**PURPOSE**

To provide a hazard free workplace and have an Asbestos Awareness Program to ensure the safety and health of all company employees performing job tasks in which a potential asbestos exposure could occur.

Compliance with this program is mandatory and applicable to all company employees who work in an environment where asbestos is present in any amount. Failure to comply will result in disciplinary action and/or is grounds for termination. This includes multi-contractor work site(s). Wagner-Meinert, LLC does not specifically work with asbestos remediation, etc. If WMi needs to have asbestos containing material removed or repaired, an outside contractor would be procured with approval from the customer where the work is being performed. Do not disturb the area of asbestos containing material until dissemination has been determined and approval has been granted to proceed.

**METHODS OF COMPLIANCE**

The nature of job activities sometimes involves working in asbestos environments where there is a potential for exposure. Prior to commencing work on a job where potential exposure is identified as a hazard, a pre-job investigation using the Asbestos Assessment Form is completed which allows the company to provide effective control methods for employees. The Asbestos Awareness Program incorporates all of the requirements of 29 CFR 1926.1101 subpart Z.

Once the site specific Asbestos Assessment Form is completed (this form provides a specific step by step sequence for implementing all aspects of the program) all applicable employees will receive information and training for the identified areas of potential exposure at that site. During work activities, the supervisor will periodically inspect the area to maintain the effectiveness of the program. If the inspection reveals a change in the work environment that could increase potential exposure, all employees will evacuate the area and a follow-up assessment will be completed with the necessary additional precautions implemented before work activities resume.

**DEFINITIONS**

*Permissible Exposure Limit* - means the dermal or inhalation exposure limit figured on an (8) eight-hour time weighted average of 0.1fiber per cubic centimeters of air.

*Time Weighted Average* (TWA) - the sum of all exposure over an 8-hour work shift, 40 hour work week.

*Asbestos* – is a class of magnesium silicate mineral that occurs in fibrous form. It can combine with various other substances to form numerous compounds.

*Final Medical Determination* - the outcome of a multiple physical reviews or an alternate medical determination.

**1.0 INTRODUCTION**

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**20.0 ASBESTOS ASSESSMENT FORM**

**21.0 ACKNOWLEDGMENT OF TRAINING FORM**

**1.0 INTRODUCTION**

1.1 This program summarizes pertinent information about asbestos for our employees. As an employee of the company, potential exposure to various forms and amounts of asbestos may occur during certain job activities. OSHA has specific standards for the construction industry regarding exposure to asbestos hazards, which may occur during renovations, repairs or demolition activities. We must reduce the risks by using engineering and administrative controls and provide for the use of personal protection equipment (PPE).

1.2 Airborne levels of asbestos are never to exceed legal exposure limits, but if they do, medical monitoring is required.

**2.0 TYPES OF ASBESTOS**

2.1 Chrysotile (most common) also referred to as ‘White Asbestos’

2.2 Crocidolite, also referred to as ‘Brown Asbestos’ (most harmful)

2.3 Amosite

2.4 PACM-Potential Asbestos Containing Material

Non-occupational exposure to asbestos is less than industrial exposure. It was commonly used until about 1980 in pipe wrap-insulation, wall board, ceiling tile, floor tile, siding on residences, roof shingles, etc. There may be a potential health hazard at facilities where asbestos has been maintained in its operations.

**3.0 ROUTES OF ENTRY**

3.1 Inhalation

3.2 Ingestion

When asbestos is absorbed into the body in certain doses it is a toxic substance. It is not absorbed through the skin, but can enter the body by inhalation and ingestion. When it is scattered through the air as a dust, fume, or mist it can be inhaled and absorbed by the lungs and upper respiratory tract.

Inhalation of airborne particles is generally the most common source of occupational absorption. It can also be absorbed through the digestive system if swallowed. Handling food, cigarettes, chewing tobacco, or make-up with hands contaminated with asbestos will contribute to ingestion. It is for these reason that eating, drinking, and smoking in identified asbestos areas are avoided. Removal of potentially contaminated clothing while on the jobsite may need addressed so it is not carried into vehicles and home.

