Advanced Industrial Services, Inc.

Safety Manual And Safety Handbook

Revised June 1, 2012

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I. AIS SAFETY POLICY STATEMENT

Safety consciousness must remain a priority in the minds of both the Management and the Employees. Accidents occur without warning; most are caused by inattention, thoughtlessness and lack of knowledge. After an accident happens, it is too late to prevent it. We must not only avoid unsafe work habits, but also anticipate potential hazardous situations. All employees must recognize that working in an unsafe manner is counterproductive. Your cooperation in making the job site safer for yourself and for your fellow workers will be appreciated.

Michael Yergo	Crystal Gallagher
President	Safety Coordinator

II. INTRODUCTION

Welcome!! We hope your time here at A.I.S. will be pleasant, safe, and productive. We will make every effort to provide you with a good working environment. Your assistance and cooperation are vital to this effort.

The nature of our business requires that basic rules be established for the benefit of both Company and Employee. Your compliance with the rules and regulations contained in this manual, and others which may be established later, is essential in creating a safe, healthy work place.

This manual is not intended as an all-inclusive list of safety rules and regulations. It cannot cover every possible situation; it only provides basic rules to encourage a safe and healthy workplace.

III. EMPLOYEE RESPONSIBILITY

It is the duty of all employees to know the safety rules and to follow them in their daily activities. Lack of knowledge of these rules will not be an excuse for noncompliance. It is also the duty of each employee to make use of the safety equipment provided for their protection. Failure to comply with these rules and regulations will be cause for disciplinary action, up to and including possible discharge.

It is also the duty of each employee to report unsafe equipment, hazardous conditions and unsafe acts to their Foreman, Project Manager, and the Company Safety Department, in that order.

It is the duty of each employee to comply with the safety regulations in effect at the plant or job site of any company for which we are working.

IV. SUPERVISOR RESPONSIBILITIES

Planning for safety shall be incorporated into all phases of the company's work. Safety factors must be considered in the estimating and operational planning of all jobs. All supervisory personnel must be involved in the prevention of accidents and the safety instruction of personnel on projects under their direction.

The Project Manager is responsible for the overall safety program at the job site. He will ensure subcontractors and suppliers comply with company safety policies. The project manager will employ every practical means to impress upon the job foreman the importance of enforcing safety rules. The Project Manger is responsible for completing a Safety Survey for each project and forwarding to Job File, Operations and Safety Coordinator for review.

Foremen will be responsible for ensuring employees in his/her work crew are observing safe working practices. He will report safety violations to the project manager and notify the project manager and safety coordinator of all personal injuries or property damage occurring at the job site. He will complete a Daily Job Inspection Form and will conduct safety briefings with his crew before commencement of job. A record of these briefings will be recorded on the Daily Job Inspection Form.

V. SAFETY COORDINATOR RESPONSIBILITIES

The Safety Coordinator is responsible for the design and implementation of the company safety program to include training of employees, record keeping and establishing safety rules and regulations. The Safety Coordinator will assist Project Managers and Foremen with job site safety requirements. The Safety Coordinator will coordinate investigation of company related accident/illness and property damage reports.

VI. SAFETY COMMITTEE RESPONSIBILITIES

The Safety Committee will meet monthly. The Committee's responsibilities will be as follows:

- Review Company prescribed safety procedures and programs.
- Review accident reports.
- Review employee suggestions.
- Review any perceived job hazards.
- Record minutes of each meeting.
- Communicate conclusions to management and employees.

The Safety Committee will be comprised of the following members:

- Safety Coordinator
- Fleet Mgr.
- Representatives from warehouse, fab shop, field, and office.

Any member who is unable to attend a meeting because of scheduling is responsible for contacting an alternate to act as his/her replacement for that meeting. All members excluding the Safety Coordinator and Fleet Mgr. will serve on committee for one year and then they must find a replacement to represent their department. All employees are encouraged to submit any suggestions to the committee members throughout the month for discussion at the monthly meetings. Minutes of these meeting will be posted in the break-room.

VII. COMPANY SAFETY PROGRAMS

The company shall establish an employee training program in order to meet requirements of the Pennsylvania Right- To- Know law and the OSHA Hazardous Communications program.

Our field and shop employees receive all OSHA required training during their orientation process. This training is accomplished with the use of training videos, training workbooks, PowerPoint presentations, computer modules, and other informational documents. Employees are tested on each subject to assure their comprehension. The tests and certificates of training are kept in the employee's safety file. Additional training may be needed for job specific purposes, as well as refresher training as required. The need for specific training will be identified by the Project Managers via a Project Safety Survey. Training is conducted by Safety Coordinator or by a Competent Person in the field.

"Tool Box Talks" are performed prior to commencement of a project by the job foreman and recorded on the Daily Job Inspection Form. Weekly topics and/or job specific topics can be requested from the Safety Coordinator and are also available in the lunchroom located at the Employee Resource Center. Safety Briefings may also be performed in lieu of or in addition to the "Tool Box Talks". These Safety Briefings will be performed prior to commencement of a job to discuss expectations for the day, designate duties, address jobsite hazards, identify customer's MSDS locations, and emergency exits and procedures.

COMPANY SAFETY PROGRAMS - CONTINUED

There will be periodic "Safety Meetings" conducted for foremen and employees to discuss company safety programs and job site safety concerns. Minutes of these meetings will be retained and will include names of the employees in attendance, safety topics discussed and any corrective measures taken.

The company will provide First Aid and CPR training courses on a periodic basis. All employees who are able should attend these courses.

On The Job employee training or Special Training Classes will be established to allow employees to gain knowledge in skills utilized on our jobs.

Handouts and Posters containing safety and health information will be given to employees or posted on bulletin boards periodically. Safety literature is located in the break-room and available to all employees. Topics cover Aerial Lifts to Welding Safety. This information is also available to those who are out-of-town. Contact the Safety Coordinator and the information can be faxed, or emailed upon request.

VIII. GENERAL RULES & REGULATIONS

1. You are to work under the direction of your foreman and be responsible to him.

2. Company employment records must be kept up to date. Any changes in your personal status must be reported to the Human Resources Manager.

3. Only emergency telephone calls may be made from the job site. Notify the Operations Manager of any situation which might require you to be contacted on the job site.

GENERAL RULES & REGULATIONS - CONTINUED

4. Alcoholic beverages, drugs, or any other type of intoxicants are prohibited on any company property or work site; before, during, or after work hours.

5. All unsafe acts or conditions must be reported to your foreman immediately.

6. All accidents, however minor, must be reported to your foreman and to the Safety Coordinator.

7. No firearms or explosive devices shall be brought onto company property or work sites.

8. All employees shall be physically capable of performing the duties to which they are assigned. No person shall knowingly work when their condition may expose other workers or themselves to injury or may cause property damage at the work site.

9. Smoking by employees is to be done only on “break” or “lunch” times, and only in designated smoking areas.

10. Employees shall not engage in horseplay on company property or any job site.

11. Familiarize yourself with all job site emergency exits and safety equipment.

12. Hard Hats will be worn when overhead work or other hazardous operations are being performed.

13. Safety glasses / goggles will be worn at all times when employees are subjected to flying particles and/or dust.

14. Employees working in areas of dust or hazardous fumes shall wear proper respiratory protection.

15. Safety shoes shall be worn at all times on company property and job sites.

GENERAL RULES & REGULATIONS - CONTINUED

16. Loose or frayed clothing or dangling jewelry must not be worn around moving machinery or other sources of entanglement.

17. Job areas should be kept clean at all times. Dispose of waste material and keep tools put away. Do not leave material or scrap where it becomes a hazard to others.

18. When cutting or burning, take proper fire protection measures to include fire blankets, fire extinguishers and a fire watch. Complete Hot Work Permit when applicable.

19. Ear protection shall be worn in any area where noise levels exceed allowable limits.

20. Personal Fall Arrest System shall be worn where the possibility of falls from elevated structures exist. Must use Fall Arrest System for any height 6' and above.

21. Extreme care should be taken when using portable power tools or stationary power equipment.

22. Electrical equipment must be de-energized and controls locked out before any work is performed.

23. Temporary help employees and employees of AIS subcontractors shall be briefed on the material in this manual before beginning work.

IX.

AIS SAFETY PRACTICES & POLICIES

ACCIDENTS / WORK-RELATED INJURIES

All work-related accidents of either personal injury or property damage, whether of serious or minor nature, need to be reported immediately to AIS Safety Coordinator. The job foreman should notify the Safety Coordinator if employee is unable, due to medical reasons. The Safety Coordinator will coordinate medical treatment and post accident drug & alcohol screening for injured employee. All injuries and illnesses must be reported to Safety Coordinator within twenty-four (24) hours. Failure to report a work-related injury may result in the denial of worker's compensations benefits.

AIS, Inc. has a list of designated health care providers for work-related injuries. This list was forwarded to all employees and is also posted in the break-room. If an employee reports a work-related injury, the Safety Coordinator will coordinate the employee's visit for initial evaluation with one of the health care providers designated on list. For out-of- town injuries, the Safety Coordinator will coordinate treatment and screening with nearest hospital and/or Occupational Medical Center.

All accidents (either personal injury related or equipment related) will require an Accident Investigation to be performed. Subsequently the employee(s) may meet with the Operations Manager, Safety Coordinator, and the Company's President within a week to review the events that caused the accident.

AERIAL LIFTS

1. Hazards

Operators of aerial lifts face unique hazards and must know what elements can cause injuries, death and equipment damage. Conditions to avoid include the following:

a) Working near overhead electrical lines.

AERIAL LIFTS - CONTINUED

1. Hazards – Continued

b) Operating the aerial lift on a slope or uneven surface when fully extended.

c) Using the lift to gain access/egress into or out of a building or structure.

d) Using ladders, boxes or rails to gain greater heights.

e) Loaning aerial lift equipment to other contractors.

f) Working inside the basket without any fall protection equipment.

g) Overriding the main controls or using the equipment beyond the manufacturer's specifications.

h) Exceeding the maximum load capacity of the boom.

2. Safety Precautions

a) Workers should be thoroughly trained in the operations of aerial lifts. Foremen should confirm that workers are properly trained in the operations of each aerial lift to be used on a project.

b) Qualified personnel should train and observe aerial lift operators until they demonstrate proper knowledge and skill in aerial lift operations. Training and operational demonstrations should be performed in the aerial lift to be used by the worker, as lifts are manufactured to a variety of specifications.

2. Safety Precautions - Continued

c) Maintain a safe distance away from overhead power lines. The rule of thumb is as follows:

- Up to 125KV – 10 feet away
- 125KV-250KV – 15 feet away
- 250KV> - 25 feet away

d) Operators should ensure the following elements are available on the aerial lift:

- Maximum height and rated capacity; Manufacturer's name, model and serial number;
- Safety operations and instruction manual; Restrictions posted; Caution sign stating to read operator's instructions before using.
- Ensure the access openings to the basket have top and mid-rails and are in working condition.
- Operators should be able to recognize whether a safety stop device has failed.
- Workers should inspect the work area for floor holes or obstacles that could cause the lift to overturn.
- All pinch or shear points should be guarded or roped off.
- Operators should confirm there are emergency lowering means on the lift.

2. Safety Precautions - Continued

d) Operators should ensure the following elements are available on the aerial lift: - continued

- Operator should be connected to an approved anchorage point inside the basket via full-body harness and lanyard. Operators should never leave the basket while elevated.

- Exiting the basket should occur after the basket has been lowered to the ground.

- Operators are responsible for ensuring the floors are flat and level to prevent overturning.

- Instruction manual should be consulted on the maximum lifting capability. This consists of the weight from workers, tools and materials inside the basket. In addition to materials and/or debris that may be removed from above and stacked onto the work platform of the aerial lift.

- Remove any debris or boxes inside the basket that could be a tripping hazard or could be used to gain greater heights.

- The main control panel inside the basket should be protected to prevent accidental movement of the lift.

Appendix: Aerial/ Scissors Lift Inspection Checklist

BATTERY JOB GUIDELINES

AIS receives, stores, and delivers Electric Storage Batteries, used by Telephone Companies, for Custom Power Service. These batteries are "Wet Cells", UN2794, and "Non-Spill", UN2800, in plastic and metal cases. We also pickup used batteries, both wet and non-spill, from telephone company sites and transport them to smelters for recycling. These batteries are classified as "Hazardous Materials" due to their contents of acid, lead and cadmium; but not as "Hazardous Waste" since they are recycled, not discarded.

The following guidelines are provided to AIS employees who will be involved in moving these batteries to ensure that the batteries will be handled and transported according to US DOT, PA DOT, and OSHA regulations.

The following paperwork **MUST** accompany each battery shipment:

- AIS Trip Report, Vehicle Inspection Report
- HAZMAT Uniform Bill of Lading
- US DOT Hazmat Registration Form
- Emergency Response Booklet
- MSDS's for Batteries and Acid
- HAZMAT Incident Report Form
- "Battery Reclamation History" (Used Batteries Only)

Before leaving the warehouse, the driver or crew leader must contact Fleet Mgr. in the Operations Office to ensure they know which forms need signatures, who should sign the forms, where the forms should be signed, and how copies of the forms are to be distributed.

Before leaving the warehouse, the vehicle transporting the batteries must be give a "Pre-Trip Inspection" using the AIS Vehicle Inspection Form. The completed form must be carried in the vehicle.

BATTERY JOB GUIDELINES - CONTINUED

The driver or crew leader must check the Job Survey to ensure all equipment requested for a battery job is on the vehicle. Lack of equipment may make the job more difficult or even dangerous to complete.

Along with other equipment, the Battery Spill Kit **MUST** accompany all shipments of batteries. The driver or crew leader will inspect the spill kit for completeness before leaving the warehouse. The spill kit contains acid proof gloves and aprons, as well as goggles to prevent acid from getting into clothes or skin. The kit also contains acid neutralizer solutions for the skin and eyes. Spill absorbent sheets, pillows, and socks are included in case of spills.

When transporting batteries only, Corrosive Placards **DO NOT** have to be displayed. When transporting mixed loads of batteries and other telephone company equipment, Corrosive placards **DO NOT** have to be displayed. When transporting batteries with material belonging to someone other than the Telephone Company, Corrosive Placards **MUST** be displayed. Placards must be displayed on the front, rear, and both sides of the vehicle. Placards should be displayed as soon as the batteries are loaded on the vehicle and should be removed as soon as the batteries are unloaded. Placarded vehicles may use the Pennsylvania Turnpike; Placarded vehicles may not use the tunnels on the turnpike.

During Transport, all paperwork for the shipment must remain within reach of the driver when he is in his normal driving position with his seatbelt fastened. When the driver leaves the vehicle, the paperwork should be placed on the driver's seat in clear view for Police or Emergency Response Personnel.

BATTERY JOB GUIDELINES – CONTINUED

Both "non-spill" and "wet cell" batteries must be moved with extreme care to avoid damage or spills. Old age or cold temperatures may cause the plastic cases of wet cell batteries to become brittle and easily cracked. Check all batteries for leaks **BEFORE** moving them. Ensure filler and vent openings are plugged with putty from the spill kit. Do not tip batteries; keep upright.

Used batteries may be transported sitting on the floor of the vehicle as long as they are secured from moving by logistic straps and/or blocking and are protected from damage from other material on the vehicle.

As soon as possible, the batteries should be secured on wooden pallets. Batteries should be set tight together and secured with banding. If metal banding is used, plastic or cardboard covers must be used to keep the banding away from the battery terminals to prevent short circuits. Banding should be run vertically and horizontally around the batteries. Exercise caution when moving pallets of batteries to avoid jarring the batteries or striking objects which may damage the battery cases. A CORROSIVE sticker should be placed on all four sides of a pallet of used batteries. Pallets should be stored in the "Battery Area" at Devco Warehouse, away from traffic areas.

A "Hazardous Materials Incident" Kit is carried in each vehicle transporting batteries. Accidents or Spills involving batteries must be reported to the AIS Operations Office immediately after the incident occurs. The driver should be prepared to furnish the following information:

- Location of Incident
- Extent of any injuries and property damage
- Type and amount of hazardous material released
- Emergency action taken so far
- Local Fire/Police/Hazmat response crews at the scene.
- Phone number for call back.

BATTERY JOB GUIDELINES – CONTINUED

Priority actions should be directed to stopping or containing spilled material; getting medical aid for any injured persons; clean up of spilled materials. Every effort should be made to keep the spill contained inside the vehicle. If this is not possible, contain the spill with absorbent material from the Spill Kit or use earth dams to keep the spill from entering sewers, streams, or drains. Keep spectators away from the spill area. Consult the Emergency Response Guidebook for the proper actions to take against the spill. Assist Emergency Response crews as needed. Do not endanger yourself or bystanders by attempting actions for which you are not properly trained.

Due to the incidents of 9-11-2001, all drivers with placarded loads should exercise extra caution and be alert for any unusual activities around themselves or their vehicles. Drivers should expect additional contact with D.O.T., D.E.P., and Police who will be targeting placarded vehicles for inspections.

Anyone having questions or comments on these guidelines should contact the company Fleet Manager.

BLOODBORNE PATHOGOENS

Purpose

1. The purpose of this policy is to eliminate or minimize employee occupational exposure to blood or other potentially infectious materials as detailed in the blood borne pathogens standard.

2. OSHA standard 1910-1030 requires employees to be protected against "occupational exposure" to blood or other potentially infectious materials. "Occupational exposure" means reasonably anticipated skin, eye, mucous membrane or potential contact with blood or other potentially infectious materials that may result from the performance of an employee's duties. "Good Samaritan" acts such as assisting a coworker with nosebleed or applying a bandage would not be considered occupational exposure.

3. Infectious materials include semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, and saliva, any body fluid visibly contaminated with blood, and any fluids in situations where it is difficult to differentiate between fluids.

Training

1. All company employees who volunteer for First Aid and CPR training will receive training in blood borne pathogens during that class.

2. For all other employees, AIS has adopted the "universal precautions" approach to controlling blood borne pathogens. This concept treats all blood and bodily fluids as being infectious and requires employees to take precautions in all situations.

BLOODBORNE PATHOGOENS - CONTINUED

Compliance

1. Any AIS employee assisting another person who is injured or sick where blood or other potentially infectious fluids are present shall adhere to the following procedures.

2. Personal protective equipment shall be chosen based on the anticipated exposure to blood or other infectious fluids. The equipment must not allow the fluids to pass through and reach the employee's clothing or skin. The PPE available at AIS includes rubber gloves, eye goggles, aprons or rubber suits and face shields.

3. All procedures will be conducted in a manner which will minimize splashing, spraying, splattering and generation of droplets of blood or fluids. Anyone not assisting the person should be kept away from the scene.

4. Decontamination of areas which have become contaminated with blood or fluids shall be accomplished at once with liquid bleach and germicide sprays. PPE, machinery, equipment or other work surfaces which have been contaminated shall be cleaned as soon as possible.

5. Any garments which have been penetrated by blood shall be removed immediately or as soon as feasible. After removal of PPE employees shall wash hands and any other potentially contaminated skin areas with soap and water. Hand washing facilities are located in the lunchroom. Contaminated PPE shall be cleaned or disposed of with cleanup materials.

6. All cleanup materials shall be collected in leak proof containers, sealed and brought to the Safety Coordinator for disposal.

BLOODBORNE PATHOGOENS – CONTINUED

Compliance – Continued

7. All employees who have been identified as having exposure to blood or other fluids will be offered the hepatitis B vaccine at no cost to the employee. The vaccine will be offered to employees as soon as possible, but in no event later than 24 hours after the exposure. All incidents of potential exposure shall be reported to the Safety Coordinator by the end of the work shift. Employees who decline the hepatitis B vaccine will sign a waiver which uses the working or appendix A of the OSHA standard. Employees who receive the hepatitis B vaccine shall be evaluated by the medical provider. A report on this evaluation shall be sent to the employee and the Safety Coordinator.

