SAFETY POLICY & ACCIDENT PREVENTION PLAN (APP)

"Safety is part of everything we do"

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SAFETY POLICY AND ACCIDENT PREVENTION PLAN

The purpose of this policy for *M.A. DeAtley Construction, Inc.* is to develop a high standard of safety throughout all phases of our operations and to ensure that no employee is required to work under any conditions which are hazardous or unsanitary.

M.A. DeAtley Construction, Inc. firmly believes that the individual employee has the right to derive personal satisfaction from their job. As a result the prevention of occupational injury or illness will be considered as a top priority at all times. We also believe that each employee shares the responsibility to work safely and maintain good housekeeping habits. In stating this, the company will not tolerate any employee that practices poor safety habits.

M.A. DeAtley Construction, Inc. has developed and will maintain a complete accident prevention plan as well as the necessary safety training programs. Each individual, from top management to the job site craftsman, is responsible for the safety and health of those persons in their charge as well as their co-workers. By accepting mutual responsibility to work safely, we will all contribute to the safety, health and well being of all personnel. Active participation in and support of our safety commitment is essential for its success.

Mark DeAtley, President

MANAGEMENT COMMITMENT TO SAFETY

M.A. DeAtley Construction places a high value on the safety of its employees. *M.A. DeAtley Construction* is committed to providing a safe workplace for all employees and has developed this program for injury prevention to involve management, supervisors, and employees in identifying and eliminating hazards that may develop during our work process.

It is the basic safety policy of this company that no task is so important that an employee must violate a safety rule or take a risk of injury or illness in order to get the job done.

Employees are required to comply with all company safety rules and are encouraged to actively participate in identifying ways to make our company a safer place to work.

Supervisors are responsible for the safety of their employees and as a part of their daily duties must check the workplace for unsafe conditions, watch employees for unsafe actions and take prompt action to eliminate any hazards.

Management will do its part by devoting the resources necessary to form a safety committee composed of management and elected employees. We will develop a system for identifying and correcting hazards. We will plan for foreseeable emergencies. We will provide initial and ongoing training for employees and supervisors. And, we will establish a disciplinary policy to insure that company safety policies are followed.

Safety is a team effort – Let us all work together to keep this a safe and healthy workplace.

EMPLOYEE RESPONSIBILITIES

- 1. Report all on the job injuries and illnesses to your supervisor promptly no matter how serious.
- 2. Report all equipment damage to your supervisor immediately.
- 3. Report all near misses to your supervisor immediately.
- 4. Don't take chances use your safety equipment as directed.
- 5. Follow instructions ask questions of your supervisor when in doubt about any phase of your operation.
- 6. Observe and comply with all safety signs and regulations.
- 7. Report all unsafe conditions or situations that are potentially hazardous. This includes issues with contractors, subcontractors and suppliers.
- 8. Encourage co-workers by your words and example to use safe work practices on the job.
- 9. Only operate equipment you are qualified to operate. When in doubt, ask for directions.
- 10. Talk to management immediately about problems that affect your safety or work conditions.
- 11. Study and follow all safe practices that apply to your work.
- 12. Coordinate and cooperate with all other employees in the workplace to try and eliminate on the job injuries and illnesses.
- 13. Apply the principles of accident prevention in your daily work and use proper safety devices and protective equipment.
- 14. Take proper care of and use all needed and assigned personal protective equipment (PPE).
- 15. Know the hazards of the chemicals you are working with. Review SDS prior to working with any chemical.

The most important part of this program is the individual employee - You! Without your cooperation, the most stringent program can be ineffective. Protect yourself and your fellow workers by following the rules. Remember: Work safely so you can go home to your family and friends - they need you.

THINK BEFORE YOU ACT!!!

Don't take shortcuts - SAFETY FIRST

SUPERVISOR RESPONSIBILITIES

Safety and health of the employees they supervise is a primary responsibility of the supervisors. To accomplish this obligation, supervisors will:

- 1. Assure that all safety and health rules, regulations, policies and procedures are understood by conducting pre-job safety orientations with all workers, and reviewing rules as the job or conditions change, or when individual workers show a specific need.
- 2. Require the proper care and use of all needed protective equipment.
- 3. Identify and eliminate job hazards expeditiously through job safety analysis procedures.
- 4. Inform and train all employees on the hazardous chemicals they MAY encounter under normal working conditions, or during an emergency situation.
- 5. Conduct or supervise crew leader meetings and stretch and flex each work shift to discuss safety matters and work plans (PTP) for the work-day.
- 6. Receive and take initial action on employee safety suggestions.
- 7. Train employees (new and experienced) in the safe and efficient methods of accomplishing each job or task as necessary.
- 8. Review accident trends and establish prevention measures.
- 9. Attend safety meetings and actively participate in the proceedings.
- 10. Participate in investigations and inspection on safety and health related matters.
- 11. Promote employee participation in the safety and health program.
- 12. Set the proper safety example.
- 13. Identify and quickly eliminate job safety hazards.
- 14. Be trained in first aid and cardiopulmonary resuscitation procedures.
- 15. Thoroughly inspect all new job sites or work areas for actual or potential hazards, and establish site specific work procedures or rules to reduce hazards.

M.A. DeAtley CONSTRUCTION, INC. RESPONSIBILITIES FOR ALL LEVELS OF MANAGEMENT

An active and meaningful participation in and support of all *M.A. DeAtley Construction, Inc.* safety and health programs is essential for their success. All levels of management will display their interest in the company's safety and health matters at every opportunity. Each manager will establish realistic goals for accident reduction and prevention within their area of responsibility. Each manager will also establish the means and instructions for meeting their goals. In addition, management's responsibility for safety and health includes the establishment and maintenance of an effective communication system between workers, supervisors, and management officials. To this end, all levels of management are, and will continue to be, responsible to assure that the goals and intents of *M.A. DeAtley Construction, Inc.* are received and understood by all employees.

Mark DeAtley, President

Codes of Safe Practices

- Always store materials in a safe manner. Tie down or support piles if necessary to prevent falling, rolling or shifting.
 Scraps, oil or grease should not be allowed to accumulate. Good housekeeping is part of the job.
- 3. Refuse piles must be removed as soon as possible. Refuse is a safety and fire hazard.
- 4. Remove or clinch nails in used lumber.
- 5. Immediately remove all loose materials from stairs, walkways, ramps, platforms, etc.
- 6. Do not block aisles, traffic lanes, fire exists, gangways or stairs.
- 7. Avoid shortcuts use ramps, stairs, walkways, ladders, etc.
- 8. Standard guardrail must be erected around all floor openings and excavations must be barricaded. Contact your supervisor for the correct specifications.
- 9. Get help with heavy or bulky materials to avoid injury to yourself or damage to material.
- 10. Keep all tools and materials away from the edges of scaffolding, platforms, shaft openings, etc.
- 11. Do not use tools with split, broken or loose handles, burred or mushroomed heads. Keep cutting tools sharp and carry all tools in a container.
- 12. Know the correct use of hand and power tools. Use the right tool for the job.
- 13. All electrical power tools (unless double insulated), extension cords and equipment shall be properly grounded.
- 14. All electrical power tools and extension cords shall be properly insulated. Damaged cords shall be replaced.
- 15. All hand operated power tools should be unplugged while maintaining or changing accessories (ie. drill bits, saw blades, grinding wheels, cut off wheels, etc.).
- 16. Know the location and use of fire extinguishing equipment.
- 17. Flammable liquids used in small amounts must be in approved safety cans.
- 18. Proper guards/shields must be installed on all power tools before use. Do not use any tools without the guards in the proper working condition. Homemade handles or cheaters bars will not be used!
- 19. Do not operate any power tool or equipment unless you are trained in its operation and authorized by your firm to do so.
- 20. Use tools only for their designed purpose.
- 21. Do not remove, deface, destroy any warning, danger sign or barricade, or interfere with any form of accident prevention device or practice provided for your use or that is being used by other workers.
- 22. All trucks, pickups, and other vehicles utilized on project job sites must have the following equipment mounted to aid in visibility:

Orange flags on whips 5' to 8' mounted on truck bed or hitch

Flashing yellow lights mounted to roof or top of bang board

23. Obtain and review SAFETY DATA SHEETS (SDS) before working with chemicals.

PERSONAL WORK RULES

- 1. <u>Hard Hats</u> Are required at all job locations. They are not required when operating equipment with a rollover cab or inside a building without overhead hazards.
- 2. <u>Safety Vests</u> Are required at all job locations. They are not required when inside a building, or van.
- 3. <u>Safety Glasses</u> All Shop employees (Mechanics, Oilers, Laborers) are required to wear safety glasses at all times when on duty (shop and field). All other employees and visitors are required to wear safety glasses when they are performing work or in a work area (i.e. Shop) that provides an opportunity for eye injury.
- 4. <u>Seat Belts</u> Seat belts must be worn at all times when operating equipment that have seat belts installed and when operating motor vehicles as part of your duties as an employee of the company.
- 5. <u>Hearing Protection</u> Must be worn when operating equipment, when working in close proximity to operating equipment for an extended time, and when working in other high noise environments.
- 6. <u>Respiratory Protection</u> When the working environment is determined by the supervisor and safety manager to be hazardous, employees may be required (Mandatory) to wear respiratory protection only after medical evaluation and fit test has been completed.
- 7. Report every injury or illness no matter how slight to your supervisor immediately, and on your time sheet.
- 8. Horseplay, fighting, gambling, possession of firearms, and possession or use of alcoholic beverages or controlled substances is strictly forbidden.
- 9. Wear clothing suitable for the weather and your work. Torn, loose clothing, cuff sleeves, etc. are hazardous and could cause accidents.
- 10. Jewelry (rings, bracelets, neck chains, etc.) Should not be worn.
- 11. Hard hats must be worn in all required areas.
- 12. Proper eye protection must be worn when you are exposed to flying objects, dust, harmful rays, chemicals, or particles, etc.
- 13. Substantial footwear made of leather or equally firm material, shall be worn by all employees in any occupation in which there is a danger of injury to the feet (required in all construction/shop work areas). Proper footwear must be worn on all construction sites; a good lace up work boot with a minimum 6" top is required. The wearing of sport shoes, sandals, dress shoes and similar footwear is strictly prohibited.
- 14. Always use gloves, aprons or other protective clothing when handling rough materials, chemicals, and hot or cold objects. When working with chemicals review SAFETY DATA SHEET (SDS) prior to using chemicals.
- 15. Special safety equipment is for your protection. Use it when required. Keep it in good condition and report loss or damage of it immediately.
- NOTE: A. Shop/switch Vans require PPE based on the hazards present.
 - B. Hard hats are not required when meeting in or at Office Vans.
 - C. All visitors must comply with PPE Policy.

COMPANY SAFETY COMMITTEE

1.0 Purpose

To assist in the detection and elimination of unsafe conditions and work procedures, a safety and health committee has been established with representation from employees and management.

2.0 Procedure The following guidelines will be followed:

- 1. Employees shall elect fellow workers to represent them on the committee. Method of voting shall be optional. The number of employer selected hourly members shall not exceed the number of elected hourly employee members.
- 2. The terms of elected an appointed members shall be one year and may be renewable. Should a vacancy occur on the committee a new member shall be elected or appointed prior to the next scheduled meeting. Terms of committee members shall overlap to ensure consistency.
- 3. The company Safety Manager will chair the safety committee.
- 4. The Committee shall meet monthly, or more frequently as required.
- 5. The meeting date, time, and location will be determined by the Chairperson. The length of each meeting will be approximately one hour.
- 6. The attendance and subjects discussed shall be documented and maintained on file for a period of one year. Copies of the minutes must be provided to: 1) top management, 2) the safety department, 3) and employees by posting on the bulletin board and placing in break areas.

3.0 Scope of Activities

- 1. Review accident investigation to uncover trends.
- 2. Review accident investigations to develop safer practices.
- 3. Accept and evaluate employee suggestions.
- 4. Review job procedures and recommend improvements.
- 5. Monitor the safety program effectiveness.
- 6. Promote and publicize safety.

4.0 Extent of Authority

The Safety Committee may conduct inspections, review complaints and accidents and consider employee safety suggestions. From these actions the committee will make recommendations for improvements and changes that will reduce accidents and losses. Management will respond to these recommendations with the intent to implement recommendations that both improve the well being of our personnel, and are economically feasible.

MONTHLY SAFETY COMMITTEE AGENDA

Committee Chairperson _____

MEMBERS OF THE SAFETY COMMITTEE (PRESENT AND ABSENT)

Staff Representatives

Hourly Representatives

CALL MEETING TO ORDER

- 1. Introduce new members
- 2. Read and approve minutes of previous meeting

OLD BUSINESS

- 1. Unfinished business
- 2. Review tasks that were to be completed
 - A. Individual reports
- 3. Review Open Safety and Incident Report Investigations A. Consider new policy after review of investigation

NEW BUSINESS

- 1. Discuss and review operational incidents
- 2. Discuss and review rental incidents
 - a. Assign classification
- 3. Discuss and review near misses
- 4. Discuss and Review Incident reports and investigations
 - **a.** Assign classification
- 5. Discuss and review safety suggestions received since the last meeting
 - a. If warranted appoint staff to further investigate
 - b. If end of quarter pick award recipient
- 6. Analyze Incident Reports received since the last meeting
 - a. If warranted appoint staff to further investigate
- 7. Review safety topics for assignment to weekly project and shop safety meetings
- 8. Review EEO topics for assignment
- 9. Summarize and assign issues for management follow up.

OTHER BUSINESS (as required)

- 1. Safety Committee Service Award
 - a. Add recipient to plaque
- 2. Annual Safety Award
- 3. Select recipients for quarterly safety suggestion awards.

CLOSE MEETING

SAFETY COMMITTEE WORK ORDER REQUEST

Date:	
Request:	
Referred to: Maintenance Purchasing	Admin.
Estimated Cost to Complete: Each	Total
Expected Date of Completion if Approved:	
Estimated by: Date:	
Approved for Completion Deferred Until	Denied
Instructions:	
Scott Palmer Date	

FIRST AID TRAINING PROGRAM

1.0 Purpose

To assure that there are a number of employees at all work sites with first aid training, that there are adequate first aid supplies on hand for reasonably anticipated job injuries/Illnesses, and that phone numbers and locations of treatment facilities area readily at hand.

2.0 Objectives

To meet the above objectives, the following procedures will be followed:

- 1. M.A. DeAtley Construction must have available at all worksites, where a crew is present, a person or persons holding a valid first-aid certificate.
- 2. All crew leaders, supervisors or persons in direct charge of one or more employees must have a valid first-aid certificate.
- 3. For the purpose of this section, a crew means a group of two or more employees working at any worksite.

All employees with three (3) or more year's seniority with the Company and all supervisors will be required to maintain currency and certification in First Aid and CPR before they will be allowed to return to work. Accordingly, the company will provide an online training course and send reminders when your current card expires. Employees will be paid four (4) hours straight time wage for completing the course. (Excluding salaried employees)

All employees with less than three (3) years seniority with the Company will be encouraged, but not required to obtain and maintain currency in First Aid and CPR. Those choosing to do so will not be reimbursed for time to attend the class or travel to and from class.

Valid first aid cards shall include both first aid and cardiopulmonary resuscitation (CPR) and have not reached the expiration date.

3.0 Review

This First Aid/CPR program shall be reviewed annually.

DRUG AND ALCOHOL FREE WORKPLACE PLAN

POLICY STATEMENT

1.0 Purpose

In recognition of the harmful effects that the use of illegal drugs and the misuse of alcohol can have on employees in the workplace, M. A. DeAtley Construction, INC. has a responsibility to its employees, and the public at large, to see that its employees are both drug and alcohol free while on duty. This responsibility comes in light of recent studies showing employees who are under the influence of drugs or alcohol while on duty are more likely to cause accidents and injuries, both to themselves and co-workers, as well as the public at large. Therefore, M. A. DeAtley Construction, Inc. is implementing this Drug and Alcohol Free Workplace Policy that includes within its provisions those regulations relating to the testing of commercial vehicle operators (hereafter referred to as drivers).

2.0 Implementation Schedule

This policy will become effective February 1, 1999, and will apply to all prospective and current employees of this company (hereafter referred to as employees).

3.0 Questions Regarding This Policy

The company hereby designates the President as the person responsible for answering employees' questions relating to the provisions of this policy.

4.0 Employee's Use of Alcohol

The company is committed to ensuring that all employees are not at work while under the influence of alcohol. Therefore, employees of this company are not to consume alcohol within four (4) hours of reporting to work. Employees are not to report to work or remain at work while having an alcohol concentration of .02 or greater. Employees are prohibited from using or possessing alcohol while they are on duty.

5.0 Possession, Use or Distribution of Illegal Drugs

The possession, use, purchase, or distribution of illegal drugs (meaning those drugs for which there is no generally accepted medical use, e.g. marijuana, cocaine, methamphetamine) or drug paraphernalia, by an employee in a company vehicle, at a job site, on company property, or during work hours is strictly prohibited. Any employee violating this prohibition will be terminated from employment with the company.

This company has an absolute prohibition against an employee's use of illegal drugs both on and off the work site. An employee's off the job illegal use, manufacture, purchase, possession, or distribution of illegal drugs, or drug paraphernalia, that results in criminal charges being brought against the employee, will result in the employee being requested to submit drug testing and may result in the employee being suspended from work without pay. Any employee who is convicted of a criminal drug statute will be terminated from employment with the company.

6.0 Prescription Medication

Employees are cautioned regarding the use of prescription medication that contains a warning label stating that the use of that drug may impair his/her ability to safely operate equipment or machinery. Employees may be allowed to work while using such medication if the drug is prescribed by a licensed medical practitioner who is familiar with the employee's medical history and assigned duties, and who has advised the employee that the prescribed drug will not adversely affect his/her ability to safely perform the job.

7.0 Self-Referral

All employees of the company who consider themselves drug or alcohol dependent and who voluntarily identify themselves as such will be encouraged to get an evaluation by a substance abuse counselor and seek treatment, if that is the counselor's recommendation. The company will provide informational assistance in locating professional substance abuse counseling to any employee who requests it.

Employees who undergo drug or alcohol rehabilitation will be expected to do so at their own expense (other than those expenses covered by the company insurance program), on their own time, or during a non-paid leave of absence, approved by the company. Arrangements may be made to allow an employee to use vacation during any such leave of absence.

Employees who demonstrate successful progress, or completion of a recommended course of treatment, may return to work after taking and passing a drug and/or alcohol test. Any such employee returning to work after treatment will be expected to comply with all aspects of this drug/alcohol testing policy. A request for rehabilitation may not be made in order to avoid the consequence of a positive drug result or to avoid taking a drug test when requested to do so under the terms of this policy.

8.0 Types of Drug and Alcohol Testing

8.1 Pre-Employment Testing

All prospective employees will take and pass a drug test as part of the application process. Applicants with a current commercial driver's license and medical certificate will be considered as drivers subject to DOT regulations. Testing of the applicant will then be performed and documented in accordance with DOT Title 49 Part 382 regulations. All other applicants will be tested and documented following Company protocol. Furthermore, all prospective drivers (meaning those employees required to carry a commercial driver's license in order to perform the functions of their job) must disclose to the company all previous employers for whom they have worked as a driver within the past three (3) years. The company will then request from those employers information regarding any incidents where the prospective driver has tested positive for illegal drugs or alcohol, or refused to test within the previous three (3) years. In the event that the company received information from a past employer that the prospective driver has tested positive for drugs or alcohol within the previous year, that prospective driver will not be offered employment, or his/her conditional employment with the company will be terminated.

Any driver that is found to have previously tested positive for illegal drugs or alcohol in the past three (3) years and who is hired by the company must show that he/she have been evaluated by a Substance Abuse Professional and he/she was found not to be drug or alcohol dependent. The company will ensure that any follow-up tests of such drivers are conducted as required by DOT regulations.

8.2 Reasonable Suspicion

The company will require an employee to submit to an alcohol and/or drug test when there is reasonable suspicion to believe that the individual is in violation of Company policy on alcohol consumption and/or controlled substance abuse, or in the case of commercial drivers that they are in violation of Federal Motor Carrier Safety (FMC) DOT Regulations under Title 49 Part 382 Subpart B Prohibitions. Determination of reasonable suspicion will be based on specific, contemporaneous, articulable observations concerning the appearance, behavior, speech or body odors of the employee, and may include the indications of the chronic and withdrawal effects of controlled substances. The decision to test will be made by a supervisor or other company official trained in recognizing the physical, behavioral, speech, and performance indicators of probable alcohol misuse, and use of controlled substances.

8.3 Post-Accident

Any employee involved in a work related accident resulting in injury or damage will be tested for alcohol and controlled substances. If the accident involves a commercial motor vehicle operating on a public road in commerce the driver will

be tested in accordance with requirements of Federal Motor Carrier regulations. The motor carrier requirements are mandated if the commercial vehicle accident on public road in commerce results in (1) human fatality; or (2) if the driver receives a citation, and (a) bodily injury with immediate medical treatment away from the scene is required or (b) disabling damage to any motor vehicle requires tow away. Accidents not classified under DOT regulations will result in testing under company testing protocol and not DOT.

Alcohol and substance abuse tests will be performed as soon as possible after the accident. Where DOT regulation procedures apply alcohol testing shall be performed within 8 hours of the accident, and controlled substance tests within 32 hours or earlier.

An employee who is seriously injured and cannot provide a specimen for testing will be required to authorize the release of relevant hospital reports, or other documentation, that would indicate whether there were drugs or alcohol in their system at the time of the accident. Any employee required to be tested under this section must remain readily available for such testing and may not consume alcohol within eight (8) hours of the accident.

Employees who are involved in a work related accident requiring medical attention are to inform their supervisor of the accident as soon as possible so that any needed drug or alcohol test may be promptly conducted in conjunction with their medical treatment.

8.4 Random Testing

For the purpose of random alcohol and substance abuse testing M.A. DeAtley Construction employees are divided into two classes. Those regulated under the DOT regulations for commercial drivers; and all others. Employees with valid CDL licenses and medical certificates will be considered to fall under the regulations for commercial drivers. They will be subject to random testing in accordance with requirements of DOT Title 49 Part 382 Subpart B and will be selected from their class at the rate required by regulation for alcohol and for substance abuse testing. All other employees will be randomly selected for testing from their class separate from DOT regulated class. Testing of non commercial drivers (other employees) will be conducted based on Company procedures as opposed to DOT mandated procedures.

M.A. DeAtley Construction will retain the services of an outside alcohol and substance abuse testing service company to manage the employee class census and to conduct computer generated random selections for testing.

9.0 Specimen Collection Procedures and Test Result Notification

9.1 Adulteration or Submission of a Concealed Specimen

If, during the collection procedure, the collection monitor detects an effort by an employee to adulterate or substitute a specimen, a second specimen will be requested. Regulations governing commercial drivers require the second urine sample collection be observed. Both the first and second sample will be utilized. If a second specimen is provided, that specimen will be tested. If the request for a second specimen is refused, the collection monitor will inform the company officials of the employee's refusal to submit a true specimen.

9.2 Diluted Test

In the event that a prospective or current employee submits a specimen that the laboratory later identifies as a diluted specimen, the company will advise the employee of that result and request that employee submit a second specimen. The donor will be advised by the company not to drink any fluids prior to the second test.

A diluted urine sample will be treated as a positive test until results of a second test is received. No employee will be permitted to operate equipment or work at safety sensitive functions until the second test result is received. If non safety sensitive tasks are not available the employee will be suspended without pay until the results of the second test are available.

9.3 Drug/Alcohol Specimen Collection Procedures

All testing for illegal substances will be performed by the testing of an employee's urine specimen. Testing for commercial drivers will utilize the split specimen collection procedure. Under that procedure, each driver will have his/her urine specimen sealed in two separate containers both sent to a SAMHSA certified laboratory for testing. If a driver's first specimen test positive, that driver may request, within three (3) days of the positive notification that the other specimen be tested at a second SAMHSA laboratory. This second test will be done at the driver's expense, unless the second test comes back negative. During the time the second specimen is being tested, that driver will be suspended without pay. Any driver who has a test come back negative will be given back pay for the duration of the suspension. All specimen collections will be conducted by personnel that have been instructed and trained in collection and documentation procedures in accordance with DOT regulations and Company policy.

Alcohol testing will be done by the use of an evidential breath testing device or a saliva test. *The cut-off for alcohol concentration will be on two levels.* Any employee who tests above a level of 0.02 BAC but below 0.04 BAC will not be allowed to work for at least 24 hours. Any employee who tests 0.04 BAC or above will be considered to have tested positive and disciplinary action will be taken according to company policy.

Any specimen that screens positive for the presence of illegal drugs will be confirmed by the Gas Chromatography/Mass Spectrometry (GC/MS) confirmation method. Any non commercial driver class employee who tests positive for illegal drugs may request the same specimen be retested at their expense. This request must be conveyed to the company within 48 hours of the employee being notified of the positive test result.

9.4 Notification of Test Results

All drug test results will be forwarded to the company through the contracted drug/alcohol testing company, as the representative of the Medical Review Officer (MRO). Prior to the company being informed that a prospective or current employee has tested positive for illegal drugs, the employee will be offered an opportunity to personally discuss the positive drug test with the MRO or his representative. The MRO will follow up on such information as is deemed appropriate.

Any employee who is taking a prescription drug that may have been the cause of a positive test result will be asked to provide the name of the medication and the identity of the prescribing physician for verification. If this is verified, the employee's test result will be reported as negative. If, after consideration of the matter, the MRO finds no reason to doubt the validity of the positive test, the result will be conveyed to the company contact.

10.0 Refusal

No employee shall refuse to submit to a post accident test for alcohol or controlled substances, a random alcohol or controlled substance test, a reasonable suspicion alcohol or controlled substance test, or a return to duty alcohol test.

Refusal to test is defined as:

- Failure to appear to test within a reasonable time
- Failure to remain at the testing site until testing completed
- Failure to provide a urine sample
- Failure to permit observation or monitoring of provision of sample if required
- Failure to provide sufficient amount of urine when directed and medical evaluation does not determine medical reason for failure.
- Declining to take a second test if directed
- Failure to undergo medical evaluation for "shy bladder" if requested
- Failure to cooperate with any part of the testing process such as request to empty pockets or acting in a confrontational way that disrupts the process.

Refusal to test shall be interpreted as a positive test result.

11.0 Effect of Testing Positive for Drugs or Alcohol

Any prospective employee who tests positive for illegal drugs will not be offered employment. Any current employee that tests positive for illegal drugs, or alcohol as defined below may be terminated from employment with the company.

For purposes of this policy, an employee tests positive for alcohol when the employee's blood alcohol concentration (BAC) is .04 or above. Any employee that tests twice between .02 and .039 in a year's time will be treated as the equivalent of testing positive for alcohol.

12.0 Searches

1. The Company's property and all equipment, furniture and personal property maintained thereon is the sole and exclusive property of the Company. The Company reserves the right to inspect the Company property, desks, lockers, storage areas, file cabinets, containers, vehicles, packages, and employee common areas at any time on a random basis with or without any advance notice. Law enforcement agencies will be contacted if illegal activity is suspected or if illegal substances are found.

2. The Company reserves the right to conduct unannounced searches of any or all of the Company's property. Such inspections may be conducted during or after business hours and in the presence or absence of Company employees.

3. Where the Company has reason to believe a Company employee is violating any aspect of this plan, that employee may be requested to submit immediately to a search of any personal property located on the Companies premises or facilities, including the inspection of personal vehicles.

4. Entry onto the Company's property, including parking areas, is deemed consent to an inspection of vehicle, and personal effects at any time while entering, on, or leaving the property.

5. Company employees who refuse to consent to such a search will be immediately discharged.

DRUG AND ALCOHOL FREE WORKPLACE TESTING PROGRAM

Controlled Substance Testing Consent Form (Prospective Employees)

As part of my application for employment, I consent to take a drug test.

I understand that if I test positive for illegal drugs I will not be offered employment.

I understand that in the event I do not work more than thirty (30) days with M. A. DeAtley Construction, Inc., the cost of my pre-employment test will be deducted from my final check. This provision does not apply in the event that an employee is involuntarily laid off.

I understand that the collection, testing, and reporting of my urine specimen will be done in accordance with the applicable chain of custody procedures.

I consent to the release of my drug test results received by the Company's Drug and Alcohol Testing Consultants, and the Medical Review Officer, to management officials at M. A. DeAtley Construction, Inc. I understand that those results will be held in confidence by them.

If I am a holder of a current CDL license, I further consent to the company contacting previous employers whom I have worked for as a commercial vehicle operator during the past two (2) years for the purpose of M. A. DeAtley Construction, Inc. verifying whether I have tested positive for illegal drugs or alcohol, or have refused to test when requested to do so. In the event that the Company receives information from a past employer that I have tested positive for drugs or alcohol within the past year, I will not be offered employment, or my conditional employment will be terminated with the company. I consent to the release of that information by those employers for whom I have worked during the past two (2) years as a commercial vehicle driver.

I have received, read and understand the terms of M. A. DeAtley Construction, Inc.'s Drug Free Workplace testing program, and agree to abide by those terms.

(Applicant's Name (Print)

Applicant's Signature

Date

WEEKLY PROJECT SAFETY MEETINGS

We believe that there is no magic formula for the prevention of accidents - hard work and perseverance are required, with the crew leader being the key to a successful result.

1.0 Purpose

To assist in the detection and elimination of unsafe conditions and work procedures.

2.0 Weekly Meetings

These meetings should be held in accordance with the various circumstances involved or when necessity dictates. No set pattern will suit all cases. It is mandatory that the leader talk weekly on accident prevention and immediately on occurrence of an unsafe act.

- Safety meeting shall be held at least once a week.
- The attendance and subject discussed shall be documented and maintained on file for one year.
- Copies of the minutes should be made available to the employees by posting or other means.

3.0 Scope of Activities (certain employees, may be designated by their supervisors to assist)

- Conduct in-house safety inspection with supervisor concerned.
- Accident investigation to uncover trends.
- Review accident reports to determine means or elimination.
- Accept and evaluate employee suggestions.
- Review job procedures and recommend improvements.
- Monitor the safety program effectiveness.
- Promote and publicize safety.

4.0 How to Hold a Safety Meeting

- Be certain everyone knows the time and place of the next meeting.
- Insist that everyone attend. Before the next meeting, remind those that were late or failed to attend that attendance is not an option.
- The topics for the Weekly Safety Meetings will be established by the Safety Committee.
- Start the meeting on time.
- Don't waste time give the meeting your undivided attention.
- Use handouts or posters to illustrate your topic.
- Discuss current job site safety events, accidents and close calls.
- Encourage employees to discuss safety problems as they arise. Do not save safety concerns for the meeting and allow some time for employee questions or input at the end of the meeting.
- Invite managers or owners to speak. Ask fellow employees to speak on a safety topic.
- If you prevented one accident, it is time well spent. Your topic may be one that some employees have heard many times, but there may be one person who is new or has never been told of the safety requirement for that topic. Repeating topics several times during the course of a project is beneficial as long as it applies to the work being done.
- Follow up on employee concerns or questions and get back to them with the answer before the next meeting.
- Be certain to document the attendance and the topic discussed.

WEEKLY SAFETY MEETING

Project Name:	Date:
Supervisor conducting meeting:	
Review all Weekly Project and Weekly Equipment Safety In Meeting. Discuss each safety concern or hazard noted and a	aspections conducted since the last Weekly Tailgate Safety ction taken to correct. List inspection type and date.
Review items referred to employees from the Company's Sa	fety Committee:
Review any citations and action taken to correct:	
Review all accident or near miss evaluations since the last w unsafe act or unsafe condition, and action taken to correct the List below the incident discussed by date, type, and correctiv	eekly meeting. Describe the occurrence, address cause of the hazard. ye action:
Request employees report any observed unsafe conditions or	practices (list):
Report on evaluation and action taken on any unsafe condition (list):	on or practice reported by employees in the previous week
Review all above and below ground utilities that exist on the	e project site. Discuss risks and marking:
Employee elected to participate in weekly safety inspections	

Review:	Respirator Check	Seat Belt Reminder	EEO Officer Deedee Pearson
	Reminder to Report Safety Concerns	Discuss Safety Board	l Updates

Meeting Attended by:

	·		
	·		
		· · · · · · · · · · · · · · · · · · ·	
	·		
Subcontractors Attending Meeting:			
Cumomulaon'a Cionotuno.			
Supervisor's Signature:			

Note: Maintain a copy on site and forward original to main office.

Safety Coordinator _____

M. A. DeAtley CONSTRUCTION, INC. MONTHLY JOBSITE SAFETY AUDIT FORM AND INSTRUCTIONS

1.0 Purpose

As a part of our overall safety system, *M.A. DeAtley Construction* has developed a monthly safety audit checklist to help maintain a safe and healthy workplace.

