FIBROGENIC DUST EXPOSURE

(Asbestos & Silica)

WORKER'S MEDICAL SCREENING GUIDELINE

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Manitoba

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FIBROGENIC DUST EXPOSURE HEALTH SURVEILLANCE GUIDELINE

A. INTRODUCTION

This Guideline relates to those industries and worksites having potential for exposure to asbestos and silica dust. In Manitoba, the two Fibrogenic dusts of concern are asbestos and silica. Some of the workplaces where this hazard may be present include, but are not limited to, hard rock mines, gravel/stone crushing or cutting, grinding, abrasive blasting and foundry processes using products with >1% silica sand, construction and road work, renovation, maintenance and associated trades (e.g. insulation fitters, plumbers, electricians), asbestos abatement, remediation and consulting services.

Section 50 of the *Workplace Safety and Health Act (*WSH*) W 210, http://web2.gov.mb.ca/laws/statutes/ccsm/w210e.php* empowers the Chief Occupational Medical Officer (COMO) of the WSH Branch to order health surveillance monitoring for workers, where considered desirable for administration of the WSH Act. Consistent with the COMO's power, employers must ensure that all workers who are at risk of repeated or excessive exposure to Fibrogenic dust in the workplace undergo regular health surveillance monitoring (medical screening) as outlined in this Guideline.

B. PURPOSE OF A MEDICAL SCREENING PROGRAM

The purpose of this type of medical screening program is to identify risk factors for lung disease and early lung changes at a point where intervention can have maximum benefit. Both the individual worker and the workplace practices may be reviewed for improvement in exposure control if the results of medical screening indicate an abnormality.

C. EMPLOYER AND EMPLOYEE RESPONSIBILITES

The employer is responsible for establishing a medical screening program in their workplace that is consistent with this guideline. All workers deemed to be at risk for exposure to asbestos and/or silica dust must have full access to the program activities and comply with the components, outlined in this document (see section 5 of the WSH Act). The employer is responsible for all the expenses incurred in the medical screening program, including the cost of baseline tests, intermittent tests and any medical referral (ex: following an abnormal lab test) required to establish a diagnosis and determine its work-relatedness. In addition, employers shall report medical evidence of worker exposure to silica or asbestos to the Workers Compensation Board of Manitoba.

A health care professional must administer the Fibrogenic dust medical screening program. The employer must protect the confidentiality of the worker's specific, personal medical information. It must not be included in the worker's regular personnel file.

Larger companies may have an occupational health service. Smaller employers may contract with community based healthcare providers (ex: local physicians, clinics, biomedical testing agencies, etc.).

D. WHO SHOULD UNDERGO SURVEILLANCE

This Guideline applies to workplaces where workers may have at least one hundred (100) hours accumulated exposure to Fibrogenic dust during a year of work.

Exposure to Fibrogenic dust is defined as; working in an environment above the Occupational Exposure Limit, as determined by a risk assessment carried out under Part 36 for Chemical and Biological Substances of Manitoba Regulation (M.R.) 217/2006, regardless of the type of respiratory protection being used.

SCREENING PROGRAM COMPONENTS

1. Preplacement, baseline medical screening

According to the results of a risk assessment required under Part 36M.R. 217/2006, all workers anticipated to be at risk for exposure to Fibrogenic dust must have the following at the start of employment:

(a) A medical and occupational history, with emphasis on the respiratory system
(b) A physical examination, with emphasis on the respiratory system
(c) Pulmonary function test (PFT) (as per Appendix A, Table 1)
(d) A baseline chest x-ray
(e) A respiratory health questionnaire (Appendix B)

2. Periodic medical screening

According to the results of the risk assessment requirement under Part 36 of M.R. 217/2006, all workers at risk for exposure to Fibrogenic dust must have the following examinations every two years, for the duration of their employment:

(a) A *biennial* occupational medical history, with emphasis on any exposures during the previous year
(b) A *biennial* pulmonary function test (PFT) – Appendix A, Table 1
(c) A *biennial* respiratory health questionnaire – Appendix B
(d) A physical medical examination (with emphasis on the respiratory tract) should be pursued if the occupational medical history indicates a possible health problem which may be adversely affected by the work or the work environment.
(e) A chest x-ray as outlined in the schedules in Appendix A, Table 2

3. Reporting and Actions

A. List of workers in the surveillance program
- List of those who participate in surveillance **each** year.
- The list is to be shared with the Safety and Health Committee at the workplace.

B. Recording and reporting of individual result
- Each worker is told the results of all his/her screening test results and provided with further instruction and advice as indicated. This may be carried out by the employer's designated Occupational Health Physician/Occupational Health Nurse or the worker's personal physician.
- The name and address of the worker's personal physician and date of screening must be recorded on the worker's chart.
- If the worker has gone or been sent to a private physician/clinic, the worker should provide the physician with an employer's form for signature indicating whether the worker is fit for usual work, able to work with specified restrictions or is unfit for work. The worker is then to return this signed form to the employer.
- A record of all individual workers' medical test results must be kept in a confidential file by the employer and accessible only by designated occupational health personnel. This file must be made available for 10 years.
- Confidential medical information, such as individual test results, can only be shared with the express written permission of the worker, except as stated above.