8. When an employee incurs an exposure incident, all facts and information concerning the cause and results of the incident will be forwarded to the Safety Coordinator and the Human Resources Manager for investigation

Any questions or concerns regarding this policy should be directed to the Safety Coordinator.

CHAINS, ROPES, CABLES, HOISTS AND MAN LIFTS

1. Be sure chains, ropes and hooks are in good condition before using. Report all questionable cases (i.e. frayed nylon slings) to your foreman. Frayed slings are to be taken out of service.

2. Always use a hoist with sufficient capability to handle the load safely.

3. Be careful to select the proper chain, nylon sling or wire rope, where permitted, for the job. Refer to the Rigging Handbook. Selection of lifting tackle should be made in accordance with these handbooks.

4. Do not walk, stand or work under crane or forklift loads. Push suspended loads – do not pull them toward you.

5. Do not work under any object supported from above, as from a crane or monorail, thereby depending on slings or chains for your safety. Always ensure your safety by blocking up under the object from the floor.

6. Avoid cutting of wire ropes or nylon slings by padding sharp corners of objects being lifted.

7. Never jerk, twist or knot a chain or wire rope.

8. Do not lift a load with the tip of a hook.

9. Do not allow any unattended cranes/hoists (not being operated) to have anything suspended from the hook. This includes nylon slings, chain slings, magnets, other lifting fixtures/devices, etc.

10. When the operator is finished using the crane/hoist and has removed the suspended object and sling, the hook shall be raised to a height of at least 8 feet from the floor before the crane/hoist is left unattended.

11. Only authorized lifting devices that are inspected and tagged are to be used. Makeshift lifting devices are not authorized.

12. Only authorized man lifts will be used. The lift must provide railing protection to the individuals on all sides to prevent falling when lift is moved or while employee is working.

Appendix: Crane Hand Signals

CLOTHING

1. Keep your clothes in good condition. Loose clothing around machinery is dangerous.

2. If you have long sleeves, keep the cuffs close to the wrist. Short sleeves are best for most work.

3. All employees who receive free uniforms are strongly encouraged to wear them while at work.

4. Uniforms are mandatory on all job sites once issued. AIS apparel and blue jeans or other work pants are acceptable attire as long as clothing is in good condition (free of holes, rips, etc.) Logo (NASCAR, Harley Davidson, other designs) apparel is not considered acceptable uniform attire.

5. Don't alter any Company issue clothing and/or uniforms.

COMPRESSED GAS: SAFE HANDLING, USE AND STORAGE

Their primary use is to provide fuel for welding/cutting operations and for temporary heating devices. Improper handling or storage can result in worker and public fatalities from fires or explosions. The most commonly used compressed gasses are oxygen, acetylene and propane (LPG), argon, carbon dioxide and nitrogen.

This information outlines precautions to take in storing, handling and using compressed gasses.

Management responsibility

Management must ensure that:

- All employees have been thoroughly instructed in the safe use of fuel gasses.

- All employees who handle compressed gas cylinders have been thoroughly instructed as to the proper procedures for handling and storage.

Properties of fuels

Acetylene is non-poisonous and a mild anesthetic. Gaseous acetylene becomes highly explosive when compressed or heated and consequently is stored under low pressures. Dissolved acetylene can be stored at much higher pressures. The most common solvents are acetone and dimethyl formamide. Gas cylinders are filled with porous material to prevent decomposition.

Oxygen is a colorless, tasteless gas that will not burn on its own, but is necessary for combustion. All combustible materials will ignite more easily and burn more vigorously in an oxygen-enriched environment. A stream of oxygen under pressure or the presence of an oxygen-enriched atmosphere may lead to the spontaneous heating and, eventually, ignition of certain organic materials (e.g. oily rags or gloves).

Propane (LPG) is a colorless gas stored as a liquid under its own vapor pressure and is artificially odorized with a strong, sweet smell. It acts as a simple asphyxiate through the exclusion of oxygen from breathing atmospheres. An immediate fire and explosion hazard exists when the concentration of propane in the atmosphere exceeds the lower flammable limit (2.1 percent by volume).

Propane gas vapors are 1.5 times heavier than air and can settle on the ground or in low areas of buildings. These vapors do not dissipate readily and can travel significant distances toward an ignition source.

Storage

If cylinders or equipment burst, damage and injuries may be caused by flying debris, flying cylinders or by gas pressure. The more a gas is compressed, the higher the stored energy. This hazard is always present with compressed gasses and will increase with temperature.

Therefore, it is necessary to:

- Avoid mechanical damage to the cylinders (dents, etc.).
- Secure them in an upright position at all times.
- Separate oxygen cylinders in storage from fuel-gas cylinders or combustible materials (especially oil or grease), a minimum distance of 20 feet (6.1m) or by a noncombustible barrier at least five feet (1.5m) high, having a fire resistance rating of at least one-half hour.
- See that valve protection caps are in place and secured.
- Store cylinders away from heat and not in direct sun.

Storage – Continued

- Remove cylinders from fires.
- Connect cylinders only to equipment conditioned for the intended use.
- Avoid corrosion, which reduces the strength of the shell.
- Keep no more than the necessary number of gas cylinders in working areas or occupied buildings. Keep them preferably near doors and not in emergency escape routes or difficult-to reach places. Storage should be in a well-protected, well- ventilated, dry location, at least 20 feet (6.1m) from highly combustible materials such as oil or excelsior.
- Do not allow smoking where flammable gasses are stored or used.
- Store and use liquid gas cylinders in an upright position.
- Do not keep unidentified cylinders in stock.

Transportation and use

To reduce injuries and property damage, employees should observe the following:

- When cylinders are hoisted, they shall be secured on a cradle, sling board or pallet. They must not be hoisted or transported by means of magnets or choker slings.
- Protect the cylinder valve with the cap during transport.
- Secure cylinders against falling, which may knock off the valve.

Transportation and use - Continued

- Avoid tampering with safety devices.
- Cylinders must be moved by tilting and rolling them on their bottom edges; they must not be dropped, struck or permitted to strike each other.
- Operate oxygen cylinder valves slowly.
- Keep all oxygen equipment clean and free from oil and dirt.
- Use only materials that are proven to be safe with oxygen.
- Refrain from lubricating oxygen equipment.
- Avoid entering confined spaces where oxygen may exist in higher concentrations; check the atmosphere.
- When cylinders are transported by powered vehicles, they shall be secured in a vertical position.
- Valve protection caps must not be used for lifting cylinders from one vertical position to another.
- Unless cylinders are firmly secured to a special carrier intended for this purpose, regulators must be removed and protective caps put in place before cylinders are moved.
- Oxygen shall not be used in place of compressed air or some other gas.
- The cylinder valve must always be closed when work is finished, when cylinders are empty, or when cylinders are moved.

Transportation and use – Continued

- Cylinders shall be kept far enough away from the actual welding or cutting operation so that sparks, hot slag or flame will not reach them. When this is impractical, a fire resistant shield must be used.

- Cylinders must be placed where they cannot become part of an electrical circuit. Electrodes must not be struck against a cylinder to strike an arc.

- Cylinders containing oxygen or acetylene or other fuel gasses must not be taken into confined spaces.

- Cylinders, whether full or empty, must not be used as rollers or supports.

- No person other than the gas supplier should attempt to mix gasses in a cylinder.

- No one except the owner of the cylinder or person authorized by the owner shall refill a cylinder.

- No one shall use a cylinder's contents for purposes other than those intended by the supplier.

- All cylinders used must meet the DOT requirements published in 49 C.F.R. Part 178, Subpart C, Specification for Cylinders.

- For temporary heating devices, fresh air must be supplied in sufficient quantities to maintain the health and safety of workers. Where natural means of fresh air supply is inadequate, mechanical ventilation must be provided.

Transportation and use – Continued

- When heaters are used in confined spaces, special care must be taken to provide sufficient ventilation to ensure proper combustion, maintain the health and safety of workers and limit temperature rise in the area.

- For temporary heating, heaters (other than integral heater-container units) must be located at least 6 feet from any LP-Gas container.

- Blower and radiant type heaters shall not be directed toward any LP-Gas container within 20 feet.

- When burning fuel, proper ventilation is necessary to avoid dangerous accumulations of waste gasses. A carbon monoxide gas detector should be used to monitor gas levels.

- Discontinue use of refillable gas propane cylinders that are not equipped with an overfill prevention device (OPD).

CONFINED SPACE POLICY

In Order to comply with OSHA standard 1910.146 concerning entry into confined spaces and to provide AIS, Inc. employees with protection from the hazards of entry into confined spaces, the following policy is enacted:

1. DEFINITIONS:

   - A **"CONFINED SPACE"** is an area which has adequate size and configuration for employee entry; has limited means of entry and exit; and is not designed for continuous employee occupancy.

   - A **"PERMIT REQUIRED CONFINED SPACE"** is a confined space that presents, or has the potential for, hazards related to Atmospheric conditions (Toxic, Flammable, or Asphyxiation); Engulfment; Configuration; or any other recognized serious hazard.

2. All AIS employees will be provided with guidelines to enable them to recognize Confined Spaces / Permit Required Confined Spaces at AIS facilities as well as Customer locations.

3. Entry into Confined Spaces and particularly Permit Required Confined Spaces requires specific procedures, training, and precautions **PRIOR** to entry into a space under Standard 196.146 of the OSHA regulations.

4. Project Manager will notify Operations and Safety Coordinator of a Confined Space job via the AIS Safety Survey. Operations will assign crew and assure that all crew assigned has had Confined Space training. If it has been determined that any employee identified for such job has not been trained, Operations will notify the Safety Coordinator who will perform the training accordingly.

CONFINED SPACE POLICY - CONTINUED

5. When working at a customer's location, all employees must be alert for confined spaces in which they may be asked to work. If you haven't been briefed on such entry in advance via the Safety Survey, questions concerning such areas should be referred to the Project Manager.

6. Operations shall assure that all Confined Space equipment will be sent to job and that all equipment is in working condition and that the air monitor has been calibrated and batteries charged.

7. Operations shall ensure that the employee identified as the Entry Supervisor has been trained in the use of the air monitor equipment and will coordinate with Safety Coordinator to have this training performed prior to entry if needed.

8. Project Managers must be aware of the dangers of confined spaces and complete a Confined Space Hazard Assessment. Permit Required Confined Space jobs must be coordinated with the customer to determine the following:

    - Who will be responsible for the permit?

    - Who does the customer use for their emergency response (outside service or in-house emergency response team)? Need contact numbers for such to post on the permit.

    - What, if any, hazardous atmospheres will our employees be exposed to and what are the exposure levels?

    - Will additional permits be needed (hot work) and if so who will be responsible for such?

CONFINED SPACE POLICY - CONTINUED

8. Project Manager awareness - Continued

    - Will the entry require PPE such as respirators? **Note: A medical review & fit test must be performed prior to use of respirator. Medical facility appointments may be limited so advanced notice is required in these situations.**

9. An evaluation of the facilities of AIS has identified the following Confined Spaces or Permit Required Confined Spaces:

    - Permit Required Confined Space #1: Manhole in parking lot near the Southeast Corner of the building which provides access to the Office sewage discharge system.

    - Permit Required Confined Space #2: Electrical Vault on the East side of the building near pedestrian door #1

    - Confined Space #1: Underground Water Valve Vault on the East side of the parking lot across from the office area.

    - Confined Space #2: Storm Water Runoff drain in the Storage Area on the West side of the building near pedestrian door #4.

    - Confined Space #3: Storm Water Runoff drain in the Storage Area on the West side of the building near pedestrian door #5.

CONFINED SPACE POLICY – CONTINUED

10. These Confined Spaces / Permit Required Confined Spaces shall be marked with appropriate warning signs. AIS employees **SHALL NOT** attempt to enter any of the above spaces for any reason!! If circumstances appear to require entry into any of these spaces, employees shall contact the company Safety Coordinator or Operations Manager who will determine the proper action to be taken.

Appendix: ***Confined Space Decision Flowchart***
Confined Space Pre-Entry Checklist
Confined Space Permit

DIESEL, ELECTRIC AND LP GAS VEHICLES

1. Keep equipment clean at all times and/or report any defects.

2. A pre-use inspection needs to be performed prior to use.

3. Use extreme caution and sound warnings at all crosswalks, corners and doorways.

4. Drive at a reasonable speed – 5 MPH limit

5. Exercise care when moving loads, especially when turning corners and DO NOT move loads not properly stacked.

6. Do not use broken pallets, flats or boxes.

7. Never smoke or bring open flame near the battery of an electric truck due to the danger of explosion.

8. Never smoke when changing or filling a propane cylinder.

9. Operators MUST NEVER back up without full knowledge of whom or what is behind them.

10. Wear additional eye protection when filling batteries or propane cylinders (i.e. face shield, chemical gloves.).

11. Rubber gloves shall be worn when filling propane cylinders.

12. No riders permitted

13. All personnel shall wear seat belts, when provided, when operating vehicles or equipment.

14. Do NOT disconnect the back-up alarms.

Appendix: ***Forklift Inspection Form***
Forklift Hand Signals

ELECTRICAL SAFETY REQUIREMENTS

Introduction

Electrocution is one of the leading causes of workplace fatalities in the construction industry. Most deaths and injuries caused by electrical sources involve violations of current OSHA electrical safety standards (29 CFR part 1926 subpart K, Electrical).

Job Site Electrical Safety Requirements

1. Competent Person

a) On-site

b) Daily inspect tools, cords, receptacles, panels, and ground-fault breaker

c) Quarterly test of Assured Equipment Grounding Conductor Program (AEGCP)

ELECTRICAL SAFETY REQUIREMENTS - CONTINUED

1. Competent Person – Continued

d) Defective equipment/tools; tag "defective/do not use" or cut off the male plug.

2. Ground-Fault Protection or AEGCP

a) Required – 120-volt AC receptacles; generators greater than 5,000 watts; all temporary power; permanent power with extension cord.

b) Recommended – 220-volt circuit (e.g., mason saw, compressor).

c) Ground-Fault Circuit Interrupter (GFCI) – install in circuit breakers or receptacles or use portable type.

d) Portable GFCI – heavy-duty; weatherproof; job-made type prohibited.

e) Test GFCI before use (test/reset buttons); test weekly with electrical tester; keep records.

f) AEGCP – daily inspection of cords, receptacles, tools, equipment; quarterly testing; keep records.

3. Extension/Flexible Cords Attached to Portable Tools/Equipment

a) 3-wire (grounded); exception: double-insulated tool cord can be 2-wire.

b) Heavy duty with legible manufacturer markings.

c) Ground pin full length.

ELECTRICAL SAFETY REQUIREMENTS - CONTINUED

3. Extension/Flexible Cords Attached to Portable Tools/Equipment - Continued

d) Strain relief – do not lower/raise tool by cord; do not unplug by yanking on the cord, use the plug.

e) Insulation not spliced, cut, or frayed; **no electrical or duct tape repairs.**

f) Protect with **bushings** where cord passes through holes in panel board, receptacles, walls, etc.

g) **No Romex, ribbon or two-wire extension cords.**

h) Do not hang by nail, wire or staple or run through door jambs, across walkways or through water.

4. Tools

a) Underwriters Laboratories or Factory Mutual approval marking is visible.

b) Grounded or double insulated; double insulated wording or symbol on casing.

c) Inspect daily.

d) No 3-wire plugs on double insulated tools.

ELECTRICAL SAFETY REQUIREMENTS – CONTINUED

5. Receptacles/Junction Boxes

a) Grounded; no reverse polarity.

b) Ground-fault protected.

c) No openings or knock-outs; covers secured.

d) Conductors entering/exiting holes protected by bushings.

e) Securely mounted; do not lay on floor or ground.

f) Weatherproof/watertight if used outdoors or exposed to weather.

6. Panels

a) Grounded; grounding rod with adequate connection.

b) Watertight; no openings.

c) Conductors entering/exiting holes protected by bushings

d) Hinged and "dead front" covers; **locked** if greater than 600 volts; do not block access.

e) Blanks installed if circuit breakers removed.

f) Label circuit breakers.

g) Temporary lighting.

h) Bulbs need protective covers if less than 8 feet from floor; do not suspend by conductors.

i) Do not plug tool into light circuit unless the circuit is **grounded and ground-fault protected**.

ELECTRICAL SAFETY REQUIREMENTS – CONTINUED

7. General

a) Lockout/tagout before working on circuit; test circuit after lockout; is the **circuit "hot"**?

b) Cranes, backhoes, loaders, dump trucks, scaffolds **stay at least 10 feet from power lines.**

c) Ground frame of arc welder.

d) Romex should be secured every 10 feet; never on ground or floor; **not an extension cord.**

e) Qualified person (electrician) is the only person who works on electrical system and equipment.

EMERGENCY RESPONSE EVACUATION PLAN

All employees of AIS are encouraged to practice good housekeeping and safe working habits in order to minimize the chance of fire or other emergency. However, due to the hazardous nature of our daily work, the following guidelines are published to enhance the safety of our employees.

Any employee discovering a fire, hazardous materials spill, or other emergency situation on or near company property shall take the following immediate action:

1. **WARN** other persons in the area of the emergency, evacuate them from the danger area, and activate the Alarm System.

2. **NOTIFY** the Operations Office of the type of emergency utilizing the Telephone Intercom system. If the intercom is not working, send a runner to the Operations Office with the information.

3. **CONTAIN** the fire or emergency until help arrives **IF** the proper equipment is available and you are trained in use of the equipment.

4. **FOLLOW** the instructions of supervisors or emergency response teams when they arrive at the scene.

Supervisory personnel shall take the following actions when notified of a fire or other emergency situation:

1. **REPORT** immediately to the scene of the emergency to decide necessary action.

2. **NOTIFY** the Operations Office, via Telephone Intercom or by messenger, to call 911 if necessary.

3. **SUPERVISE** efforts to contain the emergency situation or the evacuation of personnel from the danger area.

4. **DETAIL** an employee to act as a guide to show responding emergency crews the location of the emergency.

In the event of serious injury to anyone, the injured person should NOT be moved until trained medical teams arrive, unless necessary to prevent additional injury to the person.

If it should become necessary to evacuate personnel from the building, employees should follow the directions below:

1. Personnel in the NORTH and CENTRAL FABRICATION areas and the MAINTENANCE BUILDING should evacuate by way of the exits on the WEST side of the building. These persons should assemble on the concrete driveway to the WEST of the building to ensure everyone is accounted for.

2. Personnel in the SOUTH WAREHOUSE and OFFICE areas should leave by way of the nearest exit and assemble on the dirt mound SOUTH of the front parking lot.

Evacuation – Continued

3. Personnel in the OLD TOOL BUILDING should leave by the exits on the WEST side of the building and assemble on the dirt mound SOUTH of the front parking lot.

Personnel must NOT re-enter the building or leave the assembly area after an evacuation until informed by supervisors that it is safe to do so.

FLOOR PLANS showing evacuation routes from each area of our building are posted throughout the building. This plan also indicates the locations of FIRE EXTINGUISHERS, SPILL CONTROL KITS, FIRST AID KITS, and EYE WASH STATIONS in the building. All employees should study these floor plans and become familiar with the information contained on them.

Employees will be offered training in First Aid, Fire Control, and other emergency control techniques.

AIS Foremen and Crew Leaders working in a customer's plant should learn the location of Fire and First Aid equipment as well as evacuation routes from the building and ensure their crews are briefed.

Anyone having questions or comments concerning this plan, should contact the Safety Coordinator.

EYE PROTECTION

1. The wearing of safety glasses is required in designated areas. These designated areas will be identified by signs and/or markings. When at a customer's facility, employees need to follow their safety policy and wear safety glasses in customer's designated areas.

