SAFETY MANUAL

MIKE SCOTT PLUMBING INC

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Table of Contents

POLICY STATEMENT ON SAFETY 1
DUTIES AND RESPONSIBILITIES 2
ASSURED EQUIPMENT GROUNDING 4
BLOODBORNE PATHOGENS 6
DISCIPLINARY PROGRAM 11
DRIVING SAFETY 15
ELECTRICAL SAFETY AWARENESS 18
EMERGENCY ACTION PLAN 24
FALL PROTECTION 26
FIRE PREVENTION/ EXTINGUISHERS 29
FIRST AID 32
GENERAL SAFETY 34
GENERAL WASTE MANAGEMENT 38
HAND AND POWER TOOLS PROGRAM 45
HAZARD COMMUNICATION 51
HAZARDOUS WASTE OPERATIONS/ EMERGENCY RESPONSE 58
HEAT ILLNESS PREVENTION 64
HYDROGEN SULFIDE PROGRAM 67
INCIDENT INVESTIGATION AND REPORTING 72
INJURY AND ILLNESS RECORDKEEPING 78
LADDER SAFETY 79
LOCKOUT TAGOUT PROGRAM 83
NOISE EXPOSURE & HEARING CONSERVATION 89
NON-DOT DRUG & ALCOHOL POLICY 92
PPE PROGRAM 95
RESPIRATORY PROTECTION PROGRAM 101
RIGGING MATERIAL HANDLING 115
RISK ASSESSMENT 117
SPILL PREVENTION/ RESPONSE 120
WELDING, CUTTING, HOT WORK 130

POLICY STATEMENT ON SAFETY

The management of this MIKE SCOTT PLUMBING INC is very interested in & committed to working with you to provide a safe place in which to work. The prevention of accidents and injuries to our employees is the prime objective.

All MIKE SCOTT PLUMBING INC personnel are expected to take an active and constant interest in the prevention of accidents. We call upon all employees to use good common sense and in all their actions, take a second to think of the consequences to your fellow employees. We cannot overemphasize that all employees must do their part to minimize accidents.

Please show your support by demonstrating the following:

1. FOLLOWING MIKE SCOTT PLUMBING INC SAFETY RULES.
2. KEEPING WORK AREAS FREE OF UNSAFE CONDITIONS.
3. AVOIDING AND ELIMINATING UNSAFE ACTS.
4. PROMPTLY REPORTING UNSAFE ACTS AND CONDITIONS.
5. REPORTING ALL INCIDENTS IMMEDIATELY.

Accidents cause suffering and pain. We value each of you as individuals and hope you will cooperate with us in this important endeavor.

Any constructive criticism or suggestions toward improving safety on any of our jobs will be given prompt and careful consideration.

Sincerely,

Christina Archer
Safety Manager

Safety Manual Revised On: 07-10-2017

DUTIES AND RESPONSIBILITIES

A successful Safety Management System can only be achieved and maintained when there is active interest, participation, and accountability at all levels of the organization. To ensure this, MIKE SCOTT PLUMBING INC, delegates the following safety duties to all management personnel. In some cases employees will need to perform safety duties outside their regular responsibilities to prevent accidents.

The Safety Manager must plan, organize, and administer the program by establishing policy, setting goals and objectives, assigning responsibility, motivating subordinates, and monitoring results. MIKE SCOTT PLUMBING INC management will support and maintain an ongoing Safety and Injury and Illness Prevention Program through the following:

1. Providing clear understanding and direction to all management and employees regarding the importance of safety through the development, implementation, monitoring and revision of policy and procedures.
2. Providing financial support for the Safety / Injury and Illness Prevention Program through the provision of adequate funds for the purchase of necessary safety materials, safety equipment, proper personal protective equipment, adequate time for employee safety training, and maintenance of tools and equipment.
3. Overseeing development, implementation, and maintenance of the safety manual, IIPP, and other required safety programs.
4. Maintaining a MIKE SCOTT PLUMBING INC commitment to accident prevention by expecting safe conduct on the part of all managers, supervisors, and employees.
5. Holding all levels of management and employees accountable for accident prevention and safety.
6. Reviewing all accident investigations to determine corrective action.

Managers and Supervisors play a key role in the prevention of accidents on the job. They have direct contact with the employees and know the safety requirements for various jobs. Safety responsibilities for these individuals include:

1. Enforce all safety program content and ensure safe work procedures.
2. Verifying corrective action has been taken regarding safety hazards and accident investigations.
3. Conducting periodic documented inspections of the work sites to identify and correct unsafe actions and conditions that could cause accidents.
4. Act as a leader in MIKE SCOTT PLUMBING INC safety policy and setting a good example by following all safety rules.
5. Becoming familiar with local, state, and federal safety regulations. The EHS Manager is available for assistance.
6. Train all new and existing employees in proper safety procedures and the hazards of the job.
7. Instruct all employees, under their supervision, in safe work practices and job safety requirements.
8. Hold weekly safety meetings with employees.
9. Ensure employee proficiency when assigning work requiring specific knowledge, special operations or equipment.
10. Ascertain that all machinery, equipment, and workstations are maintained in safe working condition and operate properly.
11. Correct unsafe acts and conditions that could cause accidents.
12. Communicate with all employees about safety and accident prevention activities.
13. Correct the cause of any accident as soon as possible.
14. Ascertain that proper first aid and firefighting equipment is maintained and used when conditions warrant its use.
15. Maintain good housekeeping conditions at all times.
16. Investigate all injuries and accidents to determine their cause and potential corrective action.

17. Ascertain that all injuries involving our employees that require medical attention are properly treated and promptly reported to the office.

The Safety Manager acts as a safety resource for MIKE SCOTT PLUMBING INC and is responsible for maintaining program records. They will also be our primary person to deal with outside agencies regarding the safety program and its contents. Additional duties include:

1. Coordination of all loss prevention activities as a representative of management. Acting as a consultant to management in the implementation and administration of the Safety Program.
2. Develop and implement loss prevention policies and procedures designed to insure compliance with the applicable rules and regulations of all federal, state, and local agencies.
3. Review all accident reports to determine cause and preventability.
4. Conduct periodic reviews of the program and job sites to evaluate performance, discuss problems and help solve them.
5. Consult with representatives of our insurance companies in order that their loss control services will support the Safety Program.
6. Review Workers' Compensation Claims. Help supply the insurance carrier with information about injured employees in order to keep loss reserves as low as possible.