C. Results

The employer is responsible for setting up an 'Occupational Health Service' to ensure that the following instructions are carried out. This may be done by establishing a complete occupational health service that may include its own physician and nurse to carry out all aspects of the medical screening program, it may be contracted out or a system may be devised for workers to attend their own physicians. If, however, a worker does not have a personal physician, the company will have to 'contract' with a physician to interpret and advise on the results.

The employer must have a process in place for ensuring that the worker is properly assessed for medically indicated work restrictions.

This may be provided by the designated occupational health physician or if necessary, by the worker's own physician.

All abnormal results are to be forwarded to the worker's physician, if the worker agrees.

The appropriate medical investigation, treatment and follow-up are the responsibility of the worker's primary care physician. This follow-up includes the explanation of test results and their implications, especially as they relate to work. Note: A **lung CT scan** may be ordered for any worker whose chest x-ray report indicates the possibility of silica or asbestos related abnormality – this is a case-by-case evaluation.
All abnormalities determined to be work-related shall be reported to the COMO and may require medical investigation and/or further treatment.

The COMO may be in contact with the worker's physician to discuss the work-relatedness and prognosis for cure. A workplace safety and health investigation and improved preventive steps may be necessary to ensure worker protection from exposure.

The employer must also report work-related disease to the Workers Compensation Board on a case-by-case basis.

D. Annual Report

The employer must produce an annual report which includes a summary of the screening program test results and a summary of the actions taken by the employer to reduce worker exposure to Fibrogenic dust. The report must also include the number of workers who undergo screening, the work location and type of work performed by each worker.

The Annual Fibrogenic Dust Surveillance Report must be forwarded to the Chief Occupational Medical Officer at the Workplace Safety and Health Branch, and be shared with the joint workplace safety and health committee.

Appendix A

Table 1

PULMONARY FUNCTION TESTING
- FEV1 - FVC - FEV1 / FVC ratio

Table 2

Chest X-ray screening frequency for silica or asbestos exposure	
Duration of exposure*	**Chest x-ray frequency**
0 to 15 years	Every 4 years
Over 15 years	Every 2 years

*“duration of exposure” includes the cumulative time from all previous employment

Chest x-rays must be interpreted and reported by a licensed Radiologist

All abnormal Pulmonary Function Tests (PFT) must be interpreted and reported by a licensed physician experienced in reporting such tests.

Appendix B

HEALTH QUESTIONNAIRE FIBROGENIC DUST – HEALTH QUESTIONNAIRE

(This questionnaire focuses on respiratory health. However, other health issues may be of equal or more importance to the individual worker – this should be elaborated on and noted as necessary.)

Interview Date (M/D/Y) _____ Worker ID Number _____

Last Name _____ First Name _____

Address _____ City _____ Postal Code_____

Gender ☐ Male ☐ Female Birth date (M/D/Y) _____

MHSC # (medical) _____ Occupational Code _____

Company Name & Company Business _____ WCB firm number _____

Family Physician _____ Physician Clinic _____

Clinic Address _____

Past Occupational History			Comments
Have you ever had a serious lung problem, like TB?	No	Yes	
Have you had exposure to asbestos/silica in your previous job?	No	Yes	
What year were you first exposed to asbestos/silica? _____			
Have you been exposed to gas or chemical fumes since last surveillance or on a previous job?	No	Yes	
When was your last chest x-ray? _____			
Present Occupational History			
Position/title _____			
How long have you been working at this job? _____			
Do you work underground or on the surface?	No	Yes	
Do you work in a quarry/gravel pit/pit?	No	Yes	
Do you work in casting/smelter?	No	Yes	
Do you work in pottery/grinding?	No	Yes	
Do you work in an asbestos/silica dusty environment?	No	Yes	
Do you need to wear a respirator at work?	No	Yes	

Medical History

			Comments
Does your health interfere or impair your performance at work?	No	Yes	
Have you ever been diagnosed with T.B., interstitial fibrosis, asbestosis, silicosis, lung cancer?	No	Yes	
Have you ever been diagnosed with asthma, bronchitis or emphysema?	No	Yes	
Have you had any chest injuries or surgeries?	No	Yes	

Have you ever or are you now experiencing

1. **Shortness of breath (SOB) or wheezing when:**
   a. walking at a brisk pace on ground level or up slight hills — No Yes
   b. walking with other people of your age on a ground level — No Yes
   c. at rest — No Yes
2. **Coughing frequently and most days?** — No Yes

If yes, for how long? _____

Do your symptoms change during the working day? No Yes

Do you use a puffer? (bronchodilator or inhaled steroids) No Yes

If yes, how often do you use it? _____

What causes more frequent puffer use? _____

Have you had a cold, bronchitis or pneumonia within the last 3 weeks? No Yes

Tobacco Smoking

Have you ever smoked? No Yes

Do you smoke now? No Yes

When was the last time you smoked? _____

How old were you when you started smoking? _____

On average, how many cigarettes, cigars or pipes do you or did you smoke per day? _____