area and where friable asbestos-containing materials are, or are likely to be, lying on the surface of the false ceiling.
- Removing, encapsulating, enclosing or disturbing minor areas (less than 0.09 m² or 1 ft²) of friable asbestos-containing material during the repair, alteration, maintenance, demolition or dismantling of a building, structure, machine, tool or equipment, or parts of it.
- Performing glovebag operations (see Section 5.5.8 in the Asbestos Abatement Manual for detailed information).
- Dry buffing and stripping of vinyl asbestos tile.
- Renovation or hand demolition involving drywall joint compound, block mortar, stucco, or brick mortar products containing asbestos.
- Removal of 9.3 m² (100 ft²) or less of contiguous ceiling tile containing asbestos or sheet vinyl flooring/vinyl floor tiles having an asbestos backing.
- Dry removal of non-friable asbestos material where the material may be cut, broken, or otherwise damaged during removal.

Step

Action

- 3.1 All moderate risk asbestos abatement activities will at a minimum follow the moderate risk abatement procedures outlined in the Asbestos Abatement Manual. If a glovebag removal is to be performed, the glovebag removal procedure in the Asbestos Abatement Manual shall be followed (Section 5.5.8). Additional site-specific procedures required at Suncor Energy Inc. are outlined in the steps below.
- 3.2 **Personal Protective Equipment**
- Two disposable impermeable coveralls such as white Tyvek or equivalent, street clothes must not be worn under disposable coveralls.
 - A NIOSH approved Respirator equipped with P-100 particulate filter.
 - Rubber boots.
- 3.3 **Pre-Job Planning**
- Prepare and submit Asbestos Project Notification form.
 - Develop procedures to deal with emergencies such as fire or injury prior to starting work.

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Continued

Responsibility	Step	Action
	3.4 Site Preparation	<ul style="list-style-type: none"> The boundary of the work area shall be physically restricted by the use of two strands of banner guard tape at eye and waist level approximately 10 meters from the removal work area. The strands shall consist of a red strand with the phrase "Danger Do Not Enter" and a white/black/red banner guard tape (Appendix 2). Signs shall be posted at the perimeter of the work area with the wording "Caution, Asbestos Dust Hazard, Authorized Personnel Only". The sign shall be a minimum of 60 cm by 60 cm. Conduct a pre-abatement inspection using the Pre-Abatement Inspection Checklist, Appendix 3 by the abatement supervisor/foreman. Form must be submitted to the Industrial Hygiene Department 24 hours before starting the job.
	3.5 Work Procedures	<ul style="list-style-type: none"> Bagged asbestos waste must be removed from the staging zone within 24 hours of its removal. Abated asbestos material that has been double bagged shall be transported from the staging zone to the Landfill. The landfill must receive at least 48 hours of notice prior to delivery. Estimate volume, condition and identification of the asbestos need to be provided. Covered vehicles are to be used to transport asbestos waste and must be thoroughly washed after job is complete. Personnel loading or unloading asbestos waste shall follow low risk abatement procedures as outlined in Major Step 4 below.
	3.6 Decontamination	<ul style="list-style-type: none"> Decontamination will be conducted as per the Moderate Risk Abatement procedures outlined in the Asbestos Abatement Manual.
	3.7 Air Monitoring	<p>Air monitoring shall be conducted as per the Moderate Risk Abatement Procedures outlined in the Asbestos Abatement Manual, however, there are circumstances where air monitoring is not required or practical for the glove bag method, for example when the work is of very short duration. Industrial hygiene will evaluate glove bag projects on a case by case basis to determine if air sampling is required.</p>

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4. Low Risk Abatement Procedures

Note: Operations classified as “low risk” have a minimal risk of releasing asbestos fibres into the air. The precautions to adequately protect workers are relatively simple to follow. Low risk activities include:

- Installing or removing non-friable products (that are in good condition) manufactured from asbestos containing materials without cutting, breaking, sanding or vibrating the materials. This includes handling products such as gaskets (30 cm diameter and greater), vinyl asbestos floor tile, asbestos cement products, millboard (transite) and asbestos cement piping.
- Work done in proximity to friable asbestos that does not require contacting asbestos.
- Using non powered hand tools designed to cut, drill or abrade a non-friable manufactured product containing asbestos, as long as water is used to control fibre release and waste products are controlled.
- The transportation or handling of asbestos containing materials in sealed containers.