Every employee is responsible for working safely, both for self-protection and for protection of fellow workers. Employees must also support all MIKE SCOTT PLUMBING INC safety efforts. Specific employee safety responsibilities include:

1. If you are unsure how to do any task safely, ask your supervisor.
2. Read and abide by all requirements of the Safety Manual.
3. Know and follow the Code of Safe Practices and all MIKE SCOTT PLUMBING INC safety policies and rules.
4. Wear all required personal protective equipment.
5. Report all accidents and injuries, no matter how minor, to your supervisor immediately.
6. Do not operate any equipment you have not been trained and authorized to use.
7. Report any safety hazards or defective equipment immediately to your supervisor.
8. Do not remove, tamper with or defeat any guard, safety device or interlock.
9. Never use any equipment with inoperative or missing guards, safety devices or interlocks.
10. Never possess, or be under the influence of, alcohol or controlled substances while on the premises.
11. Never engage in horseplay or fighting.
12. Participate in, and actively support, MIKE SCOTT PLUMBING INC safety program.

ASSURED EQUIPMENT GROUNDING

Purpose

The purpose of this program is to eliminate potential hazards presented by the use of power equipment, power equipment cords, extension cords, receptacles and other related equipment.

Scope

This program applies to all MIKE SCOTT PLUMBING INC employees, contractors and subcontractors who work with, on or near electrical tools or equipment. This program also applies to all MIKE SCOTT PLUMBING INC work sites where MIKE SCOTT PLUMBING INC employees, contractors and subcontractors are present.

Responsibilities

Safety Manager

- Responsible for assured equipment grounding program execution.
- Keep abreast of current regulations and revise the program when necessary.
- Perform annual audits of this program to ensure adequacy.
- Serve as a competent person.

Supervisors

- Serve as competent persons for this program.
- Execute this program entirely where applicable.
- Ensure that visual inspections are performed on electrical equipment and repair or replace removed, tagged or defective equipment as soon as possible.
- Enforce general compliance with this program.

Employees

- Comply with all procedures in this program.
- Perform visual inspections of electrical tools, equipment and energy sources.
- Remove and tag defective electrical equipment and notify your supervisor of defects.

Definitions

Ground Fault Circuit Interrupter (GFCI) – a fast acting circuit breaker designed to shut off electric power in the event of a ground-fault within as little as 1/40 of a second. It works by comparing the amount of current going to and returning from the equipment along the circuit conductors. When the amount going differs from the amount returning by approximately 5 mill amperes, the GFCI interrupts the current.

Competent Person - one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

Procedures

The following procedures and guidelines are designed to eliminate all injuries resulting from possible malfunctions, improper ground and/or defective tools. It is the responsibility of both supervisors and employees to ensure that these procedures are strictly adhered to.

Assured Equipment Grounding Conductor Program (AEGCP)
A site specific assured grounding conductor program shall be implemented on all MIKE SCOTT PLUMBING INC work sites that covers all cords, plug-in electrical power tools, and receptacles which are not part of the permanent structure and are available for use by MIKE SCOTT PLUMBING INC employees.

Ground Fault Circuit Interrupters (GFCI)
All 120 and 240-volt receptacles which are not part of the permanent structure and are used by MIKE SCOTT PLUMBING INC employees must have approved ground fault circuit interrupters. All GFCI must be tested prior to each use.

Equipment Requirements
Equipment that does not meet the requirements of this program or is found to be defective shall not be used by MIKE SCOTT PLUMBING INC employees and shall be repaired or replaced so that program requirements are satisfied.

Equipment Inspections
Visual equipment inspections shall occur daily and before each use in order to identify hazards presented by equipment defects. Possible defects include but are not limited to cuts, abrasions, burns, exposed wires and broken or missing pins of extension cords, equipment power cords and receptacles.

Any equipment or equipment parts, which are found to be defective or present a potential hazard, shall be repaired or replaced prior to use. All equipment that cannot be repaired must be tagged and discarded immediately.

Equipment Tests and Records Maintenance
Tests on all equipment grounding conductors must be conducted prior to each use, following any repairs and at 3 month intervals for non-fixed equipment or 6 month intervals for permanently fixed equipment which is not exposed to damage, in order to ensure continuous electrical continuity.

Equipment testing records shall indicate equipment identity such as cord, receptacle that is not part of the permanent structure or plug-in power equipment and the date it was last tested or interval test dates. Records shall be in the form of written logs or color-coding and shall be available at the work site at all times for MIKE SCOTT PLUMBING INC review.

All extension cords and power equipment cords shall be marked on either end of the cord with color tape that corresponds with the month represented in the table below to ensure that the monthly test schedule is maintained.

Test Month	Corresponding Tape Color
January	Blue
February	Green
March	Red
April	White
May	Black
June	Brown
July	Continue Color Sequence with Blue Tape for July

BLOODBORNE PATHOGENS

Purpose

The purpose of this program is to establish and maintain a written exposure control plan that protects employees who may have contact with blood or any other potentially infectious material. This program is also designed to meet the requirements of OSHA 29 CFR 1910.1030; which requires employers who can reasonably anticipate exposure to prepare and implement a written exposure control plan.

Scope

This program applies to all occupational exposure to blood or other potentially infectious materials and covers all MIKE SCOTT PLUMBING INC employees. Employees whose responsibilities include cleaning up after a workplace injury, rendering first aid, providing life support or some other task that involves directly working with biohazards are more likely to have occupational exposure. However, any employee could be at risk as a result of blood from an injury that occurred in the past or a historical presence of bodily fluids that was not adequately decontaminated.

Responsibilities

Safety Manager (Exposure Control Officer)

- Serve as the designated "Exposure Control Officer", which is responsible for the overall development and implementation of the exposure control procedure for all MIKE SCOTT PLUMBING INC worksites.
- Ensure that MIKE SCOTT PLUMBING INC fully complies with this program.

Supervisors

- Serve as the responsible person for all exposure control activities within their area of responsibility.
- Ensure that all employees comply with this program and report all non-compliance matters to the exposure control officer.