2. Shop areas and other designated areas may not require safety glasses when there is no scheduled activity in the area (lunch, shift not operating, inventory) AS LONG AS there are no activities occurring in the area where the people could be exposed to eye hazards (flying objects, sparks, chemicals, etc.) safety glasses are not required.

3. All activities outside designated areas, where people could be exposed to eye hazards (flying objects, sparks, chemicals, etc.) require safety glasses.

4. Shaded eye protection is used with operations such as flame cutting, brazing, torch cutting. Shaded safety glasses may not be worn in the shop for operations that do not require shaded glasses.

5. Additional eye protection, such as goggles or face shield will be required for more severe exposure to eye hazards per OSHA 1910.133. This protection should be worn when:

    - Using compressed air to blow off parts or blow out holes.
    - Grinding or using a sander with a grinding disc.
    - Chipping by hand or with a pneumatic tool.
    - Using a bench or floor grinder
    - Transferring or working with liquid chemicals such as paint and thinners
    - Filling LP gas cylinders
    - Working under machines that do have or could possibly have liquids dripping off hoses, pumps or the undercarriage

EYE PROTECTION - CONTINUED

5. Additional eye protection – Continued

    - Any other time where standard safety glasses will not adequately protect face and eyes from foreign bodies or liquids.

6. Employees are responsible for maintaining their eye/face protection devices. Maintaining includes, but is not limited to, ensuring the equipment is not damaged and daily cleaning of frames, headgear and lenses.

7. Cleaning wipes for safety glasses are available in break-room.

8. Never rub your eyes when wearing gloves or with dirty hands.

9. Consult your supervisor if goggles do not fit properly and for proper eye protection when more serious exposures exist.

10. Personnel are encouraged NOT to wear contact lenses.

11. When at a customer's jobsite, make sure you know where the eyewash kits/station are located, so you can flush eyes in case of an emergency.

12. AIS has eyewash kits in the following locations:
    - Vehicle Maintenance Shop
    - Fab Shop Wall Between North-Center
    - Fab Shop, North Wall
    - Devco Warehouse Battery Area
    - Lunch Room

REMEMBER….EYESIGHT IS PRICELESS

FALL PROTECTION

100 Percent Fall Protection means that all workers who are exposed to fall hazards are properly protected by either preventing falls or protecting workers who do fall. This does not mean workers will never fall again, but rather that should a fall occur, serious injury to workers would potentially be eliminated. Fall exposures can be prevented by:

- Ensuring ladders are secured and inspected.
- Using guardrails and complete decking on scaffolds.
- Establishing walls, floors and guardrails.
- Using guarded work platforms and aerial lifts.
- Changing work operations; and
- Restricting travel of workers

When the prevention of fall hazards is not possible because of the work methods being used, personal fall protection systems can be used to mitigate the effects of the elevated falls. **It is the responsibility of the Project Manager to identify jobs that require fall protection by indicating this hazard on the Safety Survey. Accordingly an Elevated Surface Work Plan will be forwarded with the Safety Survey and should be completed by the job Foreman and returned to the attention of the Safety Dept. so the completed ESWP can be filed with the job file.**

Definitions:

Anchorage: A secure point of attachment for lifelines, lanyards or deceleration devices.

Body Harness – Straps that may be secured about the person in a manner that distributes the fall-arrest forces over at least the thighs, pelvis, waist, chest, and shoulder with a means for attaching the harness to other components of a personal fall arrest system.

FALL PROTECTION - CONTINUED

Definitions:- Continued

Connector – A device that is used to couple (connect) parts of a personal fall arrest system.

Deceleration Device – Any mechanism which serves to dissipate a substantial amount of energy during a fall arrest, or otherwise limits the energy imposed on an employee during a fall arrest.

Deceleration Distance – The additional vertical distance a falling person travels, excluding lifeline elongation and free fall distance, before stopping, from the point at which a deceleration device begins to operate.

Guardrail System – A barrier erected to prevent employees from falling to lower levels.

Hole – A void or gap 2 inches or more in the dimension of a floor, roof, or other walking/working surface.

Lanyard – A flexible line of rope, wire rope or strap that generally has a connector at each end for connecting the body harness to a deceleration device, lifeline, or anchorage.

Leading Edge – the edge of a floor, or other walking/working surface (such as the deck) which changes location as additional floor, decking or formwork sections are placed, formed or constructed.

Lifeline – A component consisting of a flexible line for connection to an anchorage at one end to hang vertically (vertical lifeline), or for connection to anchorages at both ends to stretch horizontally (horizontal lifeline), and that serves as a means for connecting other components of a personal fall arrest system.

FALL PROTECTION - CONTINUED

Definitions:- Continued

Opening – A gap or void 30 inches or more high and 18 inches or more wide in a wall or partition, through which employees can fall to a lower level.

Personal Fall Arrest System – A system including but not limited to an anchorage, connectors, and a body harness used to arrest an employee in a fall from a working level.

Safety-monitoring System – A safety system in which a competent person is responsible for recognizing and warning employees of fall hazards.

Self-retracting Lifeline/ Lanyard – A deceleration device containing a drum-wound line which can be slowly extracted from, or retracted onto, the drum under minimal tension during normal employee movement and which, after onset of a fall, automatically locks the drum and arrests the fall.

Snaphook –A connector consisting of a hook-shaped member with a normally closed keeper, or similar arrangement, which may be opened to permit the hook to receive an object and, when released automatically closes to retain the object.

Toeboard – A low protective barrier that prevents material and equipment from falling to lower levels and which protects personnel from falling.

Warning Line System – A barrier erected on an unprotected edge which designates an area in which work may take place without the use of guardrail to protect employees in the area.

FALL PROTECTION - CONTINUED

General Worksite Policy

Fall protection is the last line of defense. It should be considered only after determining that the fall hazard cannot be eliminated or prevented. The second line of defense would include use of stairs, guardrails, covers, barriers and travel restraint systems to prevent the worker from direct and unprotected exposure to fall hazards. These techniques prevent the fall before onset.

1. Fall protection is required when employees could fall 6 feet or more.

2. Fall protection is required regardless of height when employees are working above or next to dangerous equipment.

3. Horizontal lifelines, if required shall be designed, installed and used under the supervision of a qualified person.

4. Before using personal fall arrest equipment, you must be trained.

5. Carefully inspect all fall protection equipment before each use. Don't use damaged equipment. If equipment is damaged, return to the tool room for replacement.

6. Adjust harnesses so that they fit snugly with the flat side of the "D-Ring" positioned between the shoulder blades.

7. Free-fall length must be no longer than 6 feet. Shock absorbing lanyards however are designed to stretch another 3 ½ ft. to slow the fall before stopping it.

8. Never connect two snap-hooks together.

9. Consider the fall distance to the hazard below. Make sure to adjust your lanyard so that it stops your fall, instead of the hazard.

FALL PROTECTION - CONTINUED

General Worksite Policy - Continued

10. When picking anchorage, make sure it can hold at least 5,000 lbs.

11. Don't wrap your lanyard line around anything with sharp edges that may cut the lanyard.

12. Make sure to anchor to a point above your "D-ring". The higher the anchor, the shorter your fall. Anything below the"D-ring" adds to your fall distance.

13. If you have to "travel" while wearing the Fall Arrest System, you'll require another lanyard for 100% fall protection. Before you unhook, one lanyard, you must connect the second. You should either borrow the second lanyard from another crew member, or contact tool room to have an additional lanyard issued.

Safety Monitoring Systems

1. Designate a competent person to monitor the safety of other employees.

2. Shall warn employees when acting unsafely or when unaware of hazards.

3. Must be on the same walking/working surface and within visual sight of employees being monitored.

Post Fall Rescue

Providing for prompt rescue of fallen workers is an OSHA requirement and a necessary part of any effective fall management program. Workers who are left suspended for an extended amount of time or are unable to move due to injury or other reasons are likely to experience medical complications. Additionally, full body harness straps that are not properly fitted can restrict blood flow.

FALL PROTECTION - CONTINUED

Post Fall Rescue – Continued

If you fall:

- Keep your body parts moving to maintain blood circulation.
- Never attempt to loosen straps during suspension.
- Initiate communications with crew members immediately after fall.

Types of Rescue

Self Rescue – Is performed by the employee who experienced the fall, by reaching a structure that is close by and climbing back up to a work surface. Self rescue can be aided by other workers by lowering a rope to the suspended worker and allowing the worker to swing over to nearby structure.

Worker-Assisted Rescue

Rescues may also be initiated by workers nearby who have access to ladders, aerial lifts, rescue winches on tripods and crane suspended baskets.

- Only trained operators should operate moving equipment.
- The fallen worker should be safely in the crane or lift basket before removing fall arresting equipment.
- Operators should move equipment slowly once within 10 ft. of fall victims to avoid striking the person due to uneven ground or wind.
- Ladders should be held at the base by other workers to prevent slipping or kick out.
- Workers should never work alone in areas where personal fall arrest systems are used for protection.

FALL PROTECTION - CONTINUED

Types of Rescue - Continued

Call 911 or onsite medical responders (if any) and have the employee sit until evaluated by the medical team.

In the event of a fall, the fall protection equipment must be returned to the tool room for a new fall arrest system. Never use fall arrest system after equipment was used in a fall.

Exposure to Falling Objects

1. Erect toe boards, screens or guardrail systems to prevent objects from falling.

2. Erect a canopy structure and keep potential fall objects far enough from the edge of the higher level so they will not go over the edge.

3. Barricade the area to which objects could fall and keep employees out.

4. Hard hats must be worn whenever there is a risk of falling objects.

Guardrail Floor & Wall Openings

1. All open sided floors and/or openings where someone could fall 6 ft. or more need a standard guarding system.

2. Standard guarding systems include:
    - A top-rail between 39" and 45" above the work surface.
    - A mid rail halfway between he top rail and the work surface.
    - Toe-boards needed when falling material may cause a hazard.

FALL PROTECTION - CONTINUED

Guardrail Floor & Wall Openings - Continued

3. Guardrails must be supported at least every 8 ft, secured at both ends and be strong enough to support a 200-pound force in every direction.

4. Wire rope guarding must be kept tight, free of snags and clearly flagged every 6 ft.

5. Every window wall opening, from which there is a drop of more than 4 ft. and the bottom of the opening is less than 3 ft. above the work surface, must be guarded.

6. Every manhole opening must be guarded by a standard manhole cover. While the cover is not in place, the opening must be constantly attended by someone or protected by a removable guarding system.

7. Floor, roof and skylight opening, bigger than 2 inches in their smallest dimension, must have a guarding system or be offset so that a person cannot walk straight into the opening.

8. Openings in guarding systems that lead to stairs, ramps or ladders must have either a gate that locks in the closed position or secured cover strong enough to carry the weight of several people.

FALL PROTECTION - CONTINUED

Fall Hazards

1. Identify all potential tripping and fall hazards before work starts.

2. Look for fall hazards such as unprotected floor opening/edges, shafts, skylights, stairwells and roof openings/edges.

3. Use handrails when you go up or down stairs.

4. Practice good housekeeping. Keep cords, welding leads and air hoses out of walkways or adjacent work areas.

Enforcement

Constant awareness of and respect for fall hazards, and compliance with all safety rules are considered conditions of employment. The jobsite foremen, as well as individuals in the Safety and Personnel Department, reserve the right to issue disciplinary warnings to employees, up to and including termination, for failure to follow the guidelines of this program.

Appendix

We have attached to this plan any lists, samples, or procedures we thought would ensure better understanding of our written program.

- **Annual Inspection of Your Fall Arrest System**
- **Elevated Surface Work Plan**

Introduction

Fire hazards are among the most numerous and serious hazards associated with construction operations. Fire hazards can potentially cause major property loss and fatalities.

Fire Extinguishers

a) Fire extinguishers are typically the first line of defense for combating a fire, and are classified by the type of fuel that is burning and the media necessary to extinguish it.

b) Class A fires are those that occur in ordinary materials such as wood, paper, excelsior, rags and rubbish.

c) Class B fires are those that occur in the vapor-air mixture over the surface of flammable liquids such as gasoline, oil, grease, paints and thinners.

d) Class C fires are those that occur in or near energized electrical equipment.

e) Class D fires are those that occur in combustible metals such as magnesium, titanium, potassium and sodium.

f) Fire extinguishers for construction sites should be of the multi-purpose type: Class A, B and C. This type of extinguisher is effective in extinguishing all three types of fires typically found on construction sites: general combustibles, flammable liquids and electrical sources.

g) Fire extinguishers must be kept in good working condition. Regular inspections and tests, as well as preventive maintenance, will ensure that fire extinguishers function properly.

Housekeeping

Poor housekeeping contributes to fire hazards on many construction sites. A small fire can quickly become an inferno when it spreads to piles of scrap or waste materials.
All combustible refuse (scrap materials, packaging and waste paper) should be removed regularly. All waste piles or dumpsters should be located in an area clear of any type of ignition source. Do not expose waste piles or dumpsters to elevated welding or cutting.

Welding and Cutting

a) Welding and cutting operations are directly related to numerous and serious construction fires.

b) Combustible materials should be removed from these work areas. Where removal of combustible materials is impractical, the materials should be covered with flame-retardant tarpaulins.

c) Suitable fire extinguishing equipment should be immediately available in the work areas. (A fire extinguisher in the gang box out by the trailers is not considered to be immediately available.)

d) Oxyacetylene units and fire extinguishers should always travel together, never one without the other.

e) When normal fire protection precautions are not sufficient, the location of adequate fire extinguishers should be posted nearby. Welding and cutting should not be conducted in confined spaces or where flammable vapors may be present, unless the appropriate precautions have been taken.

Compressed Gas Cylinders

a) Oxygen and fuel-gas cylinders in storage should be separated by a minimum distance of 20 feet or separated by 5-foot high barriers of noncombustible material. When not in use, valve protection caps should be placed over cylinder valves to prevent accidental valve damage or displacement.

b) Because of the extreme flammability of liquid petroleum gas, it should never be stored inside a building.

c) Oil and grease in the presence of pure oxygen can burn with explosive force if ignited. Never use these materials around pure oxygen.

d) Because compressed gases are extremely flammable and explosive, only trained, qualified and authorized personnel should be permitted to handle them.

Flammable and Combustible Liquids

Flammable and combustible liquids are used on every construction project and require specific controls and safeguards.

Fuel storage and handling areas should be:

- Located away from all fire exposures;
- Free from accumulated debris or undergrowth;
- Properly grounded and bonded;
- Posted with "no smoking" signs;
- Close to fire extinguishers

Flammable and Combustible Liquids - Continued

Use approved safety cans for storing and dispensing small quantities of flammable liquids. The flash-arresting screens inside safety cans should not be removed. The screens are designed to keep any ignition source from igniting the vapors inside the can.

• A fire extinguisher is required on all service/fueling trucks.

Temporary Heating

All heating equipment must be installed with proper clearances from combustible materials and with proper ventilation.

Smoking

Smoking should be prohibited in areas with potential fire risks, including fuel storage and dispensing areas, woodworking areas that generate large amounts of dust, near combustible foam plastics, and in areas with high concentration of paint, solvent or adhesive vapors.

HAIR POLICY

1. Personnel with long hair or beards shall wear their hair or beard in such a manner that it does not present a safety hazard.

2. All personnel who are required to wear respiratory protections (other than air supplied) shall not have more than one (1) days growth of facial hair.

3. **Any employee that is required to wear a respirator and refuses to shave will have to purchase a full hood respirator at their own expense.**

HAZARD COMMUNICATION – RIGHT-TO-KNOW

1. The Material Safety Data Sheet (MSDS) provides employees and other personnel with concise information about the exposure hazards of the materials with which they are working. MSDS's contain information needed to safely and effectively respond to emergency situations involving hazardous chemical materials.

2. Chemical materials **not** currently purchased and approved may not be brought into the facility by anyone without providing a Material Safety Data Sheet to the Safety Coordinator for the MSDS files.

3. Complete sets of MSDS's will be readily available to all employees in binders located in each gang box, in AIS break-room, fab shop and paint booth.

4. When you arrive at a customer's facility, ask them where the MSDS files are located if working with chemicals that AIS did not bring to the jobsite.

5. All chemicals that AIS brings to the jobsite will be in the MSDS binder located in the gang box.

6. Any new item being introduced to the gang boxes must be approved by AIS Safety Coordinator. The MSDS sheets will need updated accordingly.

7. When new material is received in AIS tool room, any MSDS sheets that are included should be forwarded to the Safety Coordinator so the MSDS files can be updated accordingly.

8. All chemical material containers must be labeled with the identity of the chemical and the hazard warning. Unlabeled containers are not to be brought into the facility.

9. Secondary chemical material containers used in production or elsewhere (i.e. bottles, squirt bottles, 1 gallon containers, recycled lacquer thinner drums, etc.) must be labeled with the identity of the chemical and the hazard warning. Unlabeled containers must be relabeled or discarded.

10. If there is no, or an illegible label on a container, don't use it. Tell your supervisor right away.

11. Don't store chemicals near heat, electrical equipment, or in direct sunlight. Chemicals that should not be mixed (like ammonia and bleach) should not be stored together.

12. Dispose all chemicals the way you are instructed to on the label or MSDS. Don't pour them down the drain, flush them into the toilet or pour them on the ground.

13. Don't try to guess what is in an unlabeled container by sniffing it. A small sniff can be deadly.

14. Never smoke while mixing or pouring chemicals.

15. Never handle or mix chemicals without wearing the necessary Personal Protective Equipment (PPE).

Appendix

We have attached to this plan any lists, samples, or procedures we thought would ensure better understanding of our written program.

Employee Request: MSDS

HEARING CONSERVATION POLICY

Purpose

The purpose of this policy is to eliminate or minimize employee occupational exposure to excessive noise levels in the workplace.

OSHA stand 1910-95 requires an employer to administer an effective hearing conservation program whenever employees are subjected to noise exposure of 85 decibels or above for an 8 hour time-weighted period.

Training

All company employees who would be exposed to excessive noise levels during the course of a job will receive audiometric testing prior to the start of the job and at the conclusion of the job.

Employees shall receive training on noise protection. This training will include:

- The effects of noise on hearing.
- The purpose of audiometric testing.
- The purpose and use of hearing protection devices.

Records of all training and hearing testing will be maintained by the employer.

Compliance

- Hearing protection devices are included in your PPE bag and available in the tool room.
- It is mandatory to follow our customer's policies with regard to designated areas where hearing protection is required.
- Hearing protection is required if an eight (8) hour average exposure exceeds 85 decibels. If you have to shout to someone less than two (2) feet away you should be using hearing protection.

HEARING CONSERVATION POLICY - CONTINUED

Compliance - Continued

It shall be the duty of the Project Managers and Estimators to determine if noise levels on a job will exceed safe levels and to report this information to the company Safety Coordinator.

The Safety Coordinator shall ensure that employees assigned to such a job receive the proper information and training prior to the start of the job.

The Safety Coordinator shall maintain the required testing and training records according to the OSHA regulations.

HOT WORK

Purpose

This policy outlines the hot work program for the prevention of injuries and fires related to work requiring any burning, cutting or welding activities on AIS property or any customer's property. The intent is to prevent fires or injuries being caused in the work area or in adjacent work areas.

It will be the responsibility of the Estimator or Project Manager to determine if hot work needs to be performed on a job site and if the customer has their own hot work permit procedures in place. If the customer does not have a hot work program, the AIS hot work policy will be used.

General Requirements

A valid hot work permit is required to authorize employees to perform work which involves any burning, cutting or welding activity on company property which may produce flames, sparks or enough heat to start a fire in the work area or adjacent areas.

On AIS property, hot work permits will not be required in the fabrication shop and the maintenance shop.

