



## WORKSITE HAZARD ANALYSIS PROGRAM (Section 8)

### PURPOSE:

At our conception Wagner-Meinert, Inc. adopted a policy to provide a safe and healthy place to work with the prevention of accidents being our ultimate goal at all times. This tradition continues as we continue with our ongoing Safety Program.

### SCOPE:

Hazard identification, risk assessment and risk control are three principles used in workplaces to manage safety and health. make it compulsory for employers in all workplaces to identify hazards and assess and control risks.

The three ThinkSafe **SAM** steps are a simple way of expressing these three principles. At work you can use the ThinkSafe steps to help prevent accidents and injuries.

**Spot the hazard.** Be alert at work. Watch out for hazards in your workplace and report them to your supervisor.

**Assess the risk.** How likely is it that a hazard could cause injury or harm to someone; and how badly could they be hurt?

### **Make the changes.**

Work with your employer to fix hazards and make your workplace safe. Sometimes you may be able to fix a simple hazard yourself.

### DOCUMENTS

#### APPENDIX 8A WORK SITE HAZARD ANALYSIS CHECKLIST (Page 13-14)

## RELATED DOCUMENTS

Accident Prevention Program (Section 2)

## REFERENCE:

A) Part 1926--Safety And Health Regulations For Construction

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### **1.0 PERSONAL PROTECTIVE EQUIPMENT**

- 1.1 Wagner-Meinert personnel should ensure that they always use approved safety equipment in the workplace.
- 1.2 When purchasing protective equipment and clothing, Wagner-Meinert, Inc. will ensure it complies with the relevant Standard.
- 1.3 Employees should be instructed and trained in the correct use of the P. P. E. provided by the employer. After receiving training, employees are required to use the personal protective equipment supplied by the employer and follow all safety instructions.
- 1.4 Personal protective equipment and clothing used in the construction industry can include such things as:
  - 1.4.1 safety hats;
  - 1.4.2 hearing protection;
  - 1.4.3 protective gloves;
  - 1.4.4 safety footwear;
  - 1.4.5 safety harnesses;

- 1.4.6 respirators; and
- 1.4.7 safety glasses.

## **2.0 COMMON HAZARDS:**

- 2.1 falls from heights
- 2.2 falls into a depth
- 2.3 slips, trips and falls;
- 2.4 electrical hazards;
- 2.5 manual handling hazards; and
- 2.6 hazardous substances.

## **3.0 PREVENTION OF FALLS**

Falls in the workplace cause a large number of occupational injuries in the Construction Industry.

- 3.1 A fall can cause injury to the arms, legs, back, neck or head. Neck and head injuries can cause damage to the spinal cord and nervous system. Many workers have suffered permanent disabling injuries or death as a result of a fall.
- 3.2 Falls occur in many different workplaces and can be grouped into the following three categories:
  - 3.2.1 falls from height (a fall from one level to another);
  - 3.2.2 falls into a depth (falling into a hole); and
  - 3.2.3 slips, trips and falls (falls on the same level).
- 3.3 Factors that can cause a fall include when:
  - 3.3.1 there is a sudden acceleration or deceleration;
  - 3.3.2 moving from one surface to another;
  - 3.3.3 the surface is not capable of supporting a load;
  - 3.3.4 openings or holes are not identified or protected;
  - 3.3.5 open edges are not protected;
  - 3.3.6 levels change;
  - 3.3.7 hand grip is lost;
  - 3.3.8 surfaces are slippery (e. g. surfaces are wet, polished or oily);
  - 3.3.9 footwear is unsuitable;
  - 3.3.10 equipment, tools, rubbish are causing obstructions in work areas;
  - 3.3.11 ladders are used incorrectly;
  - 3.3.12 clothing is caught;
  - 3.3.13 surfaces move;
  - 3.3.14 lighting is unsatisfactory;
  - 3.3.15 weather conditions are bad (e. g. heavy rain or wind is present);
  - 3.3.16 struck by a moving or falling object; or

3.3.17 fall arrest systems and devices are not provided or are used incorrectly.

### 3.4 Falls From Height

Accident reports show that a fall from height often occurs when a person is working on:

3.4.1 roofs and support beams;

3.4.2 climbing equipment that is incorrectly set up or erected (ladders, stairs)

3.4.3 supporting equipment that is incorrectly set up or erected (scaffolds, ramps, trucks; and cherry pickers.