Employees

- Be aware of specific job tasks, situations and environments that may present biohazards.
- Comply with all parts of this program and report all non-compliance matters to the exposure control officer or your direct supervisor.
- Help MIKE SCOTT PLUMBING INC prevent blood or potentially infectious material exposure by working safely and practicing good personal hygiene.

Procedure

Exposure Control Plan Access

Employees shall have access to a copy of the exposure control plan by request from their supervisor or the safety manager who will supply it in a reasonable time, place and manner.

Procedure Reviews and Updates

The exposure control procedure must be reviewed on an annual basis and updated whenever a new procedure, activity or function with the potential to expose employees to biohazards is introduced into a worksite.

Universal Precautions

MIKE SCOTT PLUMBING INC and its employees shall observe universal precautions by treating all human blood and certain human body fluids as if they are known to be infectious for HIV, HBV and other pathogens even under circumstances where exposure is highly unlikely.

Exposure Controls

Exposure controls are designed to reduce or eliminate employee exposure to blood or potentially infectious materials and should be re-evaluated and revised if necessary on a regular basis to maximize their effectiveness in controlling employee exposure. Therefore:

- Hand washing facilities are readily available at all work locations except those that cannot support or simply do not have such facilities. In these cases, appropriate antiseptic solutions and / or towelettes are available for use.
- All sharps containers shall have a biohazard-warning label or a specific color to identify it as a biohazard, shall be resistant to punctures and shall be leak proof. The same characteristics shall apply to all secondary sharps containers.

Safe Work Practices

Safe work practices are designed to support exposure controls and further minimize or eliminate occupational exposure. Therefore:

- Employees must wash hands and other applicable body parts as soon as potentially contaminated gloves or other PPE are removed to further prevent contamination.
- If any part of the body has contact with blood or any other infectious material, employees must wash hands and other exposed body parts with soap and water immediately.
- Only trained and authorized personnel are allowed to handle sharps, sharps containers and any other potentially sharp and infectious needles or equipment.
- Activities such as applying make up, handling contact lenses, smoking or any other hand and eye, mouth, nose, ear or other body part contact is prohibited in areas where exposure to biohazards is possible.
- Storage areas such as pantries, freezers, refrigerators and others that may contain potentially infectious materials shall not contain food or drink.
- All equipment and surfaces that have had contact with blood or other infectious materials must be properly cleaned and decontaminated.
- All biological specimens must be contained in leak proof containers for handling, storage and transport to minimize potential contact with other surfaces and employees.
- In cases where the exterior surface of the specimen container is contaminated; the container must be placed into another leak proof container, which shall be labeled as “for handling and storage”.
- All emergency responder, first aid or other potentially infectious supplies must be disposed of immediately and appropriately after contamination.

Personal Protective Equipment (PPE)

PPE shall be provided by MIKE SCOTT PLUMBING INC at no cost to the employee and must be of proper fit, adequate for the task at hand and readily available. Defective or damaged PPE must be discarded / replaced or repaired in order to ensure maximum effectiveness.

The following safe work practices shall be followed with regard to biohazards and PPE:

- Protective garments that are penetrated by blood or other infectious materials must be removed and properly disposed of immediately.
- PPE that may be contaminated must be removed and properly stored / contained before leaving the work area.
- PPE such as protective gloves must be worn whenever contact with potentially infectious material exposure is anticipated.

- Disposable PPE such as rubber gloves must be replaced as soon as practical when contamination has occurred or when they are rendered ineffective by a tear, puncture or other occurrence.
- Masks and eye protection (such as goggles, face shields, etc.) are used whenever splashes or sprays may generate droplets of infectious materials.
- Whenever infectious material splashes, sprays or other similar occurrences are possible, PPE such as face shields, goggles, head garments or other appropriate PPE shall be used to protect face, eyes etc.
- Adequate PPE must be used unless temporarily declined by the employee and approved by the safety manager.
- PPE should be cleaned, laundered & properly disposed of if contaminated.
- All PPE must be cleaned, maintained, used, stored and disposed of properly when applicable.

Post-Exposure Requirements
All potential blood or infectious material exposure incidents shall be investigated by MIKE SCOTT PLUMBING INC thoroughly to ensure that hazards are abated and that affected employees receive the necessary treatment needed to minimize the impact of potential or actual exposure.

All reported exposure incidents shall be formally investigated by the exposure control officer / safety manager or supervisor when the safety manager cannot be present. A detailed report of the incident outlining root cause, corrective actions and the current status of affected employees is then completed and reviewed by MIKE SCOTT PLUMBING INC to help prevent re-occurrence. Additionally, the following confidential information shall be provided to exposed employees:

- All documentary reports and information of the exposure incident and its circumstances.
- The identity of the exposure source individual unless applicable laws prevent such identification.

Upon completion of the above procedures, the exposed employee shall be appointed to a qualified healthcare professional who will evaluate the exposed employee, provide information to the employee about his or her medical status and initiate treatment where applicable.

MIKE SCOTT PLUMBING INC provides the following information to the healthcare professional:

- A copy of the biohazards standard.
- A detailed description of the exposure incident.
- Additional information that is relevant to the healthcare professional.

The following information will be provided to MIKE SCOTT PLUMBING INC by the healthcare professional as a "written report" and copied to the exposed employee upon completion of the healthcare professional's evaluation of exposed employee:

- If a Hepatitis B vaccination is recommended for the exposed employee.
- If the exposed employee has received the Hepatitis B vaccination since the incident.
- Verification that the exposed employee has received results information of the medical evaluation.
- Verification that the exposed employee was made aware of medical conditions caused by the exposure incident that require additional medical evaluation or treatment.

* All other medical information remains confidential and will not be a part of the written report.

* The Hepatitis B vaccine will be made available to all employees with occupational exposure at no cost.

Training

All employees with occupational exposure shall receive bloodborne pathogens training before initial assignment and within 1 year of previous training. The training includes but is not limited to:

- A detailed explanation of bloodborne pathogens and their causes / effects.
- OSHA's bloodborne pathogens standard and requirements.
- How to protect yourself from occupational exposure.
- Common warning methods such as signs, labels, etc.
- Availability of the Hepatitis B vaccine.