HOT WORK - CONTINUED

General Requirements - Continued

A hot work permit shall be made out to the employee who will perform the permit work and shall not be valid for anyone else. Revalidation of each permit must be made for any change or personnel or when the work extends into the next work shift.

All permits on AIS property or on the property of a customer who does not have a hot work procedure must be authorized (signed) by the following:

1. AIS foreman or customer representative who is in charge of the work area. **(Area Supervisor)**

2. The person in direct charge of the employee who will do the permit work. **(Hot Work Supervisor)**

3. The **Authorized** employee who will perform the permit work.

4. The employee who will be the **Fire Watch** for the work.

A hot work permit shall only be issued and authorized when the work area meets the following requirements:

1. The area in which the hot work is to be performed must be free of all flammable vapors, flammable liquids and flammable dust. If such fuel sources are present, **NO** hot work shall be performed in this area.

2. Hot work is not to be performed in an area where the fire sprinkler system is not in operation.

3. All permits must be signed by persons trained/qualified as area supervisors, hot work supervisors, authorized employees and fire watch employees.

HOT WORK - CONTINUED

General Requirements – Continued

4. Once a permit has been issued, it is to be kept at the work site in plain view. When the hot work is completed, the hot work supervisor will inspect the job for completeness and fire potential, sign the permit, mark the time and inform the Area Supervisor that the job is complete. The permit is given to the fire watch who stays at the site for a minimum of 30 additional minutes, at which time the Area Supervisor can relieve him of his duties by signing the permit stating that no fire hazard exist from the hot work.

5. When hot work is performed on an elevated site, all slag and sparks shall be contained and extinguished on the level of work if possible. If containment is not practical, additional fire watches will be established on the lower level and the lower level shall be roped off under the hot work area.

Outside contractors performing hot work on AIS property or on customer property will be subject to the requirements of this policy.

The hot work permit program shall be reviewed and revised whenever there is reason to believe that measures taken may not protect employees during permit work.

For details of the permit system, qualifications and training of the hot work personnel and hot work permit form, see the company hot work policy.

Appendix: Hot Work Permit

LADDERS

Introduction:

OSHA requires that a stairway or ladder be provided at all personnel points of access where there is a break in elevation of 19 inches or more and where no ramp, runway, sloped embankment, or personal hoist is provided.

Ladder Selection

Manufactured portable ladders must be branded or have permanent labels that identify the type of ladder. The ladder must meet the appropriate American National Standards Institute (ANSI) standards. Ladder types approved for construction use are:

- Type 1A (extra heavy duty, 300 lb. capacity)
- Type 1 (heavy duty, 250 lb. capacity)

Other classifications are not intended for construction use.

The effective working height can be found on the label of manufacturer's portable ladders. If the effective working height is not stated, remember the following:

- For step ladders, neither the top of the ladder nor the top rung can be used as a step
- For extension ladders and straight ladders, the base of the ladder must be set back 1 foot for every 4 feet in height.
- If accessing another level, the ladder side rails must extend 3 feet beyond the upper landing.

The intended use of the ladder should determine the type purchased, and only American National Standard Institute (ANSI) approved ladders should be used. Never utilize a metal ladder where conditions exist in which either the ladder or its user could come into contact with electricity.

LADDERS – CONTINUED

Inspection

A portable ladder must be inspected before each use and after being involved in any fall or accident. Structural defects must be tagged or marked on the ladder and the ladder must be removed from service immediately.

Structural defects that cause a ladder to be removed from service include, but are not limited to, the following:

- Broken or missing rungs, cleats, or steps.
- Broken or split rails.
- Corroded components.
- Missing or nonfunctional metal spreaders or lacking devices on stepladders.
- Missing or nonfunctional locking devices on extension ladders.
- Use of any opaque coating that prevents inspection of the ladder.
- Excessive grease or oil, which make the ladder slippery.
- Weather conditions also may create a temporary out-of-service condition (for example, a coating of ice makes a ladder too dangerous to use).

Use

- Ladders used for access must extend 3 feet beyond the landing surface. If that is not possible, you can secure the top of the ladder to a rigid support and a grasping device such as a grab rail. A grab rail can be installed to help in mounting and dismounting the ladder.

- Do not overload the ladder. Adhered to the manufacturer's working load.

- Use the ladder as designed, vertically or horizontally.

- Remember to set the base back 1 foot for every 4 feet in height.

LADDERS – CONTINUED

Use - Continued

- Secure the tops of ladders whenever possible.
- Keep the area around the top and bottom of ladders clear. If work or traffic is presenting a problem, then relocate the ladder or barricade the area.
- Only one person should occupy a ladder.
- Face the ladder when climbing or descending. Use 3-point contact to minimize the chance of falling. Use fall protection if necessary.
- Do not move, shift or extend ladders while the ladders are occupied.
- Do not use a conductive ladder around energized lines or equipment.
- Do not overreach while on the ladder. Keep one shoulder inside the side rails at all times.
- Store ladders away from excessive heat, dampness, and chemical solutions.

Training

Employees need to be trained in ladder safety. Employees must be able to recognize hazards related to ladders, and must understand how to inspect, set up, and use ladders safely. Employees must also understand the requirements of the construction safety standards that apply to ladders. Retraining is required as necessary to maintain knowledge and understanding.

Appendix: Ladder Inspection Form

LEAD

Lead is a heavy metal that can enter your body by breathing or eating. Lead can be found in dust, fumes or mists. If you are selected to perform work at a jobsite in which you are exposed to lead, you must follow the guidelines below.

Hazards

In many kinds of work, fine particles of lead are released into the air and quickly settle on any surface – including your clothes, skin and hair. Lead in paint and surface coatings becomes a dangerous health hazard when it is distributed by sanding, cutting, or even rubbing. Either by inhalation or simple absorption through the skin, these particles can get into your bloodstream and cause serious damage.

If your body gets lead particles on it you can easily transfer them from one place to another – like from the job site to your home. That puts your family at risk. It is important to follow the outlined procedures to protect your family from lead exposure.

Lead exposure increases risk of birth defects, still births and miscarriages. Lead can also cause severe damage to your bones, blood and kidneys. Exposure to children can cause developmental problems. Lead threatens children with severe illness and may even cause death.

LEAD - CONTINUED

Symptoms

The symptoms of lead exposure aren't always easy to spot. A person suffering from lead poisoning might just seem to have the flu or simple fatigue.

Early symptoms may include:

- Loss of appetite
- Metallic taste in mouth
- Constipation
- Muscle and joint pain
- Stomach cramps

Your nervous system is also affected by lead exposure causing:

- Numbness
- Slowness
- Intense irritability

Exposure Limits

The action level is set by OSHA at 30 micrograms per cubic meter over an eight-hour shift. When lead reaches the action level, employers begin to take steps to monitor levels regularly, and provide special training to employees.

The Permissible Exposure Limit (PEL) for lead is set by the Occupational Safety and Health Administration (OSHA). The PEL for lead is 50 micrograms per cubic meter, over an eight-hour period. When you are exposed to lead for more than eight hours, your overall permissible exposure is calculated by the following formula:

Permissible Number of Micrograms per Cubic Meter = 400 ÷ Hours of Exposure

LEAD – CONTINUED

Exposure Limits - Continued

In the following jobs, exposure is assumed to be above the PEL but less than 500 micrograms per cubic meter:

- Manually demolishing structures with lead in them
- Manually scraping or sanding lead paint
- Using a heat gun on lead coatings
- Cleaning power tools with dust collection systems if used around lead coatings
- Spray painting with lead paint

If you perform the following jobs around lead-based coatings, you must be protected against exposure in excess of 2,500 micrograms per cubic meter:

- Abrasive blasting
- Welding
- Cutting
- Torch burning

If testing shows that these jobs create lower levels that the limits mentioned, you will be provided with the level of protection that is appropriate.

Personal Protective Equipment

If the lead level where you work cannot be reduced to safe levels, respirator and other personal protective equipment is used to limit your exposure. PPE is only effective if you use it properly. A respirator that doesn't fit right, or a faulty mask, can expose you to dangerous amounts of lead in just minutes.

If you ever have trouble breathing with a respirator, contact the Safety Coordinator immediately. Respirator filters should be changed whenever you notice an increase in breathing resistance. To prevent skin irritation, always wash your face and respirator face piece whenever you leave the work area and especially at the end of every shift.

LEAD – CONTINUED

Personal Protective Equipment - Continued

You may also be provided with protective coveralls, gloves, hats, shoes and eye protection. If you notice a problem or defect with the clothes provided, notify your job foreman, so PPE can be replaced as needed.

When you're finished for the day, remove all protective clothes in a designated changing area. Place all contaminated clothes in container labeled for lead-contaminated clothes. Never wear work clothes home. It can carry lead to your family members. You should wash your hair and shower before you leave work or do it as soon as you get home – before greeting children and family members. Showers are typically provided at our customer's facilities (if lead is part of their daily work process). Showers are also available at the AIS office.

Housekeeping

To help reduce your chances of swallowing or inhaling lead, do not perform any of the following in your work areas:

- Eat or drink
- Smoke
- Chew gum

Remember to wash your hands and face prior to any smoke breaks or lunch breaks.

Medical Surveillance

Medical surveillance consists of an initial blood test before you start working around lead. Later tests are provided based on your exposure and the level of lead found in your blood.

Medical surveillance tests;

- Will be done at no cost to you
- The results are confidential
- The tests are restricted to analysis for lead exposure

LEAD – CONTINUED

Medical Removal From Job

Employees assigned to jobs with lead exposure for a period of more than 30 days will require repeat blood test every two months for the first six months, then every six months thereafter. All employees require an exit lead blood test when job is complete. This testing should be scheduled PRIOR to commencing with the next job assignment.

If the testing shows the lead in your blood is over 50 micrograms per deciliter you will be automatically removed from the job. If you need to return to the job you will be retested in two weeks. Once the exam shows that the level of lead in your blood is acceptable, you can return to work. Whatever the results of your test, you will be notified in writing of your blood-lead level.

LOCKOUT / TAG OUT POLICY

Lockout/Tagout is a procedure whereby machines or equipment are isolated from their source of operating power, regardless of what that source of power is, so that maintenance or repairs can be performed on that equipment without fear of unexpected start up of the equipment which could cause injury to employees.

Purpose

This policy establishes the minimum requirements for the lockout/tagout of energy sources. It shall be used to ensure that machines or equipment are isolated from ALL potentially hazardous energy, and locked-out/tagged-out before employees perform any service or maintenance activities where the unexpected energizing, start up, or release of stored energy could cause injury to employees.

LOCKOUT / TAG OUT POLICY – CONTINUED

Responsibility

ALL employees shall receive information concerning the safety significance of the lockout/tagout procedures. Employees who are authorized to perform lockout/tagout on equipment will receive additional training on lockout/tagout procedures. Each new employee shall receive instruction on the Company Policy.

Preparation for Lock-out/ Tag-out

When work is to be performed on Electrical or Moving equipment or in CLOSE PROXIMITY to such equipment, the authorized employee must make a survey to locate and identify ALL power source controls which apply to the equipment being locked out. More than one energy source may need to be locked out and sources may not be in close proximity to the machine itself.

Sequence of Lock-out / Tag-out Procedures

A. Notify all affected employees and/or sub-contractors that a lockout system is being utilized and the reasons therefore. The authorized lockout employee shall know the type and magnitude of energy the equipment utilizes and shall understand the hazards thereof. The employee shall have available the operator's and maintenance manuals for the equipment being serviced.

B. If the equipment is operating, shut it down by the normal stopping procedures.

C. Operate the switch, valve, or other energy isolating devices so that the equipment is isolated from ALL its power sources. Stored energy (such as that in springs, elevated machine members, rotating flywheels, and pressurized hydraulic, pneumatic, gas, steam, or water systems) must be dissipated or restrained by blocking, bleeding down, or repositioning.

LOCKOUT / TAG OUT POLICY – CONTINUED

Sequence of Lock-out / Tag-out Procedures - Continued

D. Lockout/tagout the energy isolating devices with assigned individual lock or tags.

NOTE: "TAGOUT" CAN ONLY BE USED WHEN THE DESIGN OF THE MACHINE OR ENERGY SOURCE PROHIBITS THE USE OF PADLOCKS.

E. After ensuring no personnel are in a hazardous position, and as a check on having disconnected the energy source, operate the normal starting controls to make certain the equipment will not operate. CAUTION: BE SURE TO RETURN THE OPERATING CONTROL TO "OFF" AFTER THE TEST**.**

F. The equipment is now locked-out/tagged-out and work may begin.

Procedure for Removal of Lock-out

A. When work has been completed on the equipment, remove all tools from the machine and reinstall any guards that may have been removed.

B. Advise employees and/or sub-contractors that the machine is being returned to service.

C. Ensure no personnel are in a hazardous area.

D. Remove locks or tags from the energy sources and use the normal controls to start the equipment.

LOCKOUT / TAG OUT POLICY – CONTINUED

Basic Lock-out / Tag-out Rules

A. All equipment shall be locked-out/tagged-out to protect against accidental or inadvertent operation when such operation could cause injury to personnel.

B. **NO personnel** should attempt to operate or override any switch, valve, or other power isolating device when it has been locked-out/tagged-out. Nor should they attempt to remove any installed lockout/tagout device from a power source.

C. In case of shift or personnel changes during the period the equipment is locked out, time must be allowed for the employees to exchange their individual locks or tags and for authorized employees assuming control of the locked out equipment to be briefed on the status of the work being performed.

D. Installed lock out or tag out devices must be removed only by the individual who installed them. In case of emergency, the supervisor of the person who installed the lock out device should be contacted for information.

E. Notification of lockout used must be given to employees, sub-contractors and any other person affected by lock out of the equipment.

F. If more than one individual or craft (electrical, piping, mechanical, etc.) is working on the equipment at the same time, each shall attach his own assigned lock out device to the power source.

G. AIS crews working in a customer's plant should consult with their job contact regarding the customer's policy in regard to lock out procedures. Before working on any equipment in a customer's plant, the job foreman shall ensure that proper lock out has been achieved.

LOCKOUT / TAG OUT POLICY – CONTINUED

Work on Energized Circuits

Approval must be obtained from the Company Safety Coordinator prior to any work on energized circuits. The Safety Coordinator will verify that by de-energizing circuits, additional or increased hazards will be created or that de-energizing is not feasible due to equipment design or operational limitations. Any work done on energized circuits requires the wearing of the appropriate personal protective equipment.

Accidents Involving Lock-out/Tagout

The company Safety Coordinator will be responsible for fully investigating all lockout/tagout accidents and reporting the cause of the accident to management. General lockout/tagout procedures and specific lockout/tag out procedures for that piece of equipment will be reviewed before further work is done.

Periodic Evaluations

Periodically, at least annually, the effectiveness of the company lockout/tag out program will be evaluated by an authorized employee other than the employees utilizing the lockout/tag out procedures. The date of the inspection/evaluation will be noted on the Annual Inspection Report.

Reviewed and amended: March 6, 2012

MANUAL MATERIAL HANDLING GUIDELINES

The best way to avoid back injuries is to:

- Eliminate lifting whenever possible.
- Use mechanical lifting equipment when available, such as a hoist, dolly or hand cart.

If you have to manually handle material you should:

1. Size up the load: Take a few seconds to stop and think about how heavy is it, how you are going to handle the load, where you are going to move it, is it within your physical capability to safely handle it, and do you have enough room to lift it?

2. Insure that the path is clear, with ample room to maneuver and good footing: Carrying an object is hard enough - you should not have to worry about tripping over electrical cords, boxes, or other materials in your pathway. Make sure the floor is reasonably clean and not slippery or wear appropriate footwear that will provide you with extra slip resistance.

3. Lift comfortably and smoothly: Do not jerk the load from a resting position into a carrying position. The sudden loading on your spine, shoulders, and arms can cause injury. Use your leg muscles to help lift the load smoothly and comfortably. Choose the position that feels best to you.

4. Ideally, keep all loads between knuckle and shoulder height: It is best to try to keep the lifting and carry activities in a posture where the load is between your shoulders and the height of your knuckles when your arms are hanging at your side.

5. Avoid twisting and bending while lifting or moving: Bending and twisting significantly increases the load on the back. Do not put objects on the floor if they must be picked up later. If you have to move in a different direction, do so by first moving your feet and rotating your whole body in the new direction of travel.

6. Keep objects close to the body: The further a load is carried away from the body, the greater the stress placed on the low back. If you do not believe this, try holding an object at arm's length in front of you and then close to your body. Which is less fatiguing?

7. Avoid heavy lifts, get help: If the load looks like more than you can handle, get help either from another person or by using a mechanical lifting/moving aid. Being macho and getting injured is just plain stupid. If the load can be divided into smaller units that can be safely handled, do so.

8. Never allow the load to obstruct your view: If you can't see where you are going, you are more likely to trip and fall. If the load is too big, take it in smaller bites, if possible, or get help so that you (and your lifting partner if needed) can see where you are headed.

9. If handles are provided on the load, use them: Handles allow you to grasp the load with a power grip and help provide additional stability when lifting or moving the load.

MISCELLANEOUS

1. No item may be leaned upright against shelves, columns, walls, work tables, etc. without being secured by a rope, bungee cord or other method. If it is not meant to be stored there, don't lean it.

2. Do not use mushroomed tools (hammers, chisels, etc.) Keep the mushroomed edges of the head ground off.

3. Do not use wrenches/sockets that are sprung, worn or cracked.

4. Be sure that you are surefooted before pulling on a wrench.

MISCELLANEOUS - CONTINUED

5. Do not lift, push or pull heavy objects, use a crane or get help. If you are not physically able to manually lift over 60 lbs., you are to utilize the assistance of a crane, forklift or ask a co-worker to help you.

6. When lifting, you are to use the proper lifting technique. Bend at the knees, keep the chin and back straight, and lift with the leg muscles, not your back.

7. Do not lift material with greasy gloves/hands or when your footing might be slippery.

8. Never throw tools or material to or at another person. Walk over and hand it to him/her.

9. All walking surfaces shall be kept free of slipping hazards.

10. All fire extinguishers shall be accessible at all times.

11. All exit doors and aisles leading to and from fire extinguishers shall be kept free from obstructions at all times.

12. High-pressure gas cylinders and bottles shall be chained or strapped so they cannot fall over.

13. Any person who feels sick should report it to his/her foreman. You may be inviting a serious accident if you do not obtain first aid.

14. Remove all protruding nails from the inside and outside of any barrels, kegs, or boxes.

15. All containers, no matter what size and what is in it, are to be properly labeled as to its contents.

16. Gasoline shall not be used for cleaning purposes.

MISCELLANEOUS - CONTINUED

17. Avoid fires by properly disposing of oily rags and waste in specified covered metal containers. These shall not be placed in containers for waste paper. Oily rags should never be piled up or thrown in corners.

18. Never throw water on an electrical fire.

19. Maintenance personnel MUST LOCKOUT/TAGOUT all energy sources in the OFF position before starting to work on a machine.

20. Do not use worn or frayed electrical cords. Only use cords that have the ground prongs intact. All defective cords shall be immediately removed from service.

21. Do not stand in water when connecting or disconnecting electrical connections.

22. All personal are to familiarize themselves with the emergency exits in the areas in which they are working.

23. Follow all motor vehicle speed limits posted on AIS as well as customer's property.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

The following types of protective equipment are available. It is furnished to you free when authorized by your supervisor/manager. This equipment is to be worn as directed by AIS safety policies.

- Respirators
- Hard Hats
- Face Shields
- Rubber Gloves / Work Gloves
- Safety Goggles / Safety Glasses
- Protective Welding Apparel
- Hearing Protection
- Lanyards
- Safety Harness

Other PPE items may be job specific and will be available and provided to employees at no cost, if it has been identified that special PPE is required for the job.