Step

Action

- 4.1 All low risk asbestos abatement activities will at a minimum follow with the low risk abatement procedures outlined in the Asbestos Abatement Manual. Additional site-specific procedures required at Suncor Energy Inc. are outlined in the steps below.
- 4.2 **Personal Protective Equipment**
- One disposable impermeable coverall such as white Tyvek or equivalent over work clothing.
 - A NIOSH approved Respirator equipped with P-100 particulate filter.
- 4.3 **Pre-Job Planning**
- Prepare and submit Asbestos Project Notification form.
 - If a low risk encapsulation is to be conducted under an extended Project Notification, the Low Risk Encapsulation Notification Form in Appendix 5 must be completed and submitted to Industrial Hygiene Department 24 hours before starting the job.
 - Develop procedures to deal with emergencies such as fire or injury prior to starting work.
- 4.4 **Site Preparation**
- The boundary of the work area shall be physically restricted by the use of two strands of banner guard tape at eye and waist level approximately 10 meters from the removal work area. The strands shall consist of a red strand with the phrase “Danger Do Not Enter” and a white/black/red banner guard tape (Appendix 2).
 - Signs shall be posted at the perimeter of the work area with the wording “Caution, Asbestos Dust Hazard, Authorized Personnel Only”. The sign shall be a minimum of 60 cm by 60 cm.

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Responsibility	Step	Action
	4.5 Work Procedures	<ul style="list-style-type: none">• Bagged asbestos waste must be removed from the staging zone within 24 hours of its removal.• Abated asbestos material that has been double bagged shall be transported from the staging zone to the Landfill. The landfill must receive at least 48 hours of notice prior to delivery. Estimate volume, condition and identification of the asbestos need to be provided. Covered vehicles are to be used to transport asbestos waste and must be thoroughly washed after job is complete.• Personnel loading or unloading asbestos waste shall follow low risk abatement procedures.
	4.6 Decontamination	<ul style="list-style-type: none">• Decontamination will be conducted as per the Low Risk Abatement procedures outlined in the Asbestos Abatement Manual.
	4.7 Air Monitoring	<ul style="list-style-type: none">• Air monitoring will be conducted at the discretion of the Industrial Hygiene Department. Industrial Hygiene shall arrange for the monitoring to be conducted as per the Asbestos Abatement Manual.

End of Procedure

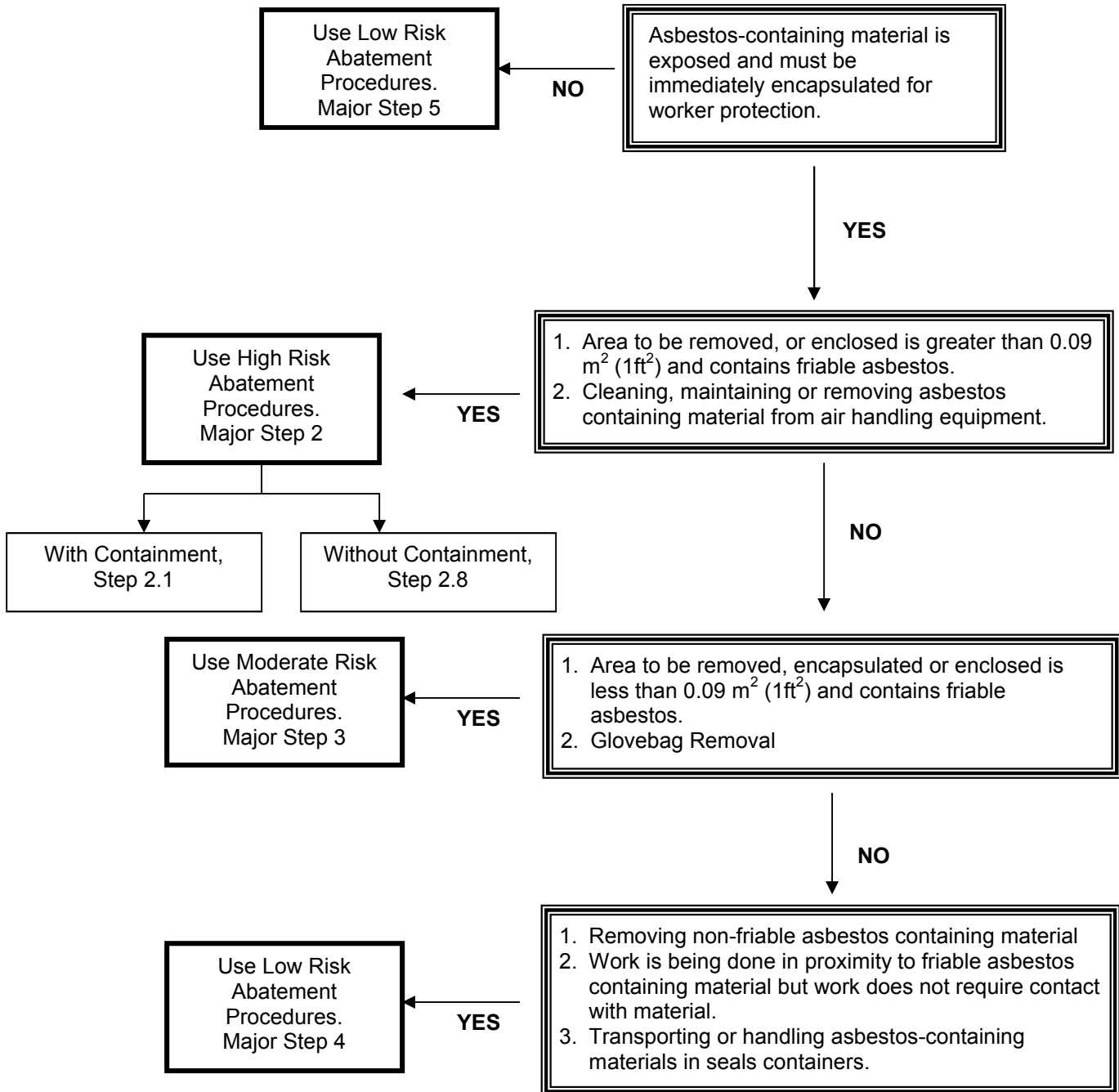
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Appendix 1 – Asbestos Handling Decision Tree