2.0 Instructions

This checklist is meant to be used in conjunction with the accompanied instruction sheet and shall be performed on a monthly basis. This checklist shall be used by the safety coordinator, superintendent, foremen and any other applicable person to help keep our jobs safe and free of hazards.

This checklist also provides a way to oversee multi-safety points of emphasis and understand what needs to be done to maintain compliance with our company as well as local and state entities. The instruction sheet is meant to guide one through what is expected of each section and should provide them with answers to specific questions.

3.0 Conclusion

It is the intent of M.A. *DeAtley Construction* will be able to maintain a safe workplace at all times and this checklist is meant to assist in that endeavor. If any questions arise while working with this checklist or any assistance is needed, please contact the safety coordinator.

Jobsite Safety Inspection Audit Form			
Project/Loc	cation:		Sub-Contractors on site:
Date:			Inspection Given by:
Reviewed B	sy:		
Is the ite satisfa	e listed em actory?	Inspection Process	General comments, suggestions or Recommendations (Any "NO" answers will require comments)
YES	NO/NA		
General	Safety		
		1. Appropriate Safety Materials On Hand? (Documents, PPE, Drug Test Kits, Safety Manual)	
		2. Posters and safety signs/warnings posted? (Use safety manual for reference)	
		3. Safety Signs prominently displayed? (electrical etc)	
		4. All workers wearing appropriate PPE?	
		5. General cleanliness and organization adequate?	
		Other:	
Health a	and Envi	ironment	
		1. Toilets adequate and well maintained?	
		2. Adequate water available (Heat Related Illness Requirement)	
		3. Illumination adequate for worksite and trailers?	
		4. Oxygen deficiency, toxicity and flammability tests where required	
		(trenching, confined space entry etc)	
		5. Ventilation adequate where needed?	
		6. First Aid Kits available and up-to-date (incl. eye wash) (random check)	
Hazard	Commu	nication	
		1.MSDS Sheets available-location known?	
		2. Labeling procedures in place (check random containers incl. fuel storage tanks)	

Is the ite	listed em	Inspection Process	General comments, suggestions or Recommendations
5811518	ictory:		(Any "NO" answers will require comments)
YES	NO/NA		
		other:	
Persona	l Protect	tive Equipment (PPE)	
		1. All employees wearing appropriate Hard Hat and Vest on Jobsite?	
		2. Proper gloves worn?	
		3. Approved respirators available-all employees fit tested and medically qualified?	
		4. Proper footwear in place?	
		Other:	
Materia	l Handli	ng Equipment (Overall)	
		1. All lights on all equipment operating normally (check each piece)?	
		2. All back-up alarms audible from behind equipment (at least 15ft)?	
		3. Seat belts worn by operator?	
		4. Operators using 3 points of contact?	
		5. All equipment checked has certified and dated fire extinguisher?	
		6. All wheels chocked when required?	
		7. Any leaking fluids on equipment? (Fuel dripping on the ground etc)	
		8. Appropriate speeds for all equipment operation?	
		9. Pre-post inspections completed? (choose randomly and audit book)	
		Other:	
Trenchi	ng and I	Digging	
		1. Utility company notified prior to digging? Appropriate markings?	
		2. Competent person designated and in place?	Name of competent person
		3. Paperwork available with soil classification information?	Soil must be reclassified every day as type A, B, or C
		4. Excavations more then 4 feet must have a ladder for egress within 25ft of the work being performed. Ladder must extend 3ft beyond the ledge.	
		5. Trenches greater than 4ft must be sloped depending on the soil classification type A, B or C.	.75:1 [A] 1:1 [B] 1.5:1 [C]
		6. Danger signs posted when diggin in close proximity to powerlines?	
		Other:	
		Other:	

Is the listed item satisfactory?		Inspection Process	General comments, suggestions or Recommendations (Any "NO" answers will require comments)
YES	NO/NA		
Housek	eeping a	nd Material Storage	
		1. Office trailers clean and orderly?	
		2. Materials neatly and safely stored so as not to cause a hazard?	
		3. Is the heavy equipment clean?	
		4. Are all support vehicles clean and organized? (service trucks, etc)	
		Other:	
		Other:	
Weldin	g and Cu	Itting	
		1. Proper personal protective equipment being used?	
		2. All gas and O2 cylinders secured properly in upright position (with caps in place and at least 20ft apart OR seperated at least 5ft if behind fire barrier)?	
		3. All hoses in good condition and free from grease and oil?	
		4. Welder wearing safety glasses under the welders shield?	
		5. Welding cables positioned to eliminate damage and to prevent tripping hazards?	
		6. Fire extinguisher and/or fire watch located within 25ft of work area?	
		Other:	
Fire Pro	evention		
		1. Fuels and flammables properly stored	
		2. No gas cans allowed to be stored in utility trailers	
		3. All randomly checked fire extinguishers (other than equipment) checked are tagged and current?	
		4. "No Smoking" signs posted where appropriate?	(no smoking within 50 feet of mass fuel storage area)
		5. All flammables stored in metal cabinets or separate outside storage bins?	
		6. If quizzed, the employee knows how to use fire extinguisher?	PASS - Pull-Aim-Squeeze-Sweep
		Other:	
		Other:	
Trucki	1g Truck #		

Is the ite satisfa	listed em ctory?	Inspection Process	General comments, suggestions or Recommendations (Any "NO" answers will require comments)
YES	NO/NA		
		1. Truck clean and organized inside?	
		2. Pre-Post Inspection completed?	
		3. All trucks maintain a safe and prudent speed?	
		Other:	
		Other:	
		Other:	
Materia	l Handli	ng Equipment (Individual Inspection) Equipment #	
		1. All lights operate normally?	
		2. Backup alarm audible by at least 15ft?	
		3. Seatbelt worn by operator?	
		4. Operator use 3 points of contact?	
		5. Equipment has a current fire extinguisher?	
		6. Pre/Post Inspections completed?	
Miscella	neous Sa	afety Items	
		1. Are all time cards turned in on-time every day?	
		2. All safety inspection paperwork completed accurately and submitted to the home office as required each week?	
		3. Accident incidents reported in timely manner as required by policy?	
		4. Subcontractor orientation checklists completed??	
Lockout	t/Tagout	Operations	
		1. Were all required machines Locked and Tagged?	
		2. Did the tag contain the name of the person placing it and was there a tag describing the location of the lock?	
Elect. Sa	afety		
		1. GFIC's being utilized	
		2. Portable Generators grounded properly	
		3. Cords in good condition	

Is the listed item satisfactory?		Inspection Process	General comments, suggestions or Recommendations (Any "NO" answers will require comments)
YES	NO/NA		

JOBSITE SAFETY INSPECTION AUDIT FORM INSTRUCTIONS

General Safety

- 1. Verification of appropriate safety materials available in job van. These items include all PPE (ear plugs, respirators, safety glasses, safety vests and hard hats as well as drug test kits (Regular and DOT) and most current safety manual.
- 2. Bulletin board items must be posted as required by our safety manual:

The Company or regulation requires posting of the following items:

- A. Current All On One Poster covering federal and state safety, health, and labor posting requirements
- B. Shop Wage Schedule
- C. Davis Bacon Wage schedule (on federally funded projects)
- D. Health and Safety Citations (if any)
- E. Location and directions to nearest emergency medical treatment facility including: Jobsite location information Life Flight Phone Number Latitude and longitude location of the worksite
- F. Emergency assistance contact phone numbers The on-site M.A. DeAtley employee with drug test credentials The nearest mobile drug testing firm List on-site employees with "Competent Person" training
- G. Project Hazard Analysis and Work Plan
- H. Most recent Weekly Safety Meeting form with comments.
- I. OSHA 300 Summary of Injuries and Illnesses for the previous year (post from February 1 through April 30)

 J. "Shop Van" item locations (In shop van displayed in a 3-ring binder)
 M. A. DeAtley Construction Safety Manual Form FHWA (Federal Contract Provisions)
 Monthly Safety Committee Minutes (Including safety suggestions, responses and recent incidents)

K. Any other items that may be required for posting by regulatory agencies or others. (Montana requires special bulletin board postings, contact the Safety Coordinator for these items if needed)

Examples include but are not limited to: Dual Employment Poster Copy of subcontractors EEO policy DBE Hotline Poster

- 3. Safety signs include but are not limited to:
 - Danger signs
 - No smoking signs
 - Power signs (Do not operate within 10 feet of power lines)
 - Roadway signage
- 4. Are all employees that are associated with the jobsite wearing their appropriate PPE (this includes subcontractors, visitors and state and local agencies)

5. What is your overall impression of the jobsite organization and cleanliness? Are stockpiles organized? Are the dumpsters overflowing?

Health and Environment

- 1. Are the port-a-potty locations clean and free of clutter?
- 2. Is there adequate water available during the months of May 1st thru September 30th? Is the superintendent following our HRI policy by having adequate water onsite and providing it to the employees if needed?
- 3. If appropriate, is the outside illumination adequate for worksite operations? Are the job trailers illuminated properly as to help eliminate possible hazards due to inadequate lighting?
- 4. Atmospheric tests must be performed when the situation warrants it. Possible situations include:
 - Entry into non-classified confined spaces
 - Trenches where compaction is taking place by motorized compactors
 - Anytime workers are in trenches and there is operating machinery nearby (CO2 and CO is heavier than air and can become toxic to workers in trenches. The toxic gases can come from any combustion engine including running nearby machinery.)
- 5. Ventilation may be needed in some small spaces where workers are located. This may require an (N.A.)
- 6. Treat this item as a random inspection. The first aid kit can be included in any other truck inspection that is completed...ie. lube truck, support vehicle etc.

Hazard Communication

- 1. The SDS procedure must be known by all employees and it must be easily accessible. Once the location of this book is known to you, it would be plausible to question individual employees as to its location or reason for use. Govt. inspectors will do this same process to audit the hazard communication program.
- 2. All containers should say what's inside them. What's inside the container should match what the label says as well.

Material Handling Equipment (Overall)

- 1. This check is meant to gain your overall impression as you move through the jobsite. As you are going through the jobsite do you notice that lights on all equipment are on and operating?
- 2. This item is also meant to be general in nature. While you are inspecting the jobsite make sure you hear audible backup alarms and that they are all in working order. These alarms need to be audible from at least 15ft away from the equipment/vehicle.
- 3. As you inspect the jobsite, do you notice operators using their seatbelts?
- 4. If you notice an operator getting on or off a piece of equipment do they use three points of contact?
- 5. Again, as you move through the jobsite were fire extinguishers up-to-date?
- 6. At any point during the inspection was any vehicle that requires chocks not adequately chocked?
- 7. Leaking machines can cause an inspection by environmental agencies. Is our equipment leaking on the ground? Are there dark areas under the machine that indicate it has leaked?
- 8. Are haul trucks going too fast near residential areas? Are haul trucks going to fast in close proximity to other traffic?
- 9. Pre/post inspection book complete and filled out?

Trenching and Digging

- 1. Self explanatory (This inspection can usually be accomplished by quizzing of the competent person on site. There should also be visible markings in the area showing that a locater has been called and the marks are still clearly visible.
- 2. The competent person for the site should be clearly identified and available locally. This person shall also be qualified thru the appropriate training and have that training documented in our home office.
- 3. During an active trench excavation the trenching from must be available and completely filled out each shift. This document is available in our current safety manual.
- 4. NA

- 5. NA
- 6. NA

Housekeeping and Material Storage

1. This section is meant as a general account of cleanliness. The scope is the entire job.

Welding and Cutting

- 1. Proper PPE includes gloves, overalls or covers, safety glasses, welding hood. In general, does the worker look as if they are protected well enough for what work they are trying to do?
- 2. All gas cylinders must be stored upright with metal covers. Acetylene and oxygen cylinders must be places 20ft apart OR separated by a noncombustible barrier at least five feet high having a fire-resistance rating of at least one-half hour.
- 3. NA
- 4. Safety glasses are provided (with anti-fog) for welders to wear under their welding hood. These help prevent getting metal or other foreign debris in the eyes while chipping slag etc.
- 5. NA
- 6. Are fire extinguishers and/or fire watch located within 25ft of the work area while welding or cutting is being performed.

Fire Prevention

- 1. Is the fuel storage adequate? i.e. Are the containers clean and free of leaks? Are there proper electrical connections or any bare wires exposed?
- 2. Gas cans shall not be stored inside the utility trailers.
- 3. During a random check, are the fire extinguishers tagged and current?
- 4. "No Smoking" signs must be displayed in close proximity to any flammable liquids. This especially goes for large fuel storage tanks (which are usually close to the shop vans and also where people congregate for meetings while having a cigarette).
- 5. Are all flammable products stored in marked metal cabinets or designated outside storage bins?
- 6. Quiz any employee and they should know the PASS acronym.

Trucking

- 1. NA
- 2. NA

Material Handling Equipment (Individual Inspection).

1. This section is straightforward. Choose a piece of equipment to check and follow the checklist. The fire extinguisher question can be asked at this time (PASS)

Miscellaneous Safety Items

1. These items generally should be performed prior to the actual jobsite inspection

LOTO Operations

- 1. As per our policy, machines shall be locked out whenever a mechanic is working on them.
- 2. There should be a tag on the steering wheel displaying the name of the person placing the lock and the lock location.

PROCEDURE FOR ACCIDENTS, INJURY, ILLNESS OR NEAR MISSES ON THE JOB

1.0 Purpose

The following procedure outlines the steps to take if an accident/injury/illness happens on the job.

2.0 Procedure for Emergency Accident/Injury/Illness

- 1. Owner or Supervisor is to take charge immediately.
- 2. Call 911 EMS or the area's emergency response number if an injury or illness requires emergency treatment or transport.
- 3. Render Good Samaritan first aid if possible.
- 4. Arrange for transportation (ambulance, helicopter, company vehicle, etc.)
- Notify Safety Manager and top management if not already present.
 a. Safety Manager Cell: 509-780-2173 b. Management (Home office) 509-751-1580
- 6. Do not move anything unless necessary to protect the injured pending an investigation of the accident.
- 7. Accompany or take injured/ill worker to doctor, hospital, home, etc. (Depending on extent of injuries)
- 8. Remain with injured until relieved.
- 9. When the injured/ill person's immediate family is known by the management or supervisor, they should properly notify these people, preferably in person, or have an appropriate person do so.

3.0 Procedure for immediately after Accident/Injury/Illness

- 1. Contact the Safety Manager, General Superintendent, and or the Vice-President of the company as soon as the situation is stabilized.
- 2. Arrange for drug and alcohol testing in accordance with Company policy.
- 3. Minor injuries including those that do or do not require offsite medical attention, and Near Misses must be documented and investigated. After the emergency actions following an accident an **Incident investigation Form** must be prepared, and an investigation of the accident conducted by the immediate supervisor and or the site superintendent.
- 4. Major injuries (fatality or single hospitalization): The Corporate Office will notify the Department of Labor and Industries, or OSHA (depending upon jurisdiction) as soon as possible (must be reported within 8 hours), and assist in conducting the incident investigation.
- 5. A workplace fatality or in-patient hospitalization of any employee within eight (8) hours of incident.
- 6. An **Amputation or loss of an eye(s)** of any employee **within twenty-four (24) hours** of the incident.

4.0 Incident Reporting Procedures

M.A. DeAtley Construction, Inc. believes consistent incident reporting procedures can help identify problematic and unsafe operations as well as increase safety in the workplace. Therefore, it is imperative that we institute and consistently use specific procedures for reporting incidents and near misses. All Incidents need to be reported immediately to the Safety Department.

- 1. Contact Upper Management to review circumstances of the incident/equipment damage:
 - a. Bill Wilsey (Safety Manager) 509-758-1580 ext. 231 or cell: 509-780-2173
 - b. Scott Palmer (Vice-President) 509-751-1580 ext. 221 or cell: 509-780-1230

- c. Dusty Forsmann (Vice-President) 509-751-1580 ext. 241 or cell: 509-780-1244
- 2. The above managers will discuss the situation to determine if the situation should be classified as an incident and if that information should be sent to the safety committee for review. Once this information is determined the supervisor will be instructed on the correct procedures to perform.
 - a. If it situation is deemed an incident and an incident form/investigation is requested by one of the above managers, all appropriate incident investigation measures shall be performed. These measures shall include but is not limited to the following:
 - i. The incident investigation form shall be filled out in its entirety following the Incident Investigation Form Instructions contained in the Safety Manual.
 - ii. Pictures shall be taken of any and all equipment damages as well as the surrounding area if needed.
 - iii. Witnesses must be interviewed and all information gained from them documented
 - iv. Drug and alcohol testing must be performed when determined by the Safety Manager.
- v. Any other documentation or paperwork that would help in the investigation should be sent in 3. Please see the following pages for an overview for procedures that need to be taken in an
- accident/illness/incident.

FLOWCHART FOR ACCIDENT, INJURY OR ILLNESS ON THE JOB




Pg 2

INCIDENT INVESTIGATION FORM INSTRUCTIONS

1.0 Purpose

A form developed to report and record <u>all</u> injury/illnesses or equipment incidents as directed by upper management involving any employee, or sub-contactor's employee. There is a separate form for near miss incidents and should be used for <u>any</u> near misses.

2.0 General Instructions

This form is to be completed by the Superintendent or Foreman of the involved employee(s). Complete all information on the form that applies to the incident and have it faxed in to the home office within **24 hours** of the incident. Use the back of the form or add pages to complete the investigation. Ask witnesses for their input. Remember detailed information is important so that proper conclusion as to the cause of the incident can be determined. The investigation is not complete until a review of the incident and information has been conducted by the Superintendent and a satisfactory corrective action plan has been established. The employee will not return to work until the investigation has been completed and the Superintendent has determined that it is safe and prudent for the employee to return. Make sure to fill out all applicable sections of the form and all parties sign the document. There will be no resolution to the incident until the form is complete.

3.0 Drug and Alcohol Testing

Certain situations demand that immediate corrective action be taken. Do not allow anyone to be put in harms way until this situation is properly resolved. The employee will not return to work until results from the drug and alcohol testing have been received and the results indicate that the employee is drug free.

4.0 Near Misses

There is a separate form for near miss incidents and should be used for **any** near misses. Recording and investigating near misses is a way to keep track of dangerous circumstances or trends that may be able to be addressed and eliminated. Discussing near misses is also a way to avoid the same potential problem from occurring again to someone else. *M.A. DeAtley Construction, Inc.* understands near misses occur and will forgo any punitive measures for reporting of near misses. Utilizing near miss information is a good way to keep accident/incident records at a minimum and improve and maintain safety overall.

5.0 Safety Review

Keep a copy of the incident investigation form to review at the weekly tailgate meeting. It is company policy that each incident will be reviewed with all employees on the project at the next tailgate meeting or earlier if appropriate.

The following offices and committees have review responsibilities: Vice President, Safety Manager, Equipment Manager, Human Resource Manager and Safety Committee.

The incident investigation form and other documentation including pictures shall be emailed to Bill Wilsey Safety Manager at <u>safety@madcon.net</u> within **24 hours** of the incident.

M. A. DeAtley CONSTRUCTION, INC. INCIDENT INVESTIGATION FORM

Incident Type: (circle one) Injury – Illness - Inc	cident - Equipment Damage	e - Near Miss	
Employee's name:	Date/Time of Incident:	_//	_:AM/PM
Shift Time Began _AM-PM Project/Location:		Work State:	:
Weather Conditions on site:			
Names of witnesses:			
Describe the incident:			
EXPLAIN: What part of the body was affected: Other details of the incident:			
Type of Injury/Illness:	Was first	aid required? <u>Y</u>	les / No
Did the accident require a doctor's treatment? <u>Y</u>	<u>/es / No</u>		
Hospital/Physician providing treatment: Address and Phone Number:			
Will this be a Lost-Time Case? <u>Yes / No</u> Date	/Time of next Dr's appointn	nent:	
Was the employee instructed to keep the compar If not, why?	ny informed of his/her prog	ress? <u>Yes / No</u>	
Was this employee competent and skillful in his/	her job?		
Was the employee trained effectively? <u>Yes/No</u> I	Do they require or would the	ey benefit from	additional training? <u>Yes/No</u>
Incident Result of: Equipment Failure:	Employee Error:		
Operator Drug Test Required: Yes No	Drug Test Obtained	by:	
Operator Alcohol Test Required: Yes NO	Alcohol Test Obtain	ed by:	
Disciplinary Action Required: YesNo	Mgmt Review		
If no discipline explain why:			
Action Taken To Prevent Re-occurrence:			
Does the Incident Indicate Changes in Operation	nal Procedures Required V	es No	
Does the Incident Indicate Changes in Training	Procedures Required · Ves	No	
Explain Any Changes Required.	roccures Acquirea. res_	110	
Employee's Signature:		Date:	
Supervisor's Signature:		Date:	
Attachments: Photographs Witness statem	ents Inspection repor	ts Work o	orders
Note: If additional space is required to explain answ	vers on this form attach additi	ional pages or us	e back of form.

REPORTING OF UNSAFE CONDITIONS OR PRACTICES

All employees have the right to make safety recommendations or express safety concerns. The opportunity for suggestions or concerns is provided on the worker's daily time sheet.

See following pages:

Operators / Laborers Time Sheet

Drivers Daily Log

Mechanics / Oiler Drivers Daily Log

M.A. DEATLEY CONSTRUCTION, INC.

EMPLOYEE TIMECARD

Employee			Date		Job No		Project Name
Shift: Days	رہ Swing	Nites					
Activity/Phase No.	Start Time	Stop Time	Hrs Worked	Equip. No.	Equipment Hours	Hr. Meter Reading	Description of Work Performed

(Employee Signature)

(Supervisor's Initials)

Have you been injured, had a near miss or safety concerns on the job today? Yes / No (circle one) If yes, advise your supervisor and use space below to describe what occurred. Superintendent notified: ____ Use the space below for any safety suggestion:

Have you filled out your pre and post inspections? Yes No

Attention: Your Daily Equipment Inspection Sheet must accompany this timecard and both items must be turned in at the end of your shift.

Keystrokes - 208-746-6493

M.A. DEATLEY CONSTRUCTION, INC. 829 Evans Rd. • P.O. Box 490 • Clarkston, WA 99403 • 509-751-1580 • Fax: 509-751-1922

DAILY EQUIPMENT PRE AND POST INSPECTION

DATE	:	ТІМЕ			A.M		P.M.
Equip	oment No	Hour	Moto	PRE	/	POST	
Mode	l No	Read	ing _		/		
	CHECK ANY DEFECTIVE ITEM AND	GIVE	DETA		R "REM	ARKS"	
PRE	POST	PRE	POS	т			
	Engine Oil/Coolant Level			Wheel Ch	nocks		
	Ground Engaging Tools/Attach.			Lights			
	Tires/Undercarriage			Beacons			
	EMS/Warning Gauges			Other			
	Transmission						
	Wipers/Washers/Windows/Mirrors			Equipme	ent Dama	age	
	Seat Belt	List ai	ny defe	ects or dama	ge in corre	sponding loc	ation.
	Brakes/Retarder	LFro	nt		RFront		
	Steering						
	Back-up Alarm						
	🗌 Horn				_		
	Fire Extinguisher Exp						
*Ope	rator: If any of the above bolded	LRea	r		RRear		
items	s are checked as a result of defective				_		
equip	ment, the machine shall not be				_		
opera	ated. Contact your supervisor so it can						
elimi	nated before its operation						
S							

Remarks: _____

Operator: A pre AND post inspection is required on each piece of equipment you operate and is required by regulation. By signing this document, you are confirming each item on this list has been checked and verified and all equipment damage reported.

□ Check this box if the condition of the above equipment is satisfactory for operation.

OPERATOR'S	PRINT	
SIGNATURE:	NAME	DATE

Attention: Your employee timecard must accompany this Daily Equipment Inspection Sheet and both items must be turned in at the end of your shift.

DAILY DRIVERS LOG EXAMPLE

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											6.
			i i ser en	-10101 EL-			STOLD:				7.
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											10
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M.A. DeATLEY CONSTRUCTION, INC.

MECHANIC/OILER DRIVERS DAILY LOG EXAMPLE

	Month	Day	Year	/ear Total Mileage Today				I certify th	v at these e	ehicle No. (Sho ntries are tr	w Each Unit) ue and corr	ect:	
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-	R.	I.A. De	Name of C	Carrier or Carr	iers	1194				Print N	ame		
-	В	ox 490,	Clarksto Main C	on, Washi	ngton	994	03	829	Evans R	oad, Clarks	ton, Washir	ngton 99403	
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ate	OF	IGIN AN	ID DESTI	NATION			Start (5)	Finish (6)	STATE	(1) Hwy.	(2) Project	(3) Storage Tanks	(4) Purch. Fue
_									IDAHO				
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SHIF	T START			SHIFT S	STOP				TOTAL	1.	2.		
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1.	Equipment	*	Time	Time	You Wor	ked			Description	of Work Perform	160		
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FIRST AID KITS

1.0 Purpose

To assure adequate first aid kits are available at projects and in Company facilities in event of injury or illness

2.0 Procedures

First aid kits shall be maintained in accordance with the requirements of the construction safety standards as defined by WISHA or other applicable agency.

Each facility and project shall maintain at least one industrial size first aid kit which shall be located in either the shop van or the office van. In addition there shall be a truck sized first aid kit in each supervisor's vehicle (including the project engineer, superintendent, and foremen), each maintenance and oiling truck, and the grade checker's vehicle.

Each M.A. DeAtley Construction, Inc. employee who operates a vehicle that contains a company issued first aid kit shall be responsible for maintaining that kit in satisfactory condition in the following ways:

- > Periodically check the kit to ensure it doesn't contain expired items.
- ▶ If you use something in the kit, get it replaced.
- If the kits needs updated, order another one from the main office and retain your current kit until you receive the updated one.

3.0 First Aid Kit Inventories

Inventory requirements for industrial and truck first aid kits meeting project and facility needs are listed on the following page.

Note: If there are any questions pertaining to this procedure please contact the Safety Manager Bill Wilsey (509) 751-1580 ext. 232

FIRST AID KIT SUPPLIES LIST

All Truck Kits	Industrial Kit at Van
4 Absorbent compresses 3x3"	1 Contents Card
4 Bandage compresses 5"	1 1 st Aid Manual
4 Bandage compresses 3"	1 Eye Wash 4 oz.
16 Cloth adhesive bandages 1x3"	1 Rescue Space Blanket
1 Adhesive tape $\frac{1}{2}$ "x 5 yds.	2 Elastic Bandages 2"x5 yd.
1 Roll absorbent gauze 3" x 6 yds.	30 Antiseptic Wipes
1 Triangular bandage 39 x 39 x 55"	20 Ibuprofen Tabs
2 Eye dressings	8 Adhesive Bandages, Finger Tip
1 Scissor	6 Dressing Pads 2"x2"
1 Tweezer	8 Dressing Pads 3"x3"
10 Antiseptic single use pkts. 0.5g.	8 Dressing Pads 4"x4"
10 Burn single use pkts. 0.5g	2 First Aid Cream .5 oz.
1 Eye wash fluid	6 Oval Eye Pads
2 pr. Vinyl exam gloves	1 Tourniquet
2 Cold packs 4 x 5"	16 Adhesive Woven Bandages 1"x3"
2 Resuscitation masks	2 Triangle Bandages 40" Muslin
1 BBP disposal bag	4 Vinyl Glove, Pairs
1 BBP face mask	8 Adhesive Bandages, Knuckle
1 Latex free elastic bandage 2"x 5 yd.	2 Conforming Gauze Bandages 4"x4 yd.
1 Roll absorbent gauze 2"x 5 yd.	2 Conforming Gauze Bandages 2"x4 yd.
2 Ammonia inhalants	2 Adhesive Tape ¹ / ₂ "x5 yd.
1 First aid booklet	1 Wire Splint
	100 Adhesive Bandages 1"x3", Plastic
	2 Surgipad Combination Dressing 5"x9"
	10 Ammonia Inhalants
	1 Scissor and Tweezer
	12 Burn Cream .12 oz. Pkts
	10 Adhesive Bandages, Extra Large
	2 Cold Packs, Large
	20 Iodine Wipes
	10 Sting Relief Wipes
	10 Antihistamine Tabs
	2 Bio-Hazard Bags (Red)
	2 BBP Face Masks
	2 Resuscitation Masks

PREVENTATIVE MAINTENANCE SAFETY AND MAINTENANCE PRIORITY LIST PROCEDURES

1.0 Purpose

Pre and Post equipment inspections and maintenance priority lists are part of an integral safety system that ensures equipment with safety deficiencies are not operated.

2.0 Procedures

2.1 Operator Inspections

Daily pre and post equipment inspections will be completed by each operator. If an operator moves between several pieces of equipment he will be responsible for completing an inspection form for each piece of equipment.

The inspection form must be completed in entirety, including machine number, date, hours on hour meter, and all exceptions to condition noted.

Daily operator inspections will be turned in at the end of each shift with the time card information.

2.2 Safety Maintenance Priority List Procedures

At the end of each shift the project superintendent and the in-charge shift mechanic will meet, and review all operator inspection reports for safety and equipment maintenance needs.

All maintenance and safety repair requirements will be prioritized and recorded on the Safety and Maintenance Priority List. Safety related items will be specifically designated "Safety". (see footnote)

The Safety & Maintenance Priority List shall include the project name, date, equipment number, and a brief description of the required repair (separate line for each repair requirement on the machine). When work has been completed the form shall also include a brief description of the work performed.

Work not completed will be carried over on daily S&MPL lists (listing date of original listing and machine number, and safety if appropriate) until completed.

The Safety and Maintenance Priority List are to be signed by both the superintendent and the in-charge mechanic.

Equipment with any safety repair requirements shall be tagged out until the required repairs are completed. (see footnote)

Based upon priorities assigned the mechanic will schedule and complete as much of the work as possible. The mechanic will sign off on the Safety and Maintenance Priority List for tasks completed, and leave the form for the project supervisor to review the following morning.

In the event the mechanic discovers additional repair or safety items during the work process the discovered items will be added to the S&MPL. This will allow the superintendent to view the additional items the following morning prior to shift start.

The project supervisor will review the previous days Priority List taking note of open and completed items. *Any safety related repair not completed will result in the machine continuing to be tagged out until the required repair is completed.*

Each morning after the supervisor's review the Safety & Maintenance Priority List shall be faxed to the Clarkston Office.

Faxed Safety and Maintenance Priority Lists received at the Clarkston office shall be directed to the shop preventative maintenance administrator.

The shop PM administrator will review the S&MPL and task code all required repairs for entry into the Viewpoint computerized maintenance system. Any items appearing to be safety related but classified non safety without explanation shall be immediately questioned.

The maintenance administrator or his/her designee will enter machine number, hours, and tasks from the S&MPL into the Viewpoint system for preparation of work orders.

Work indicated as completed on the S&MPL will be entered into the Viewpoint system by work order number in order to close the appropriate work order. (In many circumstances the work order will be opened and closed at the same time if the work was completed the same day as being noted as required).

On a weekly or other basis as required the shop PM clerk will prompt Viewpoint to prepare a report of outstanding work orders for distribution to the president, the operations manager, the equipment manager and the Safety Manager. Upon preparation the shop clerk must review the report for correctness and indicate his/her approval by signature.

Original daily operator inspection sheets shall be retained at the project site and forwarded weekly to the PM clerk for filing by equipment number in daily sequence.

Daily equipment operator inspection sheets will no longer require mechanics signature indicating work completed. Documentation is provided through the S&MPL sign off.

Original Safety & Maintenance Priority Lists shall be filed and maintained at the project site by the supervisor or administrator.

Faxed S&MPL received at the Clarkston office shall be filed in the shop by project by day.

Major rebuilds, scheduled preventative maintenance, component rebuilds, or work initiated from a Major Repair / Service Report (other than safety issues) will not be recorded on the S&MPL unless a safety related repair resulted from the mechanics safety inspection checklist

Footnote:

Some items like windshields may have varying degrees of damage, and may or may not constitute a safety hazard. When the daily inspection or other inspection determines that a safety related component falls into this category and is damaged the operator, or inspector shall note the extent of damage and location. When the daily Safety and Maintenance Priority List is prepared the superintendent and master or lead mechanic shall draw conclusions as to safety related items, and whether or not to lockout/tagout. Such evaluation and conclusion must be indicated on the inspection form, and the form must be initialed by the Superintendent and Master Mechanic. When the conclusion is that it is not a safety issue the repair need shall be reflected on the daily Priority List as a non safety item, and explanation must be provided on the Priority List.

M.A. DEATLEY CONSTRUCTION, INC.