3.5 Safe systems of work which reduce the risk of falls from height in the workplace include:

3.5.1 the use of building maintenance units;

3.5.2 the use of correctly erected scaffolding or another type of safe working platform;

3.5.3 the use of correctly erected and secured ladders; and the use of anti-fall equipment (such as safety harnesses) which complies with OSHA Standards.

### 3.6 Roof work

3.6.1 Some materials used on roofs can become fragile or brittle after exposure to weather. Serious injuries and fatalities have occurred when workers have fallen through roofs made of brittle materials. Examples of these materials include asbestos cement sheets, translucent plastic sheets, and glass skylights.

3.6.2 Work on fragile material must be carried out from a scaffold or other working platform. This must be done even if mesh has been installed. To ensure people are aware of the hazard, a notice shall be displayed:

3.6.3 The use of protective wire mesh is mandatory for roofs made of brittle materials and it is also recommended during the construction of metal roofs. It protects workers against falls during roof construction and provides protection for future work activities on the roof. Prior to working on brittle roofs, the condition of the wire mesh and sheeting needs to be examined.

3.6.4 Steel mesh, harnesses, nets and guard rails will restrain a fall.

### 3.7 Scaffolding

3.7.1 Wagner-Meinert personnel when installing scaffolds has legal responsibilities under the Occupational Safety and Health Act and Regulations. They are required to ensure that it is safe, and therefore not a risk if it is used according to safety instructions.

- 3.7.2 Mobile scaffolds are often hired and used by finishing trades people such as painters and plasterers who may have limited knowledge of scaffolds. Mobile scaffolds are easy to erect, use and dismantle, but are safe only if erected by a competent person.
- 3.7.3 Guard rails can prevent falls from a working platform.
- 3.8 Common problems occur with mobile scaffolding when:
  - 3.8.1 there is a lack of training or supervision and safety instructions in erecting or using a scaffold;
  - 3.8.2 riding on a mobile scaffold while it is being moved;
  - 3.8.3 wheels are not locked when the scaffold is stationary; or
  - 3.8.4 Instructions on the safe assembly of a mobile scaffold are freely available from the supplier. These instructions are also displayed on most mobile scaffolds as a sticker. It is very important that these instructions are followed.
- 3.9 Safe systems of work which reduce the risk of falls from height in the workplace include:
  - 3.9.1 the use of building maintenance units;
  - 3.9.2 the use of correctly erected scaffolding or another type of safe working platform;
  - 3.9.3 the use of correctly erected and secured ladders; and
  - 3.9.4 the use of anti-fall equipment (such as personal fall arrest systems) which complies with OSHA Standards.
- 3.10 Falls Into A Depth
  - 3.10.1 Construction and excavation sites often have trenches or holes that are hazards if left unprotected. Falls into lift shafts, sewers, wells, tanks and stairwells are examples of falls into a depth.
  - 3.10.2 Signs should be used to warn anyone on the site that there is a hole underneath, and that the cover should not be removed. Covers should be securely fixed and marked in clear lettering:
- 3.11 Slips, Trips and Falls

- 3.11.1 Slippery and uneven floors in the workplace are a serious hazard and can result in far more serious accidents than simply tripping or falling over.
- 3.12 Factors that can increase the risk of slips and trips in the Construction Industry are:
  - 3.12.1 uneven floor surfaces;
  - 3.12.2 slippery surfaces;
  - 3.12.3 type of floor, e. g. wood, concrete, ceramic, vinyl or other; and
  - 3.12.4 surface texture of the floor.
- 3.13 Safe system of work
  - 3.13.1 Where there is a risk of an employee falling, Wagner-Meinert will provide protection by:
    - 3.13.2 a safe system of work such as anti-fall equipment and devices;
    - 3.13.3 a safe means of entering and leaving the area in which employees are required to work, such as a roof space;
    - 3.13.4 guard rails, covers, fender boards or other forms of safeguarding; and
    - 3.13.5 personal protective equipment.
  - 3.13.6 Safe work procedures will vary between workplaces and should be provided by the employer.