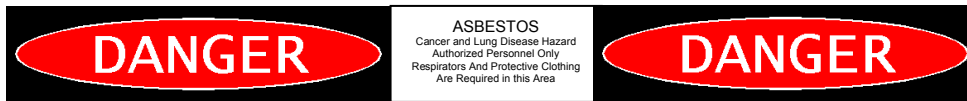
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Appendix 2 – Asbestos Banner Guard Tapes

Asbestos Red Tape

DANGER, DO NOT ENTER DANGER, DO NOT ENTER

Asbestos Banner



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Appendix 3 – Pre Abatement Inspection Checklist

Date: _____

Location of Work: _____

Project Supervisor: _____

Inspector(s): _____

Removal
Technique: _____

	Yes	No	N/A
Documentation			
Notification of Project submitted at least 72 hours prior to project			
Project acknowledgement			
Area work permit(s) obtained			
MSDS available for products in use			
If applicable, Partial Enclosure Deviation form approved			
Full Containment and Restricted Area			
Air Handling Unit modified or shut off			
Containment structure complete			
Penetrations sealed			
Edges properly overlapped and sealed			
Vents and /or ducts adequately sealed			
Negative Pressure of 5 Pascal achieved			
At least 4 air changes per hour achieved			
Barrier tape and signage present			
HEPA filter present on exhaust filter			
DOP tested negative air units vented outside			
Partial Containment/Enclosure and Restricted Area			
Partial enclosure structure complete			
If no partial enclosure, deviation form approved			
Barrier tape and signage present			
On site donning and/or doffing room present			
Decontamination Facility			
Air lock/curtain doorways present			
Shower construction adequate and complete			
Adequate supply of hot and cold water			
Shampoo, soap and towels present			
Drainage functioning and adequate			
Water shut-off valve in clean room or uncontaminated area			
Clean room adequate with storage for personal belongings			

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Appendix 3 – Pre Abatement Inspection Checklist (Cont'd)

	Yes	No	N/A
Equipment room suitable and adequate			
Air flow tester			
Negative air unit and water filtration system checked			
Emergency Preparedness/Response			
Emergency exit plan in place			
Emergency exits/routes posted			
Fire extinguishers in place			
Electrical and Lighting			
Live electrical lines tagged and identified			
Electrical systems locked out			
Electrical equipment connected to GFCI service			
Temporary lighting installed			
Personal Protective Equipment			
PAPR			
Full-face air purifying respirator			
Half-face air purifying respirator			
Adequate supply of filters			
Tyvek coveralls			
Rubber boots			
Tools and Equipment			
DOP tested HEPA vacuum and hose			
Low pressure airless sprayers			
Adequate supply of asbestos disposal bags			
Air Monitoring			
Background samples			
Area samples			
Occupational samples			
Training/Communication			
Asbestos Worker Cards current for all personnel (high risk only)			
Workers trained with Suncor Asbestos procedure			
Building occupants/trades notified			

Comments:

Signatures:

Contractor Foreman: _____

Industrial Hygiene or Designated: _____

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Appendix 4 – Daily Inspection Checklist