All field employees are issued a PPE Duffle Bag which is to be with them on all jobsites. Each duffle bag contains the following:

- Basic Safety Rules for Construction Handbook
- Rigging Handbook
- Hard Hat
- Work Gloves
- Safety Harness
- Lanyard
- Safety Glasses
- Rain Suit
- Safety Tagout Hasp & Lock
- Hearing Protection

If you work in the Fab Shop or Warehouse and are requested for field work, we have additional bags in the Tool Room that can be used for these temporary situations.

Protective equipment will be used and maintained in a sanitary and reliable condition. All PPE and its adjustment, cleanliness and repair will be the responsibility of the individual employee.

All clothing will be close fitting but comfortable without loose ends, straps, draw strings, belts or otherwise unfastened parts that might get caught in machinery or equipment.

RESPIRATORY PROTECTION PROGRAM

General

The Occupational Safety and Health Administration (OSHA) General Industry standard for respiratory protection 29 CFR 1910.134 requires that a written respiratory protection program be established by an employer. The following procedures are based on the requirements established by OSHA and the American National Standard Institute's Standard for Respiratory Protection, ANSI Z88.2.

Policy

It is the policy of AIS to provide its employees with a safe and healthful work environment. The guidelines in this program are designed to help reduce employee exposure to occupational air contaminants and oxygen deficiency. The primary objective is to prevent excessive exposure to these contaminants. This is accomplished as far as feasible by accepted engineering and work practice control measures.

RESPIRATORY PROTECTION PROGRAM - CONTINUED

Policy – Continued

When effective engineering controls are not feasible, or while they are being implemented or evaluated, respiratory protection may be required to achieve this goal. In these situations, respiratory protection is provided at no cost to the employees.

Responsibilities

1. Management

It is management's responsibility to determine what specific applications require the use of respiratory protective equipment. Management must also provide proper respiratory protective equipment to meet the needs of each specific application. Employees must be provided with adequate training and instructions on all equipment.

2. Management/Supervisory

Operations Dept. is responsible for ensuring that all personnel assigned to jobs requiring the use of respirators have been trained accordingly. Operations shall notify the Safety Coordinator if any employee assigned to a crew requires training, the Safety Coordinator will provide training and coordinate medical evaluations and respirator fit tests accordingly. Job Foremen are responsible for assuring that all crew is wearing the respirator and for reporting employees who do not comply with respirator requirements.

RESPIRATORY PROTECTION PROGRAM - CONTINUED

Responsibilities – Continued

3. Employees

It is the responsibility of the employee to have an awareness of the respiratory protection requirements for their work areas (as explained by management). Employees are also responsible for wearing the appropriate respiratory protective equipment according to proper instructions and for maintaining the equipment in a clean and operable condition.

Program Administration

1. The following individual has total and complete responsibility for the **administration** of the respiratory protection program:

    - Safety Coordinator

    This individual has the authority to act on any and all matters relating to the operation and administration of the respiratory protection program. All employees, operating departments, and service departments will cooperate to the fullest extent. This person is referred to as the Respiratory Protection Program Administrator in this program.

    This person is responsible for developing standard operating procedures for this program, maintaining records, and conducting program evaluations.

Program Administration - Continued

2. The following individual is responsible for **contaminant identification and measurement,** including technical support, air sampling, and laboratory analysis. This individual is responsible for monitoring or conducting an exposure assessment of the respiratory hazard

    - Project Manager - Specific to the job assignment

3. The following individual is responsible for **evaluating the health of the company employees** via a comprehensive medical and health program.

    - Safety Coordinator

4. The following individual is responsible for **directing and coordinating engineering projects** which are directly related to respiratory protection.

    - Project Manager – Specific to the job assignment

5. The following individual is responsible for **selection, issuance, training, and fit testing** of all respirators used in this company, including record keeping.

    - Safety Coordinator based on information provided by Project Manager.

Medical Evaluation

A. Every employee who is being considered for inclusion in the Respiratory Protection Program must participate in a medical evaluation. A determination of the employee's ability to wear a respirator while working is made initially before fit testing. Future evaluations are made when there is a change in workplace conditions or information indicating a need for re-evaluation.

B. A mandatory medical evaluation questionnaire 1910.134 will be used and reviewed by the 3M On-Line Respirator Medical Clearance Web-Site Physician. If this physician deems it necessary, the employee will receive a follow up examination by Concentra physician at the employer's expense. The purpose of the medical evaluation is to assure that the employee is physically and psychologically able to perform the assigned work while wearing respiratory protective equipment. If the Concentra physician denies approval, the employee will not be able to participate in the Respiratory Protection Program.

C. Copies of the medical evaluation and questionnaire must be kept in employee's file in accordance with 29 CFR 1910.1020.

Work Area Monitoring

A. Exposure assessment will be done to ensure proper respirator selection. In order to determine the exposure level, air samples of the work place representative of the work period, exposure assessment based on analogous processes, or professional judgment will be used. Personal sampling equipment may be used in accordance with accepted industrial hygiene standards to sample each work area. Results of these samples will pinpoint areas where respiratory protection is required.

Work Area Monitoring

B. The exposure assessment will be performed prior to the task requiring respiratory protection. Periodically thereafter, as required by OSHA substance specific standards or at least every 12 months, a review of the exposure assessment will be made to determine if respiratory protection is still required. If respiratory protection is still necessary, respirator selections will be reviewed to assure their continued suitability.

Respirator Selection

A. Respirators are selected and approved for use by management. The selection is based upon the physical and chemical properties of the air contaminants and the concentration level likely to be encountered by the employee. The Respiratory Protection Program Administrator will make a respirator available immediately to each employee who is assigned to a job that requires respiratory protection. Replacement respirators/cartridges and filters will be made available as required.

B. The selection of the proper respirator type will be made following the procedures which are attached.

C. All respirators will be NIOSH approved. Respirators will be purchased from: 3M

D. Respirators currently approved for use are: 3M 7500 series half face piece silicone, N95 dust masks, North 5400 series full face piece & 3M PAPR with full hood H421 GVP-CB PAPR assembly.

Use of Respirators

1. All tight-fitting respirators (both negative and positive pressure) shall not be used with beards or other facial hair or any other condition that prevents direct contact between the face and the edge of the respirator or interferes with valve function.

2. Employees will be required to leave the contaminated area:

    a) Upon malfunction of the respirator

    b) Upon detection of leakage of contaminant into the respirator

    c) If increased breathing resistance of the respirator is noted

    d) If severe discomfort in wearing the respirator is detected

    e) Upon illness of the respirator wearer, including: sensation of dizziness, nausea, weakness, breathing difficulty, coughing, sneezing, vomiting, fever and chills

    f) To wash face to prevent skin irritation

    g) To change filter/cartridge elements or replace respirators whenever they detect the warning properties of the contaminant or increased breathing resistance

Respirator Training and Fitting

1. Training

a. Employees assigned to job sites requiring respirators will be instructed by their supervisor relative to their responsibilities in the respiratory protection program. They will also be instructed in the need, use, limitations, and care of their respirator.

b. Retraining is given at least every 12 months after initial training.

2. Fit Testing

a) Employees will be properly fitted and tested for a face seal prior to use of the respirator in a contaminated area. Qualitative fit testing will be the preferred method of fit testing.

b) Fit testing will be done initially upon employee assignment to the job site where respirators are required. Fit testing will be repeated at least every 12 months thereafter. All tight-fitting respirators (negative and positive pressure) will be fit tested. Positive pressure tight-fitting respirators will be fit tested in the negative pressure mode.

c) Fit testing will not be done on employees with facial hair that passes between the respirator seal and the face or interferes with valve function. Such facial hair includes stubble, beards and long sideburns.

d) Note: If it is determined that an individual cannot obtain an adequate fit with any tight fitting respirator, a loose fitting powered air purifying or supplied air respirator may be required instead.

Respirator Training and Fitting – Continued

2. Fit Testing - Continued

e) If employee is required to wear a respirator and refuses to shave, he/she will be responsible for the purchase of their own full hood respirator.

Respirator Inspection, Maintenance and Storage

Respirators must be properly maintained to retain their original effectiveness. The maintenance program will consist of periodic inspection, repair, cleaning and proper storage.

1. **Inspection**

The wearer of a respirator will inspect it daily whenever it is in use. The Safety Coordinator will periodically spot check respirators for fit, usage, and condition. The use of defective respirators is not permitted. If a defective respirator is found during inspection, it must be returned to the tool room, so that it can be replaced immediately.

2. **Repair**

During cleaning and maintenance, respirators that do not pass inspection will be removed from service and will be discarded or repaired. Repair of the respirator must be done with parts designed for the respirator in accordance with the manufacturer's instructions before reuse. No attempt will be made to replace components or make adjustments, modifications or repairs beyond the manufacturer's recommendation.

Respirator Inspection, Maintenance and Storage - Continued

3. **Cleaning**

Respirators not discarded after one shift use, except filtering face piece type, will be cleaned on a daily basis (or after each use if not used daily), according to the manufacturer's instructions, by the assigned employee or other person designated by the Respiratory Protection Program Administrator. Facilities and supplies for cleaning these respirators will be made available. Cleaning wipes are located in break-room, tool room and can be forwarded to jobsite or employee per request.

4. **Storage**

Respirators not discarded after one shift use will be stored in a location where they are protected from sunlight, dust, heat, cold, moisture, and damaging chemicals. They shall be stored in a manner to prevent deformation of the face-piece and exhalation valve. Whenever feasible, respirators not discarded after one shift use will be marked and stored in such a manner to assure that they will be worn only by the assigned employee. If use by more than one employee is required, the respirator will be cleaned between uses.

5**. Program Evaluation**

The workplace will be reviewed and evaluated at least every 12 months to ensure that the written respiratory protection program is being properly implemented and to consult employees to ensure that they are using the respirators properly. A written report will be made of each evaluation, summarizing the findings. For each deficiency identified, corrective action taken will be noted.

Appendix: **Respirator Inspection Checklist**
Respirator User Seal Check Procedures

RIGGING SAFETY RULES

1. Introduction

It is critical to follow proper rigging procedures and precautions. Rigging mishaps may result in worker injuries and property damage.

2. Procedures and Precautions

a) Know the weight of the load. This information can be retrieved from design plans, shipping papers, calculated data, or the operator's weight calculations. Crane load indicators are invaluable to ascertaining load weights.

b) Know the center of gravity of the load. The stability of a load is critical; the weight of the load must be equally distributed for rigging. A stable load involves the positioning of the hook directly above the center of gravity. If the center of gravity is not determined correctly, the load can tilt causing heavy loading on a sling leg. Re-rig the load if the load tilts more than 5 degrees.

c) Select a hitch that will hold and control the load. The requirements for selecting a proper hitch configuration are security against slippage, suitability, and strength.

d) Know the rated capacities of slings and rigging hardware. Safe working loads must be based on a safety factor of 5:1. This factor accommodates allowable defects only.

e) Select the sling that is best suited for the load. It is critical to select the proper sling construction to fit the material to be loaded, lifted, or moved. Keep in mind that there are different configurations for fiber ropes, wire ropes, chains, and webs.

2. Procedures and Precautions – Continued

f) Select the type of sling that is appropriate for the lifting situation (e.g., consider crushing, abrasion, kinking, overloading, and impact loading).

g) Inspect all rigging gear prior to use. The condition of the equipment on the day it is used is just as critical as the capacity when it is new. A weekly visual inspection of the rigging gear is suggested along with an in-depth monthly inspection.

h) Protect the sling from sharp surfaces. Damage to the sling, premature wear, and possible failure may occur if blocking or protective softeners are not used to protect the sling.

i) Protect the load from the rigging. Loads should be secured to prevent dislodgment of parts and damage to loads.

j) Do not use slings with hand-tucked splices where the sling is free to rotate.

k) Allow for the increased tension caused by the sling angle. The load in each leg will increase as the angle of the sling configuration decreases.

l) Allow for low D/d ratios on wire rope. Bending wire rope affects its rated strength. When a rope travels over a sheave or is bent around an object, the rated strength of the rope will reduce. The integrity of the rope depends on the bend diameter compared to the rope diameter.

Definition: D = Diameter of curvature around which the rope is bent, d = diameter of rope. Example: With 0.5-inch-diameter rope passing over a 20-inch-diameter sheave, the D/d ratio is 40. The D/d ratio is a key factor in load-carrying ability and life span of a wire rope.

RIGGING SAFETY RULES – CONTINUED

2. Procedures and Precautions – Continued

m) Equalize the loading on bridle leg. The legs of a bridle will only be equally loaded when they are precisely of equal length and perfectly surround the center of gravity of the load.

n) Allow for reductions when using choker hitches. A full 360 degree contact is not provided with a single choker hitch when the rope tightens as the load is lifted. Single choker hitches are not suggested for loose bundle loads. Sling angles of less than 45 degrees are not recommended.

o) Allow for sling angles. The rated capacity of any sling depends on its size, configuration, and the sling angles. Keep angles at 45 degrees or greater and use caution with angles nearing 30 degrees.

p) When chain is used, use only alloy chain. Alloy chain is usually stamped with an "A" on each link. Use a web or wire sling for lifting loads to protect against sudden failure.

q) Attach tag lines prior to the lift if required. In the event that a load will be handled for landing, a nonconductive line should be used for handling control and to protect against electrical shock.

r) Keep personnel clear of the lift area. A load should never be hoisted over people.

s) Lift the load a few inches to check the rigging. This will allow rigging and hardware to settle and permit another inspection of the connections.

t) Know the limitations of the hoisting device. Know the safe working load limits of the hardware.

2. Procedures and Precautions – Continued

u) Start and stop slowly. The sudden stopping of a load (dynamic loading) produces hook loads higher than the actual load weight. Rapid hoist acceleration (shock loading) also increases the load weight. Both of these factors reduce the rated capacity of the crane.

v) Watch for obstructions and power lines. Contact with power lines is the number one cause of death for riggers. Correct distances must be maintained while taking into consideration all elements, such as the wind. A competent signal person must be in the proper place to assist the equipment operator.

w) Use the proper hand signals. There should be no confusion when it comes to communications between the operator and the signal person. The operator and signal person should not assume that they agree on proper hand signals; they should have a pre-lift discussion on signals to be certain.

x) Maintain load control. Ensure that the lift and swing path is clear of obstructions, avoid distractions, and maintain the center of gravity.

y) Do not forget the law of gravity. What goes up will come down.

Appendix: Crane Hand Signals
Crane Inspection Form

Note: The Rigging Handbook, additional training materials, and a complete list of definitions may be obtained at the AIS Safety Department office during normal office hours.

SAFETY SHOES

1. All personnel who are assigned to work in the field, shop, and warehouse are required to wear safety shoes meeting ANSI requirements.

2. Foot protection not only prevents injury from impact, but also against chemicals, electrical, etc.

3. Personnel who are not assigned to field, shop or warehouse are required to wear safety shoes if working in shop, warehouse, and when the customer's policy requires it.

4. AIS will reimburse employees annually $50.00 for the purchase of safety shoes. Forward a properly completed expense report with a receipt itemizing "safety shoes" attached to the Safety Department.

SAFETY VIOLATIONS

Employees who violate Company safety policies will be issued a Safety Violation from the Safety Department. Employees working with someone that shows disregard to our safety policies are encouraged to report the employee to the job foreman immediately so the unsafe behavior can be addressed as required.

Foremen have the responsibility to address any unsafe behavior at the jobsite, and report this behavior to the Safety Department. The following are examples why an employee would be issued a safety violation:

a) Failure to follow AIS and/or our customer's safety policy.
b) Careless behavior on jobsite.
c) Failure to complete any training required by Safety Dept.
d) Failure to complete any AIS Safety Forms that are required (Daily Jobsite Inspection Form, Project Safety Survey, etc.).
e) Employee was involved in or caused a work-related accident due to unsafe behavior or carelessness.

SAFETY VIOLATIONS - CONTINUED

f) Failure to report a work related injury or accident within 24 hrs. to the Safety Department.

Any employee receiving three (3) or more safety violations will not be considered for a bonus and/or pay increase for a period of one year from last violation. AIS may also impose a pay-cut. Employees who continue to disregard AIS safety requirements will be disciplined up to and including termination.

SANITATION AND HYGIENE

1. Before eating and before going home, wash hands, arms and face. Proper personal hygiene is an important health measure.

2. Do not eat in any area exposed to toxic materials.

3. Help keep washrooms clean and sanitary.

4. Throw all refuse and recyclables in the appropriate containers provided.

5. Change work clothes at frequent intervals. Soiled clothing should be cleaned frequently as a health measure.

6. Good housekeeping is imperative and provides a safe work place.

7. Report any safety and health suggestions to your foreman or the Safety Coordinator.

SCAFFOLDING

1. Introduction

Scaffolding is one of the most frequently found hazards on construction sites. All scaffolding is designed for specific uses under prescribed conditions. Many hazards are created when scaffolding is used for purposes that it was not designed for, or when it is improperly erected or maintained.

The following is a collection of several of the rules and regulations that apply to scaffolds that can be used to make the job site safe.

2. General Requirements

Scaffolds may only be erected under the supervision of an individual who has been trained as a scaffold competent person. All employees that use scaffolding must be trained in its use.

The following rules apply to scaffold erection and use:

a) Scaffolds must be erected on sound, rigid footing, capable of carrying the maximum intended load without settling or displacement, base plates or mud sills must always be used.

b) Scaffolds and their components must be capable of supporting, without failure, at least 4 times the maximum intended load.

c) Where persons are required to work or pass under the scaffold, there must be a screen with maximum 1/2-inch openings between the toe board and the guardrail.

d) All planking must be Scaffold Grade or equivalent as recognized by approved grading rules for the species of wood used.

e) Scaffold planking must be overlapped a minimum of 12 inches or secured from movement.

2. General Requirements - Continued

f) Scaffold planks must extend over their end supports not less than 6 inches or more than 12 inches.

g) All scaffolding and accessories must have any defective part immediately replaced or repaired

h) An access ladder or equivalent safe access must be provided.

i) Guardrails, mid rails, and toe boards must be installed on all open sides and ends of platforms more than 10 feet above the ground or floor, except needle beam scaffolds and floats, unless other suitable fall protection is provided. Scaffolds 4 feet to 10 feet in height, having a minimum dimension in either direction of less than 45 inches, must have standard guardrails installed on all open sides and ends of the platform.

j) Guardrails must be installed approximately 42 inches above the working platform. The guardrail must be able to resist a minimum force of 200 pounds applied in any direction.

k) Toe boards must be a minimum of 3.5 inches in height.

l) Mid rails are to be installed midway between the guardrail and toe board. The mid rail must be able to resist a minimum force of 150 pounds applied in a downward or outward direction.

m) Where persons are required to work or pass under the scaffold, wire mesh must be installed between the toe board and the guardrail, extending along the entire opening, consisting of No.18 gauge U.S. Standard wire 1/2 inch mesh, or the equivalent.

2. General Requirements – Continued

n) Scaffolds must be properly braced by cross bracing or diagonal braces, or both, for securing vertical members together laterally, and the cross braces must be of such length as will automatically square and align vertical members so that the erected scaffolds are always plumb, square, and rigid. All brace connections must be made secure.

o) When a supported scaffold reaches a height that is more than **four times** its minimum base dimension (4:1), it must be restrained by guys, ties, or braces to prevent it from tipping.

p) Guys, ties, and braces shall be installed according to the scaffold manufacturer's recommendations or at the closest horizontal member to the 4:1 height and repeated vertically every 20 feet or less thereafter for scaffolds 3 feet wide or less, and every 26 feet or less thereafter for scaffolds greater than 3 feet wide.

q) Guys, ties, and braces shall be installed at each end of the scaffold and at horizontal intervals not to exceed 30 feet.

r) All workers must be trained in proper scaffolding use and work procedures, including prevention of overloading, working near power lines, reporting damage, and working during inclement weather.

s) Scaffold inspections should be conducted daily at the start of each shift and after any alterations or repairs. All inspections must be documented.