Recordkeeping

MIKE SCOTT PLUMBING INC shall meet OSHA 29 CFR 1920.1020(h) transfer of records standards in order to ensure regulatory compliance. Applicable records related to this standard and program shall be available to MIKE SCOTT PLUMBING INC employees and regulatory authorities upon request except for medical records, which are kept confidential and require the employee's written consent unless otherwise specified in 29 CFR 1910.1030 or other applicable laws.

Medical records shall be maintained in a safe and secure location for the duration of each employee's employment plus 30 years. The following information must be included for each employee's medical record:

- Full Name
- Social Security Number
- Hepatitis B vaccination status
- Hepatitis B vaccination date(s)
- Hepatitis B declination(s)
- All records, notes, evaluations, etc. to and from the healthcare professional
- All MIKE SCOTT PLUMBING INC documentary records, notes, letters and other forms of communications

All training records must be kept for no less than 3 years from the date of training. Training records shall include the following:

- All training materials and content used at time of training.
- Training instructor name and title.
- Training student names, titles and training dates.

Labelling

Labels depicting the universal biohazard warning shall be used on all containers used to dispose of contaminated or potentially contaminated materials. Defacing or modifying these labels is prohibited. Labels that are found to be defective or inadequate shall be replaced with new and effective labels.

EXPOSURE INCIDENT CHECKLIST

This checklist must be completed and maintained in the event that occupational exposure occurs.

	ACTION TO BE TAKEN BY EMPLOYER	COMPLETION DATE
☐	Required incident documentation has been provided to affected employee(s)	
☐	Exposure source individual has been identified	
☐	Arranged for affected employee to see healthcare professional	
☐	Required documentary information has been sent to the healthcare professional	

* Post-Exposure Requirements

All potential blood or infectious material exposure incidents shall be investigated by MIKE SCOTT PLUMBING INC thoroughly to ensure that hazards are abated and that affected employees receive the necessary treatment needed to minimize the impact of potential or actual exposure.

All reported exposure incidents shall be formally investigated by the exposure control officer / safety manager or supervisor when the safety manager cannot be present. A detailed report of the incident outlining root cause, corrective actions and the current status of affected employees is then completed and reviewed by MIKE SCOTT PLUMBING INC to help prevent re-occurrence. Additionally, the following confidential information shall be provided to exposed employees:

- All documentary reports and information of the exposure incident and its circumstances.
- The identity of the exposure source individual unless applicable laws prevent such identification.

Upon completion of the above procedures, the exposed employee shall be appointed to a qualified healthcare professional who will evaluate the exposed employee, provide information to the employee about his or her medical status and initiate treatment where applicable.

MIKE SCOTT PLUMBING INC provides the following information to the healthcare professional:

- A copy of the biohazards standard.
- A detailed description of the exposure incident.
- Additional information that is relevant to the healthcare professional.

The following information will be provided to MIKE SCOTT PLUMBING INC by the healthcare professional as a "written report" and copied to the exposed employee upon completion of the healthcare professional's evaluation of exposed employee:

- If a Hepatitis B vaccination is recommended for the exposed employee.
- If the exposed employee has received the Hepatitis B vaccination since the incident.
- Verification that the exposed employee has received results information of the medical evaluation.
- Verification that the exposed employee was made aware of medical conditions caused by the exposure incident that require additional medical evaluation or treatment.

* All other medical information remains confidential and will not be a part of the written report.

* The Hepatitis B vaccine will be made available to all employees with occupational exposure at no cost.

DISCIPLINARY PROGRAM

Purpose

The purpose of this program is to establish disciplinary action procedures that encourage compliance with MIKE SCOTT PLUMBING INC safety programs and other safety & health efforts made by MIKE SCOTT PLUMBING INC.

Scope

This program applies to all MIKE SCOTT PLUMBING INC work sites and employees regardless of employment duration or position within MIKE SCOTT PLUMBING INC.

Responsibilities

Safety Manager

- Responsible for the implementation and enforcement of this program.
- Ensure that disciplinary actions are adequate enough to ensure program effectiveness.
- Be conduct disciplinary action procedures in accordance with this program.

Supervisors

- Assist the safety manager in enforcing this program.
- Ensure that employees are aware of what constitutes a safety violation and follow on actions.
- Report all safety violations to the safety manager who will determine what action items should follow the violation.
- Support the safety manager in disciplinary action procedures.

Employees

- Comply with all parts of this program.
- Help prevent incidents by reporting safety violations to your supervisor.
- Formally report any disciplinary / corrective actions that you believe are unfair or discriminatory to your supervisor immediately.

* Physical inspections of work areas will be performed regularly by MIKE SCOTT PLUMBING INC officials who will report suspected safety violations where applicable.

Requirements

Employee safety is extremely important to the owners and management of MIKE SCOTT PLUMBING INC. Not following safety rules or procedures in considered unacceptable and complying with MIKE SCOTT PLUMBING INC safety programs, rules and procedures is mandatory. Safety violations include but are not limited to:

- Intentional disregard of safety rules, procedures or guidelines required by MIKE SCOTT PLUMBING INC or its clients
- Horseplay or other actions that compromise safety and health
- Non-compliance with PPE program requirements or other written MIKE SCOTT PLUMBING INC requirements
- Using or possessing alcohol or illegal drugs during work hours or on MIKE SCOTT PLUMBING INC premises
- Possessing firearms or other weapons while on MIKE SCOTT PLUMBING INC premises
- Not reporting incidents as required by MIKE SCOTT PLUMBING INC
- Attempted or actual physical force to cause injury, threatening statements or other actions to cause an employee to feel they are at risk of injury.
- Harassing, threatening or otherwise putting the health and safety of other employees at risk.

Procedure

The following disciplinary action procedures shall be applied after a safety violation notice has been issued:

- 1st Safety Violation: The first safety violation will result in a verbal warning. However, a copy of the safety violation notice shall be issued and kept on record for the duration of the employee's employment. The supervisor or safety manager shall inform the employee of which safety rules or procedures were violated and recommend corrective actions or actions to prevent re-occurrence. The employee's direct supervisor and or other applicable persons shall also be notified of the violation and shall receive a copy of the safety violation notice.
- 2nd Safety Violation: The second safety violation shall result in a written disciplinary action form and possible training on the safety violation subject matter. The disciplinary action form shall include the issue date, name and signature of employee, name and signature of supervisor, violation number, violation description and disciplinary / corrective actions which were taken or are to be taken.
- 3rd Safety Violation: The third safety violation shall result in another disciplinary action form but must include temporary layoff for a duration which shall be determined in collaboration between the safety manager, supervisor and / or other applicable personnel. The severity of the violation is to be considered when disciplinary action is applied.
- 4th Safety Violation: The fourth safety violation shall result in termination of employment unless there is a compelling reason to retain the employee which is to be determined by the safety manager, supervisor and other applicable personnel.