#### **4.0 ELECTRICAL SAFETY**

The most common cause of electrocution in the workplace is contact with overhead wires. This is because people can misjudge heights and distances between the ground and overhead wires when carrying equipment like poles and ladders, or operating equipment with height extension such as cranes.

Accidents and deaths can also result from equipment becoming "live" due to electrical faults, lack of maintenance or short circuit.

- 4.1 Electrical accidents are most often caused by a combination of factors such as.
  - 4.1.1 a lack of training;
  - 4.1.2 a lack of supervision;
  - 4.1.3 inadequate work practices;
  - 4.1.4 poorly maintained equipment or installation; and

- 4.1.5 a hazardous workplace environment.
- 4.1.6 Precautions must be taken to prevent electrical accidents in the Construction Industry.
- 4.2 Locking out of equipment (See Lockout/Tagout Program)
  - 4.2.1 This is one way of preventing machinery or electrical current becoming operational during maintenance. A lock is attached to the machine switch so that it cannot be turned on.
  - 4.2.2 The person working with the machine should hold the only key to the lock . **A lock must only be removed by the person who attached it to the equipment or machinery.**
  - 4.2.3 Procedures must be put in place for the removal of the lock should the person not be available, for example, if there has been a change of shift workers.
- 4.3 General electrical safety tips
  - 4.3.1 Keep your appliances in safe working order through inspection and preventative maintenance programs.
  - 4.3.2 Disconnect broken appliances and have frayed cords or broken power points replaced. Even after a piece of electrical equipment, appliance or machine has been disconnected from the power source, it may still partially operate. This is because of stored energy within the equipment. After disconnecting the power source, activate the machine or appliance to release the stored energy
  - 4.3.3 Always switch off appliances at the power point before you pull out the plug.
  - 4.3.4 Keep electrical cords off the floor to reduce the risk of damage from drag or contact with sharp objects. A damaged electrical cord can cause a fatal electric shock.
  - 4.3.5 Know the location of your main electricity supply.
  - 4.3.6 Check the location of overhead wires and stand clear of any fallen power lines.
  - 4.3.7 Use your appliance correctly. Read the instruction booklet and follow all instructions.
- 4.4 Electricity and water don't mix.
  - 4.4.1 Bare feet and wet skin lower the body's electrical resistance. Keep electrical appliances away from water and wet areas
  - 4.4.2 Apprentices and trainees must be supervised at all times by a qualified electrical worker.

- 4.4.3 Don't overload circuits and fuses by using too many appliances from the one power point. Don't use double adapters to "piggy back" plugs. Use a power board with individual switches.
- 4.4.4 Only licensed electrical workers can be legally contracted to perform electrical work. This includes new electrical installations and alterations, and repairs to existing installations. An unqualified person should not be employed to undertake electrical work.

## **5.0 JOB SAFETY ANALYSIS (JSA)**

Job Safety Analysis (JSA) is a method of identifying hazards and developing ways to manage them.

Basically, JSA means taking the time before doing a job to plan for safety rather than starting work assuming that all those involved know what to do and how to do it in a safe manner.

5.1 There are 3 ways of doing a JSA:

- 5.1.1 By Direct Observation - The supervisor watches and discusses job steps, hazards and solutions with the employee doing the job.
- 5.1.2 By Group Discussion - A team of people familiar with all aspects of the job, identify the steps, hazards and solutions. The team is led by the supervisor.
- 5.1.4 By Recall and Check - The supervisor prepares a draft version of the analysis based on his or her knowledge of the job and checks this by discussing it with the employee and (where necessary), by observing the job being carried out.

5.2 Jobs that could be considered for a JSA include:

- 5.2.1 jobs with a history of many accidents;
- 5.2.2 newly established jobs;
- 5.2.3 jobs that produce serious injuries; and
- 5.2.4 jobs where the potential for serious injury or death is high.

## **6.0 MANUAL HANDLING**

Manual handling is not just about lifting heavy objects, but includes any activity requiring the use of force exerted by a person to lift, lower, push, pull, hold or restrain a person, animal or thing.

In the Construction Industry, you may be required to set up working platforms and work using repetitive actions such as loading and unloading equipment and building products.

## 6.1 Manual handling injuries include:

6.1.1 strains and sprains;

6.1.2 neck and back injuries;

6.1.4 slips, falls and crush incidents;

6.1.4 cuts, bruises and broken bones,

6.1.5 hernia; and

6.1.6 occupational overuse syndrome.