Date: _____

Location of Work: _____

Project Supervisor: _____

Inspector(s): _____

Removal
Technique: _____

	Yes	No	N/A
Full Containment and Restricted Area			
Double barrier tapes and signage in place			
Containment sealed properly			
Negative pressure maintained and tested			
Air handling units functioning properly			
HEPA filters inspected			
Partial Containment and Restricted Area			
Double barrier tapes and signage in place			
Enclosure integrity intact			
Onsite donning and/or doffing room clean			
Restricted area change approved			
Decontamination Facility			
Adequate supply of shampoo, soap and towels			
Adequate supply of hot and cold water			
Drainage functioning			
Clean room, shower and dirty room orderly			
Equipment and respirators properly stored			
Work Practices			
Workers decontaminating upon leaving restricted area			
General housekeeping adequate			
Wet removal method with airless sprayer employed			
HEPA vacuum employed			
Minimal accumulation of asbestos waste			
Waste bags sealed			
Personal Protective Equipment			
Workers clean shaven			
Workers wearing and using RPE properly			
Flow rates of PAPR checked (minimum 4 CFM)			
Workers wearing double Tyvek and booties			

Comments: _____

Signatures: _____

Contractor Foreman: _____

Industrial Hygiene or Designate: _____

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Approved By: Shamini Samuel, Manager, EH&S Industrial Hygiene; Sheila Chernys, Director, OS Environmental & Regulatory

Appendix 5 – Low Risk Asbestos Encapsulation Notification Form

This form is to be used for low risk encapsulation projects that are covered under an extended Notification of Project for low risk encapsulation. This form must be submitted to Industrial Hygiene.

Date of Project: _____

Job Supervisor/Foreman: _____

Suncor Contact: _____

Location of Encapsulation: _____

Description of Encapsulation Method(s): _____

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Approved By: Shamini Samuel, Manager, EH&S Industrial Hygiene; Sheila Chernys, Director, OS Environmental & Regulatory

Appendix 6 – Partial Enclosure Deviation

Complete this form only if partial enclosure is not constructed. A partial enclosure has the following features: four walls, roof, turn-up of 30 cm where floor joins the walls, and an onsite donning/doffing room. Please complete the form below for any deviation in partial enclosure construction.

Abatement Location _____

Abatement Date and Time _____

Without Containment/ Partial Enclosure	Built		Where 'No' is selected, explain why containment feature cannot be built.
	Yes	No	
Floor lined with 6 mil polyethylene sheets			
30 cm turn-up where floor joins the walls			
Roof			
Four walls			
Onsite donning and/or doffing room			

Comments:

Abatement Foreman (Print Name): _____

Abatement Contractor (Print Name): _____

Contractor Signature: _____

Suncor Industrial Hygienist (Print Name): _____

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Approved By: Shamini Samuel, Manager, EH&S Industrial Hygiene; Sheila Chernys, Director, OS Environmental & Regulatory

Appendix 7 – Training Requirements for Removal or Handling of Asbestos and Waste

Type of Training Required			
Level of Risk	Asbestos Awareness	Suncor Asbestos Handling Procedure	Asbestos Worker Card (Alberta Government Approved)
High		X	X
Medium		X	
Low Risk		X	
Areas with sealed ACM	X		

Personnel entering a restricted area of high risk abatements to remove or handle asbestos and related waste must have a current Asbestos Worker Card from an accredited agency by Occupational Health & Safety. Workers are required to attend a course on Suncor Asbestos Handling Procedures that has been completed within the past three years. Workers who have received Asbestos Handling Procedure training do not need to attend the Asbestos Awareness course. Asbestos Worker Cards issued after January 1, 2004 will have an expiry date 3 years from the date of training. Cards issued prior to January 1, 2004 will be valid until December 31, 2006.

Worker performing low or moderate risk abatement projects are not required to have the current Asbestos Worker Card for the Occupational Health & Safety for the Asbestos Worker course from an accredited agency. However, training about health hazard and proper handling of asbestos must be provided for these workers.

Contact Risk Management Learning Centre for training on Asbestos Awareness or Suncor Asbestos Handling. FT Services is also another provider of Suncor Asbestos Handling Course. Industrial Hygiene can also be contacted to arrange for both Asbestos Awareness and Asbestos Handling courses.

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The following individuals have approved and signed this document.

UserName: Shamini Samuel (ssamuel)
Title: Mgr Regional IH & Compliance
Date: Monday, 15 August 2016, 11:29 AM Mountain Time
Meaning: Approver 1 Signed

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UserName: Sheila Chernys (schernys)
Title: Dir OS Enviro & Reg
Date: Tuesday, 23 August 2016, 03:15 PM Mountain Time
Meaning: Approver 2 Signed

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