* The affected employee may submit a written rebuttal at anytime before, during or after the disciplinary period.

* Safety violations shall expire 12 months after the date of occurrence.

* All disciplinary actions are subject to change based on the severity or degree of negligence. For example, if an employee physically harms another employee, intentionally commits an unsafe act that results in harm, potential harm, damage or potential damage that places MIKE SCOTT PLUMBING INC or its employees at significantly higher level of risk or results in losses that are considered serious; the employee could be terminated without having multiple safety violations. Therefore, the degree of disciplinary action will often be determined on a case-by-case basis and will vary depending on the violation severity or effects of the violation.

Recordkeeping

All safety violation documentation shall be kept on file for 2 years after his or her employment is terminated. In cases where the disciplined or terminated employee claims discriminatory or unfair disciplinary / corrective action or termination; the employee's entire employee file (including all safety violation documentation) shall be kept for 3 years after his or her employment is terminated.

WARNING!
Safety Violation Notice

Issue Date: _____

Employee Name: _____

Supervisor Name: _____

Department: _____

Violation No: _____

Violation Description: _____

Issued by: _____

Employee Signature: _____

Supervisor Signature: _____

Safety Violation / Disciplinary Action Form

Issue Date:	Issued By:	Issued To:	Department:	Violation No:
Violation Description:				
Disciplinary / Corrective Actions:				
Additional Comments:				

Employee Signature: _____

Supervisor Signature: _____

DRIVING SAFETY

Purpose

The purpose of this program is to provide managers, employees and their supervisors with the regulatory requirements necessary for compliance for operation, management and safety of MIKE SCOTT PLUMBING INC vehicles.

Key Responsibilities

MIKE SCOTT PLUMBING INC's safety manager is in charge of ensuring that the details of this program are followed by all employees; the outline for the driving safety program shall be stored in the office of the safety manager.

MIKE SCOTT PLUMBING INC's site manager is responsible for the application and follow-through of this program on site, while making sure that vehicles conform to the outlined plan.

In addition to being knowledgeable in the general procedures outlined in MIKE SCOTT PLUMBING INC's vehicle safety policy, employees are responsible for adhering to said policies and for reporting any unsafe vehicle conditions.

Only authorized employees shall operate on and off-road motor vehicles.

Vehicle and Transportation Related

Safe Driving Practices

In order to drive a particular MIKE SCOTT PLUMBING INC or client vehicle, employees must possess a valid driver's license for that particular vehicle, have prior authorization to drive a MIKE SCOTT PLUMBING INC-owned vehicle, possess at least three years of experience operating that type of vehicle and received recent evaluation and training for that vehicle.

In addition to these practices, the following rules must be followed:

- Reversing a vehicle is forbidden in most circumstances, as drivers should make every effort to park a vehicle so that they can drive forward when leaving,
- Ensure that vehicles are of correct size and designed for the intended use,
- When reversing an automobile, if the vehicle does not have a reversing alarm, the driver should walk around the back of the vehicle or use a spotter before backing,
- Delivery trucks should not carry any passengers,
- All storage areas within a vehicle are to be free of any loose materials, in case of an accident,
- Any open cargo holds should be covered with a net or netting equivalent,
- No alterations shall be made to vehicles without prior authorization from the vehicle's manufacturer,
- Any signs or stickers placed on the vehicle should not impair the driver's field of vision or operation of the controls.

Employees driving vehicles are required to follow safe driving practices:

- All laws, both local and federal, must be followed along with any client requirements,
- Always stay focused on the road and keep both hands on the wheel,
- Drive defensively, so that conditions and potential hazards are being continually assessed,
- No electronic devices may be used while operating a vehicle. The vehicle must be parked for a driver to use a cell phone or two-way radio,
- Posted speed limits shall never be exceeded,
- Any traffic warnings, citations, collisions, near-collisions or vehicle damage must be immediately reported to the supervisor,

- Any changes to an employee's driving status must be reported to the supervisor,
- Seat belts must be worn by all passengers while the vehicle is moving; passengers may only use seats that are equipped with the proper seatbelt (three-point inertial-reel model belts),
- Drive slowly upon entering construction areas and in areas where encounters with large vehicles or wildlife are likely,
- Drive cautiously in hazardous driving conditions like rain, snow, fog or sleet. If necessary, drive for the conditions and under the recommended speed limit,
- Employees are forbidden to drive under the influence of alcohol, illegal drugs, or prescription and over-the-counter medications that may inhibit their driving. Also, alcohol and illegal drugs should never be in leased or MIKE SCOTT PLUMBING INC or client owned vehicles.

Drivers are to be prepared before leaving:

- The driver must be well-rested and fully alert in order to operate a MIKE SCOTT PLUMBING INC vehicle,
- Drivers should check their vehicle for damages and immediately report any new damage to the supervisor,
- Check for windshield damage that might impair the driver's field of vision,
- Remove all dirt, snow and ice from the vehicle's lights and windows so that there is nothing blocking the driver's view,
- Make sure there is enough fuel in the gas tank to reach your destination. Other than adding fuel and other necessary fluids, drivers are not permitted to perform any kind of maintenance or repairs,
- Check the license plates and inspection tag on the automobile to ensure that both are current,
- Double check to make sure that MIKE SCOTT PLUMBING INC vehicle is equipped with a first-aid kit and an inspected fire extinguisher.

Vehicle Requirements:

- All vehicles will be maintained in safe working order,
- Any vehicle weighing less than 1000 kg is not allowed on public roads,
- Vehicles with a restricted rear view (such as a fully loaded pickup truck) or that are longer than 20 feet (6 meters) must be equipped with an audible reversing alarm,
- Every seat must have a head-rest,
- Every light-duty vehicle, including buses, must come with adjustable left, right and center rear view mirrors,
- All loads must be secured and are not to exceed either the manufacturer's specs or the legal limit for the automobile,
- All vehicles will have rollover protection installed, in compliance with the industry standard regulatory practices,
- Every light equipment vehicle must be equipped with two high-intensity lights. These high-intensity lights must be located as high, as far apart and as far back as possible. The lights will be wired to the headboard switch, and will have their own override switch, should local regulations allow it.