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SCISSOR LIFTS

1. Introduction

Scissor lifts generally provide safe and efficient access to elevated work areas. However, as with any equipment, there are potential safety hazards. Safe use of the machines requires competent and trained personnel, as well as appropriate maintenance.

This information outlines several safety procedures that need to be implemented to ensure successful and safe operation of a scissor lift.

2. Safety Requirements

OSHA includes scissor lifts with their scaffold standard, Subpart L, 29 CFR 1926.450. As such, they fall under the general requirements for scaffolding. The following items should be included in an overall safety program for scissor lifts.

3. Inspections

A. **Annually** – as required by the manufacturer.

B. **Quarterly** - Inspections should include operation of controls, chain and cable mechanisms, safety devices, lubrication of moving parts, visual inspection of structural and critical components, and other items as specified by the manufacturer.

3. Inspections - Continued

C. **Daily**

a) Check the operating controls, emergency controls, safety devices, tires and wheels, cables and wiring, structural components, guardrail system, etc.

b) Keep the manuals, and use them. They provide maintenance, safety and usage information. Make sure that employees understand the information in the manuals.

c) Use appropriate lockout/tagout procedures when doing maintenance. Fatalities have occurred when employees worked on the machinery and the lift was accidentally lowered.

d) Operator training is needed. Make sure that anyone operating the equipment has knowledge of the machine, including how to operate it and the safety features of the machine. Have the employee demonstrate his/her knowledge by getting on the machine and operating it under the trainer's supervision. Keep records of the training and don't allow people on the machine if they have not been trained.

e) Inspect the workplace before beginning operations. Are there holes or drop-offs? Any overhead obstructions or high voltage conductors? Any debris or hazardous locations or materials? Are there unauthorized persons in the area? If there are problems, fix them before beginning use of the lift.

3. Inspections – Continued

C. **Daily - Continued**

f) Employees must keep their feet on the floor of the platform. Use of planks or ladders or other devices to reach additional height must be prohibited. Why? Simply because that puts the employee outside the protection of the guardrail system in place on the lift.

g) Make sure the rail and chain are in place across the entrance to the lift. Again, these are there to prevent the employee from falling. All manufacturers' safety devices must be kept in place. These include guardrails, midrails, alarms, etc.

h) Be careful not to exceed the manufacturer's capacity limitations.

i) Pay attention to load distribution criteria, as established by the manufacturer. Ensure that debris or materials being loaded onto the platform to not exceed its maximum rating.

j) Watch for other moving equipment. If possible, warning lines or barricades should be used to prevent unauthorized access to the work area.

k) Employees properly working from the platform of the scissor lift do not need to be tied off by using a personal fall arrest system, **unless** the manufacturer provides a tie-off point. Always follow the manufacturer's instructions.

Appendix: ***Aerial / Scissors Lift Inspection Form***

STAGING, STORING MATERIALS

1. Use care when stacking material for your safety as well as for your fellow workers.

2. Do not stack material too high.

3. Secure material on skids with banding to secure in stable condition.

4. Do not store parts or boxes on top of other parts or boxes that may collapse under the added weight.

5. Do not overflow floors.

TRAVELING EMPLOYEES: TRAVEL & HOTEL SECURITY

1. Introduction

Employees who travel for business can be targets for theft and assault in a variety of places - including at hotels.

This information addresses some basic precautions that can be taken to reduce the possibility of a theft or assault and to minimize the damage if a theft occurs.

2. During Travel

a) Travel with companions whenever possible.

b) Travel with as few bags as possible.

c) Be aware of your surroundings.

d) Avoid trouble rather than confront it.

e) Carry car keys and house keys on separate chains (to minimize risk in case one is lost).

2. During Travel - Continued

f) Avoid stating your name or destination within the hearing range of others.

g) Be wary of very friendly strangers, especially those who display great interest in your personal life or work schedule.

h) Keep your cell phone and emergency numbers within easy reach in the event of an emergency.

3. Airports

a) Do not leave bags unattended in public places. Avoid areas where unattended bags are present.

b) Check luggage as soon as possible and remain within the security area.

c) Carry all prescription medicines in their original, labeled container to make customs' processing easier. Keep them in your carry-on luggage. Obtain the generic name of all prescription medicines for easy replacement at any pharmacy.

d) If any medicine contains narcotics, carry a letter from your physician attesting to your need to take them.

4. Travel by Rental Car

a) Familiarize yourself with the workings of the automobile.

b) Before getting into the car, examine it for damage.

c) Never let anyone place a package inside or enter the car unless you are present.

4. Travel by Rental Car - Continued

d) Test specific equipment before driving, such as brakes, lights, backup.

e) Keep the gas tank at least half full.

f) Look doors immediately when entering the car. Keep doors locked at all times and windows closed in city streets where people can reach in and unlock the door. If someone knocks on the window and wants to talk, drive away slowly.

g) Don't pick up hitchhikers.

h) Don't stop for stranded drivers.

i) Anytime you approach your car and someone unfamiliar is standing close, wait until they leave before entering the car.

j) Park in well-lit, high traffic areas, near building doors.

k) Look about before you exit to avoid being taken by surprise.

5. Hotel Security

a) Guard your baggage carefully, and do not leave it unattended in airports or the hotel lobby.

b) Consider the use of the hotel safe for storing valuables that you do not need to keep with you. Note: It is a good idea to leave costly items at home unless they are really needed.

c) Do not open the door for strangers. Use the door's peephole to identify a caller.

5. Hotel Security - Continued

d) Do not let maintenance persons inside without calling the front desk for verification.

e) Use the "buddy system" whenever possible. This includes shopping, recreation and dining. If alone, be back in the hotel by nightfall.

f) Never entertain strangers in your room.

g) Deal only with authorized agents when exchanging money or making purchases.

h) When returning to your hotel/motel late in the evening, use the main entrance. Be observant and look around before entering parking lots.

i) Close the door securely whenever you are in your room. Use all locking devices on the door. If there is an adjoining room, make sure the door is locked on your side.

j) Do not needlessly display guest room keys or cards or leave them on restaurant tables, at the swimming pool or other places where they can be easily stolen. A thief could have already identified the room you are in and be waiting for an easy opportunity to get into it.

k) Do not leave valuables in your car. If items need to be left in your car, they should be locked in the trunk. Do not be conspicuous when placing items in the trunk.

l) Check to make sure all windows and sliding doors are securely locked.

m) If you see any suspicious activity, report it to hotel management immediately.

6. Hotel Fire Safety

a) If a fire occurs, check to see if the door is hot. If the door is hot, stay in the room.

b) If there is smoke, stay in the room. Most hotel fire fatalities are victims who die during their evacuation attempt.

c) If you cannot leave the room, shut the door tight; soak towels and bed linens and place around door edges to prevent smoke from entering the room. Fill bathtub with water for future use.

d) Follow instructions given over a hotel public address system or by hotel employees unless you are sure that the instructions are incorrect because of your direct personal knowledge of the situation.

e) Contact hotel front desk for instructions, open windows to let rescuers know where you are located.

f) Do not break windows unless your room is becoming smoky because smoke from outside the building may enter through the window. Follow rescuers' instructions when contact is made.

7. Laptop Computers

a) Do not leave laptop computers or computer bags in public areas such as hotel lobbies, luggage carts, convention rooms or display booths. In a busy place, it is easy for someone to walk away with a laptop and not be noticed.

b) Computer users should not leave the laptop in plain sight in a hotel room or convention room.

7. Laptop Computers - Continued

c) The theft of a laptop computer can "destroy" an otherwise successful business trip.

8. Conclusion

Common sense can go a long way toward preventing thefts and assaults while staying at a hotel. Alertness and caution can be the most effective crime prevention actions that a hotel guest can take.

WELDING/BURNING

1. A welding hood with appropriate tinted lenses shall be used in all electric arc welding. Goggles or face shield with appropriate tinted lenses shall be used in all torch cutting.

2. When tacking parts a welding hood, shield or goggles with appropriate tinted lenses shall be used.

3. Welders and bystanders shall not look at the flame or arc without the appropriate tinted lenses in the form of goggles or shield. Prolonged looking at an arc welding flash will cause serious burns to eyes. Should a person accidentally or unconsciously receive an eye burn, he/she shall report to Safety Coordinator.

4. Always use a spark light to ignite a cutting torch. Do not use matches.

5. Always have a fire extinguisher at hand, especially when working near combustible material. When finished with the job, check the area for smoldering fires. If not used, return the extinguisher to proper location when finished.

WELDING/BURNING - CONTINUED

6. Never use a leaky hose or torch. Tag and return to tool room.

7. Guard against inhalation of fumes when air arcing, brazing or welding alloys by using proper ventilation.

8. No welding units shall be used by anyone except those regularly employed in the welding department or those authorized to do so.

9. Always close the cylinder tank valves on the fuel and oxygen cylinders after use.

10. All cylinders shall be secured to prevent falling over.

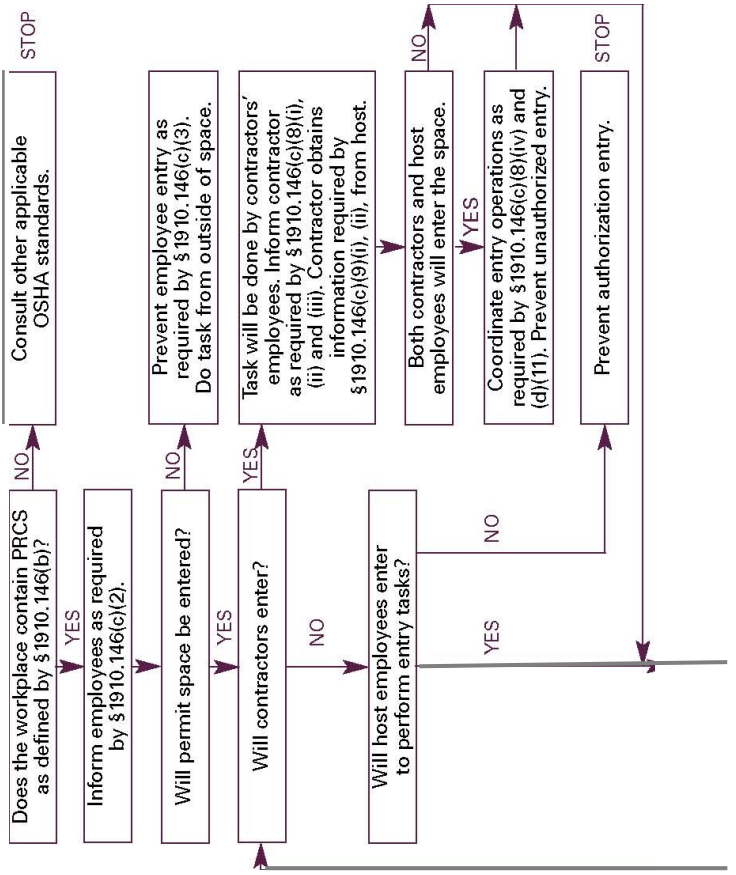
11. Hexavalent Chromium exposure is a health risk. Refer to MSDS provided for specific health risk information. In welding or cutting stainless steel or metals that are coated with a chromium material you must use an exhaust hood. If the hazard of the fumes can't be controlled by ventilation or other engineering controls, the only other measure to prevent inhalation is by using an approved respirator. If respirators are required, notify the Safety Coordinator to coordinate medical evaluations and fit testing as per OSHA regulations.

X.

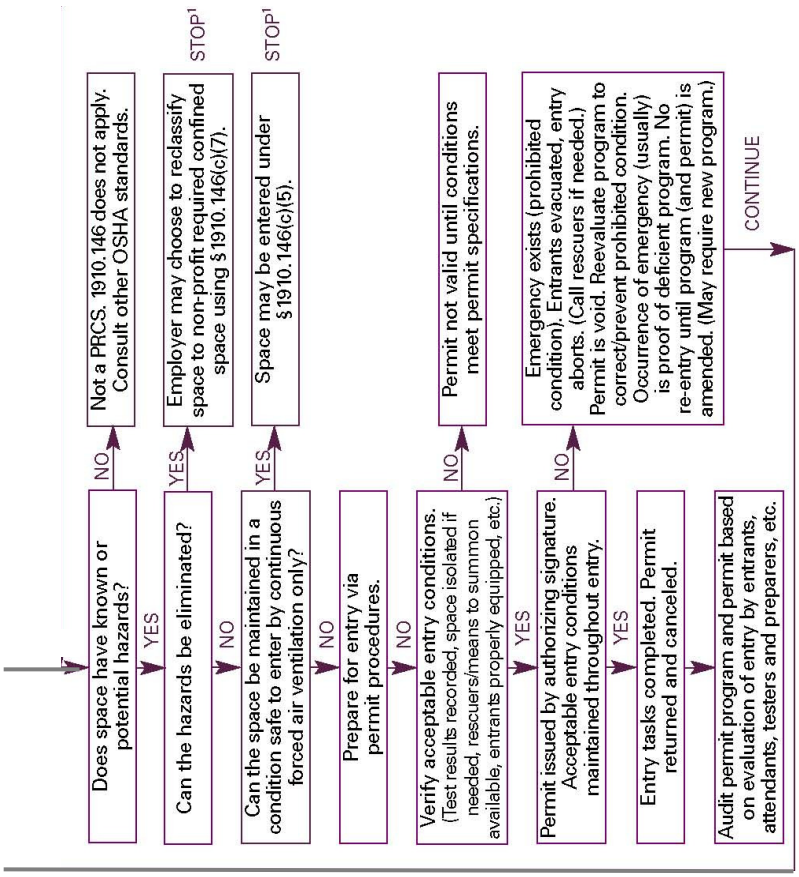
APPENDIX

Note that the documents contained in this appendix have been modified to conform to this book size to serve as a reference example only. Full size copies may be obtained at the Safety Office and should be retained by all employees for site use, before and during all projects as required.

Permit-Required Confined Space Decision Flow Chart – Part 1



Permit-Required Confined Space Decision Flow Chart – Part 2



CONFINED SPACE ENTRY PERMIT

1. Permit Space To Be Entered _____
2. Purpose of Entry _____
3. Date of Entry _____ Authorized Duration of Entry Permit _____
4. Authorized Entrants _____ _____
5. Attendants(s) _____ _____
6. Name of Current Entry Supervisor(s) 1. _____ Time _____
   2. _____ Time _____
   Entry Supervisor who Originally Authorized Entry _____
   Signature or initials

7. Record hazards of the permit space to be entered.				8. Check or list the measures used to isolate the permit space and to eliminate or control permit space hazards before entry.
Hazard	Yes	No	N/A	

Confined Space Entry Permit – Part 2

Hazard	Yes	No	N/A	permit space and to eliminate or control permit space hazards before entry.
A. Lack of Oxygen				☐ A. Purge-Flush and Vent
B. Combustible Gases				
C. Combustible Vapors				☐ B. Ventilation
D. Combustible Dusts				
E. Toxic Gases				☐ C. Lockout/Tag Out
F. Toxic Vapors				
G. Chemical Contact				☐ D. Inerting
H. Electrical Hazards				
I. Mechanical Exposure				☐ E. Blanking, Blocking, Bleeding
J. Temperature				
K. Engulfment				☐ F. External Barricades
L. Entrapment				
M. Others				☐ G. Confined Space Identification/Signs

DO NOT DESTROY THIS PERMIT
AFTER CANCELLATION THIS ENTRY PERMIT MUST BE RETAINED
BY EMPLOYER FOR AT LEAST ONE YEAR.

CONFINED SPACE ENTRY PERMIT

9. Acceptable Entry Conditions

10. Test(s) To Be Taken	Permissible Entry Levels	Test 1	Test 2	Test 3	Test 4
A. Percent of Oxygen	19.5% to 23.5%				
B.					
C.					
D.					
E.					
F.					
G.					
H.					
I.					
Name or Initials of Tester					
Test Times					

11. Rescue and Emergency Services Available:

Name _____ Name _____

Telephone _____ Telephone _____

12. Communication procedures to be used by authorized entrants and attendants.

13. Equipment supplied to the employee.

13. Equipment supplied to the employee.

Yes	No	N/A	Equipment	Description
			(i) Gas Test and Monitoring	Name _____ Model/Type _____ Serial/Unit No. _____
			(ii) Ventilating	
			(iii) Communications	
			(iv) Personal Protective Equipment	☐ Safety Harness With Life Lines ☐ Respiratory ☐ Hard Hats ☐ Eye ☐ Ear ☐ Face ☐ Hand ☐ Foot ☐ Clothing
			(v) Lighting	
			(vi) Barriers/ Shields	☐ Pedestrian ☐ Vehicle ☐ Other
			(vii) Safe Ingress/Egress	☐ Ladders
			(viii) Rescue and Emergency	☐ Lifelines ☐ Hoists ☐ Resuscitators-Inhalator
			(ix) Other Safety Equipment	

14. Other information for this particular confined space to ensure employee safety.

15. Additional Permits Required. ☐ Hot Work ☐ Other

THIS CONFINED SPACE ENTRY PERMIT HAS BEEN CANCELLED:

BY _____ (Entry Permit Supervisor) _____ AM PM (Time) _____ (Date)

Confined Space Entry Checklist – Part 1

CONFINED SPACE PRE-ENTRY CHECKLIST

LOCATION _____ DATE _____ TIME _____

ENTRY SUPERVISOR _____ PHONE _____

Mark the appropriate column: X Yes, X No, or X N/A Not Applicable.	Yes	No	N/A
1. Is a "DANGER CONFINED SPACE" sign posted to identify the site as requiring a confined space entry permit to occupy the area?			
2. Is a written permit space entry program developed and implemented that complies with Section 1910.146(c)(4)?			
3. Is the written program available for inspection by employees and their representatives?			
4. Have all ENTRANTS been provided training and acquired the understanding, knowledge and skills necessary for the safe performance of the duties assigned in Section 1910.146(h)?			
5. Have all ATTENDANTS been provided training and acquired the understanding, knowledge and skills necessary for the safe performance of the duties assigned in Section 1910.146(i)?			
6. Have all ENTRY SUPERVISORS been provided training and acquired the understanding, knowledge and skills necessary for the safe performance of the duties assigned in Section 1910.146(j)?			
7. Is the only hazard an actual or potential hazardous atmosphere?			
8. Will continuous forced air ventilation alone be sufficient to maintain the permit space safe for entry?			
9. Has monitoring and inspection data been developed to eliminate the hazardous atmosphere through forced air ventilation?			
10. Has the permit space been isolated?			
11. Have steps been taken for purging, inerting, flushing or ventilating the permit space to eliminate or control atmospheric hazards?			
12. Is monitoring available to verify that conditions are acceptable for entry throughout the duration of an authorized entry?			
13. Are employees trained on how to maintain and properly use testing and monitoring equipment?			

Confined Space Entry Checklist – Part 2

Mark the appropriate column: X Yes, X No, or X N/A Not Applicable.	Yes	No	N/A
14. Is ventilating equipment needed to obtain acceptable entry?			
15. Is communication equipment necessary and available for use between attendant and entrant?			
16. Are the entrants provided with personal protective equipment to be adequately protected insofar as feasible engineering and work practice controls allow?			
17. Has adequate lighting equipment been supplied to allow a safe work area and allow a quick exit in an emergency?			
18. Has the area been secured with barriers and shields from pedestrian, vehicle or other barriers to protect the entrants from external hazards?			
19. Is the confined space provided with equipment, such as ladders, needed for safe ingress and egress by authorized entrants?			
20. Is there other training, equipment or services needed to provide safe confined space entry?			