Acquired levels will continue to increase if exposure is not controlled. A significant portion of the asbestos that you inhale gets into your lungs, and eventually the blood stream. Once in your blood stream, it is circulated throughout your body and stored in various organs and body tissue. Some of it is filtered out of the body by excretion, but most remains in your tissues. The amount stored in the body will increase in the body will slowly cause irreversible damage to cells, organs, and the body system.

**4.0 HEALTH EFFECTS OF OVEREXPOSURE**

4.1 If steps are not taken to control exposure, continued absorption could result in:

 4.1.1 Constipation or diarrhea

4.1.2 Lack of appetite

4.1.3 Weight loss

4.1.4 Nausea

4.1.5 Chest pain/difficulty breathing

4.1.6 Cancer (of the throat, lungs, stomach, colon)

4.2 Short Term Overexposure (Acute)

4.2.1 Asbestos is a systemic particle that serves no known useful function once absorbed by the body. Exposure in large enough quantities can kill in a matter of days. Short-term exposure of this magnitude is highly unlikely, but not impossible. There is no sharp dividing line between developing acute and chronic health effects. It adversely affects numerous body systems and causes forms of health impairment and disease that arise after periods of exposure as short as days or as long as several years. Smoking and Asthma can also affect reactionary times.

4.3 Long Term Overexposure (Chronic)

4.3.1 Asbestos can cause disabling respiratory disease and various types of cancer. Symptoms have been known not to appear for 20 years.

4.4 REPORTING OF PROBLEMS

4.4.1 Immediately notify your supervisor if you develop potential signs or symptoms associated with Asbestos poisoning. You should also notify your supervisor if you have difficulty breathing while wearing a respirator or suspect problems with other personal protective equipment.

4.5 EXPOSURE ASSESSMENT

4.5.1 The company will determine if employees are exposed to concentrations at or above the eight-hour TWA. The exposure determination shall be based on the following:

 4.5.1.1 Personal exposure monitoring

4.5.1.2 Objective data demonstrating that the asbestos containing material, product, process, operation, or activity cannot result in exposure at or above the action level

4.5.1.3 Historical measurements of airborne asbestos that have been taken within the last 12 months.

4.5.2 If the initial exposure determination reveals employee exposure to be at or below the PEL, monitoring will be performed at least every six months. If the exposure determination reveals employee exposure above the PEL, monitoring will be performed quarterly. Additional monitoring will take place if a change in an operations production process occurs which may result in additional exposure. In addition, employees will be given written notification of the results of their exposure assessment within five working days.

**5.0 PREVENTING ABSORPTION**

5.1 Proper control of exposure is the responsibility of both the employer and the employee. All of the control methods discussed below are essential to minimize additional sources of absorption from inhalation or ingestion that may accumulate on you, your clothing, or your possessions. High personal standards of cleanliness are necessary. Strict compliance with these provisions can virtually eliminate several sources of exposure that significantly contribute to excessive absorption.

5.2 Employees will do whatever they can to prevent disturbing any intact or open asbestos containing media. If the asbestos covering has been compromised, that employee is to notify their immediate supervisor and facility contact as soon as possible.

**6.0 RESPIRATORY PROTECTION**

6.1 Exposure to hazardous materials requires special precautions against absorption of toxic compounds. While engineering controls (e.g. ventilation systems) are the primary means of controlling materials such as dust, fumes, vapors, and mists, it is often necessary to rely on respiratory protection. The respirator will give you the proper amount of protection based on the nature of the hazard. Only use respirators tested and certified by the National Institute for Occupational Safety & Health (NIOSH). The cartridges that come with the mask are approved for the environment in which you will be working. Never use a cartridge respiratory in an atmosphere containing less than 19.5% oxygen or an atmosphere immediately dangerous to life and health (IDLH). In addition, observe the requirements of the Respiratory Protection Program. In extreme cases a NIOSH-certified air purifying respirators may be required. See Section 12 Respiratory Protection Program. Personal Protective Equipment required to protect personnel is to be supplied at no cost to the employees.