Regarding Tires:

- Tires, including a full-sized spare, must be of the same make, model and tread patterns. The only exception to this rule is when the automobile or tire manufacturer recommends a different type of tire for particular axles,
- The vehicle's equipped tires are the ones recommended by the automobile or tire manufacturer,
- All vehicles must carry a spare tire and the equipment necessary to safely change a tire.

All vehicles must come equipped with:

- A fire extinguisher that has a capacity of least 0.9 kg or 2 lbs,

- The fire extinguisher must be mounted securely in a location that is easily accessible in case of an emergency, and where it won't become a hazard itself in case of an accident,
- A first-aid kid that is stored in a safe and secure place,
- A high-visibility jacket to use if there is an emergency,
- At least one hazard warning triangle.

Transportation

- Whenever an employee is assigned to drive a MIKE SCOTT PLUMBING INC vehicle, MIKE SCOTT PLUMBING INC must make sure that the driving conditions, including the roads, weather and traffic, are safe for the employees,
- Before an employee can drive a MIKE SCOTT PLUMBING INC vehicle, the employee must ensure that the vehicle has been properly inspected,
- Both drivers and passengers must be wearing seat belts while the vehicle is in motion,
- Passengers must be seated and all body parts must remain inside the vehicle at all times, unless doing so is essential to an employees work and then, only if the worker is properly restrained,
- Tools and other materials must be securely stored inside of a compartment to prevent injury to the driver or passengers.

ELECTRICAL SAFETY AWARENESS

Purpose

The purpose of this program is to establish MIKE SCOTT PLUMBING INC safe work practices for electrical tools, equipment and their related components.

Scope

The scope of this program covers all permanent and temporary MIKE SCOTT PLUMBING INC employees and MIKE SCOTT PLUMBING INC contractors while working on MIKE SCOTT PLUMBING INC owned sites. If MIKE SCOTT PLUMBING INC does not own a particular site; the site owner's program shall be used on that site unless the site owners' program is less stringent.

Responsibilities

Safety Manager

- Develop electrical safety programs & procedures in accordance with regulatory standards and as required by each individual site.
- Ensure that MIKE SCOTT PLUMBING INC employees fully comply with this program.
- Ensure that no unqualified employees work on energized electrical circuit equipment or their parts.

Supervisors

- Ensure that only qualified employees and / or qualified contractors perform electrical repairs and installations.
- Ensure that electrical programs and procedures address site specific hazards or hazards that are presented by unique circumstances at their respective areas of responsibility.
- Ensure that no unqualified employees work on energized electrical circuit equipment or their parts.

Qualified Employees

- Ensure that no unqualified employees work on energized electrical circuit equipment or their parts.
- Ensure individual familiarity with the use of special precautionary techniques, personal protective equipment, insulated tools, insulating materials and shielding materials.

Employees

- Ensure that only qualified employees work on energized electrical circuit equipment or other related parts.
- Report all potential electrical hazards to supervisors immediately.

Definitions

Class I hazardous locations - areas having the presence of *flammable gases or vapors* in the air, such as natural gas or gasoline vapor. When these materials are found in the atmosphere, a potential for explosion exists, which could be ignited if an electrical or other source of ignition is present. The Code writers have referred to this first type of hazard as *Class I*. So, a *Class I Hazardous Location* is one in which *flammable gases or vapors* may be present in the air in sufficient quantities to be explosive or ignitable. Some typical Class I locations are:

- Petroleum refineries, and gasoline storage and dispensing areas;

- Dry cleaning plants where vapors from cleaning fluids can be present;
- Spray finishing areas;
- Aircraft hangars and fuel servicing areas; and
- Utility gas plants, and operations involving storage and handling of liquefied petroleum gas or natural gas.
- All of these are Class I . . . gas or vapor . . . hazardous locations. All require special Class I hazardous location equipment.

Class II hazardous locations - areas made hazardous by the presence of combustible *dust*. These are referred to in the Code as "Class II Locations." Finely pulverized material, suspended in the atmosphere, can cause as powerful an explosion as one occurring at a petroleum refinery. Some typical Class II locations are:

- Grain elevators;
- Flour and feed mills;
- Plants that manufacture, use or store magnesium or aluminum powders;
- Producers of plastics, medicines and fireworks;
- Producers of starch or candies;
- Spice-grinding plants, sugar plants and cocoa plants; and
- Coal preparation plants and other carbon handling or processing areas.

Class III hazardous locations - areas where there are *easily-ignitable fibers or flying's* present, due to the types of materials being handled, stored, or processed. The fibers and flying's are not likely to be suspended in the air, but can collect around machinery or on lighting fixtures and where heat, a spark or hot metal can ignite them. Some typical Class III locations are:

- Textile mills, cotton gins;
- Cotton seed mills, flax processing plants; and
- Plants that shape, pulverize or cut wood and create sawdust or flying's.

Qualified Person - A person who currently trained in the operation, repair, maintenance, construction and implementation of electrical equipment and electrical hazards.

Circuit Breaker – An automatic switch that stops the flow of electric current in a suddenly overloaded or otherwise abnormally stressed electric circuit.

Disconnecting Means - A device or other means by which circuit conductors can be disconnected from a power supply.

Disconnecting Switch – A device, which is used to isolate a circuit or equipment from a power source.

Double Insulated Tool - Tools which are constructed using non-conductive materials that do not require grounded, 3 wire plugs.

Grounded Conductor - A conductor that is used to connect equipment or the grounding circuit of a wiring system to a grounding electrode or several grounding electrodes.

Ground Fault Circuit Interrupter (GFCI) - A device that interrupts the electrical circuit to the load when a fault current to the ground exceeds a predetermined value that is less than what is required to operate the over current protective device of the supply circuit.