SAFETY EQUIPMENT CHECKLIST

___ Safety Harness with Attached Life Lines

___ Respirator and type _____

___ Hard Hat

___ Eye Protection

___ Hand Protection

___ Ear Protection

___ Foot Protection

___ Protective Clothing

___ Ventilator

___ Resuscitator

___ Communications Equipment

___ Gas Tester with Alarms

___ Other (specify)

Confined Space Entry Checklist – Part 3

GAS TESTS TAKEN

GAS	PERMISSIBLE ENTRY LEVEL	YES	NO	INSTRUMENT USED	ACTUAL READING	TESTED BY
1. Oxygen %	19.5% to 23.5%					
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

Calibrated direct-reading instruments used to test confined space atmosphere:

1. Name _____ Name _____
   Make _____ Make _____
   Serial No. _____ Serial No. _____
   Last Calibration Date _____ Last Calibration Date _____

RESCUE AND EMERGENCY SERVICES

1. Contacts in the event of an emergency include name and telephone number.

   A. _____ C. _____

   B. _____ D. _____

2. Rescue services available for this confined space entry.

   ___ employee ___ outside rescue service

3. Rescue Equipment available:

   ___ Oxygen
   ___ Resuscitator - Inhalator
   ___ First Aid Equipment
   ___ De-Fibrillator
   ___ Chest/full body harness
   ___ Retrieval line properly installed
   ___ Wristlets when it is the safest and most effective alternative

   Additional rescue equipment available

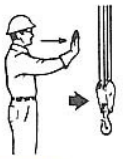
HAND CRANE SIGNALS

Crane Hand Signals

Basic hand signals used in crane operation are illustrated here.

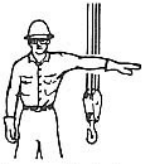
HOIST. With forearm vertical, and forefinger pointing up, move hand in small horizontal circle.

LOWER. With arm extended downward, forefinger pointing down, move hand in a small horizontal circle.

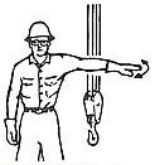


BRIDGE TRAVEL. Arm extended forward, hand open and slightly raised, make pushing motion in direction of travel.

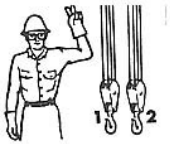
TROLLEY TRAVEL. Palm up, fingers closed, thumb pointing in direction of motion, jerk hand horizontally.



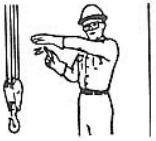
STOP. Arm extended, palm down, hold position rigidly.



EMERGENCY STOP. Arm extended, palm down, move hand rapidly right and left.



MULTIPLE TROLLEYS. Hold up one finger for block marked "1" and two fingers for block marked "2". Regular signals follow.



MOVE SLOWLY. Use one hand to give any motion signal and place other hand motionless in front of hand giving the motion signal. (*Hoist slowly* shown as example)

MAGNET IS DISCONNECTED. Crane operator spreads both hands apart – palms up.

FORKLIFT HAND SIGNALS

RAISE THE TINES. With forearm vertical, forefinger pointing up, move hand in small horizontal circle.

LOWER THE TINES. With arm extended, palm down, lower arm vertically.

TILT MAST BACK. With forearm vertical, thumb extended, jerk thumb over shoulder.

TILT MAST FORWARD. With arm extended, thumb down, lower arm vertically.

MOVE TINES IN DIRECTION FINGER POINTS. With arm extended, palm down, point forefinger in direction of movement.

DOG EVERYTHING. Clasp hands in front of body.

STOP. Extend both arms, palms down.

FALL PROTECTION: ELEVATED SURFACE WORK PLAN (ESWP) AND RESCUE PLAN

The completion of an elevated surface work plan (ESWP) is required before you access an unprotected elevated work platform or area that is above 6 ft from floor level. An unprotected elevated work platform or area is any elevated work surface, including roofs, not surrounded by a fixed barrier such as guardrails.

Exception: If using ladders, this requirement does not apply as long as you are using them properly and according to manufacturer's instructions.

The ESWP must be approved by a competent person before you access the area.

A rescue plan (last page) must be developed whenever fall arrest systems are in use and when personnel would not be able to self-rescue should a fall occur.

Project Name/ Job #: **Project Location (bldg, area, or floor #):**

Project Description:

Competent Person (print name):
Contact #: ( ) -

Competent Person (sign name):_____

Date:_____

ELEVATED SURFACE WORK PLAN

Questions to Consider	Answers or Solutions
How high is the location?	
What is the working or walking surface like?	
Are there any environmental factors to consider? (heat, cold, slippery, wet, wind, glare, etc.)	
Are there any hazards nearby or underneath that are exposed or could become exposed in an impact (plumbing lines, electrical exposures, protruding or impalement hazards, etc.)?	
Will the work require any special PPE (besides fall protection)?	
Who will I be working with (buddy system)?	
How will I get equipment and tools to the work location?	
Do I need to prevent my activities from resulting in hazards to those below by following appropriate barricading methods to keep non-essential personnel away?	
Can I work from ground level instead by bringing the work down?	
Can I work safely from a ladder instead?	
Can I use an aerial (boom) lift or scissors lift instead (and am I qualified to operate one)?	
If not, can we install portable guardrails for the job?	
In not, can I use fall restraint?	
If not, can I use fall arrest?	***If yes, complete Fall Hazard Analysis for Fall Arrest and Rescue Plan.***
Other?	

FALL HAZARD ANALYSIS FOR FALL ARREST

Are there any existing approved anchorage points I can use? Where?	***See building/area/facility mgr.***
Is it labeled as an approved anchorage point or obviously capable of holding 5000 lbs or more as determined by a qualified person?	***See building/area/facility mgr.***
If not, can approved pre-manufactured or engineered anchorages be installed?	***See building/area/facility mgr.***
Do I have the right equipment (full body harness, minimum length lanyard, shock absorber, connecting hardware, I-beam strap, self-retracting lifeline, etc)?	
What is the clearance or distance I may fall into?	
Is there at least 15 – 18 ft of clear space from anchorage point before the next level down? (calculate fall distance to include lanyard length, deceleration distance of 3.5 ft, your height, one foot of harness slack, elongation factor, and safety factor). If not enough clearance a self retracting life-line must be used.	
What is between me and the ground or floor below?	
I have a shock absorbing lanyard if I'm using a horizontal life line.	
What will I hit on the way down?	
How would I be rescued if I fall and am suspended in the harness?(Develop rescue plan)	

RESCUE PLAN

What is the emergency contact information of professional rescue services available, such as the local Fire Dept., and what are the instructions for summoning immediate assistance?	
Is rescue equipment immediately available for this location? (Ladders, aerial devices, elevating work platforms, tripods, additional harnesses, controlled decent devices, winches, pulleys, etc.)	
What obstructions are in the way reaching the suspended worker?	
How will rescue be assured within 15 minutes of the occurrence of a fall to minimize the risk of further injury or death due to suspension trauma?	
What communication system will be used between the suspended worker and the rescue team?	

RETURN COMPLETED FORM TO SAFETY DEPT. WHEN JOB IS COMPLETE

FALL PROTECTION ESWP / SAFETY DEPT. / AIS SAFETY FORMS

EMPLOYEE REQUEST: MATERIAL SAFETY DATA SHEET

EMPLOYEE'S NAME: REQUEST DATE:

EMPLOYEE'S TITLE

DEPARTMENT

THE SUBSTANCE OR SUBSTANCES FOR WHICH I REQUEST A COPY OF THE MATERIAL SAFETY DATA SHEET IS (ARE):

_____
_____
_____

Employee's Signature : _____
Date:_____

REQUEST STATUS

REQUESTED COPY(S)
RECEIVED _____
(Signature) (Date)

REQUESTED COPY(S)
UNAVAILABLE _____
(Signature) (Date)

THE UNAVAILABLE COPY(S) OF THE MATERIAL SAFETY DATA SHEET HAVE BEEN REQUESTED FROM, AND WILL BE FURNISHED BY, THE SUPPLIER.

_____
(Compliance Officer) (Date)

Exposure Assessment Record Form

To: **Facility Safety Representative**

From: **Crystal M. Gallagher,**
AIS Respirator Program Administrator

Job Name / #:

Job Description:

AIS, Inc. is scheduled to perform work at your facility. In order for us to protect our employees from hazardous exposure, if any, we need to be made aware of any contaminants that they will be exposed to. Additionally we need the contaminants and levels identified for proper respirator and filter selection as well as determining change schedules. ***MSDS sheets that are applicable should be forwarded with this Exposure Assessment Record.***

Please complete this form and fax back to my attention at 717-764-3144. You can also email to crystal@ais-york.com.

If you have any questions regarding this request, please feel free to contact my office at 1-800-544-5080, ext 111

Thank you in advance for your assistance in this matter. We can better prepare for the safety and health of our employees with a complete awareness of what types of contaminants and levels they will be exposed to.

Continued …

Exposure Assessment Record Form - Continued

Check which applies:
None: Contaminants to identify (if checked please identify in chart below).

Contaminant Identified	Work Area Affected	Concentration (Measured or Estimated)	Reference: (Report Number, Survey, Sample)	OEL *	Hazard Ratio **

OEL – Occupational Exposure Limit: PEL, TLV, REL, WEEL or other company-specified occupational exposure limit.

***** The Hazard Ratio is the quotient of the measured or estimated concentration divided by the appropriate occupational exposure limit. Respiratory protection is required if this value is greater than one and all feasible engineering and work practice controls have been implemented to reduce the concentration to as low as possible.***

Name of person completing this assessment:
(print) _____ **Title:**_____

Signature: _____

Date: _____

When it comes to safety, your input is very important. The company's safety program can thrive if all employees make suggestions and recommendations concerning safety and health.

Describe your safety suggestion below. You can submit the form anonymously. However, it can be helpful if you provide your contact information so we can contact you should we have questions or need clarification.

Safety Suggestion Form	
Contact Information	
Name: Employee number:	Date:
Supervisor/Manager:	Department:
Describe the potential hazard, unsafe condition, or improvement (Provide as much detail as possible, including location, nature of the hazard, specific equipment involved, etc.)	
Describe your suggestion to improve safety or correct the hazard	

Please return your suggestion form to the Safety Department.

WARNING!

HOT WORK IN PROGRESS
WATCH FOR FIRE!

IN CASE OF AN EMERGENCY:

CALL: _____

AT:

_____

WARNING!

HOT WORK PERMIT – PART A

HOT WORK PERMIT

All temporary operations involving open flames or producing heat and/or sparks require a Hot Work Permit. This includes, but is not limited to, Brazing, Cutting, Grinding, Soldering, Thawing, and Welding.

PART A

INSTRUCTIONS FOR FIRE SAFETY SUPERVISOR

1. Verify precautions listed at right (or do not proceed with the work).
2. Complete PLY 1 and retain for job files.
3. Post PLY 2 in vicinity of hot work.

DATE _____ JOB NO. _____

LOCATION/BUILDING & FLOOR (Be Specific) _____

DESCRIPTION OF WORK BEING PERFORMED _____

NAME OF PERSON DOING HOT WORK _____

The above location has been examined, the precautions checked on the Hot Work Checklist have been taken to prevent fire, and permission is authorized for this work.

SIGNED: _____
(Fire Safety Supervisor)

SIGNED: _____
(Person doing Hot Work)

SIGNED: _____
(Fire Watch)

TIME STARTED: Date:_____ Time:_____ AM/PM

PERMIT EXPIRES: Date:_____ Time:_____ AM/PM

FILL OUT EMERGENCY INFORMATION ON PAGE 2.

HOT WORK CHECKLIST

- ☐ Sprinklers and hose streams in service/operable.
- ☐ Hot Work Equipment in good condition (e.g., power source, welding leads, torches, etc.)
- ☐ Multi-purpose fire extinguisher and/or water pump can.

REQUIREMENTS WITHIN 35 FEET OF WORK

- ☐ Dust, Lint, Debris, Flammable Liquids and oily deposits removed.
- ☐ Explosive atmosphere in area eliminated.
- ☐ Combustible floors (e.g., wood, tile, carpeting) wet down, covered with damp sand or fire blankets.
- ☐ Remove flammable and combustible material where possible. Otherwise protect with fire blankets, guards, or metal shields.
- ☐ All wall and floor openings covered.
- ☐ Walkways protected beneath hot work.

WORK ON WALLS OR CEILINGS

- ☐ Combustibles moved away from other side of wall.

WORK IN CONFINED SPACES

- ☐ Confined space cleaned of all combustibles (example: grease, oil, flammable vapors).
- ☐ Containers purged of flammable liquids/vapors.
- ☐ Follow confined space guidelines.

FIRE WATCH/HOT WORK AREA MONITORING

- ☐ Fire watch will be provided during and for 30 minutes after work, including any coffee or lunch breaks.
- ☐ Fire watch is supplied with an extinguisher, and/or water pump can, also making use of other extinguishers located throughout work area.
- ☐ Fire watch is trained in use of this equipment and familiar with location of sounding alarm.
- ☐ Fire watch may be required for opposite side of walls, above, and below floors and ceilings.

OTHER PRECAUTIONS TAKEN

- ☐

HOT WORK PERMIT – PART B

HOT WORK PERMIT

All temporary operations involving open flames or producing heat and/or sparks require a Hot Work Permit. This includes, but is not limited to, Brazing, Cutting, Grinding, Soldering, Thawing, and Welding.

PART B

INSTRUCTIONS FOR FIRE SAFETY SUPERVISOR

1. Verify precautions listed at right (or do not proceed with the work).
2. Complete page 1 and retain for job files.
3. Post page 2 in vicinity of hot work.

DATE | JOB NO.

LOCATION/BUILDING & FLOOR (Be Specific)

DESCRIPTION OF WORK BEING PERFORMED

NAME OF PERSON DOING HOT WORK

The above location has been examined, the precautions checked on the Hot Work Checklist have been taken to prevent fire, and permission is authorized for this work.

SIGNED:
(Fire Safety Supervisor)

SIGNED:
(Person doing Hot Work)

SIGNED:
(Fire Watch)

TIME STARTED: Date:_____ Time:_____AM/PM

Date:_____ Time:_____AM/PM

FIRE WATCH SIGNOFF

Work area and all adjacent areas to which sparks and heat might have spread were inspected during the fire watch period and were found fire safe.

Signed:_____

FINAL CHECKUP (minimum 30 minutes after Hot Work)

Work area was monitored for _____ hour(s) following Hot Work and found fire safe.

Signed:_____

FILL OUT EMERGENCY INFORMATION ON BACK OF PLY 2.

HOT WORK CHECKLIST

- ☐ Sprinklers and hose streams in service/operable.
- ☐ Hot Work Equipment in good condition (e.g., power source, welding leads, torches, etc.)
- ☐ Multi-purpose fire extinguisher and/or water pump can.

REQUIREMENTS WITHIN 35 FEET OF WORK

- ☐ Dust, Lint, Debris, Flammable Liquids and oily deposits removed.
- ☐ Explosive atmosphere in area eliminated.
- ☐ Combustible floors (e.g., wood, tile, carpeting) wet down, covered with damp sand or fire blankets.
- ☐ Remove flammable and combustible material where possible. Otherwise protect with fire blankets, guards, or metal shields.
- ☐ All wall and floor openings covered.
- ☐ Walkways protected beneath hot work.

WORK ON WALLS OR CEILINGS

- ☐ Combustibles moved away from other side of wall.

WORK IN CONFINED SPACES

- ☐ Confined space cleaned of all combustibles (example: grease, oil, flammable vapors).
- ☐ Containers purged of flammable liquids/vapors.
- ☐ Follow confined space guidelines.

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- ☐ Fire watch is trained in use of this equipment and familiar with location of sounding alarm.
- ☐ Fire watch may be required for opposite side of walls, above, and below floors and ceilings.

OTHER PRECAUTIONS TAKEN

- ☐

CRANE INSPECTION REPORT

Prior to initial use, all new and altered cranes should be inspected to determine if any safety hazards exist. Thereafter, inspections should be performed at intervals according to the following list. Some components require daily inspection, while others need only be checked on a monthly basis. A complete inspection should also include observation during operation to detect any defects that might appear between regular inspections.

In the chart below, each area of inspection is identified by an item number. The frequency of inspection required is indicated under "Inspection Frequency." The two columns on the right are for noting the condition of the items after inspection. For any item found to be completely satisfactory, check (✳) the first column – OK. For any item found to require attention, check (✳) the second column – See Other Side. If the item is not applicable, check (✳) the third column (N/A). The chart on the reverse side of this page has a column for item numbers. In this column, place the item numbers requiring attention, and fully describe the hazard and recommended corrective action.

Type of Crane	Crane Capacity - Tons	Main Hoist Capacity – Tons	Auxiliary Hoist Capacity - Tons

Item	Inspection Frequency		Part of Crane to be Inspected	Hazards to Look For	OK	See Back	N/A
	Daily	Monthly					
1	*	*	Controls and operating mechanisms	Improperly Adjusted or Excessive Wear	☐	☐	☐
2	*	*	Lines, Tanks, Valves, and Other Parts in Air or Hydraulic Systems	Deterioration or Leakage	☐	☐	☐
3	*	*	Hooks	Deformed or Cracked Safety Clips in Poor Condition 15% in Excess of Normal Throat Opening Over 10% Twisted Magna Flux Crack Inspection	☐	☐	☐

CRANE INSPECTION REPORT – PART 2

				Weight Test Crane Inspection				
4	*	*	Chains and End Connections	Excessive Wear, Twist, Stretch or Distortion of Links Beyond Mfgr's Specs.	☐	☐	☐
5	*	*	Ropes, Reeving, Slings, and End Connections	Excessive Wear, Twist, Stretch, Kinks, or Broken Wires	☐	☐	☐
6	*	*	Safety Devices, Belt-Chain Gear Guards	Improperly adjusted, Missing or Broken	☐	☐	☐
7	*	*	Tires	Inflation and Condition	☐	☐	☐
8	*	*	Outriggers	Locking Devices and General Condition Foundation and Cribbing	☐	☐	☐
9	*	*	Fire Extinguisher	Missing or Discharged	☐	☐	☐
10	*	*	Cab Windows	Broken or Missing	☐	☐	☐
11	*	*	Lubrication	Engine Oil Level and Moving Crane Parts	☐	☐	☐
12		*	Boom and Crane Structure	Bent or Twisted Parts Broken Welds, Cracks, Heavy Rust	☐	☐	☐
13		*	Bolts and Rivets	Loose	☐	☐	☐
14		*	Sheaves and Drums	Excessive Wear, Cracks	☐	☐	☐
15		*	Pins, Bearings, Shafts, Rollers, Gears, Locking and Clamping Devices	Excessive Wear, Distortion, Cracks	☐	☐	☐
16		*	Brake Systems	Excessive Wear	☐	☐	☐
17		*	Indicators (Load, Wind, Boom Angle)	Significant Inaccuracy	☐	☐	☐
18		*	Power Plant (Gas, Diesel, Electric, Other)	Poor Performance, Non-Compliance With Safety Rules	☐	☐	☐
19		*	Chain Drives, Sprockets	Excessive Wear	☐	☐	☐
20		*	Electrical Apparatus	Deterioration of Wiring, Worn or Dirty Controls, Poor Connections	☐	☐	☐

DAILY JOBSITE INSPECTION REPORT - PART 1

DAILY JOBSITE INSPECTION REPORT

FOREMAN MUST ASSURE THAT THESE SITE SPECIFIC SAFETY ISSUES ARE ADDRESSED AS NEEDED. PLEASE CHECK TO INDICATE COMPLIANCE REQUIREMENTS WERE MET WHEN APPLICABLE.