**7.0 PROTECTIVE WORK CLOTHING & EQUIPMENT**

7.1 Protective clothing and equipment must be worn when the exposure to asbestos is above the PEL. If work clothing is provided, it will be given to you in a clean and dry condition at least weekly, and daily if your airborne exposure to lead is greater than PEL. Protective work clothing and equipment can include coveralls, Tyvek coveralls, gloves, hats, shoes, shoe coverlets, face shield or vented goggles. All clothing and equipment will be repaired, replaced, cleaned, laundered, or disposed of as necessary by the company. Contaminated work clothing and equipment must be removed in the designated change room and placed in the provided closed containers to be cleaned or disposed of. At no time may asbestos be removed from protective clothing or equipment by any means which disperses it into the workplace air.

**8.0 HYGIENE FACILITIES & PRACTICES**

8.1 Employees exposed to asbestos above the PEL must change, shower, and eat in designated areas. After changing and showering no clothing or equipment worn during the shift should be carried home, this includes shoes and underwear. The change area will be equipped with separate storage facilities for protective work clothing and equipment and for street clothing to prevent cross-contamination. The container for contaminated clothing will be labeled as follows: CAUTION: CLOTHING CONTAMINATED WITH ASBESTOS. DO NOT REMOVE DUST BY BLOWING OR SHAKING. DISPOSE OF CONTAMINATED WASH WATER IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, OR FEDERAL REGULATIONS. Lunchrooms may not be entered with protective clothing or equipment unless surface dust has been removed by vacuuming, down draft booth, or other accepted cleaning method. Finally, workers exposed above the PEL must wash both their hands and face prior to eating, drinking, smoking, or applying cosmetics.

**9.0 HOUSEKEEPING & CLEANING PRACTICES**

9.1 All surfaces will be maintained as free as practicable of accumulation of dust. In addition, the use of compressed air to clean floors and other surfaces is restricted. When vacuuming methods are used, take special precaution when emptying the vacuum to minimize the re-entry of particulates into the workplace atmosphere. Where vacuuming methods are not feasible, shoveling, dry or wet sweeping and brushing are acceptable.

**10.0 ADMINISTRATIVE CONTROLS & PRACTICES**

10.1 Based on the specific site asbestos assessment, the facility may implement a job rotation schedule as one means of reducing personnel TWA exposure. The schedule includes the name or identification number of each effected employee, the duration and exposure levels at each job or work station where effected employees are located, and any other information useful in assessing the reliability of the administrative controls used to reduce potential exposure.

**11.0 MEDICAL SURVEILLANCE**

11.1 The medical surveillance program is part of the comprehensive approach to the prevention of asbestos related diseases. Its purpose is to supplement the program that is aimed at minimizing airborne concentrations and sources of exposure. Only medical surveillance can determine if the provisions of the program have effectively protected an employee. Periodic medical surveillance of individual employees will help detect those failures in the program and engineering techniques. Determining this is the first step.

**12.0 MEDICAL EXAMINATIONS AND CONSULTATIONS**

12.1 The second phase of medical surveillance is medical examinations and consultations for employees who meet the following conditions:

12.1.1 Employees who are exposed in excess of the action level for more than thirty days a year.

12.1.2 At least annually for each employee for whom a pulmonary test conducted at any time during the preceding 12 months indicated an issue.

 12.1.3 Prior to the assignment for the first time to an area in which airborne concentrations of asbestos are at or above the action level.

 12.1.4 As soon as possible, upon notification by an employee, that he/she has developed signs and symptoms or desire medical advice concerning the effects of current or past exposure.

 12.1.5 As medically appropriate for each employee either removed from exposure to lead due to risk of sustaining material impairment to health, or otherwise limited pursuant to a final medical determination

A licensed physician will perform all medical examinations and a laboratory licensed by the Center for Disease Control will perform consultations, sampling and analysis.

**13.0 MEDICAL REMOVAL PROTECTION**

13.1 Excessive absorption subject employees to increased risk of disease. Medical Removal Protection (MRP) is a means of protecting employees when, for whatever reasons, such as engineering controls, work practices, and respirators, have failed to provide the needed protection. MRP involves the temporary removal of an employee from his or her regular job to a place of lower exposure without loss of earnings, seniority, or benefits.