Safe Work Practices

General

- All electrical equipment, tools and related components must be inspected prior to each use.
- Equipment, tools and related components, which are unserviceable or faulty, shall be removed from service and tagged appropriately with the date of inspection, the name of the inspecting employee and signature of inspecting employee.
- Only qualified personnel may repair electrical tools, cords and other related equipment.
- Only certified electricians may repair or conduct maintenance on electrical equipment and wiring systems.
- The site supervisor shall verify contract electrician credentials before work begins.
- Employees shall not wear conductive apparel such as rings, watches, etc. unless they are rendered non-conductive by covering, wrapping or other insulating means.
- When working on or near exposed de-energized parts, those parts shall be treated as live.
- Outlets connected to circuits with different voltages must use a design such that the attachment plugs on the circuits are not interchangeable.
- Multiple outlet boxes must be plugged into a wall receptacle.
- Multiple outlet boxes must not be used to provide power to microwave ovens, toasters, space heaters, hot plates, coffeepots, or other high-current loads.
- Double insulated tools must have the factory label intact indicating the tool has been approved to be used without a three wire grounded supply cord connection.
- Double insulated tools must not be altered in any way, which would negate the factory rating.
- Only approved, certified, electrical contractors may perform construction and service work on MIKE SCOTT PLUMBING INC or client property.
- It is the Manager/Supervisors responsibility to verify the contractor's certification.
-

Extension Cords

- Use only three-wire, grounded, extension cords and cables that conform to a hard service rating of 14 amperes or higher, and grounding of the tools or equipment being supplied.
- Only commercial or industrial rated-grounded extension cords may be used in shops and outdoors.
- Cords for use other than indoor appliances must have a rating of at least 14 amps.
- Cords must have suitable strain relief provisions at both the plug the receptacle ends.
- Work lamps (drop light) used to power electrical tools must have a 3 wire, grounded outlet, unless powering insulated tools.
- Adapters that allow three wire, grounded prongs, connected to two wire non-grounded outlets are strictly prohibited.
- Cords must have a service rating for hard or extra-hard service and have S, AJ, ST, SO, SJO, SJT, STO, or SJTO printed on the cord.
- Cords may not be run through doorways, under mats or carpets, across walkways or aisles, concealed behind walls, ceilings or floors, or run through holes in walls, or anywhere where they can become a tripping hazard.
- High current equipment or appliances should be plugged directly into a wall outlet whenever possible.

    - All extension cords shall be plugged into one of the following:
    - A GFCI outlet;
    - A GFCI built into the cord;

- A GFCI adapter used between the wall outlet and cord plug.

- All extension cords and or electrical cords shall be inspected daily or before each use, for breaks, plug condition and ground lugs, possible internal breaks, and any other damage. If damage is found, the extension cord or electrical cord shall be remove from service and repaired or replaced.
- Extension cords shall not be used on compressor skid to operated heat tapes or any other type of equipment on a temporary basis. Heat tapes or other equipment shall be hard wired per applicable electrical codes.

Illumination

- Employees shall not enter spaces containing exposed energized parts unless qualified and proper illumination exists to enable employees to work safely.

Switches, circuit breakers, and disconnects

- All electrical equipment and tools must have an on and off switch and may not be turned on or off by plugging or unplugging the supply cord at the power outlet.
- Circuit breaker panel boxes and disconnects must be labelled with the voltage rating.
- Each breaker within a breaker panel must be labelled for the service it provides.
- Disconnect switches providing power for individual equipment must be labelled accordingly.

Ladders

- Portable ladders must have non-conductive side rails.
- Ladders must be manufactured using non-conductive materials such as fiberglass or wood.
- Aluminum or metal ladders are strictly prohibited.
- Ladders shall be free of defects and defective components.
- Ladders shall be used per the manufacturer's recommendations only.

Energized and Overhead High Voltage Power Lines & Equipment

- A minimum clearance of 10 feet from high voltage lines must be maintained when operating vehicular and mechanical equipment such as forklifts, cranes, winch trucks, and other similar equipment.
- When possible, power lines shall be de-energized and grounded or other protective measures shall be provided before work is started.
- Minimum approach distance to energized high power voltages lines for unqualified employees is 10 feet.
- Minimum approach distance for qualified employees shall be followed per 29 CFR 1910.333(c)(3)(i) Qualified – Table S5 Selection and Use of Work Practices - Approach Distances for Qualified Employees – Alternating Current). Approach distances are 10' for 50kV plus 4" for every additional 10kV.

Confined or Enclosed Work Spaces

- When an employee works in a confined or enclosed space that contains exposed energized parts, the employee shall isolate the energy source and turn off the source and lock and tag out the energy source (Only qualified electricians can work on an exposed energy source).
- Protective shields, protective barriers or insulating materials as necessary shall be provided.

Enclosures, Breaker Panels, and Distribution Rooms

- A clear working space must be maintained in the front, back and on each side of all electrical enclosures and around electrical equipment for a safe operation and to permit access for maintenance and alteration.
- A minimum two-foot working floor space in front of panels and enclosures shall be painted yellow.
- Employees may not enter spaces containing exposed energized parts unless illumination is provided that enables the employees to work safely.

- Housekeeping in distribution rooms must receive high priority to provide a safe working and walking area in front of panels and to keep combustible materials to the minimum required to perform maintenance operations.
- All enclosures and distribution rooms must have "Danger: High Voltage – Authorized Personnel Only" posted on the front panel and on entrance doors.
- Flammable materials are strictly prohibited inside distribution rooms (Boxes, rags, cleaning fluids, etc.)

Lock Out/Tag Out

- No work shall be performed on (or near enough to them for employees to be exposed due to the dangers of tools or other equipment coming into contact with the live parts) live parts and the hazards they present.
- If any employee is exposed to contact with parts of fixed electric equipment or circuits which have been deenergized, the circuits energizing the parts shall be locked out or tagged or both.
- Conductors and parts of electrical equipment that have been de-energized but not been locked or tagged out shall be treated as live parts.
- Per MIKE SCOTT PLUMBING INC policy all electrical will be outsourced and performed only by qualified and licensed electrical contractors who are familiar with the use of special precautionary techniques, PPE, insulating and shielding materials and insulated tools. Any equipment being made ready for maintenance will be locked out using MIKE SCOTT PLUMBING INC's Control of Hazardous Energy – Lock Out/Tag Out Program. Lockouts are performed by the Safety Manager, Shop Foreman or Branch Manager. Designated employees in some branches may be trained by local management to lock out equipment. If live sources are to be worked it will only be performed with the knowledge of local management. Only certified electricians may work on electric circuit parts or equipment.
- Only authorized personnel may perform lock out/tag out work on electrical equipment and will follow MIKE SCOTT PLUMBING INC's Control of Hazardous Energy – Lock out/Tag Out Program.
- Authorized personnel will be trained in lock out/tag out procedures.
- Affected personnel will be notified when lock out/tag out activities are being performed in their work area.