SAFETY MAINTENANCE PRIORITY LIST

JOB NUMBER

SUPERINTENDENT

DAYS NOT WORKED MECHANIC

EQUIP.#	SAFETY ITEM	REPAIRS NEEDED (SAFETY ITEMS TAKE PRIORITY)	WORK PERFORMED	ASGND. MECH.	MECH. SIGN- OFF	EQUIP. HRS.	DATE COMP.

NOTE: All equipment with safety items marked will be locked out tagged out until repaired.

EXCAVATIONS AND TRENCHING

1.0 Purpose

To protect workers from injury or death, and equipment from damage resulting from cave in or collapse of excavations or trenches.

2.0 Background

Hundreds of workers die and thousands of workers are injured annually working in or around excavations and trenches. Cave in accidents are the most common type of accident that causes death on construction sites. Cave-ins occur quickly and usually with no warning. The rate of fatalities in trenches is twice that of other construction accidents. Most workers involved in an accident were in a bent or prone position in a "safe trench". Most accidents occurred in trenches 5 to 15 feet deep.

Cave-in is caused by:

- Vibrations from nearby streets, equipment, rail lines, or even activities in nearby buildings:
- Freezing and thawing;
- Adjacent structures;
- The weight of the soil itself;
- Reduction in frictional and cohesive;
- Addition or removal of water or soil moisture content;
- Capacities of the soil.

3.0 Definitions

Authorized Person – A person approved or assigned to perform a specific type of duty or duties or to be at a specific location or locations at the jobsite.

Qualified Person – One who by possession of a recognized degree, certificate or professional standing; or by training, or experience has successfully demonstrated their ability to solve or resolve problems related to the subject, or work, or project.

Competent Person (Excavations and Trenching) – An employee who has had specific training in and is knowledgeable about soils analysis, the use of protective systems, and the requirements of the standards. One who can identity existing or predictable hazards in the surroundings that are unsanitary, hazardous, or dangerous to employees. They must have authorization or authority by the nature of their position to take prompt corrective measures the eliminate hazards, and they must be knowledgeable of the regulatory requirements.

Trench Excavation – A narrow excavation in relation to its length made below the surface of the ground. In general the depth is greater than the width, but the width of a trench measured at the bottom is not greater than 15 feet. If forms or other structures are installed or constructed in an excavation so as to reduce the dimension measured from the forms or structure to the side of the excavation and the distance is 15 foot or less (measured at the bottom of the excavation), the excavation is then also considered to be a trench.

4.0 Requirements

All surface encumbrances that are located so as to create a hazard to employees shall be removed or supported as necessary to safeguard employees.

Underground utility installations that may reasonably be expected to be encountered during excavation work shall be located prior to opening an excavation.

When excavation work approaches the location of underground installations, the exact location of the installations shall be determined by a safe and acceptable means.

While the excavation is open, underground installations shall be protected, supported, or removed as necessary to safeguard employees.

If structural ramps are used by employees for access or egress from excavations they shall be designed by a competent person qualified in structural design, and constructed in accordance with the design.

Ramps and runways constructed of two or more structural members shall have the structural members connected together to prevent displacement. They shall be of uniform thickness, and cleats or other attachment devices shall be on the bottom of the structure or in a manner to prevent tripping. The walking surface shall be equipped with devices or treatment to prevent slipping.

Stairways, ladders, ramps, or other safe means of egress shall be located in trench excavations of 4 feet or more so that no more than 25 feet of lateral travel is required for workers to egress.

No employee shall be permitted underneath loads handled by lifting or digging equipment. Employees must be required to stand away from any vehicle being loaded or unloaded. Drivers or operators may remain in the cabs of vehicles being loaded or unloaded when the vehicle conforms to WAC 296-155-610 for driver protection.

When mobile equipment is operated adjacent to and excavation or when it is required to approach an excavation, and the operator does not have a clear and direct view of the edge of excavation, a warning system shall be utilized (barricades, hand or mechanical signals, or stop logs). If possible the grade should be away from the excavation.

In cases of oxygen deficiency (less than 19.5 % oxygen) or a hazardous atmosphere exists or could reasonably be expected to exist, such as found in landfill areas or near storage of hazardous materials, the excavation shall be tested before workers are allowed to enter excavations greater than 4 feet in depth. Where less than 19.5% oxygen or other hazardous atmospheres exists, precautions such as respirators, or ventilation must be utilized in accordance with WAC 296-842 Respirators.

Adequate precaution such as providing ventilation shall be taken to prevent exposure to atmospheres containing concentration of flammable gas in excess of 10% of the lower flammable limit of the gas. When controls are used to prevent such exposure, testing shall be conducted as often as necessary to ensure the atmosphere remains safe.

Emergency rescue equipment such as breathing apparatus, safety harness and lifeline, or a basket stretcher, shall be readily available, and attended where hazardous atmospheric conditions may reasonably be expected to develop during work in an excavation.

Workers entering bell-bottomed pier holes, or other similar deep and confined footing excavations, shall wear a harness with a lifeline securely attached to it. The lifeline shall be separate from any other lines utilized to handle materials, and it shall be attended at all times while a worker wearing the lifeline is in the excavation.

Workers shall not be allowed in excavations in which water has accumulated, or is accumulating unless precautions have been taken. Such precautions vary but could include special supports or shields to protect from cave in, water removal to control the level of water, or use of safety harness and lifelines. If controlled by removal of water the operation shall be monitored by a competent person.

Surface water drainage including rainfall runoff shall be controlled by diversion ditches, dikes, or other suitable means to

prevent water from entering the excavation. Such controls require inspection by a competent person, and must comply with procedures in the above paragraph.

Where the stability of any structures is endangered by excavation operations, support systems shall be provided to ensure stability of such structures to protect workers. Such structures shall be inspected and monitored by a competent person.

Excavation below the level of the base ,or footing of any foundation, or retaining wall that could reasonably be expected to present a hazard to workers shall not be permitted unless a support system such as underpinning is provided; or the excavation is in stable rock; or a registered professional engineer has approved that the structure is sufficiently removed from the excavations so as to be unaffected by excavation activity; or the registered engineer has approved the determination that the excavation poses no hazard to workers.

Excavations under sidewalks, pavements, and appurtenant structures shall be supported, or other method of protection provided to protect from possible collapse.

All workers are to be protected from rock or soil falling or rolling from an excavation face either by scaling to remove loose material; installation of barricades to stop or contain materials; or other means that provide equivalent protection.

All workers shall also be protected from excavated materials, equipment, or machinery falling into excavations. Such protection shall be provided by placing materials or equipment no closer than 2 feet from the edge of the excavation; by the use of sufficient retaining devices; or a combination of both.

Walkways provided allowing workers to cross over excavations must comply with regulations related to railings, toeboards, etc.

Workers shall be protected from cave-ins by a protective system designed in accordance with the requirements of WAC 296-155-657 through 66411, except when excavations are made entirely in rock; or excavations are less than 4 feet in depth and examination by a competent person provides no indication of a potential cave in.

All protective systems shall have the capacity to restrain without failure all loads that are intended, or could reasonably be anticipated to be applied, or transmitted to the system.

5.0 Inspections

Daily inspections of excavations, adjacent areas, and protective systems shall be made by a competent person. Such inspections shall examine for evidence of any situation that could result in possible cave-ins; indications of failure or potential failure of all protective systems; hazardous atmospheres; or other hazardous conditions. The inspections shall occur prior to the start of each shift, and as needed throughout the shift. Inspections shall also be conducted after every rainstorm, or other hazard increasing occurrence. The inspections are only required when worker exposure can be reasonably anticipated.

If inspection results in evidence that a possible cave in could occur, indication of a protective system failure, hazardous atmospheres, or other hazardous conditions, exposed workers shall be removed from the hazardous area until the necessary precautions to protect the workers have been taken.

M. A. DeATLEY CONSTRUCTION, INC.

TRENCHING COMPLIANCE FORM

Must be completed by **competent person** prior to digging **and** daily until trench is closed

Date: Job Name:	Job Number:
Locates Performed YES NO	
Trench Description Station:	
Depth: Leng	gth: Width:
Soil Type and Description:	
Potential Hazards:	
Protective System Required: Yes	No
If Yes Explain Measures Taken:	
Are All Procedures or Equipment Req	uired to Protect Workers in Place: Yes No
Are Workers Authorized to Enter Tren	nch: Yes No
Competent Person Approving Trench:	Superintendent Approval:
Print	Print
Signature	Signature

TABLE B-1 MAXIMUM ALLOWABLE SLOPES

SOIL OR ROCK TYPE	MAXIMUM ALLOWABLE SLOPES (H:V)(1) FOR EXCAVATIONS LESS THAN 20 FEET DEEP(3)
STABLE ROCK	VERTICAL (90°)
TYPE A (2)	3/4:1 (53°)
TYPE B	1:1 (45°)
TYPE C	1 ½:1 (34º)

Footnote(1) Numbers shown in parentheses next to maximum allowable slopes are angles expressed in degrees from the horizontal. Angles have been rounded off.

Footnote(2) A short-term maximum allowable slope of 1/2H:1V (63°) is allowed in excavations in Type A soil that are 12 feet (3.67 m) or less in depth. Short-term maximum allowable slopes for excavations greater than 12 feet (3.67 m) in depth shall be 3/4H:1V (53°).

Footnote(3) Sloping or benching for excavations greater than 20 feet deep shall be designed by a registered professional engineer.

Figure B-1

Slope Configurations

(All slopes stated below are in the horizontal to vertical ratio)

B-1.1 Excavations made in Type A soil.

1. All simple slope excavation 20 feet or less in depth shall have a maximum allowable slope of 3/4:1.



SIMPLE SLOPE -- GENERAL

Exception: Simple slope excavations which are open 24 hours or less (short term) and which are 12 feet or less in depth shall have a maximum allowable slope of ½:1.



SIMPLE SLOPE -- SHORT TERM

2. All benched excavations 20 feet or less in depth shall have a maximum allowable slope of 3/4 to 1 and maximum bench dimensions as follows:



MULTIPLE BENCH

3. All excavations 8 feet or less in depth which have unsupported vertically sided lower portions shall have a maximum vertical side of 3¹/₂ feet.



UNSUPPORTED VERTICALLY SIDED LOWER PORTION -- MAXIMUM 8 FEET IN DEPTH)

All excavations more than 8 feet but not more than 12 feet in depth with unsupported vertically sided lower portions shall have a maximum allowable slope of 1:1 and a maximum vertical side of 3½ feet.



UNSUPPORTED VERTICALLY SIDED LOWER PORTION -- MAXIMUM 12 FEET IN DEPTH)

All excavations 20 feet or less in depth which have vertically sided lower portions that are supported or shielded shall have a maximum allowable slope of 3/4:1. The support or shield system must extend at least 18 inches above the top of the vertical side.



SUPPORTED OR SHIELDED VERTICALLY SIDED LOWER PORTION

4. All other simple slope, compound slope, and vertically sided lower portion excavations shall be in accordance with the other options permitted under § 1926.652(b).

B-1.2 Excavations Made in Type B Soil

1. All simple slope excavations 20 feet or less in depth shall have a maximum allowable slope of 1:1.



SIMPLE SLOPE

2. All benched excavations 20 feet or less in depth shall have a maximum allowable slope of 1:1 and maximum bench dimensions as follows:



MULTIPLE BENCH

3. All excavations 20 feet or less in depth which have vertically sided lower portions shall be shielded or supported to a height at least 18 inches above the top of the vertical side. All such excavations shall have a maximum allowable slope of 1:1.



VERTICALLY SIDED LOWER PORTION

4. All other sloped excavations shall be in accordance with the other options permitted in § 1926.652(b).

B-1.3 Excavations Made in Type C Soil

1. All simple slope excavations 20 feet or less in depth shall have a maximum allowable slope of 1¹/₂:1.



SIMPLE SLOPE

2. All excavations 20 feet or less in depth which have vertically sided lower portions shall be shielded or supported to a height at least 18 inches above the top of the vertical side. All such excavations shall have a maximum allowable slope of $1\frac{1}{2}$:1.



VERTICAL SIDED LOWER PORTION

3. All other sloped excavations shall be in accordance with the other options permitted in § 1926.652(b).

B-1.4 Excavations Made in Layered Soils

1. All excavations 20 feet or less in depth made in layered soils shall have a maximum allowable slope for each layer as set forth below.





BACKING OF VEHICLES AND EQUIPMENT

1.0 Purpose

To assure the safety of individuals and equipment who may be in the proximity of working equipment.

2.0 Background

It is in many instances difficult for a machine operator to have a clear line of site to the rear of their machine; and individuals to the rear of the machine may not be aware of the operator's intention when it becomes necessary to reverse direction. WISHA regulations 296-155-610 require that no vehicle with an obstructed view to the rear shall be used (excepting passenger cars and pickups) unless it is equipped with an automatic reverse signal alarm that is audible above the surrounding noise level no less than fifteen feet from the rear of the vehicle, or; the vehicle direction is reversed only when an observer (SPOTTER) signals to the operator that it is safe to do so. The observer (SPOTTER) must provide direction to the driver until the vehicle stops or there are no longer personnel in the backing zone, and it is reasonable to expect that no one will enter the backing zone.

WAC 296-155-610 (2) (f) expands the requirement as it relates to dump trucks. It requires in addition to the above that you must make sure that a dump truck has an operating automatic reverse signal alarm that is audible no less than 15 feet from the rear; and before backing up you must determine no one is currently in the backing zone; and it is reasonable to expect no personnel will enter the zone while backing. If personnel are in the zone or it is reasonable to expect someone might enter the zone you may only back the dump truck when an observer (SPOTTER) signals that it is safe to back, or the truck has a device that provides a full view of the dump area such as a camera.

Regulations further specify that the operator of equipment that does not have an obstructed view to the rear must look to the rear while operating the equipment in reverse.

3.0 Operating Procedure

1. *Equipment with an un-obstructed view to the rear*: the operator shall check all mirrors, look to the rear, and continue checking to the rear while backing the vehicle.

2. *Earth moving equipment with an obstructed view to the rear:* the operator shall check the mirrors and if the equipment has a proper operational reverse alarm audible at 15 feet above the surrounding noise may proceed to reverse direction. However, the operator is still responsible to assure it is safe to reverse direction. If the machine is not equipped with a proper reverse alarm, or the alarm is not audible at 15 feet the machine <u>may not be reversed until an observer (SPOTTER)</u> signals it is safe to do so. When backing alarms are not audible at 15 feet machines must also be equipped with an amber strobe light.

3. *Dump trucks (including belly dumps)*: must have an audible reverse alarm, <u>and</u> an observer must be utilized for signaling it is safe to back if it is reasonable to expect that a person may enter into the backing zone.



SAFETY BULLETIN BOARD POSTINGS

1.0 Purpose

To make conveniently available information that may be required by employees or others at project work sites.

2.0 Procedure

The Company or regulation requires posting of the following items:

- A. Current All On One Poster covering federal and state safety, health, and labor posting requirements
- B. Shop Wage Schedule
- C. Davis Bacon Wage schedule (on federally funded projects)
- D. Health and Safety Citations (if any)
- E. Location and directions to nearest emergency medical treatment facility including:
 - Jobsite location information
 - Life Flight Phone Number
 - Latitude and longitude location of the worksite
- F. Emergency assistance contact phone numbers including:
 - The on-site M.A. DeAtley employee with drug testing credentials
 - The nearest mobile drug testing firm
 - List on-site employees with "competent person" training
- G. Project Hazard Analysis and Work Plan
- H. Most recent Weekly Safety Meeting form with comments.
- I. OSHA 300 Summary of Injuries and Illnesses for the previous year (post from February 1 through April 30)
- J. "Shop Van" item locations (In shop van displayed in a 3-ring binder)
 - M. A. DeAtley Construction Safety Manual
 - Form FHWA (Federal Contract Provisions)
 - Monthly Safety Committee Minutes (Including safety suggestions, responses and recent incidents)
- K. Any other items that may be required for posting by regulatory agencies or others. (Montana requires special bulletin board postings, contact the Safety Manager for these items if needed) Examples include but are not limited to:
 - Dual Employment Poster
 - Copy of subcontractors EEO policy
 - DBE Hotline Poster

The following items noted above shall be posted and maintained in current formats on the bulletin boards located outside on the shop vans. If no bulletin board is available the information and materials shall be maintained in a 3-ring binder in the project superintendents work truck. The "shop van" items shall be placed in a 3-ring binder in an easily accessible location. The binder must be labeled so as its contents are easily identified by an employee trying to access it. All employees are to be advised where all of these contents may be located.

JOBSITE SAFETY ORIENTATIONS

1.0 Purpose

M.A. DeAtley Construction, Inc. believes in the importance of jobsite specific safety orientations for all new employees and subcontractors. A Proper safety orientation for employees and subcontractors helps to ensure continuity of safety provisions on the jobsite. Every jobsite has safety hazards that are unique to that site. A safety orientation can help to point out these safety hazards so as to reduce or eliminate the potential for incidents/accidents. To accommodate this program, checklists have been developed.

2.0 New Employee Safety Orientation Checklist

This checklist is used to orientate a new employee to general company standards and safety protocol. Its function is also to track the completion of online training the employee participates in. The checklist shall be signed by the employee and the person giving the orientation. (See form on following pages)

3.0 New Employee Jobsite Specific Orientation Checklist (Certificate)

The new employee shall be oriented to the jobsite by using the checklist. Be sure to ask if the employee has any questions before going to work. This is an opportunity for the supervisor to inform the employee of *M.A. DeAtley Construction's* safety program and their important cooperation and participation as well as pertinent safety hazards that they might encounter while working in their position. (See form on following pages)

4.0 Subcontractor Orientation Checklist

As a prime contractor, it is M.A. DeAtley Construction's responsibility to make sure its sub-contractors are appropriately oriented to our jobsites. Even though the subcontractor is a separate entity from our company, we are still responsible for their overall safety. For this reason, it is imperative that each subcontractor be orientated to the jobsite by using the checklist provided on the following pages. Both parties shall sign the checklist and the list be maintained onsite as documentation that orientation has taken place.

Subcontractor orientation is a great opportunity to get associated and discuss safety hazards and what they do to help control their safety hazards in their workplace. If needed, a copy of M.A. DeAtley Construction's safety manual can be given to help guide them and help them be as safe as possible while they are working on our jobsites. Safety should be a shared responsibility and by working together, we can create a safe and healthful workplace for everybody. (See form on following pages)

The subcontractor orientation form must be completed the first time of the year that a subcontractor starts a job at one of our jobsites. The form is to be completed by checking the appropriate circles and making sure it is signed by both the subcontractor and our superintendent. Email, fax or scan the form and send it to the home office. Email the form to Bill Wilsey Safety Manager at billw@madcon.net or fax it to 509-751-1922.

M.A. DEATLEY CONSTRUCTION, INC.

NEW EMPLOYEE ORIENTATION CHECKLIST

Employee Name:	Title	Date Hired
Employee Hume.		

This checklist is a guideline for conducting employee safety orientation for employees new to *M.A. DeAtley Construction, Inc.* Once completed and signed by both supervisor and employee, it serves as documentation that orientation has taken place.

Place a check in each box to indicate that the subject has been covered.

- **1.** Welcome
 - EEO Officer
- **2.** Employee Handbook
 - EEO Statement
 - Benefits
 - Davis Bacon Wage
- **3.** Schedule

- 4. Attendance
- 5. Time Cards
- 6. Disciplinary Procedures
 - 7. Harassment
 - 8. Drug and Alcohol Policy
 - 9. Personal Work Rules
 - 10. First Aid Kits/Blood Borne Pathogen Exposure Control
 - 11. Bulletin Board
 - Labor Laws
 - Complaint Procedures
 - Hazard Analysis Work Plan
 - Emergency Numbers/Directions

NOTE TO EMPLOYEE: DO NOT SIGN unless you have completed the online orientation and fully understand each topic clearly.

The signature below documents that the appropriate elements have been discussed to the satisfaction of all parties, and that both the company and employee accept responsibility for maintaining a safe and healthful work environment.

Employee's Signature:	Date
Human Resource Manager	Date

NEW EMPLOYEE – JOBSITE SAFETY ORIENTATION CERTIFICATE

This certificate states that	has completed the following tasks
and is released to go to work:	
 Federal Employment Docs Safety Orientation/Training Drug Test Results Voluntary Use Respirator Training/App D Online Training CDL Requirements (if req) *CDL holders require 2-3 days for test results prior to operating commercial vehicles. JOBSITE WALK THROUGH: Walk Through Project Identify Hazards Verify PPE Show Safety Bulletin Board Show location and how to obtain SDS Discuss Hazard Analysis Plan Discuss Evacuation Procedure Show Emergency response Numbers 	
Medical Treatment Facility	Date
General Superintendent	_ Date
Project Superintendent	Date

SUBCONTRACTOR SAFETY ORIENTATION CHECKLIST

Subcontractor Name:	
Job:	Date Hired:

This checklist is a guideline for conducting subcontractor safety orientation. Place a checkmark next to each item covered. Once completed and signed by both the supervisor and subcontractor it should be sent to the home office and a copy retained on site as documentation that orientation has taken place.

Place a check in the circle next to each item to indicate that the subject has been covered.

- I. Explain the company safety program. To include the following:
 - O Subcontractor must follow M.A. DeAtley Construction's safety program (subcontractor can use their own if their program is greater than or equal to ours)
 - O Hazards that may be present or reasonably anticipated at the project site
 - O Types and locations of Hazardous Materials on site
 - O Description and location of SDS sheets
 - O Safety meeting times and locations
 - O Accident reporting and investigation
 - O Location of emergency phone numbers and directions to nearest medical treatment facility
 - O Personal protective equipment required
 - O Drug/substance abuse program
 - O General overview of operation
 - O First aid supplies and locations
 - O Emergency plan description and location if applicable
 - O Any confined spaces on site? (Please see M.A. DeAtley safety manual for requirements for subcontractors on site.)

II. NOTE TO SUBCONTRACTOR: **DO NOT SIGN** unless **ALL** items are covered and discussed to the satisfaction of both parties; and that both the supervisor and employee accept responsibility for maintaining a safe and healthy work environment.

Superintendent's Signature		Date	
----------------------------	--	------	--

Subcontractor's Signature _____ Date _____

Note: Fax or scan a copy of this form to the Safety Manager within 24hrs of completion. <u>billw@madcon.net</u> or fax 509 751 1922.

WEEKLY SAFETY INSPECTIONS

1.0 Purpose

To establish a uniform guideline for conducting self-administered, on-site and equipment safety walk around inspections. These walk-arounds shall be used to help increase safety awareness to everybody on the job and to identify on-site and equipment safety hazards. These inspections also assist in determining what safeguarding is necessary to protect against hazards before accidents and personal injury/illness occur.

"An unsafe condition is any physical condition which, if left uncorrected, will lead to an accident"

When making safety inspections, employees should be encouraged to point out unsafe conditions. The inspections should not be conducted primarily to find out how many things are wrong, but to determine if everything is satisfactory. The whole purpose should be one of helpfulness in discovering those conditions, which, if corrected, will result in making the facility a safer and more healthful place in which to work.

It must be remembered that an unsafe condition, in addition to being a direct cause of accidents in itself, often can lead people to perform unsafe acts. Poor machine design, inadequately planned methods and other engineering deficiencies can be a direct cause of unsafe acts. Thus, elimination of a hazard caused by an unsafe condition may also reduce the likelihood of injury/illness from an unsafe act.

The following safety inspection checklists shall be used:

- Weekly Jobsite Safety Inspection Checklist
- Weekly Shop/Yard Area Safety Inspection Checklist
- Weekly Equipment Safety Inspection Checklist

2.0 General Safety Inspection Procedures

<u>The superintendent should see that inspections are scheduled at the beginning of each job, and once a</u> <u>week thereafter</u>. The inspection shall be conducted jointly by the superintendent or foreman and an hourly employee from the project. A different employee should be selected each week if possible. By using this method, one can best exercise his responsibilities in establishing effective control and maintaining a safe work site.

In preparing for an inspection, it is advisable to review the injury/illness cause data for the particular areas involved. Special attention can be given to those conditions, areas or operations which are known to be accident producers. As stated above, safety inspections are primarily intended to discover the unsafe physical and mechanical conditions; however, employee work practices noted during the inspection should be corrected and indicated on the report.

All inspections should be well planned so they can be accomplished with efficiency. Inspections should help sell safety to employees. Finding unsafe conditions by means of periodic inspections and promptly

correcting them demonstrates the employer's interest and sincerity in the control of work hazards.

3.0 Checklist Procedures

To standardize the method of inspection, inspection checklists are used. To assist you in completing your checklists, you should use the following examples of what to look for when inspecting your work areas:

- Atmospheric conditions: hazard conditions of dust, gases, fumes, sprays, etc.
- Chemical substances: all toxic liquids and solids
- Containers: all objects for material storage such as boxes, bottles, cans, barrels.
- Electrical conductors and apparatus: switches, wires, cables, controls, transformers, lamps, batteries, fuses.
- Engines and prime-movers: sources of mechanical power, electric & steam generators, gas engines, boilers, water heaters.
- Elevators, escalators and man-lifts: platforms, gates and locks, power source, hydraulics.
- Guards and safety devices: all removable and fixed guards, handrails and safety devices or attachments, excluding personal protective clothing and equipment.
- Hand tools: equipment that is held or carried when in use.
- Hoisting equipment: hydraulic jacks, air hoists, lifts.
- Machinery and parts thereof: power equipment that processes or modifies materials such as grinders, drill machines, saws, lathes, power kitchen equipment, office equipment.
- Overhead structures and equipment: any structural parts or equipment that may fall from above.
- Personal protective clothing and equipment: goggles, welding masks, gloves, safety glasses.
- Pumps, compressors, blowers and fans: exposed moving parts, belts, suitable guards.
- All types of openings into which persons may fall or trip over.
- Walking and standing surfaces: floors, aisles, stairs, platforms, ramps, roads, scaffold, ladders.
- Warning and signal devices: direct communication systems such as radio, telephone, buzzers, bells, lights, back-up alarms.
- Vehicles carrying equipment: trucks, cars, busses, motorized carts.
- Miscellaneous: other potentially dangerous objects or conditions that do not fall into the above categories.

4.0 Equipment Inspection Checklist

To standardize the equipment inspection procedure a checklist is also used. The checklist has some comments on where the focus should be. The idea is a fresh set of eyes to catch any safety deficiencies that might exist. The form shall be completed in its entirety and signed by the employees completing the inspections. For additional information see the Weekly Equipment Safety Inspection Checklist.

M.A. DEATLEY CONSTRUCTION, INC. WEEKLY PROJECT SAFETY INSPECTION CHECKLIST (SUBMIT TO MAIN OFFICE BEFORE 3:00PM TUESDAY EACH WEEK)

Project Name:	Project #:
Project Superintendent:	Date:
	S=Satisfactory
Participating Employee	N=Non-satisfactory
	N/A=Not Applicable to Specific Project

YARD AREA	S	Ν	N/A
Housekeeping (Do things look "picked up" and organized?)			
Acetylene/Oxygen Bottles Stored Properly (No loose bottles?)			
Explosive Stored Properly			
Fuel Containment Area in Proper Working Condition? (Is it clean and organized?)			
SHOP/OFFICE VAN/SURVEY, FUEL, AND STEAM TRAILERS			
Housekeeping (Can you walk thru the van? Is it cluttered? Any potential hazards?)			
Hearing Protection (Is there adequate supply?)			
Respirators			
Safety Glasses/Inspect Face Shield at all Grinder Locations			
Safety Vests			
Hard Hats			
Fire Protection (record expiration date) (record expiration date) (record expiration date)			
Fire Protection (record expiration date) (record expiration date) (record expiration date)			
First Aid Kit has Proper Supplies (Any expired/used items?)			
Emergency Response #'s Displayed at First Aid Station?			
BULLETIN BOARD			
Monthly Safety Meeting Minutes Posted in Binder?			
Emergency Response #'s & Route to Hospital Displayed			
EQUIPMENT		-	
No Obvious Fluid Leakage on any Equipment, Trucks, Vehicles, etc.			
CB Radio in Working Condition and Used Correctly by Everyone			
Safety Berms in Cut & Fill			
Wheel Chocks (Supplied on all Applicaple Equip & Being Used Correctly)			
Head Lights, Flashing Lights and Whips Being Used at All Times			
HAUL ROADS		-	
Proper Design - Width, Blind corners, Drainage, Supers			
Conditions - smooth enough to handle Haul Equipment speeds			
Traffic - all operators following the Haul Plan			
OTHER SAFETY ITEMS			
Appropriate Speeds of Hauling Equipment			
Proper Lifting Devices Being Used			
Adhering to Confined Spaces			
Awareness of Overhead Utilities			
Awareness of Underground Utilities			
Effective Communication Between Operators and Supervisors			
SUBCONTRACTORS			
Personal Protective Equipment Being Used			
Note: If anything is marked "Non-satisfactory" there must be comments and corrective actins noted.			
Comments:			

Corrective Action Taken:

Superintendent Signature

Date

WEEKLY SHOP SAFETY INSPECTION CHECK LIST

(Submit to main office before Tuesday 3:00pm each week)

Superintendent/Foreman:

Date:

Participating Employee:

S = Satisfactory	
N = Non-satisfactory	

N/A = Not Applicable to Specific Project

	YARD AREA	S	Ν	N/A
Housekeeping	(Do things look "picked-up" and organized?)			
Oil Containment A	rea in Proper Working Condition Clean and organized?			
	SHOP			
Housekeeping	(Do things looked "picked up" and organized?)			
Hearing Protection				
Respirators				
Safety Glasses / Ins	spect Face Shield at all Grinder Locations			
Eye Wash Stations	(record expiration date			
Proper Blocking U	nder Equipment			
Fire Protection	(record expiration date			
First Aid Supplies	(Any expired/used items?)			
Overhead Hoist Op	beration (Straps/chains conditions adequate?)			
Proper Lifting Dev	ices Being Used (Proper jacking/blocking/stands?)			
Awareness of Over	head Dangers			
Acetylene/Oxygen	Cylinders Stored Properly (Are all pressures bled off?)			
Emergency Respon	se #'s Displayed at First Aid Station?			
	BULLETIN BOARD	•		
Monthly Safety Me	eeting Minutes Posted in Binder?			
Emergency Respon	se #'s & Route to Hospital Displayed			
	EQUIPMENT			
No Obvious Fluid I	Leakage on any Equipment, Trucks, Vehicles, etc.			
Pre and Post Inspec	ctions Being Completed			
Proper Lock-out/Ta	ag Out Procedures Being Used?			
All Equipment is B	eing Operated under Safe Conditions?			
Wheel Chocks (Su	oplied on all Applicable Equip. & Being Used Correctly)			
All Equipment and	Pickups Operating with Headlights ON			
First Aid Kit in Pic	kups & Mechanic Trucks Current?			
	OTHER SAFETY ITEMS			
Appropriate speeds of	of equipment in the yard?			
Note: If anything is mar Comments:	ked "Non-satisfactory" there must be comments and corrective actions noted	•		

Corrective Action Taken:

Superintendent Signature Date

Reviewed by: Safety Cor_____

Safety Manual: Shop Safety Inspection Checklist

M.A. DeATLEY CONSTRUCTION, INC.

WEEKLY EQUIPMENT SAFETY INSPECTION CHECK LIST

(CHECK A MIN. OF 1 PIECE OF EQUIPMENT PER WEEK AND SUBMIT TO MAIN OFFICE BEFORE 3:00PM TUESDAY EACH WEEK)

Project Name:		Project Superintendent:		Project #:		
Inspected By:		Equipment:	Eq	Equipment #:		
	S = Satisfactory	N = Non-satisfactory N/A = Not Ap	plicable to Specific	Project		
	SE	AT/SEAT BELTS	S	Ν	N/A	
In Proper Wo	orking Order					
Used Correct	tly by Operator/Driv	er				
	BR	AKES				
Parking Brak	e/Operating Brakes					
Brake Coupli	ings					
Pedals						
No Hydraulio	c/Air Leaks					
	ELEC	TRICAL				
Lights (work	ing and being used)					
Gauges						
Flashing Ligh	ht (supplied and bein	ng used)				
Backup Alar	m					
		R SAFETY ITEMS				
Check Cab fo	or Trash, Dirt and L	Dose Equipment (Is the outside dirty?)				
Windshield/V	Wipers; Clean, Cond	lition			-	
Mirrors: Clea	an, Condition				-	
Horn Dody Domos	-					
Body Damag	je					
Reflectors	Jourling Daviage In	Juding 5th Wheel			<u> </u>	
Equipment C	Muffler	Studing Stil wheel			-	
Exhaust and	when the suspension	Systems/Undercarriage				
Fuel tanks	nory and Suspension	Systems/Onderearnage				
Steering						
Tires, Chains	wheels and Rims					
Wheel Chock	s, (supplied and being	ng used)				
Fire Extingui	isher and Bracket (r	ecord expiration date)				
CB Radio (su	upplied and being us	ed correctly)				
Whip (if app)	lies)	•/				
	OPER	ATOR				
Hard Hat, Re	espirator and Vest					
Proper Protec	ctive Clothing (inclu	iding footwear)				
Use of Hearing	ng Protection					
Safety glasse	s and gloves (if app	licable)				
Operator usir	ng 3 Points of Conta	ct?				
Review Pre/I	Post Inspection Slip	with Operator (Is it complete	ed?)			
Note: If anythi	ing is marked "Non-sa	tisfactory" there must be comments and	corrective actions n	noted.		
Comments:						

Corrective Action Taken:

Superintendent Signature

Date

Reviewed by: Safety Cor_____
M.A. DeATLEY CONSTRUCTION, INC.