6.1.7 People who suffer from a manual handling injury at work can spend the rest of their lives coping with pain and be unable to do a lot of things other people can do.

## 6.2 Training

6.2.1 safe manual handling methods;

6.2.2 specific manual handling hazards;

6.2.3 safe work procedures;

6.2.4 using manual handling aids; and

6.2.5 the right to ask for help.

## 6.3 Ways to reduce the risk:

6.3.1 lighten loads (break loads into smaller quantities);  
mechanical assistance;

6.3.2 team lifting;

6.3.3 reduce bending, twisting or reaching movements; and

6.3.4 prevent muscle strain and fatigue. This includes warming up before working, allocating time for rest breaks, and allowing time to gradually get used to a new job.

## 7.0 HAZARDOUS SUBSTANCES

Hazardous substances are dangerous. How dangerous depends on the type of substance, what it is made of, the way it enters the body, and the amount of substance that enters the body

7.1 Some hazardous substances in the Construction Industry include:

7.1.1 silica dust;

7.1.2 asbestos;

7.1.3 synthetic mineral fibers (such as fiberglass); and

7.1.4 cement dust.

7.2 Material Safety Data Sheet

A Material Safety Data Sheet (MSDS) provides detailed information on a hazardous substance. It gives more details than a label. MSDSs are provided for your employer by the manufacturers and suppliers of hazardous substances.

If you need more information on what you are using, ask your supervisor or safety and health representative for an MSDS.

7.2.1 It is important that hazardous substances in workplaces are used according to:

7.2.1.1 the manufacturer's or supplier's written instructions, (the MSDS); and

7.2.1.2 agreed safe work procedures.

7.2.1.4 First aid treatment for hazardous substances should be part of your training.

7.2.1.4 follow safe work procedures;

7.2.1.5 always correctly wear the appropriate safety equipment provided by your employer;

7.2.1.6 do not eat, drink or smoke while working with a hazardous substance;

7.2.1.7 do not keep food or drink near the substance;

7.2.1.8 wash your hands and face and other exposed areas with soap and water before going to the toilet or eating and drinking; and

7.2.1.9 read the MSDS.

## **8.0 THE RIGHT TO REFUSE WORK**

- 8.1 If you believe the work you are doing is dangerous and there is an immediate risk of serious injury or harm to yourself or others, then you can refuse to do this work.
- 8.2 The problem then has to be resolved by the employer and the safety and health representative or committee, or employees.

## **9.0 EQUIPMENT / TOOL USE**

- 9.1 Only qualified and trained personnel will operate equipment / tools that requires such training.
- 9.2 Any equipment / tools that are not in safe working order will not be used. They will be tagged out of service and sent for repair or replacement.

## **DOCUMENT MANAGEMENT:**

The Safety Director is responsible for developing and maintaining the Work Site Hazard Analysis Program.

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 written WORK SITE HAZARD ANALYSIS 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.

This program was initially developed on September 19, 2000, replacing the former Work Site Hazard Analysis Program entirely.

- Revision No. 1 (September 19, 2000)
- Revision or Review No. 2 (January 15, 2001)
- Revision or Review No. 3 (January 10, 2002)
- Revision or Review No. 4 (May 20, 2002)
- Revision or Review No. 5 (January 11, 2003)
- Revision or Review No. 6 (January 15, 2004)
- Revision or Review No. 7 (January 10, 2005)
- Revision or Review No. 8 (January 3, 2006)
- Revision or Review No. 9 (June 26, 2006)
- Revision or Review No. 10 (August 4, 2006)
- Revision or Review No. 11 (September 6, 2007)

**PERSONNEL:**

The Owners of Wagner-Meinert, Inc. have the ultimate responsibility for the Work Site Hazard Analysis Program Program. They have designated the Safety Director to manage the Work Site Hazard Analysis Program Program.