Job #: _____

ALL JOBS

- ☐ DAILY LIFT INSPECTION PERFORMED AS REQUIRED
- ☐ PROPER PPE BEING USED AS REQUIRED
- ☐ ALL GAS BOTTLES HAVE BEEN SECURED
- ☐ POWER TOOLS AND ELECTRICAL CORDS INSPECTED AND IN PROPER WORKING CONDITION.
- ☐ FIRE HAZARDS, FIRE EXTINGUISHERS AND EMERGENCY EXITS HAVE BEEN IDENTIFIED TO CREW
- ☐ FIRST AID KIT IS AVAILABLE IN EVENT OF EMERGENCY

SITE SPECIFIC

- ☐ LOCK-OUT / TAG-OUT PROCEDURES PERFORMED AS REQUIRED
- ☐ CONFINED SPACE PERMIT POSTED AND COMPLETED AS REQUIRED
- ☐ LADDERS INSPECTED PRIOR TO USE
- ☐ SCAFFOLDING IS SECURED PROPERLY
- ☐ RIGGING – CHAINS / SLINGS INSPECTED PRIOR TO USE
- ☐ HOT WORK PERMIT PROCEDURES PERFORMED AS REQUIRED

IDENTIFY ANY HAZZARDS

- ☐ CHEMICAL
- ☐ ELECTRICAL
- ☐ HARMFUL DUST
- ☐ LIGHT (OPTICAL) RADIATION
- ☐ NOISE
- ☐ TEMPERATURE EXTREMES
- ☐ TOOLS OR EQUIPMENT SENT TO JOB NEEDS REPAIRED (TAG TO IDENTIFY REPAIRS NEEDED)
- ☐ OTHER

☐ **TOOL BOX TALK PERFORMED:** (to be done prior to commencement of work; discuss expectations for the day, work-related topics, identify hazards, etc.).

TOPIC DISCUSSED: _____

IF HAZARDS HAVE BEEN IDENTIFIED PLEASE NOTE CORRECTIVE ACTION TAKEN:

_____

_____

Notify Operations and/or Project Mgr. if corrective measures require further action beyond your contro Tag and notify either Toolroom or Maintenance Dept. of any repairs needed. Report any crew that fail comply with AIS safety requirements to Safety Coordinator so we can address as needed. All WORK-RELATED injuries must be reported to Safety Coordinator.

NAME OF EMPLOYEE PERFORMING INSPECTION: _____

SIGNATURE OF FOREMAN: _____Date: _____

AERIAL / SCISSORS LIFT EQUIPMENT INSPECTION CHECKLIST

- To be completed by operator when checking out and checking in equipment.
- Inspect equipment periodically.
- Use only equipment which is in safe working condition.
- DO NOT operate equipment if any items inspected need repair.
- Notify AIS maintenance of any needed repairs.

Check (Add if necessary)	**O.K.**	**Repair Needed**	**Date of Repair**
Oil Level			
Fuel Level			
Coolant Level (DO NOT CHECK IF HOT)			
Tire Pressure/Condition			
Hydraulic Level			
Leaks			
CHECK OPERATIONS:	**O.K.**	**Repair Needed**	**Date of Repair**
Horn			
Gauges			
Brakes			
Lights			
Steering			
Attachments			
Accessories			
Back-up Alarm			
Warning Lights			
Warning Buzzer			
Equipment Number/Type of Vehicle			
Location of Use			
Operators Name (Please Print)			
Inspection Date/*Out*		**Inspection Date/*In***	
Hour Meter/Out		***Hour Meter/In***	

FULL BODY HARNESS ANNUAL INSPECTION CHECKLIST

Full Body Harness
Annual Inspection Checklist

Harness Model/Name: _____

Serial Number:_____Lot Number:_____

Date of Manufacture:_____ Date of Purchase:_____

Comments:_____

_____

_____

General Factors	Accepted/Rejected	Supportive Details/Comments
1) **Hardware:** includes D-rings, buckles, keepers and back pads. Inspect for damage, distortion, sharp edges, burrs, cracks and corrosion.	☐ Accepted ☐ Rejected	
2) **Webbing:** Inspect for cuts, burns, tears, abrasions, frays, excessive soiling and discoloration.	☐ Accepted ☐ Rejected	
3) **Stitching:** Inspect for pulled or cut stitches.	☐ Accepted ☐ Rejected	
4) **Labels:** Inspect, making certain all labels are securely held in place and are legible.	☐ Accepted ☐ Rejected	
5) **Other:**	☐ Accepted ☐ Rejected	
6) **Other:**	☐ Accepted ☐ Rejected	

LANYARDS ANNUAL INSPECTION CHECKLIST

Lanyards Annual Inspection Checklist

Lanyard Model/Name: _____

Serial Number:_____Lot Number:_____

Date of Manufacture:_____ Date of Purchase:_____

Comments:_____

_____

_____

General Factors	Accepted/Rejected	Supportive Details/Comments
1) **Hardware:** (includes snap hooks, carabineers, adjusters, keepers, thimbles and D-rings) Inspect for damage, distortion, sharp edges, burrs, cracks, corrosion and proper operation.	☐ Accepted ☐ Rejected	
2) **Webbing:** Inspect for cuts, burns, tears, abrasions, frays, excessive soiling and discoloration.	☐ Accepted ☐ Rejected	
3) **Stitching**: Inspect for pulled or cut stitches	☐ Accepted ☐ Rejected	
4) **Synthetic Rope**: Inspect for pulled or cut yarns, burns, abrasions, knots, excessive soiling and discoloration.	☐ Accepted ☐ Rejected	
5) **Energy Absorbing Component:** Inspect for elongation, tears and excessive soiling.	☐ Accepted ☐ Rejected	
6) **Labels**: Inspect, making certain all labels are securely held in place and are legible.	☐ Accepted ☐ Rejected	
7) **Overall Condition**:	☐ Accepted ☐ Rejected	**Inspected By:** **Date Inspected:**

SNAPHOOKS / CARABINEERS ANNUAL INSPECTION REPORT

Hook/Carabineer Model/Name: _____

Serial Number:_____Lot Number:_____

Date of Manufacture:_____ Date of Purchase:_____

Comments:_____

_____

_____

General Factors	Accepted/Rejected	Supportive Details/Comments
1) **Physical Damage:** Inspect for cracks, sharp edges, burrs, deformities and locking operations.	☐ Accepted ☐ Rejected	
2) **Excessive Corrosion:** Inspect for corrosion, which affects the operation and/or the strength.	☐ Accepted ☐ Rejected	
3) **Markings:** Inspect and make certain marking(s) are legible.	☐ Accepted ☐ Rejected	
4) **Other:**	☐ Accepted ☐ Rejected	
5) **Other:**	☐ Accepted ☐ Rejected	
6) **Other:**	☐ Accepted ☐ Rejected	
7) **Overall Condition:**	☐ Accepted ☐ Rejected	**Inspected By:** **Date Inspected:**

S/R LANYARD/LIFELINE ANNUAL INSPECTION CHECKLIST

Self-Retracting Lanyard/Lifeline
Annual Inspection Checklist

Self-Retracting Lanyard/Lifeline Model/Name: _____

Serial Number:_____Lot Number:_____

Date of Manufacture:_____ Date of Purchase:_____

Comments: _____

_____

_____

General Factors	Accepted/Rejected	Supportive Details/Comments
1) **Impact Indicator:** Inspect indicator for activation (rupture of red stitching, elongated indicator, etc.).	☐ Accepted ☐ Rejected	
2) **Screws/Fasteners**: Inspect for damage and make certain all screws and fasteners are tight.	☐ Accepted ☐ Rejected	
3) **Housing:** Inspect for distortion, cracks and other damage. Inspect anchoring loop for distortion or damage.	☐ Accepted ☐ Rejected	
4) **Lanyard/Lifeline:** Inspect for cuts, burns, tears, abrasion, frays, excessive soiling and discoloration. (See impact indicator section.)	☐ Accepted ☐ Rejected	
5) **Locking Action:** Inspect for proper lock-up of brake mechanism.	☐ Accepted ☐ Rejected	
6) **Retraction/Extension:** Inspect spring tension by pulling lanyard out fully and allowing to retract fully (lifeline must be taut with no slack).	☐ Accepted ☐ Rejected	
7) **Hooks/Carabineers:** Inspect for physical damage, corrosion, proper orientation and markings.	☐ Accepted ☐ Rejected	
8) **Labels:** Inspect, making certain all labels are securely held in place and are legible.	☐ Accepted ☐ Rejected	
9) **Overall Condition:**	☐ Accepted ☐ Rejected	**Inspected By:** **Date Inspected:**

FORKLIFT PRE-USE CHECKLIST

FORKLIFT PRE-USE CHECKLIST

Daily Lift Truck Inspection Checklist							
Operator's Signature				Date:			
Lift Truck Number:				Type: **Electric**			
OPERATOR MUST COMPLETE CHECKLIST AT START OF SHIFT *Maintain in files*							
Hour Meter Reading:							
Check each of the areas that pertain to your lift truck							
Visual Checks	**OK**	**Service Date**	**N/A**	**Operations Checks**	**OK**	**Service date**	**N/A**
Tire Condition				Horn			
Head/Tail Lights				Steering			
Warning Lights				Service Brake			
Fluid levels/ Battery				Hydraulic Controls			
Battery Plug Condition				Hose Reel			
Battery Indicator				Engine			
Seatbelts				Mast			
Forks				Attachment			
Mirrors							
Overhead Guard							
Other Gauges							
Fluid Leaks							

LADDER INSPECTION CHECKLIST

Ladder Inspection Checklist

Date _____
Ladder Description _____

Item to be Checked	Condition O.K.	Needs Repair
GENERAL		
Loose steps or rungs (consider loose if they can be moved by hand)	[ ]	[ ]
Loose nails, screws, bolts, or other metal parts	[ ]	[ ]
Cracked, split or broken uprights, braces, steps or rungs	[ ]	[ ]
Silvers on uprights, rungs or steps	[ ]	[ ]
Damaged or worn nonslip bases	[ ]	[ ]
STEPLADDERS		
Wobbly (from side strain)	[ ]	[ ]
Loose or bent hinge spreaders	[ ]	[ ]
Broken Stop on hinge spreaders	[ ]	[ ]
Loose hinges	[ ]	[ ]
EXTENSION LADDERS		
Loose, broken, or missing extension locks	[ ]	[ ]
Defective locks that do not seat properly when the ladder is extended	[ ]	[ ]
Deterioration of tape	[ ]	[ ]

RESPIRATOR INSPECTION CHECKLIST

Respirator Inspection Checklist

Type of Respirator:	Location:
Respirator Issued to:	Type of Hazard:
Face piece	_____ Cracks, tears, or holes _____ Face mask distortion _____ Cracked or loose lenses/face shield
Head straps	_____ Breaks or tears _____ Broken buckles
Valves:	_____ Residue or dirt _____ Cracks or tears in valve material
Filters/Cartridges:	_____ Approval designation _____ Gaskets _____ Cracks or dents in housing _____ Proper cartridge for hazard
Air Supply Systems	_____ Breathing air quality/grade _____ Condition of supply hoses _____ Hose connections _____ Settings on regulators and valves
Rubber/Elastomer Parts	_____ Pliability _____ Deterioration

Inspected by:	Date:
Action Taken:	

It is the responsibility of the employee to visually inspect respirator before each use. This written inspection needs to be done annually. Please complete and forward to the Safety Department to be filed in our records of inspection. If you have inspected the respirator and have found any problems, please take the respirator to Tool Room and they will exchange with a new one.

Respirator User Seal Check Procedures (Mandatory)

The individual who uses a tight-fitting respirator is to perform a user seal check to ensure that an adequate seal is achieved each time the respirator is put on. Either the positive and negative pressure checks listed in this appendix, or the respirator manufacturer's recommended user seal check method shall be used. User seal checks are not substitutes for qualitative or quantitative fit tests.

I. Facepiece Positive and/or Negative Pressure Checks

A. ***Positive pressure check.*** Close off the exhalation valve and exhale gently into the facepiece. The face fit is considered satisfactory if a slight positive pressure can be built up inside the facepiece without any evidence of outward leakage of air at the seal. For most respirators this method of leak testing requires the wearer to first remove the exhalation valve cover before closing off the exhalation valve and then carefully replacing it after the test.

B. ***Negative pressure check.*** Close off the inlet opening of the canister or cartridge(s) by covering with the palm of the hand(s) or by replacing the filter seal(s), inhale gently so that the facepiece collapses slightly, and hold the breath for ten seconds. The design of the inlet opening of some cartridges cannot be effectively covered with the palm of the hand. The test can be performed by covering the inlet opening of the cartridge with a thin latex or nitrile glove. If the facepiece remains in its slightly collapsed condition and no inward leakage of air is detected, the tightness of the respirator is considered satisfactory.

II. Manufacturer's Recommended User Seal Check Procedures

The respirator manufacturer's recommended procedures for performing a user seal check may be used instead of the positive and/or negative pressure check procedures provided that the employer demonstrates that the manufacturer's procedures are equally effective.

PROJECT SAFETY SURVEY

ADVANCED INDUSTRIAL SERVICES, INC.

PROJECT SAFETY SURVEY

PROJECT #: **PROJECT MGR:**

CUSTOMER: **START DATE:**

NAME OF CUSTOMER'S SAFETY REP./ CONTACT:

PHONE NUMBER:

HAZZARD ASSESSMENT COMPLETED: ☐YES ☐NO

ANY HAZARDS IDENTIFIED? ☐NO

☐YES – **check any that apply to this job below**

HAZARDOUS ATMOSPHERE (Exposure Assessment Required)	LOCK-OUT TAG-OUT	CONFINED SPACE (PERMIT REQUIRED)	FALL PROTECTION	HOT WORK (PERMIT REQUIRED)	OTHER
☐	☐	☐	☐	☐	☐

AIS, Inc. ASSIGNED COMPETENT PERSON ON SITE:

ASSIGNED CREW ON SITE:

NAMES									
	☐	☐	☐	☐	☐	☐	☐	☐	☐

PPE REQUIREMENTS:

Check Any That Apply: ☐ RESPIRATOR ☐TYVEK SUIT ☐OTHER

SAFETY COORDINATOR CHECKLIST:

ACTION REQUIRED	CUSTOMER'S SPECIAL TRAINING REQUIREMENTS SATISFIED	ASSIGNED EMPLOYEE'S TRAINING IS CURRENT	JOB SPECIFIC SAFETY BRIEFS FORWARDED WITH PROJECT SURVEY	ANY REQUIRED PERMITS FORWARDED	SPECIAL EQUIPMENT AND/OR PPE REQUIREMENTS COMMUNICATED TO OPERATIONS	EXPOSURE ASSESSMENT FORM RETURNED	ALL MEDICAL EVALUATIONS HAVE BEEN COMPLETED	ALL PERMITS HAVE BEEN CANCELED & ADDED TO JOB FILE
CHECK IF COMPLETED	☐	☐	☐	☐	☐	☐	☐	☐

The Safety Coordinator is responsible for the design and implementation of the company safety program to include training of employees, record keeping and establishing safety rules and regulations. The Safety Coordinator will assist Project Managers and Foreman with job site safety requirements.

The Project Manager is responsible for the overall safety program at the job site. He will assure Safety Coordinator and Foremen are aware of any existing hazards and coordinate compliance with customer's site specific safety policies with AIS Safety Coordinator.

Foreman will be responsible for ensuring employees in his work crew are observing safe work practices. He will report safety violations, work-related injuries, or property damage to the Safety Coordinator. Jobsite Inspection Reports (located on the reverse side of each daily time sheet / work order) will be completed. Separate copies can be made and returned with the dailys.

NOTE:

As a reminder, full size functioning copies of all charts and documents contained in this appendix are available for your use in the Safety Office. If you are unable to stop by the Safety Office during normal office hours, contact the Operations Department for shipment direct to your location.

Also note that the Rigging Handbook, additional reference and training materials for other disciplines, as well as a complete list of definitions may also be obtained at the Safety Office.

Safety Incentive Program

The *enhanced* program offers employees three different incentives for working safely without injuries and/or lost time, encouraging both individual and group safety awareness. The individual incentives are available only to field and shop employees, but office staff will be eligible for the group incentive as well. You must be actively employed throughout the entire incentive year (8/1 through 7/31 annually) to be eligible to earn the incentive rewards.

Note that employees who receive Safety Violations during the incentive period are disqualified from the Individual programs for that incentive year period. Failure to return refresher training materials, report for DOT exams, daily jobsite inspection forms, or failure to return lift evaluations prior to the related deadlines, are considered Safety Violations.

The details of the 2012 & Beyond Safety Incentive Program are outlined below:

Individual Incentive – Part One

At the conclusion of each incentive year, each qualifying employee will be awarded a Safety Bonus. Employees will be considered qualified if actively employed throughout the entire incentive year 8/1 through 7/31 annually, completed without an incident (work related injury resulting in time off from work, restricted work activity or job transfer, or medical treatment beyond first aid). The Safety Bonus will be determined annually in advance, by the Safety Coordinator (example: $100 gift card or similar).

Safety Incentive Program - continued

Individual Incentive – Part Two

At the conclusion of each incentive year (8/1 through 7/31 annually), each qualifying employee will be awarded a Safety Day (personal day). The same qualification guidelines apply as described above in the "Individual Incentive – Part One" section. One Safety Day (vacation day) will be earned for each two-incentive-year periods without incident. Thereafter, earned Safety Days are transferred into and tracked as vacation days. Safety Days are non-recurring (earn one, get one).

Group Incentive

Should the company, as a group, be successful in obtaining the goal of "14 days or less lost time", all eligible employees (actively employed throughout the entire incentive year 8/1 through 7/31 annually) will be offered the select Group Incentive reward for that year's plan. Reward examples include: movie tickets, dining gift certificates, Hershey Park entrance tickets, etc.

Conclusion

The AIS Safety Department monitors all: Safety Incidents, Safety Violations, Lost Time, refresher training materials, DOT exam reports, daily jobsite inspection forms, and lift evaluations, and therefore shall be the final authority in all disputes. Remember, individual incentives are available only to field and shop employees, with office staff only participating in the group incentive program. Also, all employees must remain actively employed throughout the entire incentive year (8/1 through 7/31 annually) to be eligible to earn the incentive rewards.

Should you have any questions on this incentive plan, please feel free to contact the Safety Office for more detail.

EMPLOYEE ACKNOWLEDGEMENT OF RECEIPT FORM

The safety and welfare of our employees is of primary concern to the management of AIS. It is the Policy of the company, therefore, to provide and maintain safe and healthful working conditions and follow operating practices which result in efficient operations.

To ensure that our best efforts are going toward prevention of accidents, we have established a comprehensive safety program in our company. We trust that all our employees will continue to strive for a safe, healthful work place. To achieve this goal, we have published the attached AIS Safety Manual. In it you will find rules and regulations designed to ensure safety and health of our employees. It also details the responsibilities of the various company Managers/Supervisors/Employees in implementing these regulations.

All employees are required to read and become familiar with the contents of this Safety Manual. Each employee will receive their own copy of the manual to keep. In addition, copies of the Safety Manual will be placed in the Job Site Manuals which are kept in each "Gang Box".

Employees are required to sign and date the ***Acknowledgement of Receipt Form*** below and return it to the Safety Office.

- -

EMPLOYEE ACKNOWLEDGEMENT OF RECEIPT

I, the undersigned employee of Advanced Industrial Services, certify that I have read and understand the contents of the AIS, Inc. Safety Manual. If I have questions concerning any item, I will contact the Company Safety Coordinator immediately for clarification. Additionally I understand that if I have any questions regarding any specific OSHA regulations, CFR 1926 for Construction and CFR 1920 for General Industry are available for review in the Safety Office.

_____

SIGNATURE DATE

_____

PRINT NAME

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Emergency Contacts, Notes, and Important Information

- Our Employees Are Our Greatest Asset -

Advanced Industrial Services, Inc.
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(717) 764-9811