Safety Manual: Equipment Inspection Checkl WEEKLY EQUIPMENT SAFETY INSPECTION CHECK LIST evised: January 2010 (CHECK A MIN. OF 1 PIECE OF EQUIPMENT PER WEEK AND SUBMIT TO MAIN OFFICE BEFORE 3:00PM TUESDAY EACH WEEK)

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BLOODBORNE PATHOGEN EXPOSURE CONTROL PLAN

1.0 Purpose

This Bloodborne Pathogen Exposure Control Plan was written to meet Federal and State Occupational Health and Safety requirements. Federal and state regulations require protection for employees who in the event of injuries may contact blood or other potentially infectious materials as part of their job. Although none of M. A. DeATLEY CONSTRUCTION, *INC.'s* employees are considered at risk based on their job assignment the Company does provide first aid kits at job sites. Employees who in event of injuries choose to provide Good Samaritan first aid to fellow workers or others need to be aware of the risks, and protective procedures. Protection is based upon knowledge, procedures, and personal protective equipment.

2.0 Procedures

In accordance with WAC 296-155-120(1)(b), all supervisors, foremen, persons in charge of a crew and others employed by M.A. DeAtley CONSTRUCTION, INC. will carry a current and valid first aid card. However, trained personnel will not be required to provide first aid care. They will be provided the training and access to appropriate first aid supplies in the event they wish to provide care under the provisions of the Good Samaritan rule.

M.A. DeAtley CONSTRUCTION, INC. will provide the necessary personal protective equipment at each work site. This equipment will include, but not be limited to, protective gloves, mouth barriers and eye protection. In addition, each employee will be informed of the risks involved with an exposure to human blood or other potentially infectious materials (OPIM), and the proper use of the personal protective equipment. This information will be made available through new employee orientation, training and job site safety meetings.

In the event of an actual or suspected exposure to human blood or OPIM, the employee will be required to immediately or as soon as possible, report the incident to his supervisor. Each exposure or suspected exposure will be evaluated on a case-by-case basis. Post-exposure reporting forms will be made available and completed as required. A supply of the necessary forms will be maintained at each job site.

3.0 Risk and Exposure Determination

Blood, body fluids and other potentially infectious materials may contain a number of pathogens, or disease causing organisms. These pathogens include the Human Immunodeficiency Virus (HIV), and the Hepatitis B Virus (HBV).

Exposure occurs when an individual contacts a virus. This may result when an open wound, puncture, cut, abrasion, eye, mouth, our other mucus membrane contacts blood or other potentially infectious material.

4.0 Employee Protection

Safe work practices must be used to reduce the risk of contact with Bloodborne pathogens. These practices include:

- > Avoiding contact with blood or other potentially infectious materials through use of personal protective equipment; gloves, face and eye shields and CPR mouth shields (located in our first aid kits).
- > Washing hands, face or other parts of the body suspected of coming into contact with blood, or blood contaminated materials. Wash with soap and water, or utilize other disinfectant materials even if personal protective equipment is worn.

Appropriate personal protection equipment (gloves, mouth and eye barriers) to avoid or *reduce the risk of contact is included with our first aid kits.*

5.0 Contamination

Tools, supplies, equipment, clothing, or other items that have contacted or potentially contacted blood or other bodily fluids must be decontaminated as soon as practical to prevent possibility of exposure contact.

Hot soap and water, or one part of household bleach to 10 parts warm water may be used as disinfecting agent for Bloodborne pathogens. Other disinfectants are also available through commercial sources. Contaminated clothing, supplies, equipment or other items that are not practical to decontaminate are to be disposed as infectious waste. Contaminated clothing is not to be sent to a laundry service.

6.0 POST EXPOSURE EVALUATION AND FOLLOW UP

Any employee who believes that he/she has been exposed to blood or other potentially infectious materials at their work site are required to immediately report the exposure incident to their supervisor. Employees who experience an exposure will be provided a confidential post exposure evaluation and follow up. Evaluation and follow up will consist of:

- A confidential medical evaluation that documents details of the incident including route of exposure.
- ➢ If the exposure source is known, *M.A. DeAtley CONSTRUCTION* will request permission to determine the HIV/HBV status of the source individual.
- Providing test results from the source individual to the exposed employee (after both parties are informed about applicable laws and regulations concerning disclosure of the information)
- The exposed employee will be offered the option of having his/her blood collected for testing of HIV/HBV status.
- The exposed employee will be offered counseling, and treatment if recommended by the medical consultant. Counseling will provide information on any potential illnesses and/or symptoms which could result after the exposure; and actions available in the event symptoms do occur.

7.0 INTERACTION WITH HEALTH CARE PROVIDERS

M.A. DeAtley CONSTRUCTION will choose the health care professionals providing services for the Bloodborne Pathogen program. The participating professional will provide a confidential medical evaluation following an exposure incident. The professional will also provide a written medical opinion to the Company whenever an employee is referred to receive the HBV vaccine; and whenever an employee is referred for evaluation following an exposure incident.

Written opinions will contain limited information to protect confidentiality of the employee. The Company will provide the employee with a copy of the medical written opinion within 15 days of evaluation. It will advise if the exposed employee has:

- ➢ Received vaccine
- Been seen by the professional
- Received a confidential medical evaluation
- Informed of the results of evaluation
- Advised of medical conditions resulting for exposure

The written opinion however, will not refer to any personal medical information shared with the employee during the medical evaluation.

8.0 EMPOYEE TRAINING

All employees who may provide first aid will receive training on Bloodborne pathogens and the program provided by M.A. DeAtley CONSTRUCTION. The training will provide an interactive discussion of:

- Regulatory standards regarding Bloodborne Pathogens.
- > How Bloodborne diseases are transmitted and the symptoms and illnesses that can result.
- > The BBP program provided at *M.A. DeAtley CONSTRUCTION* as detailed in the written Exposure Control Plan.
- How exposure might occur and whom to contact in the event of exposure.
- > Personal protective equipment including gloves, mouth and eye barriers, and bio-hazard disposal bags that are provided in the first aid kits.

Training will be repeated annually.

9.0 RECORDKEEPING

All records required by our BBP Program will be maintained by M.A. DeAtley CONSTRUCTION or their representative for a minimum of three years.

EMPLOYEE EXPOSURE REPORT

Name of exposed individual:	
Project Assigned:	Position:
Date Incident Occurred:	Time:

What type of exposure occurred? (i.e. cut, spill, splash, broken skin, etc.):

Body part exposed? (i.e., mouth, eyes, skin break on hand, etc.):

Description of first aid provided:

Description of task being performed and conditions associated/contributing to the exposure:

In your opinion has an exposure as defined by WAC 296-62-08001(2) occurred?

"Exposure incident" means a specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that result from the performance of an employee's duties.

Exposed individual instructed/advised	I to report to a physician:	YES/NO
Date: Time	:	
Source Individual's Name:		
Employee HBV Status: Vaccinated	Declined Vaccination	Date
Report compiled by supervisor:	(Signature)	Date
Supervisor Name:		

CONFINED SPACE ENTRY PROGRAM

1.0 Purpose

This Confined Space Entry Program is designed to prevent workers from exposure to dangerous atmospheres and conditions while working or occupying confined spaces while working for *M*. *A*. *DeAtley Construction, Inc.*

2.0 Definitions

1. **Hazardous Atmosphere -** An atmosphere that may expose employees to the risk of death, incapacitation, and impairment of ability to self-rescue (that is, escape unaided from a permit-required confined space), injury, or acute illness caused by one or more of the following:

- Flammable gas, vapor, or mist in excess of 10% of its lower explosive limit (LEL).
- Airborne combustible dust at a concentration that meets or exceeds its LEL.
- Atmospheric oxygen concentration below 19.5% or above 23.5%.
- Atmospheric concentration of any substance which may exceed a permissible exposure limit.
- 2. Oxygen Enriched Atmosphere An atmosphere containing more than 23.5% oxygen by volume
- 3. Oxygen Deficient Atmosphere An atmosphere containing less than 19.5% oxygen by volume

4. **Engulfment** - The surrounding capture of a person by a liquid or finely divided (flow able) solid substance that can be inhaled to cause death by filling or plugging the respiratory system or that can exert enough force on the body to cause death by strangulation, constriction, or crushing.

5. Acceptable Entry Conditions - The conditions that must exist in a confined space to allow safe entry and work conditions.

3.0 Roles and Responsibilities

It is the supervisor's responsibility to determine if a confined space exists at their particular jobsite. If a confined space is thought to exist at that jobsite, the supervisor shall evaluate the hazard with the safety coordinator to determine if confined space entry precautions should be implemented. If it is determined that a non-permit required confined space or permit-required confined space exists at the jobsite, that supervisor shall follow and implement the procedures as outlined in this program.

4.0 Confined Space

A "confined space" means a space that:

- 1. Is large enough and so configured that an employee can enter their body and perform assigned work:
- 2. Has limited or restricted means for entry or exit (tanks, large pipes and storage bins); and

3. Is not designed for continuous employee occupancy.

"*Confined Space Entry*" means the action by which a person passes through an opening into a permitrequired confined space. Entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space.

An assessment must be made to determine if any spaces within the workplace are permit-required confined spaces (see definition below). If the workplace contains permit spaces, danger signs warning of the existence and location must be posted. All spaces shall be considered permit-required confined spaces until pre-entry procedures demonstrate otherwise. When the assessment determines there is a permit required confined space on the jobsite, there shall be no entry into that space.

Although permit-required confined spaces are very rare on *M.A. DeAtley Construction, Inc* jobsites, it is imperative that if a confined space exists, that the correct procedures are followed to identify and mark those spaces and no attempt at entry is made.

Some examples of confined spaces that may be encountered at our jobsites are containers, manholes and excavations that may contain hazardous atmospheres.

4.1 Permit Required Confined Space

A "*permit-required confined space*" means a confined space that has one or more of the following characteristics:

- 1. Contains or has the potential to contain a hazardous atmosphere that cannot be controlled or eliminated,
- 2. Contains a material that has the potential for engulfing an entrant that cannot be controlled or eliminated;
- 3. Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section; or
- 4. Contains any other recognized serious safety or health hazard.
- 5. Important: Assume that every confined space is a permit required space unless it is unequivocally identified as otherwise.

Permit Required Confined Space Procedures

- A. Any employee who works for M.A. DeAtley Construction, Inc. That is required to enter a Permit-required confined space entry must be trained in the operating and rescue procedures for safe entry of a permit-required confined space. If there are any permit-required confined spaces on any jobsite, they are to be marked as such with appropriate barricades and signage and the location communicated to all employees.
- B. Danger signs or any other effective means of to inform workers of the hazard must be posted. If posting a sign it should read something like: DANGER PERMIT REQUIRED CONFINED SPACE DO NOT ENTER!
- C. If the jobsite contains a permit space, the topic must be addressed at the initial weekly safety meeting and documented as such. All employees are to be notified of the spaces existence and precautions that need to be made in order to avoid the permit-space hazards.

4.2 Alternate Entry Option

Alternative entry procedures can be used when the only hazard in the space is an actual or potential hazardous atmosphere provided that the space can be maintained in a safe atmospheric condition under the following conditions:

- 1. The only hazard posed by the space is an actual or potential hazardous atmosphere,
- 2. If a hazardous atmosphere does exist, it must be eliminated and maintained at an acceptable level with mechanical ventilation alone.
- 3. The space is continuously monitored to verify the above two conditions.
- 4. If someone must enter the space to eliminate any other hazards, we will follow the requirements listed under the permit entry procedure and reclassify the confined space as a permit required space and follow the appropriate procedures listed in this program until the hazards are eliminated.
- 5. If at any point while monitoring and ventilating the space, a hazardous atmosphere exists, all occupants of the space shall evacuate and classify the space as a permit required confined space and all permit procedures shall be followed.
- 6. Final classification of any confined space must be determined by the supervisor AND the safety coordinator.

Anytime alternate entry procedures are to be used while working for *M. A. DeAtley Construction*, an Alternate Entry Option Documentation form shall be utilized and all information on the form filled out. The space shall be treated as a permit-required confined space and section 4.1"Permit Required Confined Space Entry Procedures" A-I, K and M shall be followed (as noted above) as well as the procedures listed below under 4.2 "Alternate Entry Option Procedures."

Alternate Entry Option Procedures

- A. If there is an entrance cover and it needs to be removed, promptly guard the opening with a railing, temporary cover, or other temporary barrier to prevent accidental falls through the opening and protect entrants from objects falling into the space.
- B. Post danger signs or any other effective means of to inform workers of the hazard. If posting a sign it should read something like: DANGER PERMIT REQUIRED CONFINED SPACE DO NOT ENTER!
- C. A written Alternate Entry Option Procedures Form must be completed, in its entirety, and the safety coordinator contacted and onsite before the confined space is entered.
- D. The project superintendent and the safety coordinator will classify the space together before any entry will take place.
- E. Air testing and monitoring equipment must be maintained and calibrated. The Safety Coordinator will maintain and calibrate this equipment.
- F. Identify and evaluate the hazards of permit spaces before employees enter them. This shall be accomplished by testing the air within a confined space. The tests will determine if dangerous air contamination or oxygen deficiency/enrichment exists within the confined space. Test results will be recorded in writing via the entry form, with one copy kept on the job site and the other forwarded to the Safety Manager. If the air test shows that a hazardous condition exists,

additional powered mechanical ventilation must be provided to remove the hazard before workers are allowed to enter.

- G. At least one ATTENDANT and the supervisor must be provided outside the permit space into which entry is authorized for the duration of entry operations. Attendants may be stationed at any location outside the permit space to be monitored as long as their duties can be effectively performed.
- H. All employees involved in confined space operations must have completed the required confined space training and documentation (attendant, entrant and supervisor).
- I. Continuous air tests must be made while the work is being performed and documented on the form.
- J. Certify that pre-entry measures have been taken (such as safe removal of the cover and having protection needed to gather pre-entry data), with the date, location of the space, and signature of the person certifying (supervisor and safety coordinator).
- K. Wait until the forced air ventilation has removed any hazardous atmosphere before allowing entrants into the space and direct forced air ventilation toward the immediate areas where employees are, or will be, and continue ventilation until all employees have left the space.
- L. Be sure to provide the air supply from a clean source and make sure it doesn't increase hazards in the space such as equipment exhaust fumes or other potential hazardous substances.
- M. Before an employee enters the space, the internal atmosphere shall be tested with a calibrated direct-reading instrument, for the following conditions: Oxygen content, flammable gases and vapors and potential toxic air contaminants. Make sure entrants are allowed to observe this testing and all proper and applicable documentation is filled out. (i.e. Alternate Entry Procedures Documentation Form)
- N. There may be no hazardous atmosphere within the space whenever any employee is inside the space. If a hazardous atmosphere does accumulate, any occupants must evacuate the space immediately until it can be cleared of the hazardous atmosphere.
- O. The supervisor shall verify that the space is safe for entry and that the pre-entry measures have been taken, through a written certification that contains the date, location of the space, location of the person providing the certification, the potential hazardous atmosphere, method of hazard elimination and ventilation equipment that may be required to maintain the space in a safe condition. The certification shall be made by the supervisor and safety coordinator before any entry into the space and shall be made available to each employee entering the space.
- P. The atmosphere within the space shall be monitored continuously to ensure that the accumulation of a hazardous atmosphere is not occurring.
- Q. When there are any changes in the use or configuration of a the alternate entry confined space that might increase the hazards to entrants, the space shall be re-evaluated to determine if the space is a permit-required confined space or a non-permit required confined space.
- R. Remember: If any opening exists that might create a fall or slip hazard, be sure to guard, cover or construct rails to protect from falls into the space or objects falling on the workers within the space. The idea is to make the space noticeable as a hazard to anyone that might come in contact with that space.

5.0 Non-Permit Required Confined Space

A "*non-permit required confined space*" means a confined space that meets **ALL** of the following criteria:

- 1. The confined space doesn't contain an actual or potential hazardous atmosphere,
- 2. The confined space doesn't contain hazards capable of causing death or serious physical harm. This includes any recognized health or safety hazards including engulfment in solid or liquid material, electrical shock, or moving parts.
- 3. If you must enter to remove any hazards, the space must be treated as a permit-required confined space and you must follow section 4.1of this document until all hazards are eliminated.

Non-Permit Required Confined Space Entry Procedures

- A. If there is an entrance cover and it needs to be removed, promptly guard the opening with a railing, temporary cover, or other temporary barrier to prevent accidental falls through the opening and protect entrants from objects falling into the space.
- B. When there are changes in the use or configuration of a confined space that might increase the hazards of the entrants, the space should be re-evaluated and reclassified if necessary.
- C. The atmosphere should be periodically re-tested to ensure that it continually remains safe. At no time can the space have an actual or potential for a hazardous atmosphere.
- D. If an unforeseen hazardous atmosphere is detected at anytime during an entry, the entrants must immediately evacuate the space. The space must then be re-evaluated to determine how the hazardous atmosphere developed and appropriate action taken to protect employees before any subsequent entry takes place. A permit must be re-issued before entrants re-enter the space and the space must be re-classified if necessary.
- E. Be sure to pay close attention to vehicle or equipment exhaust as it should not enter the space.

6.0 Restoration of Vessel or Confined Space

When the entry is complete and the space is ready for return to service, the following items must be checked to ensure proper restoration:

- Are all personnel out of the confined space and verified?
- Have all equipment and tools been removed?
- Are isolation devices removed as stated in Lockout/Tagout and Blinding/Blanking procedures?
- Are all manways and flanges closed and sealed?
- Has the atmosphere been purged and returned to normal?
- Have start-up procedures been reviewed?
- Have all personnel requiring notification been notified?
- Has the permit been canceled?

It is imperative that the space not be re-entered after the cancelation of the alternate entry procedures form. So all items and all procedures must be removed and completed respectively. If for any reason the space must be re-entered after the cancellation, a full documentation form must be completed and the space properly prepared for entry once again before any entry takes place.

7.0 Description of Participant Duties

7.1 Duties of Authorized Entrants

- Know the hazards that may be faced during entry, including information on the mode, signs or symptoms and the consequences of the exposure.
- Alert the attendant whenever: the entrant recognizes any warning sign or symptom of exposure to a dangerous situation; and
- Exit from the space as quickly as possible whenever an order to evacuate is given by the attendant or the entry supervisor or the entrant recognizes any warning sign or symptom of exposure to a dangerous situation.
- Signs the permit prior to entering the space and upon completion of the work when leaving the space
- Remains in direct communication with the attendant outside the confined space
- Attends pre-entry safety meeting
- Attends and participates in the pre-entry safety meeting covering requirements and procedures
- Attends and participates in all required training protocols

7.2 Duties of the Attendants

- Remain outside the permit space during entry operations until relieved by another attendant;
- Continuously maintain an accurate count of authorized entrants in the permit space;
- Know the hazards that may be faced during entry, including information on the mode, signs or symptoms and the consequences of the exposure;
- Be aware of possible behavioral effects of hazard exposure in authorized entrants;
- Communicate with authorized entrants as necessary to monitor entrant's status and to alert entrants of the need to evacuate the space; and
- Performs no duties that might interfere with monitoring and protecting the entrants.
- Monitor activities inside and outside the space to determine if it is safe for entrant's to remain in the space and order the authorized entrants to evacuate the permit space immediately under any of the following conditions:
 - If you detect a prohibited condition;
 - o If you detect the behavioral effects of hazard exposure in an authorized entrant; or
 - If you detect a situation outside the space that could endanger the authorized entrants.
 - Summon rescue and emergency services as soon as you determine that authorized entrants may need assistance to escape from the permit space hazards.
 - Do not perform any duties that might interfere with your primary duty to monitor and protect the authorized entrants.
- Attends and participates in the pre-entry safety meeting covering requirements and procedures
- Attends and participates in all required training protocols
- Must be trained in first-aid and CPR

7.3 Duties of the Entry Supervisor

- Know the hazards that may be faced during entry, including information on the mode, signs or symptoms and the consequences of the exposure;
- Verify, by checking that the appropriate entries have been made on the documentation form, that all tests specified by the form have been conducted and that all procedures and equipment specified by the form are in place before endorsing the form and allowing entry to begin;
- Terminates the entry;
- Verifies that rescue services are available and that the means for summoning them are operable;
- Removes unauthorized individuals who enter or who attempt to enter the space during entry operations.
- Makes contact with the safety coordinator so they can both classify the confined space as either Permit Required, non-permit required or Alternate Entry Option.
- Ensures all entrants sign the documentation form before entering the confined space.
- Holds a pre-entry safety meeting to discuss all requirements and procedures and reviews confined space conditions with all authorized entrant(s) and attendant(s) involved.
- Attends and participates in all required training protocols

8.0 Contractor Coordination and Responsibilities

8.1 M.A. DeAtley Construction's Responsibilities for Contractors

A copy of this Confined Space Entry Program will be provided to each contractor involved in permit space entry work at our company. Each contractor will be briefed on the following:

- The location of the permit spaces at our facility or jobsite.
- Entry into permit spaces is only allowed by following the written entry program.
- The reasons for listing the space as a permit space, including both of the following:
 - The identified hazards
 - Our experience with the particular space.
- Precautions we have implemented to protect employees working in or near the space.
- Who will debrief the contractor at the completion of entry operations, or during entry if needed, on whether any hazards were confronted or created during their work.

8.2 M.A. DeAtley Construction's Responsibilities with Host Employers

Our entry supervisor will do the following to make sure entry operations are coordinated with host employers and all the following information is documented:

- Obtain any information on the hazards of the permit space and information from previous entry operations
- Determine if other workers will be working in or near the space.
- Coordinate entry operations with other workers
- Inform the host employer of the permit space program that we follow.
- Document that the meeting has taken place and obtain signatures of all parties involved.
- Hold a debriefing conference at the completion of the entry operation, or during the entry operation if needed, to inform the host employer of any hazards confronted or created during work in the space.

8.3 M.A. DeAtley Construction, Inc. Responsibilities to Subcontractors

M.A. DeAtley Construction, Inc. supervisors will do all the following and make sure it is documented and sent to the home office for approval:

- Inform the contractor that the site contains confined spaces and that entry into these spaces is allowed only through compliance with a confined space procedure meeting OSHA requirements.
- Notify the contractor of the element, hazards identified and *M.A. DeAtley Construction's* experience with the space, if any, that caused the space to be classified as a permit required confined space.
- Review the contractors permit required confined space entry procedures and ensure all applicable training standards and certifications are complete.
- Issue the contractor a *M.A. DeAtley Construction, Inc.* confined space entry permit. The contractor may use their permit along with the *M.A. DeAtley Construction, Inc.* permit.
- Debrief the contractor after the entry operations regarding the confined space procedure followed and any hazards met or created in the permit required confined space during entry operations.

9.0 Ventilation

If required, mechanical ventilation must be used to ensure movement of fresh air in the confined space. This normally consists of an educator or blower driven by an electric motor. The equipment must be suitable for the hazardous location in which it is used. If used, forced ventilation should be established at least two hours before entry. After ventilation has been established, the atmosphere should be to ensure that it is safe for entry. All atmospheric testing must be documented on the entry permit. Remember that **control** of atmospheric hazards through forced air ventilation does not constitute **elimination** of hazards. Once a space is ready for entry, all controls must be maintained until the space no longer requires entry.

Use continuous forced air ventilation as follows:

- Entrants may not enter until ventilation has eliminated any hazardous atmosphere.
- Ventilation must occur in the immediate area where entrant(s) will be until entrant(s) have left the space.
- Air supplies for ventilation must be from clean sources and must not increase the hazards.
- Periodic tests to ensure the ventilation prevents the accumulation of a hazardous atmosphere must be performed.

10.0 Permit Procedures

The permit must be:

- Issued at the beginning of each shift or every 12 hours, whichever comes first.
- Signed by the entry supervisor and authorized entrants before entering a permit required confined space.
- Utilized when using alternate entry procedures for use as a documentation of hazards tool and a guide for confined space assessment.

A space must be re-tested and the permit reissued if:

- A leak occurs in the work area.
- A fire occurs in the work area.
- Entry conditions change. If work does not start within 30 minutes of initiating the permit, the atmosphere must be re-tested and recorded on the permit.
- After any breaks including lunch.
- At the end of the job or the end of the shift.

The entry supervisor is responsible for properly preparing the confined space and developing an entry plan. After completing the plan and before entering the confined space, the entry supervisor must complete the *M.A. DeAtley Construction*, Confined Space Entry Permit (or equivalent).

10.1 Permit Distribution and Retention

- The permit shall remain posted for the duration of the permit at the confined space entry and protected from inclement weather.
- Any problems that may arise during the entry operation must be documented on the permit so revisions can be made to this procedure.
- When the job is complete, *M.A. DeAtley Construction, Inc.* home office should be provided with copies of the original permit. Contractors shall retain the original permit at their discretion, according to OSHA standards.
- Permits must be kept for 1 year or until an annual review of this procedure and permits is conducted. Permit retention may be longer than 1 year if an accident occurs in association with the entry. If an accident occurs, consult the *M.A. DeAtley Construction, Inc.* project supervisor for permit retention duration.

11.0 Equipment Utilization

Check all equipment to ensure that it has the proper safety features and is approved for use in hazardous locations. The following equipment may be required when entering a confined space:

- Atmospheric testing and monitoring equipment
- Barriers, shields and signs should be posted outside all permit required confined spaces to notify personnel that unauthorized entry is prohibited (see "*permit required confined space entry procedures B*) Barriers must also be capable of preventing a person from inadvertently walking into or kicking objects into the space.
- Communication equipment must: (a) be intrinsically safe in areas where a hazardous atmosphere may exist, (b) keep the attendant in constant, direct communication with entrant(s) working in the confined space, and (c) allow the attendant to summon help from a rescue or emergency service.
- Entry and exit equipment must be available to ensure entrants are afforded safe entry and exit (i.e. ladders, harnesses, etc.)
- Lighting equipment needed for safe entry, work within the space and safe exit. Portable electric lighting used in wet and/or other conductive locations must be operated at 12 volts or less, 120 volt lights may be used if protected by a ground-fault circuit interrupter.
- Personal Protective Equipment (PPE), as required, must be worn by entrants and all other personnel involved in the entry
- Rescue and emergency equipment must be available except if provided by outside rescue services. The attendant must have an appropriately sized first aid kit.
- Ventilation equipment for obtaining acceptable entry conditions.
- Other equipment necessary for safe entry into and rescue from permit required confined spaces.

12.0 Pre-Entry Safety Meeting

Before any entry into any confined space is initiated a pre-entry safety meeting shall be held, given by the designated supervisor and the following topics shall be discussed and documented:

- All requirements, procedures and other concerns (previous contents, vessel coating etc.) with all authorized entrants and attendants involved in the entry.
- Declare when the confined space is ready for entry and discuss all requirements for entry.
- Coordination of entry operations when employees from more than one company are working simultaneously in the confined space, so one company's work does not endanger the employees of another company.
- A review of all required paperwork including the completed entry permit.
- A review of each employees training and certification to make sure they meet the requirements for entry into the space.

13.0 Emergency and Rescue Services

13.1 Emergency Services

If it is determined a permit-required confined space is to be entered, emergency medical and rescue services shall be placed on standby. This can be accomplished by calling ahead of time and making arrangements with the nearest and most qualified emergency rescue service. Arrangement should be made if possible for the emergency personnel to visit the space prior to entry so they may be more prepared to deal with a rescue situation should it be necessary. If all procedures are followed for permit-space entry, the chance of rescue services being needed is very low. However, it is not possible to foresee all hazards that could affect the safety of the individuals involved. In the unlikely chance that rescue services are needed, qualified emergency personnel are close by and prepared for rescuing the affected individuals safely and efficiently. All emergency information shall be included on the permit such as location, response time and all pertinent phone numbers so it is readily available for use.

13.2 Rescue Equipment

Proper rescue equipment must be available at the site when permit required confined space entries are performed. This equipment may include but is not limited to:

- A self-contained breathing apparatus (SCBA) or approved hose line unit with an escape feature.
- A communication system that keeps the attendant in constant, direct communication with the entrants. Hand signals may be used if the entrant is in constant view of the attendant. If not, "intrinsically safe" portable radios are a suitable communication system.
- A communication system to summon help from a rescue or emergency service, such as a portable radio or cellular telephone.
- A retrieval system (winch, hoist, lifeline, harness) to retrieve an entrant from the space if needed.
- Firefighting equipment such as a fire extinguisher when explosive or flammable atmospheres may be present or if hot work is being performed.

13.3 Non-Entry Rescue

To facilitate non-entry rescue, an entrant must be attached to a retrieval system whenever he/she enters a permit required confined space. Retrieval equipment is not required if it increases the risk of the entry (i.e. creates an entanglement hazard) or will not contribute to the rescue. However, this equipment **must** be used for entry into permit required confined spaces with a vertical depth of more than 5 feet.

As a minimum, wear the following equipment when entering all permit required confined spaces:

- Chest or full body harness equipped with a "D" ring located between the shoulders or above the head.
- Retrieval line attached to the "D" ring.
- Retrieval line attached to a retrieval device or fixed point located outside the space so that rescue can begin as soon as the rescuer becomes aware that rescue is necessary.

14.0 Training

Training must be given to each employee who has access or potential access to a confined space. The amount and type of training needed will depend on the individual's duty assignment. For example, some employees may only be required to know the existence, location, and danger posed by a confined space. Others would need training as it pertains to the type of entry procedures used (i.e., alternate entry procedures or reclassifying to non-permit space procedures). The overall intent of this training is to give employees the understanding, knowledge, and skills necessary for the safe performance of their assigned duties in relation to the confined spaces of concern.

14.1 Training Categories

Four basic categories have been set up to train employees based on duties and potential exposure.

Awareness Training - Awareness training for employees potentially exposed to permit spaces can be satisfied by providing them with an overall review of our written program.

Training Required for Using Alternate Entry Procedures - If the space qualifies for alternative procedures, training on the following topics is warranted:

- A major point concerning the use of alternative procedures is that these procedures can only be used when a hazardous atmosphere is the *only* hazard of concern.
- The harm associated with the atmospheric hazards of concern including their acceptable entry levels and symptoms of overexposure.
- Awareness training to recognize other potential hazards in or around the space.
- Any condition which may make it unsafe to remove the entrance cover.
- The need for prompt guarding of the entrance opening.
- Atmospheric testing equipment including its use, method of calibration, and maintenance.
- Atmospheric testing protocol for oxygen, combustibles, toxins.
- Pre-entry, frequent or continuous testing of the permit space.
- Check all levels of the space for atmospheric hazards.
- Atmospheric Controls
- Inerting
 - Draining and rinsing
 - o Purging
 - Continuous forced air ventilation including type, proper use and placement, and its limitations.
- Procedures the employee must follow if a hazardous atmosphere is detected.
- The evaluation process to be used for entry if a hazardous atmosphere is detected or the individual vacates the space and returns some time later.

- Train employees on the use of entry equipment used including ladders and intrinsically safe lighting.
- Personal protective equipment (e.g., gloves, hard hats, boots, etc.), its use, limitations, and required maintenance.
- A review of the completed written certification form with the employee prior to entering the space.
- Any process which may introduce a hazard (e.g., welding, cleaning with chemicals, solvents, etc.) that would prohibit use of alternative procedures.
- Any other information needed to ensure the safety of the employee.
- The documentation of the training.

15.0 CONFINED SPACE PROGRAM REVIEW

Within twelve months of any entry operation the safety coordinator and upper management will conduct a review of the program using the used entry forms to identify any deficiencies in our program. A review will be conducted sooner if there is reason to believe that the program does not adequately protect our employees. Any corrective measures will be documented by a revision of the program. Employees will be trained on any changes. Additionally, employees who note any inadequacies with the program can contact the safety coordinator or anyone in management to discuss it with them to determine if any changes to the program need to be made. If no space entry operations are conducted during the year, no review is needed.