**14.0 POSTING WARNING SIGNS**

14.1 A warning sign must be identified, legible, kept clean, and posted in work areas where the exposure to asbestos exceeds the PEL. The sign must read “DANGER- ASBESTOS –CANCER AND LUNG DISEASE HAZARD-AUTHORIZED PERSONNEL ONLY”

14.2 All bags or containers with discarded protective clothing, etc. must be labeled with “DANGER –CONTAINS ASBESTOS FIBERS –MAY CAUSE CANCER –CAUSES DAMAGE TO LUNGS –DO NOT BREATH DUST –AVOID CREATING DUST”

**15.0 EMPLOYEE INFORMATION & TRAINING**

15.1 Information and training will be given to all employees including any contractors or sub-contractors upon orientation at the jobsite and for new hires who may be exposed to asbestos above the action level, or who may suffer skin or eye irritations. The training program will inform employees of the following:

15.1.1 Specific hazards associated with their work environment

15.1.2 Personal protective equipment usage

15.1.3 Potential exposure

15.1.4 Dangers of asbestos

15.1.5 Health hazards associated with overexposure

15.1.6 Employee rights under the standard

Documentation of employee information and training is kept on file at the corporate office.

**16.0 RECORD KEEPING**

The following records will be kept on file at the corporate office, as applicable:

16.1 Exposure monitoring for airborne asbestos

16.2 Name and job classification of employees measured

16.3 Details of the sampling and analytic techniques

16.4 Results of the sampling

16.5 Type of respiratory equipment and other PPE worn

16.6 Records will be kept on file for 40 years or for at least 20 years after termination of employment, whichever is longer

**17.0 BIOLOGICAL MONITORING & MEDICAL EVALUATIONS**

17.1 Names of employees and social security numbers

17.2 Physicians written opinion

17.3 Copy of exam results

17.4 Records will be kept on file for 40 years or for at least 20 years after termination of employment, whichever is longer

**18.0 TEMPORARY REMOVAL**

18.1 Name and social security number

18.2 Date of removal and return

18.3 How the removal was or is being accomplished

18.4 Whether or not the removal was from a medical evaluation

18.5 Kept for duration of employment

**19.0 JOB ROTATION SCHEDULES**

19.1 Name and identification number of each effected employee

19.2 Duration and exposure levels at each job or work station where each affected employee is located

19.3 Any other information useful in assessing the effectiveness and reliability of the rotation schedule

**20.0 ASBESTOS ASSESSMENT FORM**

20.1 Description of the facility and potential exposure areas

20.2 Job description of employees working in the potential exposure area

20.3 Any specific operating and maintenance procedures

20.4 Any engineering controls necessary or in place to prevent potential exposure

20.5 All air and emissions monitoring results of the area are copied for company records

 20.6 Any specific protective clothing and respiratory protection required

20.7 Any job specific rotation schedules

20.8 Necessary hygiene facilities and practices

20.9 Mandatory housekeeping and cleaning practices

20.10 All mechanical ventilation will be evaluated for effective performance

20.11 Identification of safe work practice controls

**21.0 ACKNOWLEDGMENT OF TRAINING FORM**

21.1 Documentation of employee training shall be kept on site for duration of project by the site Foreman or Project Manager/Engineer.

**DOCUMENT MANAGEMENT:**

If after reading this program, you find that improvements can be made, please contact the Safety Director. We encourage all suggestions because we are committed to the success of our Asbestos Awareness Program. We strive for clear understanding, safe behavior, and involvement from every level of the company.

**CHANGE CONTROL:**

All management system changes are reviewed, approved or disapproved by the Safety Committee.

**PERSONNEL:**

The Owners of Wagner-Meinert, LLC have the ultimate responsibility for this Program. They have designated the Safety Director to manage the Asbestos Awareness Program.

| **Revision / Review History** |
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| **Revision** | **Date** | **Authorized By** | **Changes** |
| 0 | 11/24/2014 | Safety Director | New Program |
| 1 | 5/11/2016 | Safety Director | Updated format and annual review |
| 1 | 6/30/2017 | Safety Director | Annual Review |
| 1 | 9/18/2018 | Safety Director | Annual review |
| 1 | 6/10/2019 | Safety Director | Annual review |
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