# WORK SITE HAZARD ANALYSIS CHECKLIST

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**Job Number:** \_\_\_\_\_

**Job Name:** \_\_\_\_\_

**Date Inspected:** \_\_\_\_\_

**Inspected By:** \_\_\_\_\_

**Ladders**

Check When Completed

- 1. Ladders inspected for defects \_\_\_\_\_
- 2. Rungs free of mud, grease, ice, snow, etc. \_\_\_\_\_
- 3. Ladders set at proper pitch \_\_\_\_\_
- 4. Ladders extend 3' above landing \_\_\_\_\_
- 5. Ladders secured/tied in place \_\_\_\_\_
- 6. Affected workers trained in ladder safety \_\_\_\_\_

**Scaffolds**

- 7. Scaffolds inspected for defects \_\_\_\_\_
- 8. Surface level and solid \_\_\_\_\_
- 9. Work areas fully planked \_\_\_\_\_
- 10. Guardrails in place \_\_\_\_\_
- 11. Working surfaces free of debris, mud, grease, ice snow, etc. \_\_\_\_\_
- 12. Supported scaffolds over 4X higher than width of base tied,  
braced or guyed \_\_\_\_\_
- 13. Load on scaffold less than or equal to maximum limit \_\_\_\_\_
- 14. Workers trained in scaffold safety \_\_\_\_\_

**Fall Protection - Elevations**

- 15. Floor openings covered or guarded \_\_\_\_\_
- 16. Workers exposed to falls of 6' or more protected \_\_\_\_\_

**Fall Protection - Working Surfaces**

- 17. Electrical cords out of pathways \_\_\_\_\_
- 18. Materials, tools, equipment out of walkways & work area \_\_\_\_\_
- 19. Walkways & work areas free of mud, grease, ice, snow, etc. \_\_\_\_\_
- 20. Small floor holes covered \_\_\_\_\_

**Materials Handling - Manual**

- 21. Materials placed as close to work area as possible \_\_\_\_\_
- 22. Workers trained on proper lifting techniques \_\_\_\_\_

**Eye Protection**

- 23. Workers wearing appropriate eye safety equipment \_\_\_\_\_

**Electrical**

- 24. Ladders non-conductive \_\_\_\_\_
- 25. GFCI and assured equipment grounding program in place \_\_\_\_\_
- 26. Power tools, equipment and electrical cords inspected for defects \_\_\_\_\_
- 27. Tools for use on live circuits insulated \_\_\_\_\_
- 28. Insulating materials available for use while working with live circuits \_\_\_\_\_

**Gas Cylinders**

- 29. Oxygen and fuel cylinders properly separated \_\_\_\_\_
- 30. Compressed gas cylinders properly labeled \_\_\_\_\_
- 31. Cylinders secured in upright position \_\_\_\_\_
- 32. Hoses and torches inspected for defects \_\_\_\_\_
- 33. Anti flash-back devices in place \_\_\_\_\_
- 34. Cylinder valves turned off/valve caps in place when not in use \_\_\_\_\_

**Fire Prevention**

- 35. Flammable/combustible liquids away from ignition sources \_\_\_\_\_
- 36. Portable flammable/combustible liquid containers approved & self closing \_\_\_\_\_
- 37. Properly selected and charged fire extinguishers readily accessible \_\_\_\_\_
- 38. Flammable/combustible materials isolated from hot work \_\_\_\_\_

**Tools and Equipment**

- 39. Tools and equipment inspected for defects \_\_\_\_\_
- 40. Defective equipment tagged and removed from service \_\_\_\_\_
- 41. Tool and equipment guards in place \_\_\_\_\_

**Confined Space**

- 42. Entry permit obtained when required \_\_\_\_\_
- 43. Air sampling equipment calibrated \_\_\_\_\_
- 44. Air sample shows oxygen concentration between 19.5% to 23.5% \_\_\_\_\_
- 45. Air sample shows space is free of toxic/flammable/explosive gases \_\_\_\_\_
- 46. Ventilation Adequate \_\_\_\_\_
- 47. Trained attendant assigned to keep constant contact with workers inside \_\_\_\_\_
- 48. Trained person assigned to continuously recheck air quality \_\_\_\_\_
- 49. Daily Monitoring Log Current \_\_\_\_\_
- 50. Workers trained in all appropriate aspects of confined space entry \_\_\_\_\_

**Hazard Communication**

- 51. All chemical substances properly labeled \_\_\_\_\_
- 52. Material Safety Data Sheets readily accessible for all chemicals \_\_\_\_\_

**Comments:**

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