M.A. DeATLEY CONSTRUCTION, INC.

CONFINED SPACE HAZARD IDENTIFICATION FORM

	Hazard Evaluation Performed by:	Print Name/ Signature	Organization	Date
ction 1	Responsible Mgr. (Space Owner):	Print Name/ Signature	Organization	Date
Se	Reason for Evaluation:	assification Pre-Entry	Periodic Review	Other
	Space Posted? Yes No	🗌 NA	Work Package No.	
	Location: (area, bldg, room, other)			
Section 2	Space Description: (function, configuration, dime	nsions, type of space, above/below g	round, address, photographs)	
Section 3	1. Is the space a confined space (all 3 criteria below have been met)? Yes No The Space: (check all boxes that apply) Is large enough and so configured that an employee can bodily enter and perform work. Has limited or restricted means for entry or exit. Is not designated for continuous employee occupancy Is this a Permit Required Space (any of the four conditions below have been met)? Yes No Does the space: Contain or have the potential to contain a hazardous atmosphere? No Contain a material that has the potential for engulfing an entrant? Have a configuration such that an entrant could become trapped or asphyxiated? Contain any other recognized serious safety or health hazard? Contain any other recognized serious safety or health hazard?			
Section 4	Hazard Checklist: (existing/ potential) O2 below 19.5 or above 23.5 Combustible/ flammable atmosphere Inert atmosphere Welding/ cutting fumes Toxic gases/ vapors/ materials Specify:	 Mechanical Electrical Particulate Temperature extrem Pressurized fluids/ g Introduction of haza 	Ra Hi En gases	adiation gh noise levels htrapment/ engulfment mited egress ther:
Section 5	 Pre-Entry Hazard Evaluation Configuration or use changed since Work activity introduces new or ad Special rescue considerations:	last assessment: ditional hazards: Yes No it Permit-required		
91	5. Can this PRCS be reclassified as no Identify methods for reclassification:	on-permit? 🗌 Yes 🗌 No		

CONFINED SPACE ENTRY FORM

Date:						
Site location or description:	Site location or description:					
Purpose of entry:						
Supervisor(s) in charge of crews:		Type of cre	w (welding, plumbing, etc)	Phone #:		
Pre-Entry Hazard Evaluation 6. Configuration or use changed since last assessment: Yes No Specify: 7. Work activity introduces new or additional hazards: Yes No Specify: 8. What controls must be in place to reclassify as non-permit: Communication procedures (including equipment):						
REQUIREMENTS COMPLETED (Put N/A if item doesn't apply)	DATE	TIME	REQUIREMENTS COMPLETED (Put N/A if item doesn't apply, i.e. a	llternate	DATE	TIME
Lockout/De-energize/Try-out			entry) Supplied Air Respirator			
Line(s) Broken-Capped-Blank			Respirator(s) (Air Purifying)			
Purge-Flush and Vent	1		Protective Clothing			
Ventilation	1		Full Body Harness w/ "D" ring			
Secure Area (Post and Flag)	1		Emergency Escape Retrieval Equip			
Lighting (Explosive Proof)			Lifelines			
Hotwork Permit			Standby safety personnel			
Fire Extinguishers			Resuscitator—Inhalator			
Add other specific information, if needed, or attach additional instructions or requirements. See the following examples in bold print.						
Line(s) to be bled/blanked:						
Ventilation equipment:						
PPE clothing:						
Respirator(s):						
Fire extinguisher(s):						
Emergency retrieval equipment:						

CONFINED SPACE ENTRY FORM

			AIR MO	NITORING			
Substance Monitored Permissible Levels			Monitoring R	esults			
Time monitored (put time)	Re	Record the time					
Percent Oxygen	19	0.5% to 23.59	%				
LEL/LFL	U	nder 10%					
Toxic 1:		PEL	STEL				
Toxic 2:		PEL	STEL				
Toxic 3:		PEL	STEL				
Toxic 4:		PEL	STEL				
Air Tester Name	ID#	D# Instrument(s) Used Model # or (For example: oxygen meter, combustible gas indicator, etc.)		Model # or Type	Seri	al# or Unit	
		A	TTENDANTS	SAND ENTRA	ANTS		
Attendant(s)		п) #	Confined	Space Entrant(s)		ID#
(Required for all confined space work except alternate entry)							
REMARKS:							
SUPERVISOR AUTHORIZA	ATION - AI	L CONDIT	TONS SATISF	ΊED			
Department or phone number:							
EMERGENCY CONTACT F	PHONE NU	MBERS:					
AMBULANCE: F	IRE:		SAFETY:		RESCUE TEAM:	OTH	IER:

FALL PROTECTION

1.0 Purpose

To prevent slips and falls that may cause serious injury or death

2.0 Background

Slips, trips and falls are a leading cause of serious injury, and often result in death. There are numerous OSHA and WISHA regulations defining fall protection requirements for various heights and work situations. Fall protection requirements may start at distances of four feet or less.

3.0 Procedure

When preparing the Hazard Analysis and Work Plan for a project care should be exercised to research specific guidelines depending upon the project location and the work type and conditions.

Appropriate fall protection may be as simple as guard rails or as complicated as decelerator arrest system, a harness that is attached to a lanyard and an anchor point, or a net system.

All fall protection systems must be inspected by a competent person prior to the start of each work shift. Workers must be trained in proper use of the selected system prior to use of the equipment or system.

4.0 Requirements

If you are **4 feet** above the ground and exposed to a fall hazard, you are required by *M.A. DeAtley Construction* to use a fall arrest system. **10 feet or greater (fall)** a written **Fall Protection Work Plan** is required. You need the system if:

- You need to keep your hands free to work
- You are working near an open ledge
- You are working over dangerous equipment
- > You need to be suspended above the ground to complete your job

An appropriate fall arrest system is a harness that is attached to a lanyard, which is attached to an anchor point. The lanyard should be free of cuts, abrasions and knots; attachments should always be utilized by self-locking mechanical connectors.

Self-retracting fall arrest systems are used in more dangerous situations. At the start of the fall this type of system will automatically lock.

Work with your supervisor to determine the appropriate fall arrest method, equipment, and anchor means. Inspect the equipment yourself to assure there are no ripped stitches, cuts, abrasions, cracks, knots, or alterations that may alter its performance. The arrest equipment must be certified for your weight or more. You should also make sure it is rigged to prevent you from swinging and striking objects that may cause injury.

If you or your supervisor has any questions about required fall protection or when to use it, please contact the Safety Manager Bill Wilsey for assistance at 509-751-1580 ext. 231 or Cell Phone 509-780-2173

There is no room for error. If you need the equipment it must work properly.

HAZARDOUS MATERIALS COMMUNICATION PROGRAM

1.0 Purpose

In order to comply with Federal, and State Occupational Health and Safety standards regarding chemicals in the workplace the following Hazardous Materials Communication Program has been established for all employees.

This program establishes policies and procedures for an effective Hazardous Materials Communication Standard. This standard implements the workers right to know regarding hazardous chemicals which may be present in the work place. The Hazardous Material Communication Program will include container labeling, Safety Data Sheets, training, and the use of signage systems.

All chemicals used at our facilities and work sites are to have Safety Data Sheets (SDS) on file and available for review at any time. Included with the SDS Sheets is an index which identifies each product used at the sites, and a copy of the Hazardous Material Communication Program. Sub-contractors must supply SDS sheets for all chemicals they possess at the work site. Their SDS sheets shall be filed and indexed with the Company SDS records.

Employees shall review product labeling prior to use, in order to identify any chemical hazards as well as proper product usage. Each container should be reviewed for the manufacturer's label. Containers without label, or having a damaged label, should have an identification label affixed that specifies each chemical and chemical hazard present.

Each new employee will receive a general orientation class prior to assignment covering general operation, routes of exposure, and any adverse health effects regarding biohazards, chemicals, information pertaining to the Hazardous Materials Communication Program and Emergency Procedures.

Documentation of orientation will be placed in the employee's personnel file.

2.0 Employee Training and Information

Prior to starting work each new employee will receive information and training by attending a health and safety orientation briefing on the following:

- A. An overview of the requirements contained in the Hazard Communication Regulations.
- B. Chemicals present at the work site.
- C. Locations and availability of the written Hazardous Materials Communication Program.
- D. Physical and health effects of hazardous chemicals.
- E. Methods and observation techniques used to determine the presence or release of hazardous chemicals in the work area.
- F. How to lessen or prevent exposure to these hazardous chemicals through usage of control, work practices, and personal protective equipment.
- G. Steps the company has taken to lessen, or prevent exposure to hazardous chemicals.
- H. How to read labels and review Material Safety Data Sheets (SDS), and to obtain the appropriate hazard information.

3.0 Training Contractors and Visiting Regulatory Personnel

It is the responsibility of each site manager to provide contractors and their employees, and visiting regulatory personnel with the following information if applicable at the site:

- 1. Hazardous chemicals to which they may be exposed while on the job site.
- 2. Precautions the personnel should take to lessen the possibility of exposure to chemical hazards.

4.0 Container Labeling

All labels should be legible and include:

- Both the chemical, common name
- Hazard warning- all hazard associated with the chemical should be included on label
- Name and address of chemical manufacturer or responsible party

Secondary containers should be clearly labeled with the same information as the original container

All chemical containers used in the workplace are to be labeled with basic hazard information:

- A. Hazardous chemicals present
- B. Hazardous characteristics, i.e., Flammable, Corrosive, etc.

In most cases when products are purchased for use in their original containers this information should exist on the container. Where this basic information has been destroyed or removed it will be necessary for MAD personnel to relabel the container appropriately.

5.0 Hazardous Materials Identification System (HMIS) System

The labeling and hazardous materials communication information system used will be the Hazardous Materials Identification System (HMIS). A HMIS poster will be posted at the work site along with the MSDS book, and a copy of this Hazardous Material Communication Plan.

The HMIS is based on the National Fire Prevention system of a numerical rating, (0 to 4), by degree of hazard. Definitions for these hazards and their rating criteria can be found on the HMIS label. Chemicals are rated for the following characteristics:



The numerical rating is based on specific physical or health characteristic as defined on the HMIS poster. The higher the rating the greater the hazardous property associated with it.

- 0 Minimal
- 1 Slight
- 2 Moderate
- 3 Serious Hazard
- 4 Severe Hazard

As new products are acquired for use the SDS will be reviewed by the job site's designated Safety Coordinator. It is the policy that no container will be released for use until the SDS has been reviewed, and the container exhibits a chemical manufacturers label or HMIS label. The HMIS label has a block for chemical identity and a block for the hazardous warnings. The HMIS information can be found on the HMIS poster. The site Safety Coordinator is responsible for rating each chemical product on the site.

6.0 Safety Data Sheets

Copies of the Safety Data Sheets for all hazardous chemicals to which employees may be exposed will be kept in the safety administrative office. The SDS sheets shall be available to all employees by the electronic version will be kept in the Google drive and on the M.A. DeAtley website under Safety then SDS for all employees for access. If any employee cannot access the internet call the safety manager office 509-751-1580 ext. 231 or cell 509-780-2173

Safety Data Sheets shall be provided to employees who may be exposed to potential occupational health hazards. Individuals will be informed of emergency procedures and safety precautions associated with hazardous materials by training and access to a knowledgeable supervisory staff.

The site Safety Coordinator shall review the information on the Safety Data Sheets to ensure the safe handling of hazardous products used in the work place. It is the supervisor's responsibility to be knowledgeable of known hazards, And to require compliance with the safe practices outlined on the SDS. Regular inspections will consist of a review of the site's compliance with all labeling requirements.

6.1 How To Use A Safety Data Sheet

The following information is required on all SDS, and is standardized under the following format:

Section 1, Identification includes product identifier; manufacturer or distributor name, address, phone number; emergency phone number; recommended use; restrictions on use.

Section 2, Hazard(s) identification includes all hazards regarding the chemical; required label elements.

Section 3, Composition/information on ingredients includes information on chemical ingredients; trade secret claims.

Section 4, First-aid measures includes important symptoms/effects, acute, delayed; required treatment.

Section 5, Fire-fighting measures lists suitable extinguishing techniques, equipment; chemical hazards from fire.

Section 6, Accidental release measures lists emergency procedures; protective equipment; proper methods of containment and cleanup.

Section 7, Handling and storage lists precautions for safe handling and storage, including incompatibilities.

Section 8, Exposure controls/personal protection lists OSHA's Permissible Exposure Limits (PELs); ACGIH Threshold Limit Values (TLVs); and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the SDS where available as well as appropriate engineering controls; personal protective equipment (PPE).

Section 9, Physical and chemical properties lists the chemical's characteristics.

Section 10, Stability and reactivity lists chemical stability and possibility of hazardous reactions.

Section 11, Toxicological information includes routes of exposure; related symptoms, acute and chronic effects; numerical measures of toxicity.

Section 12, Ecological information*

- Section 13, Disposal considerations*
- Section 14, Transport information*
- Section 15, Regulatory information*

Section 16, Other information, includes the date of preparation or last revision.

APPENDIX A

TARGET ORGAN EFFECTS OF CHEMICALS, RECOGNITION OF EXPOSURE AND PERSONAL PROTECTION

Hepatotoxins: Chemicals capable of producing liver damage

Symptoms	Jaundice, liver enlargement
Chemicals	Carbon tetrachloride, nitrosamines
Protection	Respiratory protection (correct respirator)
Nephratoxins:	Chemicals that produce kidney damage
Symptoms	Edema, proteinuria (excessive protein in urine)
Chemicals	Halogenated hydrocarbon solvents, uranium
Protection	Correct respirator
Neurotoxins:	Chemicals which primarily affect the nervous system
Symptoms	Narcosis (unconscious), behavioral changes, deceases in motor functions
Chemicals	Mercury, carbon disulfide
Protection	Correct respirator, washing

Agents that act on the blood/hematopoietic system and deprive the body of oxygen:

Symptoms	Cyanosis, loss of consciousness
Chemicals	Carbon monoxide, cyanides
Protection	Monitor air, eliminate cyanide exposure

Agents that damage the lungs, chemicals and dust:

Symptoms	Cough, tightness in chest, shortness of breath
Protection	Correct respirator, minimize dusts

Reproductive

Toxins:	Chemicals that affect the reproductive system or affect fetus
Symptoms	Birth defects, sterility
Chemicals	Lead, DBCP, others
Protection	Correct respirator, protective clothing, gloves, washing
Cutaneous Hazards:	Chemicals that attack the skin
Symptoms	Rashes, irritation, blistering, destruction of the skin
Chemicals	Organic solvents, acids, poison oak
Protection	Clothing, gloves, aprons, eye protection

NOTE: For questions regarding which type of PPE that may be required when handling the material in question, consult the Material Safety Data Sheet for that substance.

APPENDIX B

ASSESSMENT OF PHYSICAL AND HEALTH EFFECTS OF CHEMICALS

The purpose of the Hazardous Materials Communication Program is to develop an informed employee and management staff that can assess the health and environmental effects of the chemicals used in the work place. In order to develop the knowledge to understand the hazards associated with chemicals it is important to understand the criteria by which hazard ratings are developed.

Acute Health Effects: Acute effects usually occur rapidly as a result of short term exposures, and of short duration.

- > Irritation
- > Corrosivity
- Sensitization and lethal dose
- Dizziness and euphoria

Chronic Health Effects: Chronic effects generally occur as a result of long term exposure, and are of long duration.

- Carcinogenicity
- Teratogenicity
- > Mutagenicity
- Blood Dycrasias (anemia)
- Chronic Bronchitis
- ► Liver Atrophy

Carcinogen: A material is considered to be a carcinogen if it has been listed as such by the International Agency for Research on Cancer, the National Toxicity Program, or is regulated as such by WISHA or OSHA.

Corrosivity: A chemical that causes visible destruction or irreversible alterations in living tissue by chemical action at the site of contact.

Highly Toxic: A chemical following into any of the following categories;

It has a medial lethal dose (LD50) of 50 milligrams or less per kilogram of body weight when administered orally to albino rats 200-300 grams each.

It has a medial lethal dose of 50 milligrams or less per kilogram of body weight when administered by continuous contact for 24 hours on the bare skin of albino rabbits weighing 2-3 kilograms each.

It has a median lethal dose (LC50) in air of 200 parts per million by volume or less of gas or vapor, or 2 milligrams per liter or less of mist, fume, or dust when administered by continuous inhalation for one hour to rats weighing 200-300 grams each.

Toxic: A chemical falling into any of the following categories:

It has a medial lethal dose of (LD50) of 50 milligrams or more but less than 500 milligrams per kilogram of body weight when administered orally to albino rats 200-300 grams each.

It has a medial lethal dose (LD50) of 50 milligrams or more but less than 1000 milligrams per kilogram of body weight when administered by continuous contact for 24 hours with bare skin of albino rabbits weighing 2-3 kilograms each.

It has a median lethal dose (LC50) in air of 200 parts per million by volume or more but less than 2000 milligrams of gas or vapor, or 2 milligrams per liter but less than 20 milligrams of mist, fume or dust when administered by continuous inhalation for one hour to rats weighing 200-300 grams each.

- **Irritant:** A chemical which is not corrosive, but which causes a reversible inflammatory effect on living tissue by chemical action at the site of contact.
- **Sensitizer:** A chemical that causes a substantial proportion of exposed people or animals to develop an allergic reaction in normal tissue after repeated exposure to the chemical.

HEARING LOSS PREVENTION PROGRAM

1.0 Purpose

To establish the responsibilities and requirements for the use of personal protective equipment (PPE), and to ensure compliance with the requirements of American National Standards Institute (ANSI), and the Occupational Safety and Health Administration/Washington Industrial Safety and Health Act (OSHA/WISHA).

2.0 Background

<u>Hearing Loss</u>: Hearing loss may result from exposures to high levels of sound for a short period of time or exposure to lower levels of sound for long periods of time. Intensity of sound is measured in decibels (dB). Decibels adjusted for the sensitivity of the human ear are referred to as dBA. Exposure to noise levels which exceed 85dBA for an 8 hour Time Weighted Average (TWA8) requires hearing protection, training, and audiometric testing to monitor for hearing loss. TWA8 averages above 90 dBA require additional controls. Long term exposure to high levels of sound without effective protection can cause severe or permanent damage to hearing.

3.0 Procedures

The Key Supervisor shall be responsible for the following:

Evaluating hazards and identifying required PPE through the use of a Job Hazard Analysis (JHA). Providing adequate PPE for all employees, visitors, and vendors. Ensuring that PPE is properly maintained and used. Employees and visitors shall be responsible for using necessary PPE as specified on the project JHA.

<u>Hearing Protection Devices</u>: Any employee working in an area with noise levels of 85 dBA TWA8 or above will be required to wear sufficient hearing protection, and or employ other noise controls to reduce the exposure level to less than an 8 hour Time Weighted Average of 85 dBA. Employees will have at two distinct types of hearing protectors available to them (molded ear plugs and foam ear plugs) and additional types of protectors as necessary to reduce noise exposure levels below the 85 dBA TWA8 level. Generally use of ear plugs is sufficient to reduce noise levels below the 85 dBA level.

<u>Cleaning and Replacement of Hearing Protectors</u>: Ear plugs should be replaced as they become soiled or worn (after each use or daily shift if necessary). Ear muffs should be cleaned daily and will be replaced if they become damaged or otherwise non functional.

4.0 Training

All employees working in high noise areas will be trained to understand the risks of high noise exposure, the need to wear hearing protection, and how to properly utilize such protection.

HEAT RELATED ILLNESS PREVENTION PLAN

1.0 Purpose

The purpose of this plan is to assure that maximum emphasis is placed on preventing heat related illness in our workplaces. It will be accomplished by training personnel to identify and reduce the risks of incurring heat related illness. The Plan provides specific means to identify risk levels; specific actions that are to be taken to reduce risk; and procedures to follow in the event an employee suffers a heat related illness.

Corrective procedures in the Plan shall be utilized when it is concluded that the action level is at or above the listed temperature in Table 1. Corrective action shall be applied where the temperature may meet or exceed the levels listed in outdoor environments or in buildings without environmental control equipment from May 1 through September 30 annually.

All other clothing	89 degrees
Double-layer woven clothes including coveralls, jackets and sweatshirts	77 degrees
Non-breathing clothes including Vapor barrier clothing or PPE such as chemical resistant suits	52 degrees

<u>**Table 1</u>** Outdoor Temperature Action Levels</u>

2.0 Definitions

- 1. Acclimatization The body's temporary adaptation to work in heat that occurs as a person is exposed to it over a period of time.
- 2. **Double-layer woven clothing** Clothing worn in two layers allowing air to reach the skin. For example, coveralls worn on top of regular work clothes.
- 3. **Drinking water** Potable water that is suitable to drink. Drinking water packaged as a consumer product and electrolyte-replenishing beverages (i.e., sports drinks) that do not contain caffeine are acceptable.
- 4. **Engineering controls** The use of devices to reduce exposure and aid in cooling (i.e., air conditioning).
- 5. Environmental factors for heat-related illness Working conditions that increase susceptibility for heat-related illness such as air temperature, relative humidity, radiant heat from the sun and other sources, conductive heat sources such as the ground, air movement, workload (i.e., heavy, medium, or low) and duration, and personal protective equipment worn by employee's.

- 6. **Heat-related illness -** A medical condition resulting from the body's inability to cope with a particular heat load, and includes, but is not limited to, heat cramps, heat rash, heat exhaustion, fainting, and heat stroke.
- 7. **Vapor barrier clothing** Clothing that significantly inhibits or completely prevents sweat produced by the body from evaporating into the outside air. Such clothing includes encapsulating suits, various forms of chemical resistant suits used for PPE, and other forms of non-breathing clothing.

3.0 Procedures

Supervisors shall be responsible for making a daily analysis of heat-related hazards, increasing the amount of drinking water available when temperatures meet or exceed those listed in table 1 and taking prompt action when any heat-related illness may be identified.

The supervisor's daily analysis of heat-related hazards shall include air temperature, radiant heat, air movement, workload activity and the type of clothing worn by the employees as listed in Table 1. The supervisor is encouraged to use common sense when determining the hazards associated with heat and the workplace. For situations where temperatures may be border-line, it is always better to be on the safe side.

Adequate fluid intake is of primary importance in heat-related illness prevention therefore, employees are encouraged to increase their fluid consumption when temperatures meet or exceed those levels listed in Table 1. Depending on the temperature, work intensity and type of clothing, water consumption should be as much as 1 quart (1 liter) of fluid per hour.

It is highly recommended that the fluid consumed be of a hydrating nature. Water is most always the best choice for staying hydrated. Highly sugared drinks and those with caffeine are discouraged and may increase the potential of a heat-related illness.

For someone suffering from a heat-related illness, responding in a timely manner could mean the difference between life and death. Any employee showing signs or demonstrating symptoms of heat-related illness must be immediately relieved from duty and provided with sufficient means to reduce their body temperature.

If there is any question of what particular symptoms the person affected is displaying, call 911 EMS or the area's emergency response number (see M.A. DeAtley procedure for accidents, injury or illness on the job). While awaiting transport to the nearest medical facility, do not leave the affected person, monitor them closely and consistently provide heat reducing measures until medical help arrives.

4.0 Employee Responsibility

An integral piece of any successful plan relies on each employee's ability to make a determination of their own individual risk and symptoms of heat-related illness. After initial training, employees are responsible for gauging their own risk factors for a heat-related illness as well as monitoring their own fluid consumption throughout the day.

5.0 Information and Training

The following information will be provided to employees and supervisors concerning heat-related illness prior to commencing work at any subject worksite;

- 1. Employee training
 - a. Environmental factors that contribute to the risk of heat-related illness;
 - b. General awareness of person factors that may increase the susceptibility to heatrelated illness including, but not limited to, an individual's age, degree of acclimatization, medical conditions, drinking water consumption, alcohol use, caffeine use, nicotine use, and use of medications that affect the body's response to heat.
 - c. The importance of removing heat-retaining person protective equipment such as non-breathable chemical resistant clothing during all breaks;
 - d. The importance of frequent consumption of small quantities of drinking water or other acceptable beverages;
 - e. The importance of acclimatization;
 - f. The different types of heat-related illness, the common signs and symptoms of heat-related illness; and
 - g. The importance of immediately reporting signs or symptoms of heat-related illness in either themselves or in co-workers to the person in charge and the procedures the employee must follow including appropriate emergency response procedures.
- 2. Supervisor training
 - a. The information required to be provided to employees listed above;
 - b. The procedures the supervisor must follow to implement the applicable provisions of this heat-related illness plan;
 - c. The procedures the supervisor must follow if an employee exhibits signs or symptoms consistent with possible heat-related illness, including appropriate emergency response procedures; and
 - d. Procedures for moving or transporting an employee(s) to a place where the employee(s) can be reached by an emergency medical service provider, if necessary.

LOCKOUT – TAGOUT PROGRAM

1.0 Purpose

To protect employees servicing and maintaining equipment by preventing the accidental start up, or release of stored energy on machinery or equipment that is shut down for repairs, maintenance, or adjustments.

2.0 Background

Many injuries occur when a worker starts up a machine while another individual is working on it. Many other injuries are caused by workers who think they can maintain or service equipment without first shutting off the equipment.

3.0 Definitions

Lockout protects workers who service or maintain equipment by placing a locking device on a component to prevent energy from reaching the machine that is being serviced or maintained. The lock ensures that the equipment or attachment cannot be turned on or activated while the work is occurring.

Tagout - the placement of a tag on the steering wheel to warn others that someone is working on the equipment and it is not to be started or activated (used along with a lock).

Lockout - the placement of a lock on the energy isolating device to prevent its operation

Authorized worker - one that maintains or services the equipment.

Authorized workers are at greatest risk for being injured from an unexpected startup, or energizing of equipment or components. It is your responsibility to recognize all of the dangerous energy sources in the work place, to identify their potential hazards, and know how to avoid the dangers associated with them.

You must inform the project superintendent or other pertinent supervisors why the equipment is being taken out of service; and how long you anticipate it being out of service.

Affected workers - those that operate or use the equipment that is being serviced or maintained.

Affected workers must understand all lockout / tagout procedures so they will not unintentionally restart or energize equipment. Unintentional restart or activation could result in injury or death to a worker servicing or maintaining the equipment. An affected worker should never try to restart or energize equipment if it is locked or tagged. Always assume that machines with locks or tags are being serviced or maintained by an authorized worker. Affected workers should never remove locks or tags.

Other employees or workers may not normally operate, service, or maintain equipment; but they may work in the area where these activities occur. Therefore, they must be aware of the lockout / tagout procedures so they do not unintentionally restart or energize equipment that has been locked or tagged out. Other employees should never remove locks or tags, restart, or reenergize equipment that has been locked or tagged out.

4.0 Performing Lockout/Tagout Safely

Prior to starting the lockout/tagout procedure you must check the type of energy source, how much energy may be produced, and review the correct procedures for lockout/tagout. You should, if possible, notify co-workers and the superintendent that you will be initiating the lockout/tagout procedure.

Be sure you have identified all energy sources associated with the equipment. Some may have multiple energy sources, and all must be identified and separately isolated from the equipment.

Locks ensure that power sources can't be activated. Tags only serve as a warning that an energy isolating device has been shut down.

Tags should be used with locks to inform employees of the lockout, and to identify the authorized employee who attached the lock. The tag should contain the name of the individual placing the tag/lock and the location of the lockout device. This ensures all locks are in the same location and removes the risk of unintentional activation of the equipment.

Only authorized workers can attach locks or tags, and only the specific employee who attached the lock or tag, and his/her supervisor, or project superintendent has the authority to remove it.

If the equipment is not capable of being locked out:

- Attach the tag in the location as specified in lock-out procedures.
- Attach the tag securely so it cannot be accidentally removed.
- Place the tag in a position so anyone attempting to operate the device will understand that moving the device from the off position is prohibited.
- If you are locking out a vehicle with a keyed ignition, take the key out of the ignition and lock it in the lockbox and place it on the seat of the vehicle. If you are going to service or work on the vehicle make sure to place chocks behind the wheels and jack/block properly.

Tagout devices are only a warning that an energy isolating device has been shut down. They do not provide the protection of a lock. Tags will not protect you from an accidental start up.

Locks and tags must be standardized in shape, color, and size. The tags must include words such as DO NOT START, DO NOT OPEN, or DO NOT OPERATE. Tags must identify the person who performed the lockout/tagout.

All lockout locks must be of the same type (easily identifiable), and may not be used for any other purpose.

Each authorized worker should have an individually, identifiable lock and key.

Lockout devices must be removable by appropriate key only (supervisors master key or authorized worker key).

Lockout devices and tags must be capable of withstanding the environment.

After lockout/tagout devices have been applied the authorized employee must ensure that no hazardous energy remains present in the equipment. Stored energy could result in an injury if not released prior to start of work.

The authorized worker must verify that the machine is safe. The worker should turn all controls to the on position to ensure the machine will not start up. If any power source activates after the lockout procedure is complete, you must perform all lockout steps over again.

5.0 Restarting Equipment

The authorized worker should verify it is safe to re-energize the equipment. Ensure that all tools, spare parts, and debris have been removed from the area; all safety guards have been replaced; and the equipment is in acceptable condition to start and operate.

Prior to removal of lockout devices alert others in the area to make sure they are not exposed to danger. Let them know when it is safe to return.

The only person authorized to remove a lockout device is the person who attached it, his/her supervisor, or the superintendent. If the device is not yours don't touch it.

If locked or tagged equipment must be tested follow the same procedures used for restarting equipment. Test the equipment, and then perform all steps for lockout again.

6.0 Group Lockout/Tagouts

A group lockout situation occurs when more than one worker must service or maintain a piece of equipment. Each worker must attach their own lock or tag to a group lockout device when they are working on the equipment. This assures the equipment won't be started or energized while they are working on it. With the location of the lockout device written on the tag, there is no question where the next worker should place their lock. With all locks at the same location, the chance of unintended activation should be eliminated.

7.0 Work That Extends Beyond One Shift

If there are shift or personnel changes while a group lockout device is used the outgoing employee must wait until the incoming employee attaches their lock or tag before removing their own. This assures only one primary person is responsible for the lockout/tagout procedure at any time. In the case of a job with two shifts and there is a period of time between the shifts, the superintendent must replace the lock of the authorized worker. This must be done at the same time to assure continuity and that the machine remains locked out as required. The incoming authorized worker must then have the superintendent remove his lock so they can apply theirs.

If the lockout procedure being utilized involves uniquely keyed vehicles, the removed key shall be delivered to the mechanic assuming repair responsibility on the following shift. The outgoing mechanic shall not leave the site until transfer of key and responsibility occurs. In the event a master mechanic or other in charge mechanic is utilized at the project responsibility and the unique key shall be transferred to the master mechanic.

8.0 Removing Another Worker's Lock or Tag

Removing someone else's lock or tag may immediately place them in danger so you should never remove another worker's tag or lock. However, if a situation arises that requires starting, moving, or using equipment that is locked or tagged out, and the individual who last locked or tagged out the equipment is not available to execute the procedures to reactivate and remove their lock, then their supervisor or the superintendent may remove the devices after using proper reactivation procedures. However, every effort must be made to contact the individual that applied his lock to have him remove it. After he is contacted and it is determined he is not on site, he must be informed of his locks removal by the supervisor or superintendent before he returns back to work.

9.0 Summary

Lockout/tagout procedures are designed to protect workers who service and maintain equipment. A locking device that isolates energy from the equipment ensures the equipment cannot be started or activated. A tag placed on the energy activating device will warn others that you are working on the equipment, and that it must not be started or activated.

Equipment that isn't properly locked out or tagged can unexpectedly restart while you are working on it. Accidental start up or activation can cause serious injury or death.

9.0 Summary (cont)

The required steps to perform lockout/tagout	Shut down instructions for earth moving machines:
include:	Apply brakes, swing locks, etc;
Preparing for shutdown;	Place the transmission in the manufacturer's
Shutdown of equipment;	specified park position;
Disconnecting power sources;	Lower to the ground each moving element such
Releasing stored energy;	as but not limited to, blades, booms, buckets,
Applying lockout/tagout devices;	rippers, cans;
Verifying the machine is safe.	Shut down machinery;
	Engage hydraulic safety locks where available;
	Before working on hydraulic or air systems,
	relieve pressure by bleeding tanks or lines and
	operate controls to dissipate residual stored
	energy (pressure);
	Place lockout and/or tagout device;
	Place articulation/apron pins.

All employees and subcontractors covered by this procedure must be trained to ensure that the purpose and function of the lockout/tagout program are understood.

For a list of specific equipment lockout/tagout procedures and tag and lock locations, see the following pages.

Important Note:

Employee's who violate this policy will be subject to disciplinary action up to and including discharge.
LOCKOUT/ TAGOUT EQUIPMENT LIST AND INSTRUCTIONS

The following equipment is included in the Lockout/Tagout Program. Each machine must be locked out and tagged out whenever servicing or maintenance is performed.

Equip #	Description	Shutdown and Lockout Procedure Tagout Locatio	
01	Graders	Lower blade, shut down machine, turn off master key and apply lock to master compartment cover. Attempt restart to assure electrical energy depletion. Return the energy control devices to the neutral or off position after verifying zero energy.	Steering wheel
02	Rollers – Walk Behind	Shut down and chock machine, place remote control panel in compartment, and apply lock to compartment cover. Return the energy control devices to the neutral or off position after verifying zero energy.	Compartment lock
02	Rollers – Self Propelled	Shut down machine, set park brake, chock rear wheels. Turn off master switch, lock switch compartment cover. Attempt restart to assure elec. energy depletion. Return the energy control devices to the neutral or off position after verifying zero energy.	Steering wheel
03	Broom	Shut down machine, set park brake, chock rear wheels. Turn off master switch, lock switch compartment cover. Attempt restart to assure elec. energy depletion. Return the energy control devices to the neutral or off position after verifying zero energy.	Steering wheel
04	Loaders	Lower bucket, shut down machine, turn off master key, and apply lock to master compartment cover. Pin articulation joint, check start for elec. energy depletion. Return the energy control devices to the neutral or off position after verifying zero energy.	Steering wheel
05	Hoes & Excavators	Ground attachments, apply control lock, shut down machine, turn off master key, and apply lock to master compartment cover. Attempt restart to assure elec. energy depletion. Return the energy control devices to the neutral or off position after verifying zero energy.	Control lock handle
06	Dozers - Rubber Tired	Lower blade, shut down machine, turn off master key and apply lock to master compartment cover. Pin articulation joint, check start for elec. energy depletion. Return the energy control devices to the neutral or off position after verifying zero energy.	Steering wheel
06	Dozers - Track	Ground all attachments, shut down machine. Turn off master switch and lock out master panel cover. Attempt restart to assure electrical energy lock out. Return the energy control devices to the neutral or off position after verifying zero energy.	Shift control
06	Wheel Compactor 825C	Lower blade, shut down machine. Turn off master key and apply lock to master compartment cover, pin articulation joint, check start for elec. energy depletion. Return the energy control devices to the neutral or off position after verifying zero energy.	Steering wheel

LOCKOUT/ TAGOUT EQUIPMENT LIST AND INSTRUCTIONS

The following equipment is included in the Lockout/Tagout Program. Each machine must be locked out and tagged out whenever servicing or maintenance is performed.

Equip #	Description	Shutdown and Lockout Procedure	Tagout
	-		Location
08	Scrapers 631	Stop and ground the bowl, set brakes and shut down machine. Turn off master key. Lock out battery box cover or master key location. Move controls to bleed off hydraulic pressures and try ignition to assure electrical energy is off. Return the energy control devices to the neutral or off position after verifying zero energy.	Steering wheel.
08	Scrapers 623, 627	Stop and ground the bowl, set brakes and shut down machine. Turn off master key. Lockout battery box cover or master key location. Move controls to bleed off hydraulic pressures, and try ignition to assure electrical energy is off. Return the energy control devices to the neutral or off position after verifying zero energy.	Steering wheel
09	Cat Wagons	Shut down machine, set park brake, chock wheels. Turn off master switch, lock switch compartment cover. Pin bed if raised position required. Attempt restart to assure elec. energy depletion. Note: disconnect fire suppression system if attached and work involves welding in engine compartment. Return the energy control devices to the neutral or off position after verifying zero energy.	Steering wheel
10	Maintenance and Service Trucks	Set park brakes, shut down truck, and remove ignition key. Chock wheels, set out safety cone. Return the energy control devices to the neutral or off position after verifying zero energy.	Steering wheel
13	Pick-ups	Set park brakes, shut down truck, and remove ignition key. Return the energy control devices to the neutral or off position after verifying zero energy.	Steering wheel
16	Water Trucks	Set park brakes, shut down truck, and remove ignition key, chock wheels. Return the energy control devices to the neutral or off position after verifying zero energy.	Steering wheel
18	Hwy.& Dump Trks	Set park brakes, shut down truck, and remove ignition key, chock wheels. Return the energy control devices to the neutral or off position after verifying zero energy.	Steering wheel
20	Trailers	Tilt deck trailers: lockout tilt deck release handle, chock wheels. Return the energy control devices to the neutral or off position after verifying zero energy.	Tilt deck release handle
22	Water Wagons	Set brakes and shut down machine. Turn off master key in battery box. Lockout battery box cover. Move controls to bleed off hydraulic pressures and try ignition to assure electrical energy is off. Return the energy control devices to the neutral or off position after verifying zero energy.	Steering wheel
23	Water Pumps	Shut down machine, and chock wheels. Turn off master and lockout. Try ignition to assure electrical energy locked out. Return the energy control devices to the neutral or off position after verifying zero energy.	Cover to master switch

LOCKOUT/ TAGOUT EQUIPMENT LIST AND INSTRUCTIONS

The following equipment is included in the Lockout/Tagout Program. Each machine must be locked out and tagged out whenever servicing or maintenance is performed.

Equip #	Description	Shutdown and Lockout Procedure	Tagout
			Location
26	Rough Terrain Crane	Lower and retract boom, ground outriggers. Set brakes, shut down machine, and chock wheels. Turn off and lockout master switch. Try ignition to assure electrical energy locked out. Return the energy control devices to the neutral or off position after verifying zero energy.	Steering wheel
34	Conveyors	Apply lockout procedure to generator power source: shut down engine, turn off master switch, apply lock to cover, or control box. Return the energy control devices to the neutral or off position after verifying zero energy.	Control panel in scale house
35	Weigh Bunkers	See conveyors	Control panel in scale house
38	Pug Mills	See conveyors	Control panel in scale house
52	Gen Sets	Shut down engine, turn off master switch, and apply lock to cover, or control box. Return the energy control devices to the neutral or off position after verifying zero energy.	Control box
53	Light Plants	Shut down engine, turn off master switch, and apply lock to cover. Return the energy control devices to the neutral or off position after verifying zero energy.	Control box
57	Air Compressors	Shut down and chock wheels, bleed air tank, lockout control panel cover. Return the energy control devices to the neutral or off position after verifying zero energy.	Control panel cover
58	Trenchers	Shut down engine, turn off master switch, and apply lock to cover. Return the energy control devices to the neutral or off position after verifying zero energy.	Control panel cover
61	Fork Lift	Lower forks, shut down machine, and chock wheels. Shut off master and lock. Attempt restart to assure electrical lockout. Return the energy control devices to the neutral or off position after verifying zero energy.	Steering wheel
62	Soil Stabilizer	Shut down machine, and chock wheels. Turn off master and lockout. Try ignition to assure it is properly locked out. Return the energy control devices to the neutral or off position after verifying zero energy.	
62	Pressure Washer	Shut down machine and bleed pressure. Remove power plugs and lock plugs. Return the energy control devices to the neutral or off position after verifying zero energy.	Control panel

PROJECT HAZARD ANAYLSIS AND WORK PLAN

1.0 Purpose

To insure that prior to start of work all potential foreseeable hazards on a project are evaluated, and a plan is prepared to engineer solutions to risks; the correct personal protective equipment is identified to protect workers; and appropriate training required to assist in protecting workers and equipment is defined and scheduled.

2.0 Superintendent and Safety Manager Responsibility's

1. Prior to the start of work on each project it shall be the responsibility of the Safety Manager and project superintendent to complete an analysis of work requirements, identifying the tasks to be undertaken, the equipment to be utilized for each task, and the terrain, environment, and climate in which the tasks are to be completed. The superintendent will also contact the electric company for assistance in delineating the power lines and any other preventative measures they may have to offer. From the analysis the superintendent shall prepare the Hazard Analysis and Work Plan.

3.0 Details

The Hazard Analysis and Work Plan developed shall contain the following information:

Work Description – a narrative on the specific, separate work tasks, and conditions involved in the project.

Equipment Utilized – a complete listing of the different types of machines and tools that will be used on the project.

Potential Hazards Identified – a list of specific hazards, or risks to workers and equipment that might potentially develop from the work tasks, conditions, and equipment requirements outlined above.

PPE Requirements – a list of the specific personal protective equipment that will be required to protect workers from risk of injury or illness developed from the list of hazards detailed above.

Engineering Solutions – a narrative on physical actions or work changes that can be taken to reduce exposure to risk of injury, health, or damage to equipment.

Special Procedures – changes to procedures that can be made to reduce exposure to risk.

Training Required – any training required to assure workers have a complete understanding of the risks from each work task or segment, and how to protect themselves from illness, injury or death; or avoid damage to equipment.

Job Hazard Analysis – Contact the Safety Manager for JHA's that may apply to your project for preparation to your plan.

4.0 Plan Submittal

The Project Hazard Analysis and Work Plan shall to be submitted to the General Manager and Safety Manager for review. A copy of the Plan as approved shall be maintained at the project site.

The hazard analysis and work plan shall be revised as the project develops and appropriate changes submitted to those listed above.

PROJECT HAZARD ANALYSIS AND WORK PLAN EXAMPLE

EVARO-MCCLURE ROAD Hazard Analysis and Work Plan September 10, 2008

Work Description:

Work will include construction, realignment and widening of highway 93 between Evaro and McClure Road. Work will consist of clearing and grubbing, pioneering, and mass excavation using 350 size excavators and legal haul trucks, also 627 and 631 size cat scrapers. Hauling and placing of material from cut to fill and cut to waste, compaction, grading, drainage, installation of multi-pipes and detour areas throughout the project. There is also a bridge that will be constructed and the existing bridge will be removed.

Equipment to Be Utilized:

16G Blade	End Dump Trucks
160 H Blade	Water Truck
Track Type Dozers	Water Stand Tank & Pump
Excavators	Smooth Drum Roller
Wheel Type Loaders	Jumping Jack Wacker
Trucks with belly dump 627 Scr	aper
Trucks w/ Belly Dumps 631 Scr	apers
End Dump Trucks	-

Mechanic Trucks Service Trucks Light Plants Steel Wheel Comp.

Potential Hazards Identified:

Dust	Thunder Storms
Noise	Wild Fires
Possible Eye Hazard from Laser	Vehicular Traffic
Picking and Rigging	Trenching
Working In Heat	Winds
Night Operations	Bears, Rattlesnakes, Ticks

PPE:

Leather Hard Sole Boots (Must be above the ankle) Hard Hats Safety Vests Safety Glasses (As Needed) Dust Masks if Needed Hearing Protection Leather Gloves (As Needed) Fall Protection Equipment as Required Strobe Lights for Grade Checkers Working at Night Flashing Light and Whip on vehicles (if used on site)

Other Procedures:

Proper inspection, location and use of first aid kits Be familiar with emergency response plan (phone #'s, hospital, etc.) Haul roads will be kept wide and smooth for safe operation of large hauling equipment Eve contact or radio contact with operators prior to approaching equipment Parking at a safe distance so not to interfere with hauling operation Use of headlights, hazards, flag while on site Dust will be kept under control with water trucks All crew members will be schooled on eye safety around laser use Trenching inspections and protection procedures Lockout/Tag out procedures Weekly Safety Meetings and Inspections Grade checkers will wear all PPE as required and stay visible to all operators Proper lifting devices when lifting pipe and any other assorted material Sling, Wire Rope, and chain inspections prior to use All trash will be cleaned out of equipment daily and disposed of properly Follow S/P for heat stress guide line Awareness training on explosive storage and on site use Hazardous Materials and on site SDS procedure and location Educate vendors regarding Safety Procedures and PPE requirements on site All utilities must be clearly marked and signed as needed with special attention to overhead power lines

Training Required:

Hearing Protection Respiratory protection Proper lifting techniques and control Proper excavation procedures and controls Traffic awareness and control procedures **MA DeAtley Project Utilities Policy** Heat stress prevention MSHA Operations Backing equipment procedures Railroad awareness Grizzly bear and snake awareness

The Hazard Analysis and Work Plan must be reviewed with all workers assigned to this project.

Training must be documented and a copy retained on site along with a copy of the Hazard Analysis and Work Plan.

Changes may be made to this plan and posted on site as deemed necessary.

Operations Manager

Safety Manager

Project Engineer

Project Superintendent

PROJECT UTILITIES PLAN

1.0 Purpose

Work near utilities requires special attention in order to protect the workers, owners of the utilities, and in many cases third parties. Many states have passed legislation stipulating specific procedures that must be followed in dealing with overhead power lines and underground gas lines. The following Company Policy is designed to protect our workers and to comply with regulations.

2.0 Procedures

The following procedures will be strictly followed with regard to utilities located on or adjacent to our projects:

- 1. The onsite MAD supervisor in charge of work on the project, in conjunction with the project owner shall initiate inspections, tests, or other determinations to locate and establish any possible presence of utilities, their nature and their hazard potential (including voltage of power lines). This may be determined by inquiry through the one number locator service or with utility owners. In addition you must confer with utilities if the project is more than 700 feet in length or has multiple sites. **Be sure to record ticket numbers for all one call phone in's.**
- 2. Utility information is to be included in preparation of the Project Hazard Analysis and Work Plan. The <u>Plan shall</u> incorporate a hazard response procedure in the event the protective coating of an electrical line is penetrated or a gas or hazardous liquid line is damaged.
- 3. Specific utility location and marking shall be obtained by the project owner or M.A. DeAtley Construction immediately prior to starting any work in proximity to the utility. Such information shall include but not be limited to power lines, poles, communication lines, cable lines, fire alarm circuits, and related equipment, and all potential underground lines such as water, gas, sewer, power, telephone, etc.
- 4. State laws require any contractor <u>planning any temporary activity</u>, work, or operation in closer proximity to any high voltage line (600 volts or more) than allowed in the accompanying Minimum Distance Table; or any activity, work, or operation <u>that could possibly</u> come into proximity of any high voltage line to notify the utility owning or operating the line prior to commencing any such activity. The contractor must make arrangements with the utility that include coordination of the work and construction schedules. The arrangements may include placement of temporary mechanical barriers to separate and prevent contact, temporary de-energizing and grounding, or temporary relocation or raising of the overhead lines. The agreement must be in writing, identify the work arrangements, include terms of payment and must be signed by both parties.

The utility is required to complete all agreed upon work once an agreement for payment has been made. However the utility may deny any request for line clearances which in their judgment may jeopardize the reliability or stability of their system.

- 5. Once work commences care must be exercised to assure no equipment is operated under overhead utilities in a manner that could possibly result in any part of the equipment coming into closer proximity to the utility line than specified in the Minimum Distance Table. Operation in closer proximity may result in an arc between the equipment and the power line and disastrous results.
- 6. Excavation materials that are located closer to overhead utilities than allowed in the Minimum Distance Table must be pushed to a safe boundary by alternative acceptable equipment for final excavation unless arrangement for de-energizing or relocation of lines has been completed.

- 7. When excavation is conducted in the vicinity of underground utilities actual elevation and location of the utility must be determined by hand digging at various points along the specific work area that coincides with the utility line.
- 8. Hand digging is required within 24 inches (18 inches in Montana) on each side of the markings to determine the exact location of the underground utility before proceeding with mechanical excavation.
- 9. While an excavation is open underground utilities must be protected, supported, or removed as necessary to safeguard the utility and employees.
- 10. In event that there is a utility incident the MAD supervisor in charge on site should follow all appropriate safety procedures and use the established incident investigation process.
 - a. In event mobile equipment contacts a live power line the operator should remain in the equipment or vehicle until power is de-energized unless it is determined there is eminent danger to the operator. If in eminent danger the operator should dismount the equipment with a controlled jump and then move to a safe distance (50 ft.) away from the equipment by shuffling their feet and never losing contact with the ground. If the operator is injured and in danger do not attempt a rescue until the power is de-energized.
 - b. If the protective coating of an electrical line is penetrated, or gases or liquids are escaping from a broken line which endangers life, health or property immediately call the local emergency response agency (911) and the utility company owning the utility. All equipment should be shut down, all employees and others in the area evacuated, any flame sources extinguished, and use of electronic devices prohibited.

c. If either an underground or overhead utility is damaged but a hazardous release or incident is not occurring the utility owner company should be immediately notified in order to determine the hazards associated with the damage and implement appropriate counter measures and or repairs.

d. Damage to any utilities must be repaired by the utility company unless the utility agrees to Company repair.

- 11. All utilities within the project boundaries shall be continually monitored and identified. Locate markings are only good for **45 days** after which time a new locate must be called in.
- 12. A durable warning sign legible at 12 feet reading "Warning (or danger) it is unlawful to operate equipment within 10 feet of electrical conductors" shall be posted and maintained in plain view of the operator for each crane or other equipment (excavators, dump trucks, etc.) which are working in the vicinity of energized power lines and are capable of vertical, lateral, or swinging motion. In addition a sign must be posted on the outside of the machine in a location readily visible to mechanics or other persons engaged in the work operation.

TABLE: MINIMUM OPERATION DISTANCES ENERGIZED OVERHEAD LINES

Nominal VoltageMinimum Clearance0 to 50,00010 feetOver 50,00010 feet plus .4 inch for each 1,000
volts over 50,000

Examples: 345,000 volts 500,000 volts

20 feet 25 feet

RESPIRATORY PROTECTION PROGRAM

1.0 Purpose:

This plan is only to be used if Engineering controls cannot be utilized, all other operations use Voluntary Use Plan The purpose of this program is to develop the guidelines to prevent the exposure of M.A. DeAtley employees and subcontractors to harmful dusts, fumes, mists, gases and vapors.

This respirator program lays out standard operating procedures to ensure the protection of all employees from respiratory hazards, through proper selection and use of respirators. Respirators are to be used only when engineering control of respiratory hazards are not feasible, while engineering controls are being installed, or in emergencies.

This program is in accordance with the requirements of OSHA 29 CFR 1910.134, and WISHA Respiratory Protection, Part E. WAC 296-842.

2.0 Responsibilities:

Management

Designate a program administrator.

Exemption: You do not need to designate a program administrator if employees use only filtering-facepiece respirators and do so only as voluntary use.

Designate a program administrator who has overall responsibility for your program and has sufficient training or experience to oversee program development, coordinate implementation, and conduct required evaluations of program effectiveness outlined in WAC <u>296-842-12005</u>.

- 1. Respirators are provided by the Company, when they are necessary to protect the health of the employee in accordance with current American Conference of Governmental Industrial Hygienist (ACGIH) Standards.
- 2. It shall be the responsibility of the Company to determine what specific applications require the use of respiratory equipment, and to provide the proper equipment to meet the needs of each specific application in accordance with MSHA and NIOSH guidelines.
- 3. The Company is responsible for the establishment and maintenance of the respiratory protection program and shall maintain supervision of this program.
- 4. It shall be the responsibility of management to ensure that all employees are provided with adequate training and instructions in the use of respiratory protection equipment.

Supervisors

- 1. All superintendents, supervisors, and foremen shall be responsible for ensuring that all personnel for whom they are responsible are completely knowledgeable of the respiratory requirements of this program, and for the areas in which they work.
- 2. Supervisory personnel shall also be responsible for insuring that their subordinates comply with all facets of this program including the daily inspection and maintenance of equipment issued to them.

Employees

- 1. It shall be the responsibility of each employee to be aware of the respiratory protection requirements contained in this program, and of the requirements for their work areas.
- 2. Employees shall be responsible for wearing the appropriate respiratory equipment issued to them, and for maintaining this equipment in a clean and operable condition.
- 3. The employee shall use the respirator in accordance with instructions and training received.
- 4. The employee shall report any trouble or malfunction of the respirator to their location supervisor immediately.

3.0 Respirator Selection, Issuance and Training Practices:

- **A**. Selection of Respirators
 - 1. Respirators shall be selected and approved by management or their authorized designee.
 - 2. Respirators will be selected on the basis of hazards to which the worker is exposed.
 - 3. NIOSH/MSHA approved respirators are the only respirators allowed for use at M. A. DeAtley.
 - 4. Appropriate periodic work place surveillance of employee exposure is performed to determine the adequacy of the selected respirators.
- B. Issuance of Respirators

Management reserves the right to determine if a respirator is needed.

- Any employee may request and wear a respirator if he/she feels they need one to prevent irritation etc. due to low level exposure of substances that do not specifically require respirator use. In electing to do so, the employee must participate in any medical surveillance requested of respirator users, and properly clean and maintain their respirator(s).
- Respirators will NOT be issued to employees when there is an OBSTRUCTION to the seal present (i.e. those with beards, glasses etc.). All employees must be clean shaven so as not to interfere with the seal of the respirator.
- Full-face respirators may require the use of a spectacle kit for personnel wearing prescription glasses. The use of contact lenses is NOT permitted in those circumstances where the use of a respirator is required.
- Employees are required to wear breathing zone sampling apparatus for periods of time when air sampling studies are being carried out to determine if a respirator is necessary, and to determine what type is required.
- C. Training
 - 1. Each Employee who is required to wear a respirator shall receive proper training and instruction in its use, initially upon assignment and at least annually thereafter, including, but not limited to:
 - a) Instruction in the nature of the hazard and an appraisal of what may result if the respirator is not used properly.

- b) An explanation of why engineering controls are not immediately possible, and what, if any, effort is being made to eliminate the need for respirators.
- c) An explanation of why the particular type of respirator was chosen for a specific hazard.
- d) An explanation of the proper care, cleaning, disinfecting, and storage of respirators.
- e) A discussion of the respirator's capabilities and limitations.
- f) Instruction and training in actual use with close and frequent supervision to ensure proper use.
- g) An opportunity to handle the respirator, have it fitted properly, test its face-piece to face-seal, wear it in normal air for a familiarity period, and finally, to wear it in a test atmosphere.
- h) Any other emergency or special instructions.
- i) Elements of the medical surveillance program for respirator users.
- 2. The individual conducting training shall complete a Respirator Training Form for each employee using a respirator after completion of each training session.

4.0 Inspection, Cleaning, Maintenance, and Storage:

- A. Inspection
 - 1. All respirators must be inspected routinely before and after each use by the employee to whom the respirator was issued.
 - 2. Respirators kept exclusively for emergency use, shall be inspected after each use and at least monthly to assure that they are in satisfactory working condition.
 - 3. A record must be kept of inspection dates and findings for respirators maintained for emergency use.
 - 4. Respirator inspections must include:
 - a) Check of the tightness of connections and condition of the face piece.
 - b) Check of the headbands and straps.
 - c) Check of the valves.
 - d) Check of the connecting and tubes and canisters.
 - e) Check of the rubber or elastomer parts for pliability and deterioration.
 - f) Check that the respirator cartridges, air line, etc. is appropriate to the job and the contaminant for which the respirator is intended to protect against, e.g. organic vapor cartridges for use with organic vapors.
 - B. Cleaning and Disinfection
 - 1. Respirators issued for the exclusive use of one worker must be cleaned and disinfected regularly in proportion with their use.

- 2. Cleaning Procedure-Reusable Respirators
 - a) Remove any filters, cartridges, headbands, and disassemble the major respirator parts; see Manufacturer's Instructions.
 - b) Wash all respirator parts (except cartridge and elastic headbands).
 - c) Rinse completely in clean, warm water.
 - d) Air dry in a clean area.
 - e) Inspect all parts; replace with new parts if necessary.
 - f) Reassemble the respirator and insert new filters or cartridges. Make sure the seal is tight.
 - g) Store in a sealed plastic bag away from artificial or natural light.
- 3. Disposable Respirators
 - a) Disposable type respirators are issued for only one shift, unless otherwise specified, and therefore need no cleaning or disinfecting.
 - b) When specified, the sealing surface of disposable respirators may be cleaned and disinfected using a medical-type alcohol prep pad.
 - c) Disposable respirators must be used and stored in accordance with the manufacturer's instructions to protect them from contaminants.
- C. Repair and Inspection of Respirators
 - Repair and replacement of respirator parts is done by a person properly instructed and only with parts approved by the respirator manufacturer.
 - No attempt is made to replace components or to make adjustments or repairs beyond the manufacturer's recommendations.

Repair and Inspection Procedure (all respirators except disposable).

- a) Examine each part of the respirator for defects and discard the respirator, unless the defects may be eliminated by replacement of defective parts with new parts.
- b) Defects may include, but are not limited to:
 - > Cracks, tears, decomposition, stiffening, and distortion of the rubber face piece.
 - Distorted or badly worn plastic adapter.
 - Rubber gasket that contains cuts, cracks, or scratches.
 - > Rubber inhalation valve flap that is stiffened, contaminated or contains cuts.
 - Elastic head harness that is permanently stretched, stiffened, decomposed, frayed, or contains cuts.

- Snap fasteners on elastic head straps and on rubber face piece that are worn, distorted or loose.
- > Plastic exhalation valve seat that is distorted or contains scratched or cracks on its sealing surface.

Rubber exhalation valve flap that is stiffened, distorted, decomposed, or contains cuts. NOTE: ALWAYS REFER TO MANUFACTURER'S INSTUCTIONS FOR REPAIR AND INSPECTION PROCEDURES.

D. Storage Requirements

- 1. After each inspection, cleaning and necessary repairs respirators must be stored to protect against dust, sunlight heat extreme cold, excessive moisture and damaging chemicals.
- 2. Respirators placed at stations or work areas for emergency use must be stored in compartments designed for that purpose, which is clearly marked and accessible at all times.
- 3. Routinely used respirators, such as dust respirators, must be placed in suitable plastic bags to guard against contamination.
- 4. Respirators must be packed and stored so that the face piece and exhalation valve rest in a near normal position.
- 5. Respirators for the sole use of one employee will be labeled with the employees name on it and on the storage bag.

5.0 Immediately Dangerous To Life or Health Atmospheres:

- A. Toxic or Immediately Dangerous to Life or Health Atmospheres (IDLH) should not exist in any of the areas this company works in, during normal operations, as long as established work procedures are being followed.
- B. In emergency or unusual situations, where an atmosphere exists in which the wearer of the respirator may be overcome by toxic or oxygen deficient atmosphere, the employee(s) shall not enter that area and shall contact his supervisor immediately.
- C. In special cases where an IDLH atmosphere becomes evident employee(s) will evacuate accordingly and contact emergency personnel.

6.0 Work Area Surveillance:

Appropriate surveillance of work area conditions and degree of employee exposure or stress will be maintained. During safety audits and at other opportunities the Supervisor/Safety Coordinator will make inspections of areas where respirators are used to ensure compliance with the respiratory protection program.

7.0 Physical Fitness Determination For Users:

Persons will not be assigned to tasks requiring use of respirators unless it has been determined that they are physically able to perform the work and use the equipment. A medical facility will determine what health and physical conditions are pertinent. The respirator user's medical status will be reviewed annually.

8.0 Employee Fit Testing:

Employees required to wear respirators shall be trained and fit tested annually (including demonstrations and practice in how the respirator should be worn, how to adjust it, and how to determine if it fits properly). They shall also be instructed that facial hair, and sideburns, or temple pieces on glasses that prevent the proper sealing of the face-piece, could result in exposure of the employee to a contaminated atmosphere.

During the fit-testing process the respirators shall be donned and the seal checked by qualitative methods which may include the use of irritant smoke or banana oil.

This training and the qualitative fit test of each employee shall be documented and maintained on file in the main office.

9.0 Control and Evaluation of Respirator Program:

In order to maintain an effective respiratory protection program, control and feedback on how the program is functioning is necessary. In this manner, improvements can be made and deficiencies eliminated.

Wearer and general acceptance of a respirator is evaluated based on:

- ➤ Comfort
- > Ability to breathe without objectionable effort.
- > Adequate visibility under all conditions.
- Provisions for wearing prescription glasses.

NOTE: CONTACT LENSES ARE NOT ALLOWED TO BE WORN IN CONTAMINATED ATMOSPHERES WITH A RESPIRATOR.

- > Ability to perform all tasks without undue interference.
- Confidence in the face piece fit as determined qualitatively with an irritant smoke or other approved testing protocol.
- Frequent inspection of respirator use; done to determine whether the correct respirators are being used, selected, and worn properly.
- Examination of respirators during use, cleaning, and storage; done to determine how well they are maintained.
- The results of periodic inspections of respirator use, measurements of contaminant levels in work areas, and medical surveillance of wearers will be reviewed, studied, and analyzed to determine the effectiveness of the program. Appropriate changes will be made based on the results of the review.

BACK SAFETY

1.0 Purpose

To minimize the risk of back injury through promotion of proper lifting techniques.

2.0 Background

Back injuries are the nation's number one workplace safety and health concern. They account for one in five workplace injuries and occur twice as frequently as any other workplace injury. The Bureau of Labor Statistics estimates that 1 million workers a year suffer on the job back injuries. Since the lower back holds most of the weight of your upper body, even a minor problem in the area with the vertebrae, muscles, ligaments or tendons can cause serious pain when you stand, bend or move around.

Causes of injuries:	Common injuries:
• Lifting excessive weight.	• Muscle and ligament strains and sprains.
• Using poor lifting techniques such as bending over or twisting with a load.	• Muscle spasm.
 Reaching overhead for elevated loads. Carrying awkward shaped objects Sitting or standing too long in one position. Working in awkward positions for extended 	 Herniated, ruptured of supped discs. Degenerative discs. How injuries are prevented: -Avoid lifting and bending at the waist. Ask for help with heavy loads
 working in awkward positions for extended periods. Poor physical condition, extra weight, and poor posture are contributing factors. 	 -Ask for help with heavy loads. -Use lifting and cartage devises. -Always use proper lifting techniques. -Stretch before lifting. -Avoid lifting loads above shoulders where possible. -Slow down during heavy, repetitive lifting and take rest breaks. -Sleep on a firm mattress, get in shape, and use good posture.

Standard Operating Procedure: Back Safety

Proper Lifting Procedures:	Treatment for back pain:
-Test the load weight	-Rest you back and avoid heavy lifting
-Place feet shoulder width and close to the	-Apply cold packs for the first 48 hours
object	-Apply hot packs after 48 hours
-Bend at the knees	-Use over the counter pain relievers
-Lift with the legs, keeping back straight	-Consult a physician if pain continues after
-Lift evenly and slowly keeping the load close	resting 72 hours or if you have feeling of
to the body	numbness in your arms or legs
-Avoid twisting the torso while carrying the	
load; to change directions use you feet	

COMPRESSED GAS SAFETY

1.0 Purpose

To minimize risk of injury or illness while using compressed gases.

2.0 Background

Compressed gas is any gas materials or mixtures in containers having an absolute pressure in excess of 40 psi at 70F or in excess of 104 psi at 130F. They may have the same properties as hazardous liquids or solids. They may be corrosive (chemicals that eat through flesh or equipment), toxic or poisonous, highly flammable, reactive (may combine with other materials or gases to become explosive or toxic), cryogenic (extremely cold under pressure), or crowd out oxygen in the air. In addition many gases fall into more than one category.

3.0 Hazards

Compressed gases are stored under high pressures -3000 lbs. per square inch on average, new high pressure oxygen bottles are 4, 500 psi- and are thus more dangerous than their sold or liquid counterparts. If mishandled, punctured, or the valve broken the container may explode violently, or react like a heavy out of control rocket capable of inflicting serious damage.

A second hazard is diffusion. Chemicals under pressure in gaseous form once released will expand to all available space in high concentrations. Even a small container may quickly contaminate a large area. The gas may be poisonous, or corrosive, or it may displace oxygen resulting in asphyxiation, or it may be highly flammable or explosive, and ignite from a nearby heat source.

Lowering the pressure on flammable compressed gases dramatically lowers their ignition temperature making them easier to ignite or explode if a heat source is nearby.

Released cryogenic gases can cause frostbite upon contact with human flesh.

4.0 Safety

- 1. Insure cylinders are labeled legibly, never work with unidentified cylinders.
- 2. Visually inspect cylinders for damage.
- 3. If cylinder is damaged or unable to identify contents contact your supervisor.
- 4. Review SDS for specific hazards, handling instructions, and emergency response instructions.
- 5. Wear all required PPE.

Transporting cylinders:

- Use cart or hand truck, and always secure with a chain or strap.
- Make sure protective valve caps are in place.
- Never lift using the protective valve cap.
- Never roll, drag, or drop cylinders, or all them to strike each other.
- Never transport with the regulator installed.

Operating Safety:

- Check proper regulators and fittings for each type of gas
- Never use a cylinder without a regulator
- Never force a connection or modify a fitting

- Assure all lines are secured tightly
- When opening valve, stand to one side and open slowly
- Perform a leak check every time a cylinder is reconnected, notify supervisor if a leak is detected.
- Never perform repairs yourself.
- Keep cylinder in upright position at all times.
- Close cylinder valve when not in use, and never leave open cylinders unattended.
- Never direct gases toward another individual, or use as compressed air.
- Never put oil or grease in a valve.
- Never fully empty a cylinder.
- Never refill a cylinder.
- Never discard empty cylinders in normal trash.

Acetylene

- Never open acetylene more than 1 ½ turns so it can be shut down quickly.
- Never adjust regulator above 15 psi.
- Acetylene is very unstable above 15 psi and may explode.
- Never use fittings or connections containing copper as acetylene reacts violently to copper.

Oxygen:

New high pressure oxygen cylinders are rated at 4500 psi, and valve on cylinder should be opened fully for correct operation and safety.

5.0 Cylinder Storage

Cylinders shall be stored in designated areas away from other facility activities. The storage area should be prominently marked with the hazard class or name of gas to be stored. Store in well ventilated, level, fire resistant area, and protect from moisture and direct sunlight. Cylinder should be:

- 1. Located away from sources of heat or ignition, corrosive materials, combustible materials (especially oil and grease) or gases, and risks for electrical arc
- 2. Stored only with other compatible groups (flammable separate from oxidizers)
- 3. Stored in upright position
- 4. Separate empties from full or partially full containers
- 5. Oxygen tanks must be 20 or more feet from flammable gas cylinders, or <u>combustible materials</u>, or separated by a 5 ft. high 30 minute fire barrier having a fire resistance rating of at least one half hour.
- 6. All cylinders (full or empty) should be secured by chains or straps in an upright position with protection caps in place and regulators removed
- 7. Stored away from exit and entrance routes, and areas of heavy traffic flow

CRUSHING, SCREENING, AND LOADING OPERATIONS

No person, including subcontractors, are to be allowed in the area of crushing, screening, or loading until they have received instruction on this policy. A signed copy of this form for each person who may enter into the site must be maintained at the project office.

- 1. Ear protection, eye protection, hard hats, reflective vests, and high top leather boots will be worn at all times. Wear proper fitting clothing and keep long hair confined.
- 2 Goggles, gloves, safety harnesses, dust respirators and other protective equipment are to be worn as required. Gloves or loose clothing should not be worn where they will create a hazard by becoming entangled in material or moving parts of machinery.
- 3. Wrist watches and finger rings are not to be worn when working around machinery.
- 4. The crusher operator must sound an audible warning device prior to starting the equipment. All members of the crew and visitors will come to a pre-determined open area where they will be in sight of the crusher operator before he starts the crushing and conveyor components.
- 5. Each individual is responsible for notifying dozer, loader, or excavator operators before entering the feed trap and after they have come out. A life line must be attached to the person(s) entering the trap and the starter switch locked out/tagged out. The hopper access ramp must be blocked by barricade or other positive means.
- 6. When moving or adjusting conveyors, check to see if the lifting cables are rigged properly and that the stress is on the correct supports. No one is to be under or near the conveyor when it is being moved or during height adjustments.
- 7. When working on the ground around cranes never get under a suspended load and always use tag lines to control the load.
- 8. Stay out of the pit area(s) where mobile equipment is working.
- 9. When working in the pit area stay away from high walls and never position yourself between equipment and a high wall.
- 10. Notify co-workers you're in a particular work area, check on those in your area. Use the buddy system.
- 11. No foot traffic is to be allowed in areas subject to falling or flying rock.
- 12. Use the hand holds and steps when climbing on and off equipment and machinery, DO NOT JUMP! Use the three point contact method.
- 13. Never use defective tools, report any defects to your supervisor.

- 14. Keep work areas clear of loose materials and debris.
- 15. Know the location of fire fighting equipment and how to use it. All used fire extinguishers should be sent in to be refilled immediately.
- 16. Follow lockout/tagout procedures before performing maintenance or repair work on conveyor or crusher components. Replace guards when repairs or adjustments are complete.
- 17. All supplied guarding must be in place and maintained.
- 18. Keep equipment guards in place while equipment is running and report missing guards to your supervisor immediately.
- 19. Never reach around a guard unless the equipment is shut-off as well as locked out/tagged out.
- 20. If you have to work in close proximity to a conveyor, then the belts must be shut-off.
- 21. Never attempt to access, or dislodge rock, or debris from the **crushing component** while it is running. Always notify the operator to shut off and lock out the machine.
- 22. Do not cross over conveyors, unless there is a built-in walkway with handrails. Cross under conveyor in designated walkways only.
- 23. Safety meetings are held once a week, however, **DO NOT** wait until a meeting to bring up a safety problem. These meetings are for your education. Your comments may help prevent an accident.
- 24. Report all injuries promptly to your supervisor, even though minor in nature.
- 25. Never act impulsively. Think about what you are going to do before you do it. Consider the hazards and take adequate precautions. Failure to comply with safety rules may be reason for termination.

I have carefully read and fully understand the Crushing, Screening, and Loading Operations Safety Rules presented above. I agree to follow these rules and support our company's commitment to safety.

Print Employee Name	Signature	Date
Print Supervisor's Name	Signature	Date

M.A. DeAtley CONSTRUCTION, INC. WORKER FATIGUE CONTROL PROGRAM

1.0 Purpose

M.A. DeAtley Construction, Inc. believes employees who work excessive hours may become fatigued and may not be as safe as someone who has had adequate rest. Although there are no current laws that regulate non-DOT (Department of Transportation) drivers, operators or laborers; M.A. DeAtley *Construction, Inc.* has taken steps to reduce/eliminate the possibility of hazardous situations caused by employee fatigue.

2.0 Procedures

The following steps have been implemented to address safety concerns from possible employee fatigue:

- > Employees must not start or continue work if he or she is fatigued to such an extent that their condition may affect his or her safety, or the safety of others.
- > Managers shall not plan work arrangements for personnel who are fatigued to point of being a safety hazard. Managers and supervisors are authorized to prevent any employee from commencing work or continuing to work if they believe the person is fatigued.

To contribute to improved safety performance through the control of employee fatigue, limitations on work hours shall be applied. Employees must:

- ▶ Not work more than 14 hours in any one work shift;
- ▶ Not work more than 72 hours in one week and
- Not work more than 13 shifts within any 14 consecutive days.

Any unusual or emergency situations that would require breaking the above policy must first be cleared with upper management.

CUTTING, WELDING AND BURNING HAZARDS CONTROL PLAN

1.0 Purpose

To outline the health and safety risks inherent in the processes of welding and cutting; and the risks surrounding materials utilized in its processes.

2.0 Background

There are numerous hazards related to welding and cutting including burns, fire, and explosions; energy in compressed gasses; electrical energy; working on or around dangerous equipment and machinery, and in or around confined spaces; trips and falls; hazardous fumes and smoke, light radiation and eye injuries; muscular injury, and noise.

3.0 Fire Protection

Always start a welding or cutting project by assessing fire hazards present. Look for any fuel sources or combustibles nearby. Remove any hazards or move the work. If the hazard or work cannot be moved then you must set up guards to confine the heat and protect the fire hazards from sparks and slag. If the fire hazard cannot be controlled then welding should not be performed.

Fire extinguishing equipment must be available for instant use.

While working make sure the work area remains free of substances that could ignite.

4.0 Fire Watch

A fire watch is required when welding or cutting in a location where more than a minor fire might develop, or whenever:

- 1. Appreciable combustibles are closer than 35 feet to the operation;
- 2. Appreciable combustibles more than 35 feet from the operation may be easily ignited by sparks.

If these conditions exist you must maintain a fire watch from the time welding or cutting begins to at least 30 minutes after completion of the operation. Fire watchers must have fire extinguishers available and be trained in their use.

In the event of a fire beyond the extinguisher's capacity to control the fire watcher must immediately notify the supervisor, and summon professional assistance.

5.0 Areas Prohibited to Welding

Areas with explosive atmospheres, areas where explosive atmospheres may develop, in buildings with impaired sprinkler systems, and other areas designated as prohibited by management.

Welding or cutting on used tanks, barrels, or drums is specifically prohibited.

6.0 Personal Protection

EYES

Welding, cutting, or brazing without proper eye protection can lead to serious eye injury from UV light, infrared radiation, sparks and hot metal.

Wear helmets, shields and goggles during all arc welding or arc cutting operations except for submerged arc welding.

Wear goggles or other suitable eye protection during all gas welding, or oxygen cutting operations.

Wear safety glasses with side shields or goggles when chipping or grinding.

Protect passers-by and co-workers from arc welding radiation by utilizing screens or a booth.

In addition to helmets or goggles appropriate grade light filters must be utilized:

Shielded metal arc welding of 1/16, 3/32, 1/8, 5/32 inch electrodes, you should use a shade of at least 10;

Gas shielded <u>non-ferrous</u> arc welding of the above dimensions require a shade of at least 11;

Gas shielded ferrous arc welding of these dimensions require a shade of 12;

When soldering, use a shade of at least 2;

When torch brazing use a shade of at least 3-4;

For heavy cutting, 6 inches and over, use a shade of at least 5-6.

CLOTHING

You must perform a hazard assessment before every procedure to determine the correct type of PPE (personal protective equipment) required. Burns are a primary hazard. Consider the following protection devices:

Welding gloves, gauntlets and sleeves.Flame resistant aprons.High top safety boots and leggings.Shirts: heavyweight, wool, sleeved, collars buttoned, no pockets.Pants: no cuffs and length extending over boots.For overhead work consider shoulder capes, skullcaps.Ear protection.

VENTILATION

Fumes from metals and gasses during welding are a significant hazard. Make sure you have adequate ventilation.

Respirators must be worn when any cancer causing fumes or gasses are present at a detectable concentration, or when welding in confined spaces where adequate mechanical ventilation is not available.

Mechanical ventilation or other specific control measures are required when welding or cutting is done with any of the following materials:

Fluorine compounds	Zinc	Lead	Cleaning compounds
Cadmium	Mercury	Beryllium	Stainless steel

7.0 Confined Spaces

Welding in confined spaces is extremely dangerous and requires additional safety precautions. No person may weld in a confined space unless they have current training in confined spaces, and have acquired a confined space permit.

Confined spaces must be tested for toxic fumes, flammable or combustible gases, and adequate oxygen levels. They must also be adequately ventilated to prevent accumulation of toxic materials or oxygen deficiency.

You may be required to wear a respirator.

Gas cylinders and welding machines must remain outside the confined space, and cart wheels must be chocked.

Entry and welding in a confined space requires that you wear a safety retrieval harness attached to a lifeline; and that a trained safety attendant is stationed at the entrance to observe the welder. The attendant must be equipped with the appropriate PPE to enter the space, and must have a fire extinguisher.

If welding work in a confined space is suspended for any significant time period such as lunch, end of shift, or other reasons, electrodes must be removed from their holders, placed where accidental contact may not occur, and the machine disconnected from its power source. If gas welding or cutting is occurring and a work suspension occurs, the torch valves and tank valves must be shut off. If practical the torch and hose should be removed from the confined space.

8.0 Gas Welding & Cutting

CYLINDER STORAGE

The cylinder storage area should be dry, well ventilated and at least 20 feet from combustible materials such as oil.

Cylinders should not be kept near any source of heat or ignition such as heaters, oil, fuels, electrical wiring, batteries, corrosive chemicals, or fumes.

Cylinders must be stored in compatible groups. Flammables, corrosives, and oxidizers must be maintained separate from each other. If oxygen and fuel gases such as acetylene are stored in the same room they must be separated by at least 20 feet, or by a 5 foot wall fire rated for ½ hour. All empties should be separated from all full or partially full cylinders.

All cylinders (including empties) must be stored upright with valve caps on, and secured by chains or straps.

CYLINDER HANDLING

Never work with a cylinder containing an unknown gas, or with a label you can't read.

Before working with a cylinder perform a visual inspection for damage. Look for cracks, dents, rust or any other damage that may compromise cylinder safety. Never drop or bang cylinders.

When transporting cylinders never lift or move them by the valve protection caps. Always make sure the caps are in place.

Be familiar with the MSDS sheets on gases utilized; and understand specific hazards, handling instructions, emergency response and first aid information.

Never leave a system setup with valves open. If you are suspending work for more than a few minutes, or going to leave the area for any amount of time you must close the cylinder valves.

Hoses, regulators, valves, and cylinders should be kept free of oil and grease substances. Never handle oxygen cylinders or equipment with greasy hands, or gloves. Doing so may result in an explosion.

Gas cylinders should be protected during use. Keep enough distance between cylinders and work to avoid sparks, hot slag, or flames. If unable to assure safe distance protect with a fire resistant shield around the cylinders.

Keep all cylinders clear of wires, plugs, batteries, machinery, and any items that may be used as grounding.

WORKING

Before connecting a regulator crack the cylinder quickly to clean out any dirt that may be in the valve.

Never use a cylinder without a regulator attached.

Make sure the regulator is clean, undamaged and in good working condition.

Check hoses for signs of wear, damage, burns, tears etc. If detected remove from service.

Double check hoses and torch to assure they are securely fastened.

Keep keys and stems in place for quick cutoff in event of emergency.

Purge the system before lighting. Start with the gas fuel then oxygen, and purge each separately.

Use only a friction lighter and ignite gas first then slowly add oxygen. Shut torches down by closing gas valve first.

Close both cylinder valves starting with gas, then the oxygen.

Open torch valves to relieve hose pressure.

Close regulator valve, then torch valves.

ACETYLENE

Never generate, pipe, or use at pressure in excess of 15 lbs. sq. in. gage, or 30 lbs. absolute. Acetylene is unstable above these pressures and may explode.

When using acetylene never open the cylinder valve more than 1 ½ turns so it can be shut down quickly in event of emergency.

Never use fittings or connections containing copper. Acetylene will react violently when exposed to copper.

ARC WELDING AND CUTTING

Many of the precautions covered under gas welding apply to arc welding and cutting as well. There are however some additional precautions applicable to arc usage.

Make sure the welding machine is properly grounded. Always double check the grounding connections.

Arc welding with wet equipment, on wet floors, or wet ground can be extremely dangerous. If welding under humid conditions, and if you are perspiring a lot make sure you have an automatic control to reduce the no-load voltage.

Make sure you know where the power disconnect switch is located so you can immediately shut down in event of emergency.

Check all connections to the welding machine.

Never use cables with splices within 10 feet of the holder.

Cables with damaged insulation, or exposed bare connections must be replaced.

Spread coiled cables to avoid overheating of the insulation. Never loop cable around your body.

Never strike an arc on a gas cylinder, and keep electrodes and holders away from cylinders.

Never change polarity when the machine is under load.

If you stop welding for a few minutes disconnect the power source and remove electrodes.

When electrode holders are not in use store them where they cannot come into contact with fuels, compressed gas tanks, conductors, or co-workers.

Work Safely and remember: SAFETY FIRST

WORKING ALONE AND COMMUNICATIONS PLAN

1.0 Purpose

To assure assistance is always available in the event of an incident or accident.

2.0 Background

Due to the risk of serious injury/illness in our industry and the potential consequence of being without assistance in the event of injury the Company shall not assign nor allow any employee to perform work (other than office or administrative tasks) at any jobsite or Company facility without the presence within hailing distance of at least one other person, or without provision for someone to check on the well being of the worker at regular short intervals and to be available to provide timely assistance if required.

3.0 Procedure

For tasks that by nature are generally performed by one person we may assign one to the work if there are other workers in the vicinity who are available by hailing. If there are not individuals in close proximity, but other workers tasks require that they visit the site of the person working alone on regular short intervals then a worker may be assigned to work alone. Without appropriate provision for availability of timely assistance at least two workers must be assigned to the work.

Jobsite Safety Assessment

1.0 Purpose:

To examine and evaluate all known and unknown hazards that can influence the Health & Safety of all employees, subcontractors, vendors, suppliers and visitors on M.A. DeAtley Construction projects and to assist in implementing engineering controls or PPE to prevent such hazards.

2.0 Scope:

This Jobsite Safety Assessment procedure will be performed at all construction projects no matter the size or duration. It will involve the following employees with the exception of the Final Safety Assessment.

- Safety Manager
- Project Managers
- Superintendents
- Field Engineers
- Foreman
- Operators
- Laborers
- Field Mechanics
- Truck Drivers
- And any onsite subcontractors

The purpose of involving all personnel is to draw on multiple levels of past experiences with incidents and discuss what happened so that we can facilitate a proactive jobsite and not a reactive one. This will be done via group forum and all known and unknown hazards will be discussed. We will also train on the Safety Bulletin Board information, location of first aid kits, fire extinguishers and emergency procedures specific to the jobsite.

3.0 Procedure:

There will be a total of three (3) Assessments performed on each project. They are as follows:

• **Initial Jobsite Safety Assessment:** This will take place inside of two weeks after job starts and a substantial compliment of employees have been activated.

- <u>Midway Jobsite Safety Assessment:</u> This will take place at a point that has been determined to be the midway or 50 % of the project has been completed. It will be the responsibility of the Project Manager or equivalent to inform the Safety Manager that this protocol has been met and schedule an Assessment. This Assessment should involve the full compliment of employees.
- <u>Final Jobsite Safety Assessment:</u> The final assessment will occur at the completion of the project and will involve the Safety Manager, Project Manager, Field Engineer and the Foreman or Superintendent. The purpose of this final assessment is to gather all required safety documents for recordkeeping and to review any accidents/incidents that may have taken place during the project. A discussion involving the incidents will be used as a training tool so we can prevent reoccurrence on future projects.

4.0 Documentation:

These Jobsite Safety Assessments are considered as training and all persons attending will sign in on an attendance sheet (table 1). Documentation will be kept at the jobsite office and a copy will be maintained in the Clarkston office. Any valuable material gathered during these assessments may be reviewed at the Monthly Safety Committee meetings and can also provide topics for the Winter Training.

Jobsite Safety	Assessment
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Sign in Sheet

Project Name/Number		Date	
	_		
Topics Discussed:			

Employee Name	
Safety Manager	

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AERIAL LIFTS

1.0 Purpose

The purpose of this program is to define the requirements for safely operating an aerial lift device.

2.0 Scope

This policy shall cover all aerial lift devices used on M.A. DeAtley Construction property.

3.0 Key Responsibilities

Supervisors

- Shall ensure that all aerial devices are properly operated by trained personnel.
- Shall ensure that aerial lift devices are designed and constructed in conformance with applicable requirements of the American National Standards for "Vehicle Mounted Elevating and Rotating Work Platforms" ANSI A92.2-1969, including appendix.

Employees

• Shall follow all aspects of this program.

4.0 Procedures

- Aerial lifts may be "field modified" for uses other than those intended by the manufacturer provided the modification has been certified in writing by the manufacturer or by an equivalent entity.
- Lift controls shall be tested each day prior to use to determine that such controls are in safe working conditions. Tests shall be made at the beginning of each shift during which the equipment is to be used to determine that the brakes and operating systems are also in proper working condition.
- Only authorized persons shall operate an aerial lift and boom and basket load limits specified by the manufacturer shall not be exceeded.
- Aerial lifts shall have a working back-up alarm fully audible above the surrounding noise level, or the vehicle is backed up only when an observer (spotter) signals that it is safe to do so.
- The minimum clearance between electrical lines and any part of the equipment (i.e. crane or load) shall be 10 feet for lines rated 50 kV or below.
- Employees shall always stand firmly on the floor of the basket, and shall not sit or climb on the edge of the basket or use planks, ladders, or other devices for work position.
- An approved fall restraint system shall be worn when working from an aerial lift. The fall restraint system must be attached to the boom or basket. An approved fall restraint system shall be attached to the boom or basket when working from an aerial lift and it is not permitted to be attached to adjacent poles or structures.
- All employees who operate an aerial lift device shall be trained in the safe operation of the specific device they will operate. Training must conform to all OSHA requirements.

CRANES

1.0 Purpose

The purpose of this program is to outline the procedures for safe operations and the training requirements regarding crane and lifting devices, including all rigging is designed, constructed, installed, maintained and operated to perform safely.

2.0 Scope

This program is applicable to all employees who may utilize cranes and lifting equipment.

It applies to all M.A. DeAtley Construction employees who operate overhead cranes, hoists, and rigging equipment in the scope of their job duties and assignments. When work is performed on a non-owned or operated site, the operator's program shall take precedence. However, this document covers M.A. DeAtley Construction employees and shall be used on owned premises, or when an operator's program doesn't exist or is less stringent.

3.0 Key Responsibilities

Managers and Supervisors

- For ensuring only trained personnel operate the equipment.
- Establish and maintain a daily, monthly and annual inspection program.
- Establish a recordkeeping log for safety checks, maintenance and repairs.
- Are responsible to ensure that employees and contractors are trained and qualified on the proper operations and have been trained in rigging safety by a competent person. Modification or additions which affect the safe operation of the equipment may only be made with the manufacturer's written approval.
- Are responsible to see that all provisions of this program are followed and that rigging inspections are performed and the equipment is in safe operating condition.

Employees

- Personnel are responsible for visually checking the equipment they are using and reporting any observable wear, needed repairs or damage to their supervisor. They shall also report all equipment malfunctions immediately.
- Employees are responsible to follow the requirements of this program.

4.0 Procedure

Operating controls shall be plainly marked to indicate the direction of travel.

All manufacturer procedures applicable to the operational function of equipment must be complied with. All manufacturer procedures applicable to the operational functions of equipment, including its use with attachments, must be complied with.

Procedures applicable to the operation of the equipment be readily available in the cab at all times. The operator shall have access to procedures applicable to the operation of the equipment. Procedures include rated capacities (load charts), recommended operating speeds, special hazard warnings, instructions and operator's manual.

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Operator Qualification

Operators must be determined to be qualified before they are permitted to operate any crane. Only those employees qualified by training or experience shall be allowed to operate equipment and machinery. Within 4 years of November 8th 2010, employers must ensure operators be qualified/certified by one of the following methods:

- Certification by an accredited crane operator testing organization.
- Qualification by an audited employer program
- Qualification by the U.S. military
- Licensing by a government entity

Load Chart

Each hoist shall have a legible load chart showing the rated capacity in all permitted working positions and configurations of use, manufactures name, model, serial number and year of manufacture of shipment date permanently marked or noted clearly, permanently posted on the equipment, weatherproofed and conspicuous on the equipment and shall be kept legible at all times. The load chart will be issued to the equipment operator, who must have it available at all times when operating the equipment.

Modifying Equipment

Modifications or additions that may affect the capacity or safe operation of the equipment must not be made without written approval from the manufacturer or approval from a registered professional engineer. The manufacturer must approve all modifications/additions in writing. A registered professional engineer must be qualified with respect to the equipment involved, and must ensure the original safety factor of the equipment is not reduced.

Prior to Lifting

Cranes must not be used unless ground conditions are able to support the equipment and any supporting materials per the manufacturer's specifications. Equipment must not be assembled or used unless ground conditions are firm, drained, and graded to a sufficient extent so that, in conjunction (if necessary) with the use of supporting materials, the equipment manufacturer's specifications for adequate support and degree of level of the equipment are met.

All loads shall be hooked or slung under the direction of a competent employee.

Prior to operating any equipment the operator must be familiar with all recent entries in its log book.

The operator must carry proof of training.

Before the start of each shift or use an operator uses a crane or hoist, the operator must inspect the crane or hoist was inspected for that work shift, and the control and safety devices were tested for that work shift to detect any defect, malfunction or hazardous condition. All safety devices must be in proper working order before operation begins. Safety devices are required to be on all equipment and must be in proper working order before operations begin. If any of the devices are not in proper working order the equipment must be taken out of service and operations must not resume until the device is working properly again. Examples of safety devices may include crane level indicator, boom stops, jib stops, foot pedal brake locks, horns, etc.

A fire extinguisher must be immediately available in the cab of each crane or other hoisting equipment.

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The operator has the authority to stop and refuse to handle the loads whenever there is a safety concern. Whenever there is a safety concern, the operator must have the authority to stop and refuse to handle loads until a qualified person has determined that safety has been assured.

When the operator of a crane or hoist does not have a clear and unobstructed view of the boom, jib, load line, load hook and load throughout the whole range of the hoisting operation, the operator must act only on the directions of a qualified, designated signaler who has a clear view of the things the operator cannot see. The operator of the equipment on receiving a stop signal from any person.

Operators of hoisting equipment shall disregard signals from anyone except designated signal persons but in an emergency other employees may give a stop signal.

Where the design of a crane is such that the boom may fall over backward, positive boom stops shall be installed in accordance with the manufacturer's instructions.

No employee shall ride or be permitted to ride on loads, hooks or similar equipment unless specifically authorized by his or her supervisor.

Marking Boundaries

M.A. DeAtley Construction must address safety measures to be used when the equipment has the potential to strike and injure an employee or pinch/crush an employee against any other object. M.A. DeAtley Construction identifies hazard areas by marking the boundaries of the crane swing radius with warning lines, railings or similar barriers. Employees or other persons are not allowed within the barrier when operations are taking place. The crane will immediately be required to stop movement if someone enters the swing radius area.

Overhead Power Lines

A pre-operation hazard assessment will be performed to identify the work zone and determine if any part of the equipment could reach closer than 20 feet to a power line. The work zone shall be identified by demarcating boundaries such as a flag and range limiting devices, or defining the work zone as 360 degrees around the equipment up to the maximum working radius. The hazard assessment must determine if any part of the equipment could get closer than 20 feet to a power line.

M.A. DeAtley Construction will ensure measures must be taken if determined that any part of the equipment, load line or load could get closer than 20 feet to a power line. If it is determined that any part of the equipment, load line or load could get closer than 20 feet to a power line then at least one of the following measures must be taken:

- Ensure the power lines have been deenergized and visibly grounded.
- Ensure no part of the equipment, load line or load gets closer than 20 feet to the power line.
- Determine the line's voltage and minimum approach distance permitted in Table A below.

Voltage	Minimum Clearance Distance
(nominal, Kv, alternating current)	(feet)
Up to 50	10
Over 50 to 200	15
Over 200 to 350	20
Over 350 to 500	25
Over 500 to 750	35
Over 750 to 1,000	45
Over 1,000	(as established by the utility owner/operator or registered
	professional engineer who is a qualified person with respect
	to electrical power transmission and distribution).

TABLE A – MINIMUM CLEARANCE DISTANCES

Note: The value that follows "to" is up to and includes that value. For example, over 50 to 200 means up to and including 200kV.

Assembling/Disassembling Equipment

The manufacturer instructions and prohibitions must be followed when assembling and/or disassembling equipment. The manufacturer's procedures and prohibitions must be compiled with when assembling and disassembling equipment.

A competent and qualified person must direct the assembly/disassembly of equipment. M.A. DeAtley Construction will ensure the assembly/disassembly of equipment must be directed by a competent and qualified person.

Handling the Load

Size of Load

The rated capacity of a crane or hoist must not be exceeded, except for rated load test. The working load shall not be exceeded and shall be determined by the original manufacturer of the equipment, a registered professional engineer, or other persons whose qualifications are acceptable to local regulatory requirements.

Attaching the load

- The load shall be attached to the hook by means of slings or other suitable and effective means which shall be properly rigged to ensure the safe handling of the load.
- Chain and rope slings shall be free of kinks or twists before use.
- Baskets, tubs, skips or similar containers used for hoisting bulk materials shall be loaded so as not to exceed their safe carrying capacity.
- The hoist rope shall not be wrapped around the load.
- The load shall not be moved without checking the balance and the brakes. Brakes are checked by raising the load a few inches and applying the brakes.

Load Lifting Manual

Safe lifting procedures can be found in the Lifting Handbook located in the operations office as designated for each work site by the Manager.

Safe Lifting

- If the operator of a lifting device has any doubts as to the safety of employees in the vicinity of the lift, the operator must not move any equipment or load until the operator is assured that the working conditions are safe. He or she shall report the circumstances to his or her supervisor who then shall be responsible for determining the action to be taken.
- Loads will be carried as close to the grade as possible and tag lines shall be rigged as necessary to control swinging of the load.
- Prior to moving a load ensure that the travel path of the load is free and clear of any undesirable obstructions.
- A suspended load shall not be left unattended by an employee.
- Ensure all employees who may be affected by the lift are aware of the hazards and are adequately protected.
- M.A. DeAtley Construction must ensure that work is arranged, if it is reasonably practicable, so that a load does not pass over employees. An operator of a lifting device must not pass the load on the device over employees unless no other practical alternative exists in the circumstances and the employees are effectively warned of the danger by an audible alarm or other effective means. The operator of a lifting device that is travelling with a load must ensure that the load is positioned as close to the ground or grade as possible.
- A person working at a workplace must not stand or pass beneath a suspended load unless the employee has been effectively warned of the danger and the operator of the lifting device knows the employee is under the suspended load.
- Release the load only after the stability of the load has been verified and loads shall be safely landed and supported before unhooking.

If a hoist or crane is designed to be operated with outriggers or other stabilizing devices M.A. DeAtley Construction shall ensure:

- The outriggers or other stabilizing devices are used in accordance with manufactures instructions.
- Are set on a solid footing or pad.
- Have their controls if any readily accessible to the operator and in a suitable position for safe operation.
- The area around the outriggers or other stabilizing devices is kept free of obstruction.
- There is a proper minimum clearance between any moving part of the crane and any obstacle near the base of the hoist or crane.
- Where there is a danger of an employee being trapped or crushed by any moving part of the crane when the crane swings, the area around the base of the crane is barricaded to restrict the entry of employees.

Log Book Procedure

The log book will be readily available at all times to the operator and to another employee concerned with the maintenance and safe operation of the equipment. The operator shall be responsible for recording defects, operating difficulties, the need for maintenance and all maintenance and alteration work performed. If the operator request they shall be given a copy of the log book.

The log books for the equipment at a project shall include the greater of the immediately preceding twelve months or the period the crane or similar hoisting device is on the project.

When not being operated the log book will be located in the operations office as designated for each work site by the Manager.

All log book entries shall, on a regular basis, be signed by the person who performs the inspection, maintenance or calibration and review.
The log book will include the following information:

- The date and time any work was performed on the hoist.
- Length of time in lifting service including hours of service.
- All defects and deficiencies and when they were detected.
- Details on all inspections, examinations, calibrations, checks and tests.
- Repairs or modifications performed or maintenance history.
- The record of certification.
- Details on any incident that may affect the safe operation of the equipment.

Inspections

Each crane and hoist must be inspected and maintained at a frequency and to the extent required to ensure that every component is capable of carrying out its original design function with an adequate margin of safety and is maintained in good working order. Inspections shall be conducted at regular intervals as recommended by the manufacturer and by law.

Records of inspection and maintenance must be kept by the equipment operator and other persons inspecting and maintaining the equipment, for the following types of lifting equipment:

- A crane or hoist with a rated capacity of 900kg (2200 lbs.) or more
- A crane or hoist used to support an employee
- A tower crane
- A mobile crane, boom truck or sign truck
- A side boom tractor or pipe layer
- A construction material hoist
- A chimney hoist

The following inspections shall occur at the indicated frequency:

New Equipment

Before being placed in service, new hoisting equipment, or hoisting equipment which has had modifications in the design or has undergone major repairs, shall be inspected and proof tested under the direction of a competent person who shall give the written warranty of the safe capacity of the equipment.

<u>Daily</u>

A visual inspection of the equipment will be conducted by a competent person prior to each shift. A competent person must conduct a visual inspection of equipment prior to each shift. The inspection must consist of observation for apparent deficiencies. Some inspection items shall include control mechanisms, pressurized lines, hooks and latches, wire rope, electrical apparatus, tires (when used), and ground conditions. The manufacturer's guidelines shall be followed.

The following will be tested at the beginning of each shift by the competent operator:

- Limit switches
- Brakes
- Circuit breakers
- Other safety devices

Any defects found during inspection or use of a crane or hoist must be recorded in the inspection and maintenance record system and be reported immediately to the supervisor, who must determine the course of action to be taken. If a defect affects the safe operation of the crane or hoist, the equipment must not be used until the defect has been remedied.

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Monthly

M.A. DeAtley Construction will ensure monthly inspections of equipment by a competent person are documented. Equipment must be inspected monthly by a competent person. The manufacturer's guidelines shall be followed. The inspection must be documented. Documentation must include the following:

- items checked
- results of inspection
- name and signature of the inspector

Documentation must be retained for 3 months. (Documented monthly inspection is not required if the daily inspection is documented and records are retained for 3 months).

Any defects must be corrected before the crane is used. The report must be dated and signed by the person performing the inspection.

Yearly

Once each year a more detailed inspection must be made of all hoisting equipment at each facility. After completing the annual inspection, a report must be completed and signed by the person performing the inspection and the report will be returned promptly to the Safety Manager.

All rigging work shall be assembled, used, maintained and dismantled under the direct supervision of a competent and qualified employees trained in safe rigging practices, in accordance with manufacturer's specifications and with the code of signals authorized by local regulatory guidelines for controlling hoisting operations.

Rigging Breaking Strength and Load Rating

The safe working-load on ropes, chains, slings and fittings shall not exceed the safe working-load recommended by the manufacturer.

Rigging fittings must be marked with the manufacturer's identification, product identifier and the working load limit (WLL) or sufficient information to readily determine the WLL. The WLL of existing fittings not identified must be determined by a qualified person, marked on the fitting and such fittings must be removed from service by January 1, 2001.

Rigging shall not be subjected to a load of more than 10% of the breaking strength of the weakest part of the rigging, if an employee is being raised or lowered 20% of the ultimate breaking strength of the weakest part of the rigging, and if the rigging is fatigue rated and an employee is not being raised or lowered the maximum load must not exceed 25% of the ultimate breaking strength.

M.A. DeAtley Construction may use a dedicated rigging assembly designed and certified for a particular lift or project by a professional engineer but the dedicated rigging assembly must be re-rated before it is used for another lift or project.

The maximum load rating of the rigging, as determined by the rigging manufacturer or a professional engineer must be legibly and conspicuously marked on the rigging. If it is not practicable to mark the rigging the maximum load rating of the rigging must be available to the employee at the work site.

All M.A. DeAtley Construction rigging and rigging equipment to be used during a work shift is to be inspected thoroughly prior to each period of continuous use during the shift to ensure the rigging is functional and safe by a competent person. All deteriorated or defective equipment will be immediately removed from service if it doesn't meet the below inspection requirements or rejection criteria.

<u>Slings</u>

- A wire rope sling with a swaged or poured socket or a pressed fitting must be permanently identified with its working load limit, the angle upon which the WLL is based and the name or mark of the sling manufacturer.
- An alloy steel chain sling must be permanently identified with the size, the manufacturer's grade and the WLL, the length and number of legs, and the name or make of the sling manufacturer.
- Synthetic fiber web slings must be permanently identified with the manufacturer's name or mark, manufacturer's code or stock number, working load limits for the types of hitches permitted, and type of synthetic web material or be removed from service if any of these requirements are not met.
- A sling shall be permanently removed from service if it is damaged or worn.
- All slings are to be clearly labeled to indicate the slings maximum load or the slings maximum load is made readily available to employees.
- A sling must be stored to prevent damage when not in use.
- When a sling is applied to a sharp edge of a load, the edge or the sling must be protected to prevent damage to the sling.

<u>Hooks</u>

- A worn or damaged hook must be permanently removed from service and M.A. DeAtley Construction shall not require or permit an employee to use a hook that is worn, damaged, deformed, cracked or otherwise defective or where the throat opening has been increased or the tip has been bent more than 10% out of plane from the hook body, or any dimension of the hook has been decreased by 10% or any damage exceeds any criteria specified by the manufacturer. <u>Note:</u> This is a higher standard than required in some locations.
- All hooks shall be clearly labeled with the maximum load of the hook in a location where an employee using the hook can easily see the rating or the hooks maximum load is made readily available to employees.
- A hook will have a safety latch, mousing or shackle if the hook could cause injury if it dislodged while in use.

All devices shall be visually inspected prior to use and removed from service for any of the following conditions:

- Nylon slings with:
 - Abnormal wear.
 - Torn stitching.
 - Broken or cut fibers.
 - Discoloration or deterioration.

- Wire rope slings with:
 - Kinking, crushing, bird caging, or other distortions.
 - Evidence of heat damage.
 - Cracks, deformation, or worn end attachments.
 - Hooks opened more than 10% at the throat.
 - Hooks twisted sideways more than 10 degrees from the plane of the unbent hook.
- Alloy steel chain slings with:
 - Cracked, bent, or elongated links or components.
 - Cracked hooks.
 - Shackles, eye bolts, turnbuckles, or other components that are damaged or deformed.

Operational Procedures

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- Rigging shall not be subjected to loads more than outlined in legislative requirements. M.A. DeAtley Construction will ensure the maximum load rating of the rigging is available to the employees at the work site.
- Wire rope, alloy steel chain, synthetic fiber rope, metal mesh slings, and synthetic fiber slings shall meet the requirements of ASME Standard B30.9-2006, Safety Standard for Cableways, Cranes, Derricks, Hoists, Hooks, Jacks and Slings (or current version). Below-the-hook lifting devices, other than slings shall meet the requirements of ASME Standard B30.20-2006, Below the Hook Lifting Devices (or current version).
- Loads to be unhooked by an employee must be safely landed and supported before the rigging is detached.
- The determination of the working load limit (WLL) of a sling assembly must ensure that the WLL of any individual component of the assembly is not exceeded.
- All slings used to hoist a load and the slings fitting and attachments must be in compliance with legislated standards and capable of supporting at least 10 times the load to which the slings fittings, and attachments may be subjected to where they are used to support an employee, and at least five times the maximum load to which they may be subjected in any other case.
- No shackles shall be subjected to a load greater than the maximum load indicated on the shackle, and all shackle pins are installed to prevent accidental withdrawal, and a bolt is never used in the place of a properly fitted shackle pin.
- All hooks shall have a safety latch, mousing, or shackle if the hook could cause injury if it is dislodged while in use.
- Where an employee may be endangered by the rotation or motion of a load during hoisting one more tag lines must be used to control the rotation or motion of the load and the tag lines will be of sufficient length to protect the employees from any overhead hazard and the tag lines are not removed from the load until the load is securely landed.

Rigging a Load

- Determine the weight of the load do not guess.
- Determine the proper size for slings and components.
- Do not use manila rope for rigging.
- Ensure that shackle pins and shouldered eyebolts are installed in accordance with the manufacturer's recommendations.
- Ensure that ordinary (shoulder-less) eyebolts are threaded in at least 1.5 times the bolt diameter.
- Use safety hoist rings (swivel eyes) as preferred substitute for eye bolts wherever possible.
- Pad sharp edges to protect slings.
- Remember that machinery foundations are angle-iron edges may not feel sharp to the touch but could cut into rigging when under several tons of load.
- Wood, tire rubber, or other pliable materials may be suitable for padding.
- Do not use slings, eyebolts, shackles, or hooks that have been cut, welded, or brazed.
- Install wire-rope clips with the base only on the live end and the U-bolt only on the dead end.

- Follow the manufacturer's recommendations for the spacing for each specific wire size.
- Determine the center of gravity and balance the load before moving it.
- Initially lift the load only a few inches to test the rigging and balance.

Signaling:

A signal person must be provided if the operator's view is obstructed, if site specific safety concerns require it, or if the operator determines that it is necessary. A signal person must be provided for the following situations:

- The point of operation is not in full view of the operator,
- The view is obstructed when the equipment is traveling, or
- The operator or the person handling the load determines it is necessary due to site specific concerns.

Signals to the operator shall be in accordance with the standard hand. Specific requirements include:

- Each movement of equipment shall be proceeded by distinctive signals clearly discernible to all employees endangered by the movement and clearly distinguishable by the operator of the equipment controlled, and a signal which is not understood clearly by the operator of the equipment shall be acted upon by him or her as though it were a stop signal.
- An employee shall not cause a signal to be given for the movement off equipment unless he or she has ensured that he or she and all employees within the area for which he or she is responsible are not endangered by the movement.
- Only a designated employee shall cause a signal to be given for the movement of equipment, but employees may cause a stop signal to be given and this signal shall be obeyed promptly and without question.
- An employee designated to direct the movement of equipment shall not be otherwise occupied while the equipment is in motion and he or she shall be prepared to signal to stop during the motion.
- A signaling device that functions unreliably or in a way that might constitute a hazard to an employee shall be removed from service immediately.
- Signals shall be discernible or audible at all times.
- Some special operations may require addition to or modification of the basic signals.
- For all such cases, these special signals shall be agreed upon and thoroughly understood by both the person giving the signals and the operator, and shall not be in conflict with the standard signals.

Training:

Training shall include:

- Documentation of employee, date of training and subject matter, including method used to test knowledge of material.
- No employee shall operate cranes or equipment covered by this program until training has been complete and management has approved and designated him or her as a qualified operator.

M.A.DeAtley Construction

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Date of Inspection	Serial Number of Sling	Type of Sling (2- legged, 3- legged, etc.)	Type of Material (chain, wire, rope, synthetic)	Date Purchased	Date of Last Inspection	Sling Condition (Excellent, Good, Bad) Note: a sling with a Bad rating must be removed from service.	Date of Repaired (if applicable)	Date Removed from Service	Inspected by:

Sling Inspection Form

M.A. DeAtley CONSTRUCTION, INC.

LADDERS

1.0 Purpose

The purpose of the program is to prescribe rules and establish minimum requirements for the construction, care, and use of the common types of ladders.

All ladders that are purchased and placed into service; or, any ladders that are engineered, manufactured and installed on any M.A. DeAtley Construction equipment shall follow the requirements set forth by this program.

2.0 Scope

This program is applicable to all employees who may utilize ladders. When work is performed on a non-owned or operated site, the operator's program shall take precedence, however, this document covers M.A. DeAtley Construction employees and contractors and shall be used on owned premises, or when an operator's program doesn't exist or is less stringent.

3.0 Definitions

Ladder - an appliance usually consisting of two side rails joined at regular intervals by cross- pieces called steps, rungs, or cleats, on which a person may step in ascending or descending.

Stepladder - a self-supporting portable ladder, nonadjustable in length, having flat steps and a hinged back. Its size is designated by the overall length of the ladder measured along the front edge of the side rails.

Single ladder - a non-self-supporting portable ladder, nonadjustable in length, consisting of but one section. The overall length of the side rail designates its size.

Extension ladder - a non-self-supporting portable ladder adjustable in length. It consists of two or more sections traveling in guides or brackets so arranged as to permit length adjustment. Its size is designated by the sum of the lengths of the sections measured along the side rails.

Fixed ladder - a ladder permanently attached to a structure, building, or equipment.

Individual-rung ladder - a fixed ladder each rung of which is individually attached to a structure, building, or equipment.

Cage - a guard that may be referred to as a cage or basket guard, which is an enclosure that is fastened to the side rails of the fixed ladder or to the structure to encircle the climbing space of the ladder for the safety of the person who must climb the ladder.

4.0 Key Responsibilities

Managers and Supervisors

- Managers and supervisors are responsible for ensuring that all employees, and/or contractors have been trained in the use and inspection of ladders in accordance to the manufactures guidelines.
- Managers and supervisors are responsible for ensuring that all employees and contractors are aware that if an inspection discovers a defect, the ladder shall not be used and taken out of service.

Employees

- Employees shall inspect ladders prior, during and at the completion of each use to ensure the condition of the ladder and the safety of its occupants.
- Employees are responsible for following this program and reporting any damage or repairs that may be needed to their supervisor.

5.0 Procedure

Inspection, Care and Safe Work Practices of Ladders

Inspection

Ladders shall be inspected by a competent person for visible defects on a periodic basis and after any occurrence that could affect their safe use.

- Ladder rungs must be uniformly spaced or meet OSHA/ANSI specifications. Ladder rungs, cleats, and steps shall be parallel, level, and uniformly spaced, when the ladder is in position for use.
- Portable and fixed ladders with structural defects, such as, but not limited to, broken or missing rungs, cleats, or steps, broken or split rails, corroded components, or other faulty or defective components, shall either be immediately marked in a manner that readily identifies them as defective, or be tagged with "Do Not Use" or similar language, and shall be withdrawn from service until repaired
- If a ladder is tipped over, it shall be inspected by a competent person for side rail dents or bends, or excessively dented rungs; check all rung to side rail connections; check hardware connections; check rivets for shears.
- Ladders with broken or missing steps, rungs, or cleats, broken side rails, or other faulty equipment shall not be used; improvised repairs shall not be made.
- All wood parts shall be free from sharp edges and splinters; sound and not painted.

<u>Care</u>

- Ladders shall be maintained in good condition at all times, the joint between the steps and side rails shall be tight, all hardware and fittings securely attached, and the movable parts shall operate freely without binding or undue play.
- Metal bearings of locks, wheels, pulleys, etc., shall be frequently lubricated.
- Frayed or badly worn rope shall be replaced. Safety feet and other auxiliary equipment shall be kept in good condition to ensure proper performance.
- Rungs shall be kept free of grease and oil.
- Ladders shall be stored in a well-ventilated area in a manner to prevent sagging and warping.

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- Ladders shall be used only for the intended purpose for which they were designed.
- The ladder shall be secured at the top or held by another person at the base.
- The footing of the ladder shall be placed on a stable and level surface.
- Extension ladders shall be placed at a 4:1 ratio. Ladders shall be used at an angle such that the horizontal distance from the top support to the foot of the ladder is approximately one-quarter of the working length of the ladder (the distance along the ladder between the foot and the top support.
- When ladders are not able to be extended then the ladder shall be secured at its top to a rigid support that will not deflect.
- Ladders shall not be placed on boxes, barrels, or other unstable bases to obtain additional height.
- Ladders shall not be used in a horizontal position as platforms, runways, or scaffolds.
- Ladders shall not be used by more than one man at a time.
- Ladders shall not be placed in front of doors opening toward the ladder unless the door is blocked open, locked, or guarded.
- If a ladder is used in a high traffic area, barricades shall be placed to avoid accidental displacement due to collisions.
- Do not stand on the top two rungs or top of step ladders.

On two-section extension ladders the minimum overlap for the two sections in use shall be as follows:

Size of Ladder (feet)	Overlap (feet)			
Up to and including 36'	3			
Over 36 up to and including 48'	4			
Over 48 up to and including 60'	5			

- Ladders shall extend a minimum of 3 feet above top of upper landing surface. The ladder side rails shall extend at least 3 feet (.9m) above the upper landing surface. When ladders are not able to be extended then the ladder shall be secured at its top to a rigid support that will not deflect.
- The employee shall maintain a three (3)-point grip on the ladder at all times and carry tools/equipment on a belt or hoist up. Do not carry anything in the hands that could cause injury in case of fall.
- The employee shall face the ladder while ascending or descending.
- The bracing on the back legs of stepladders is designed solely for increasing stability and not for climbing.
- The ladder shall not be moved while occupied.

Sling Inspection Form

Portable Ladders

LADDERS

Stepladders shall not be longer than 20 feet. Single ladders shall not be longer than 30 feet.

A two-section extension ladders shall not be longer than 60 feet. All ladders of this type shall consist of two sections, one to fit within the side rails of the other, and arranged in such a manner that the upper section can be raised and lowered.

Keep all ladders at least ten (10) feet away from power lines.

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Ladders shall have the correct load capacity for the task and not be loaded beyond the maximum intended load for which they were built nor in excess of the manufacturer's rated capacity. Weight includes the combined weight of the climber and his tools/equipment. Ladders are rated as the following:

- I (holds 250 Ibs)
- I-A (holds 300 Ibs)
- II (holds 225 Ibs)
- III (holds 200 Ibs)

Fixed Metal Ladders

Ladders shall be constructed to withstand a minimum of 200 pounds.

All metal rungs shall have a minimum diameter of $\frac{3}{4}$ inches and wooden rungs shall have a minimum diameter of 1 1/8 inches.

Rungs shall not be more than 12 inches apart and shall be uniform throughout the length of the ladder.

Rungs shall be a minimum length of 16 inches and provide protection so a foot cannot slip off the end.

Rungs shall have a minimum of 7 inches between itself and the structure behind it.

A fall restraint system must be provided for all fixed ladders greater than six feet in length.

- A Cage is required when the fixed ladder is at least twenty feet tall.
- Cages on fixed ladders shall not begin at a point less than 7 feet nor greater than 8 feet from the walking surface below the cage.
- Cages shall provide a clear width of 15 inches in each direction of the rung's centerline.
- Cages shall not extend less than 27 inches, but not greater than 28 inched from the centerline of the rung.
- A climbing fall restraint system may be substituted for a ladder cage.

M.A. DeAtley CONSTRUCTION, INC.

Hand and Power Tools

1.0 Purpose

The purpose of this program is to provide establish requirements for the safe operation of hand and power tools and other portable tools, including proper guarding. All hand and power tools shall be maintained in a safe condition.

This program applies to all M.A. DeAtley Construction employees who use hand and power tools.

2.0 Scope

This program is applicable to all M.A. DeAtley Construction employees while engaged in work at M.A. DeAtley Construction facilities and/or facilities operated by others.

3.0 Responsibilities

Any tool which is not in compliance with any applicable requirement of this plan is prohibited and shall either be identified as unsafe by tagging or locking the controls to render them inoperable or shall be physically removed from its place of operation.

Managers/Supervisors

- Ensure that all employees using portable tools have been trained and fully understand the operations and maintenance procedures of such tools, including their proper use.
- Provide and train employees with all additional PPE that may be needed for the safe operation of portable tools.

Employees

- Shall ensure they have and properly use the correct tool for each task.
- Shall follow manufactures safety and operating instructions before using

4.0 Requirements

General

All tools, regardless of ownership, shall be of an approved type and maintained in good condition.

- Tools are subject to inspection at any time.
- All employees have the authority and responsibility to condemn unsafe tools, regardless of ownership.

Unsafe tools shall be tagged with a "DO NOT USE OR OPERATE" tag to prevent their use.

Employees shall always use the proper tool for the job to be performed. Makeshift and substitute tools shall not be used.

Hammers with metal handles, screwdrivers with metal continuing through the handle, and metallic measuring tapes shall not be used on or near energized electrical circuit or equipment.

Tools shall not be thrown from place to place or from person to person; tools that must be raised or lowered from one elevation to another shall be placed in tool bags/buckets firmly attached to hand lines.

Tools shall never be placed unsecured on elevated places.

Impact tools such as chisels, punches, and drift pins that become mushroomed or cracked shall be dressed, repaired, or replaced before further use.

Chisels, drills, punches, ground rods, and pipes shall be held with suitable holders or tongs (not with the hands) while being struck by another employee.

Shims shall not be used to make a wrench fit.

Wrenches with sprung or damaged jaws shall not be used.

Tools shall be used only for the purposes for which they have been approved.

Tools with sharp edges shall be stored and handled so that they will not cause injury or damage. They shall not be carried in pockets unless suitable protectors are in use to protect the edge. They shall not be carried in pockets unless suitable protectors are in use to protect the edge.

Wooden handles that are loose, cracked, or splintered shall be replaced. The handle shall not be taped or lashed with wire.

Tools shall not be left lying around where they may cause a person to trip or stumble.

When working on or above open grating, a canvas or other suitable covering shall be used to cover the grating to prevent tools or parts from dropping to a lower level where others are present or the danger area shall be barricaded or guarded.

The insulation on hand tools shall not be depended upon to protect users from high voltage shock (except approved live line tools).

Portable Electric Tools

The non-current carrying metal parts of portable electric tools such as drills, saws, and grinders shall be effectively grounded when connected to a power source unless:

- The tool is an approved double-insulated type, or
- The tool is connected to the power supply by means of an isolating transformer or other isolated power supply.

All powered tools shall be examined prior to use to ensure general serviceability and the presence of all applicable safety devices.

Powered tools shall be used only within their design and shall be operated in accordance with manufacturer's instructions. The use of electric cords for hoisting or lowering tools shall not be permitted.

All tools shall be kept in good repair and shall be disconnected from the power source while repairs or adjustments are being made.

Electrical tools shall not be used where there is hazard of flammable vapors, gases, or dusts without a valid Hotwork Permit.

Ground fault circuit interrupters or use of an Assured Grounding Program shall be used with portable electric tools. This does not apply to equipment run off of portable or truck mounted generators at 5kw or less that are isolated from ground or to equipment ran directly off of secondaries.

Pneumatic Tools

Pneumatic tools shall never be pointed at another person.

Pneumatic power tools shall be secured to the hose or whip by some positive means to prevent the tool from becoming accidentally disconnected.

Safety clips or retainers shall be securely installed and maintained on pneumatic impact (percussion) tools to prevent attachments from being accidentally expelled.

Compressed air shall not be used for cleaning purposes, except where reduced to less than 30 psi and then only with effective chip guarding and personal protective equipment.

Compressed air shall not be used to blow dust or dirt from clothing.

The manufacturers stated safe operating pressure for hoses, pipes, valves, filters, and other fitting shall not be exceeded.

The use of hoses for hoisting or lowering tools shall not be permitted.

Before making adjustments or changing air tools, unless equipped with quick-change connectors, the air shall be shut off at the air supply valve ahead of the hose. The hose shall be bled at the tool before breaking the connection.

Compressed air tools, while under pressure, must not be left unattended.

All connections to air tools shall be made secure before turning on air pressure.

Air at the tool shall not be turned on until the tool is properly controlled.

All couplings and clamps on pressurized air hose shall be bridged (pinned) with suitable fasteners.

Hose and hose connections used for conducting compressed air to utilization equipment shall be designed for the pressure and service to which they are subjected.

Use only approved end-fitting clamps (screw type heater hose clamps are not acceptable).

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While blowing down hose, do not point it toward people.

Power tools are to be operated only by competent persons who have been trained in their proper use.

Conductive hose should not be used near energized equipment.

Foot protection shall be worn while operating paving breakers, tampers, rotary drills, clay spades, and similar impactor-type tools or at other times when instructed by supervision.

All pneumatically driven nailers, staplers, and other similar equipment provided with automatic fastener feed, which operate at more than 100 psi. pressure at the tool shall have a safety device on the muzzle to prevent the tool from ejecting fasteners, unless the muzzle is in contact with the work surface.

Airless spray guns of the type which atomize paints and fluids at high pressures (1,000 pounds or more per square inch) shall be equipped with automatic or visible manual safety devices which will prevent pulling of the trigger to prevent release of the paint or fluid until the safety device is manually released.

In lieu of the above, a diffuser nut (which will prevent high pressure), high velocity release (while the nozzle tip is removed), plus a nozzle tip guard (which will prevent the tip from coming into contact with the operator), or other equivalent protection, shall be provided.

Powder Actuated Tools (Tools actuated by an explosive charge)

Only those employees who have been certified in their use shall operate these tools.

Explosive charges shall be carried and transported in approved containers.

Operators and assistants using these tools shall be protected by means of eye, face, and hearing protection.

Tools shall be maintained in good condition and serviced regularly by qualified persons. The material upon which these tools are to be used shall be examined before work is started to determine its suitability and to eliminate the possibility of hazards to the operator and others.

Prior to use, the operator shall ensure that the protective shield is properly attached to the tool.

Before using a tool, the operator shall inspect it to determine to his satisfaction that it is clean, that all moving parts operate freely, all guards and safety devices are in place, and that the barrel is free from obstructions.

Before using tools the operator shall read and become familiar with the manufacturers operating guidelines and procedures.

When a tool develops a defect during use, the operator shall immediately cease to use it, until it is properly repaired in accordance with the manufactures specifications.

Tools shall not be loaded until just prior to the intended firing time, nor shall an unattended tool be left loaded. Empty tools are to be pointed at any workmen. In case of a misfire, the operator shall hold the tool in the operating position for at least 30 seconds. He shall then try to operate the tool a second time. He shall wait another 30 seconds, holding the tool in the operating position; then he shall proceed to remove the explosive load in strict accordance with the manufacturer's instructions.

A tool shall never be left unattended in a place where it would be available to unauthorized persons.

Fasteners shall not be driven into very hard or brittle materials including, but not limited to, cast iron, glazed tile, surface hardened steel, glass block, live rock, face brick, or hollow tile.

Driving into materials easily penetrated shall be avoided unless such materials are backed by a substance that will prevent the pin or fastener from passing completely through and creating a flying missile hazard on the other side.

Tools shall not be used in an explosive or flammable atmosphere.

Hydraulic Power Tools

The fluid used in hydraulic powered tools shall be fire-resistant fluids approved under Schedule 30 of the U.S. Bureau of Mines, Department of the Interior, and shall retain its operating characteristics at the most extreme temperatures to which it will be exposed.

The manufacturer's safe operating pressures for hoses, valves, pipes, filters, and other fittings shall not be exceeded.

All hydraulic tools, which are used on or around energized lines or equipment, shall use non-conducting hoses having adequate strength for the normal operating pressures.

Hydraulic Jacks

Loading and Marking

- The operator shall make sure that the jack used has a rating sufficient to lift and sustain the load.
- The rated load shall be legibly and permanently marked in a prominent location on the jack by casting, stamping, or other suitable means.

Operation and Maintenance

- In the absence of a firm foundation, the base of the jack shall be blocked. If there is a possibility of slippage of the cap, a block shall be placed in between the cap and the load.
- The operator shall watch the stop indicator, which shall be kept clean, in order to determine the limit of travel. The indicated limit shall not be overrun.
- After the load has been raised, it shall be cribbed, blocked, or otherwise secured at once.
- Hydraulic jacks exposed to freezing temperatures shall be supplied with adequate antifreeze liquid.
- All jacks shall be properly lubricated at regular intervals.

Each jack shall be thoroughly inspected before each use. Jacks, which are in unsafe condition, shall be tagged accordingly, and shall not be used until repairs are made.

Abrasive Blast Cleaning Nozzles

The blast cleaning nozzles shall be equipped with an operating valve, which must be held open manually. A support shall be provided on which the nozzle may be mounted when it is not in use.

Fuel Powered Tools

All fuel-powered tools shall be stopped while being refueled, serviced, or maintained, and fuel shall be transported, handled, and stored in accordance with the Flammable and Combustible Liquids Program.

When fuel powered tools are used in enclosed spaces, the applicable requirements for concentrations of toxic gases and use of personal protective equipment, shall be adhered too.

Guarding Portable Tools

Guards shall be in place and operable at all times while the tool is in use. The guard may not be manipulated in such a way that will compromise its integrity or compromise the protection in which intended. Guarding shall meet the requirements set forth in ANSI B15.1.

Portable Circular Saws

- All portable, power-driven circular saws having a blade diameter greater than 2 in. shall be equipped with guards above and below the base plate or shoe.
- The upper guard shall cover the saw to the depth of the teeth, except for the minimum arc required to permit the base to be tilted for bevel cuts.
- The lower guard shall cover the saw to the depth of the teeth, except for the minimum arc required to allow proper retraction and contact with the work.
- When the tool is withdrawn from the work, the lower guard shall automatically and instantly return to covering position.
- All cracked saw blades shall be removed from service.

Switches and Controls

- All hand held powered tools, circular saws, drills, tappers, fastener drivers, horizontal or vertical angle grinders, etc., shall be with a constant pressure switch or control, and may have a lock-on control provided that turnoff can be accomplished by a single motion of the same finger or fingers that turn it on.
- All hand-held powered circular saws having a blade diameter greater than 2 inches, electric, hydraulic or pneumatic chain saws, and percussion tools without positive accessory holding means shall be equipped with a constant pressure switch or control that will shut off the power when the pressure is released. All hand-held gasoline powered chain saws shall be equipped with a constant pressure throttle control that will shut off the power to the saw chain when the pressure is released.
- The operating control on hand-held power tools shall be so located as to minimize the possibility of its accidental operation, if such accidental operation would constitute a hazard to employees.
- Grounding of portable electric powered tools shall meet the electrical requirements that can be found in the Electrical Safety Program. All electric power tools shall be equipped with a three-prong plug.

Portable Abrasive Wheels

Safety Guards Exceptions

- Wheels used for internal work while within the work being ground.
- Mounted wheels used in portable operations 2 inches and smaller in diameter.
- Types 16, 17, 18, 18R, and 19 cones, plugs, and threaded hole pot balls where the work offers protection.
- Guards shall be made of steel or other material with adequate strength.
- A safety guard shall cover the spindle end, nut and flange projections. The safety guard shall be mounted so as to maintain proper alignment with the wheel, and the strength of the fastenings shall exceed the strength of the guard.
- Exception: safety guards on all operations where the work provides a suitable measure of protection to the operator may be so constructed that the spindle end, nut and outer flange are exposed. Where the nature of the work is such as to entirely cover the side of the wheel, the side covers of the guard may be omitted.
- Exception: the spindle end, nut, and outer flange may be exposed on portable machines designed for, and used with, type 6, 11, 27, and 28 abrasive wheels, cutting off wheels, and tuck pointing wheels.

Mounting and Inspection of Abrasive Wheels

- Immediately before mounting, all wheels shall be closely inspected and a ring test performed, to make sure they have not been damaged in transit, storage, or otherwise.
- Ring test "tap" wheels about 45 degrees each side of the vertical centerline and about 1 or 2 inches from the periphery; then rotate the wheel 45 degrees and repeat the test; a sound and undamaged wheel will give a clear metallic tone If cracked, there will be a dead sound and not a clear "ring."
- The spindle speed of the machine shall be checked before mounting of the wheel to be certain that it does not exceed the maximum operating speed marked on the wheel.
- Grinding wheels shall fit freely on the spindle and remain free under all grinding conditions.
- A controlled clearance between the wheel hole and the machine spindle (or wheel sleeves or adaptors) is essential to avoid excessive pressure from mounting and spindle expansion.
- The machine spindle shall be made to nominal (standard) size plus zero minus .002 inch, and the wheel hole shall be made suitably oversize to assure safety clearance under the conditions of operating heat and pressure.
- All contact surfaces of wheels, blotters, and flanges shall be flat and free of foreign matter.
- When a bushing is used in the wheel hole it shall not exceed the width of the wheel and shall not contact the flanges.

Portable Grinders

Special "revolving cup guards" which mount behind the wheel and turn with it shall be used. They shall be made of steel or other material with adequate strength and shall enclose the wheel sides upward from the back for one-third of the wheel thickness. It is necessary to maintain clearance between the wheel side and the guard. The clearance shall not exceed one-sixteenth inch.

Vertical portable grinders, also known as right angle grinders, shall have a maximum exposure angle of 180 degrees and the guard shall be located between the operator and the wheel during use. Adjustment of the guard shall ensure that pieces of an accidentally broken wheel will be deflected away from the operator.

Other Portable Grinders

The maximum angular exposure of the grinding wheel periphery and sides for safety guards used on other portable grinding machines shall not exceed 180 degrees and the top half of the wheel shall be enclosed at all times.

Personal Protective Equipment

Employees using hand and power tools and exposed to the hazard of falling, flying, abrasive, and splashing objects, or exposed to harmful dust, fumes, mists, vapors or gases shall be provided with the particular PPE necessary to protect them from the hazard.

M.A. DeATLEY CONSTRUCTION, INC.

Voluntary Use for Filtering Face-Piece Respirators

1.0 Purpose:

This plan will not be used when it has been determined that Engineering Controls alone are ineffective in removing or suppressing an airborne hazard and it becomes necessary for the required use of PPE. At the time that is determined it will be the Project Superintendent and or the Safety Manager to require the use of approved Respiratory Protection and the companies Respiratory Protection Plan <u>shall be utilized.</u>

2.0 Scope:

It is M.A. DeAtley Inc. responsibility to make sure that voluntarily used filteringfacepiece respirators are utilized in such a manner so as not to create a hazard to the wearer. The following are steps to take to prevent such a hazard.

3.0 Usage:

Make sure that voluntary use does NOT:

- a. Interfere with an employee's ability to work safely, such as restricting vision or radio communication
- b. Create health hazards.
 - Skin irritation, dermatitis, or other health effects caused by using a dirty respirator.
 - Illness created by sharing contaminated respirators.
- c. It is the companies recommendation that disposable filtering-facepiece respirators are not shared between employees, the company will provide disposable NIOSH approved filtering-facepiece respirators (dust masks) for employees who wish to voluntarily use them.

4.0 Advisory Information for employees who voluntarily use Respirators:

Respirators protect against airborne hazards when properly selected and used. Respirator usage that is required by DOSH or M.A. DeAtley Inc. is not voluntary use. Utilize company's Respiratory Protection Plan for required usage. DOSH (Department of Occupational Safety & Health) recommends voluntary use of respirators when exposure to substances is below DOSH permissible exposure limits (PELs) because respirators can provide you an additional level of comfort and protection.

If you choose to voluntarily use a respirator (whether it is provided by you or M.A. DeAtley) be aware that respirators can create hazards for you, the user. You can avoid these hazards if you know how to use your respirator properly and how to keep it clean. Take these steps:

- Read and follow all instructions provided by the manufacturer about use, maintenance (cleaning and care), and warnings regarding the respirators limitations.
- Choose respirators that have been certified for use to protect against the substance of concern. The National Institute for Occupational Safety and Health (NIOSH) certifies respirators. If a respirator is not certified by NIOSH, you have no guarantee that it meets minimum design and performance standards for your workplace use.
- A NIOSH approval label will appear on or in the respirator packaging. It will tell you what protection the respirator provides.
- Keep track of your respirator so you do not mistakenly use someone else's.
- DO NOT wear your respirator into required use situations when you are only allowed voluntary use or atmospheres containing hazards that your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against solvent vapor, smoke or an oxygen deficient atmosphere.