Fire Extinguishers

- Approved fire extinguishers must be provided near electrical breaker panels and distribution centers.
- Water type extinguishers shall not be located closer than 50 feet from electrical equipment.

Electric Shock-CPR

- If someone is discovered that has received an electric shock and is unconscious, first check to see if their body is in contact with an electrical circuit. Do not touch a person until you are sure there is no contact with an electrical circuit.
- When it is safe to make contact with the victim, begin CPR if the person's heart has stopped or they are not breathing.
- Call for help immediately.

Electric Welders

- A disconnecting means shall be provided in the supply circuit for each motor-generator arc welder, and for each AC transformer and DC rectifier arc welder which is not equipped with a disconnect mounted as an integral part of the welder.
- A switch or circuit breaker shall be provided by which each resistance welder and its control equipment can be isolated from the supply circuit. The ampere rating of this disconnecting means may not be less than the supply conductor ampacity.

Equipment Grounding

- All gas compressors, air compressors, separators, vessels, etc. shall be grounded by means of using a lug and ground strap, nominal in size to a ½" bolt or larger, attached to a ground rod six feet or longer.

- Equipment bonding jumpers shall be of copper or other corrosion-resistance material.
- The transfer of hazardous or flammable material from a metal or plastic container with a flash point of 100 degrees F or less shall have a ground strap from the container and attached to the skid or a ground rod placed in the ground.

Assured Grounding

OSHA requires that employers shall use either ground fault circuit interrupters (GFCI) or an assured equipment grounding conductor program to protect personnel from electrical shock while working.

- MIKE SCOTT PLUMBING INC shall use GFCI's in lieu of an assured grounding program.

Ground Fault Circuit Interrupters

All 120-volt, single-phase 15 and 20 ampere receptacle outlets on construction or maintenance sites, which are not part of the permanent wiring of the building or structure and which are in use by employees, shall have approved ground fault circuit interrupters for personnel protection.

- All hand portable electric tools and extension cords shall use a GFCI.
- Additionally, approved GFCI's shall be used for 240-Volt circuits in the same service as described above.
- GFCI's must be used on all 120 volt, single-phase 15 amp and 20 amp receptacles within 6 feet of a sink, damp areas or on installed outdoor equipment.
- The GFCI must be the first device plugged into a permanent receptacle.
- The GFCI must be tested before each use.

Training

- All MIKE SCOTT PLUMBING INC employees both temporary and full time shall be trained in electrical safety practices and procedures to minimize the risk of electrical shock.

- Unqualified employees who may be exposed to electric shock shall receive training and acquire familiarity with electric safety work practices.

- All MIKE SCOTT PLUMBING INC employees both temporary and full time shall be trained in safety related work practices that pertain to their respective job assignments.

- Safe work practices shall be used to prevent electric shock or other related incidents as a result of energy source contact while working near or on energized equipment or circuits.

- In the event that MIKE SCOTT PLUMBING INC employees qualified employees, those employees must adhere to the approach distances in Table S5 of CFR 1910.333.

Voltage Rage (phase to phase)	Minimum Approach Distance
Over 300V, not over 750V	1 ft. 0 in. (30.5 cm)
Over 750V, not over 2kV	1 ft. 6 in. (46 cm)
Over 2kV, not over 15kV	2 ft. 0 in. (61 cm)
Over 15kV, not over 37kV	3 ft. 0 in. (91 cm)
Over 37kV, not over 87.5kV	3 ft. 6 in. (107 cm)
Over 87.5kV, not over 121kV	4 ft. 0 in. (122 cm)
Over 121kV, not over 140kV	4 ft. 6 in. (137 cm)

EMERGENCY ACTION PLAN

Purpose

The purpose of MIKE SCOTT PLUMBING INC's emergency action plan is to establish requirements for responding to any kind of emergency, which would result in employee injury or illness.

Scope

Emergency Procedures shall be issued and discussed with all new/transferred personnel upon arrival for assignment.

Responsibilities

The MIKE SCOTT PLUMBING INC Emergency Coordinator shall be responsible for:

- Ensuring each location has a dedicated emergency action plan
- Ensuring that each site has its' own dedicated emergency coordinator
- Ensuring that emergency drills are conducted for each permanent site at least annually
- Ensuring that inspections and corrective actions are performed for each site at least monthly

Site Emergency Coordinators shall:

- Train all site employees on emergency action
- Ensure employees are trained on proper fire extinguisher use
- Conduct monthly inspections of site to ensure compliance with fire safety and emergency requirements
- Report to MIKE SCOTT PLUMBING INC Emergency Coordinator regarding all non compliance issues

General Requirements (See Procedures in The Site-Specific Emergency Action Plan Template in Appendix 1)

The following requirements shall be met in order to maintain compliance with MIKE SCOTT PLUMBING INC and regulatory fire safety and emergency safety requirements.

- The site specific emergency action plan shall be available to all employees for review and shall include procedures for reporting a fire or other emergency.
- Each emergency action plan shall have procedures for emergency evacuation, reporting fires & other emergencies
- Each emergency action plan shall include procedures to account for all employees after the evacuation
- Contact information shall be provided to employees who need additional information pertaining to the plan or to their respective duties
- Each site will have a system in place to alert employees
- Each site emergency coordinator shall review the emergency action plan with employees
- No employee may remain onsite during and emergency to operate critical operations (not permitted)
- Upon arriving to the designated safety area (outlined in the site-specific safety plan), a head count shall be performed to ensure that all employees are accounted for.
- Contact information shall be made available to employees who need additional information regarding the plan or their specific duties.
- Our emergency action plan shall be reviewed when; the plan is developed or the employee is assigned initially to a job, the employees' responsibilities under the plan change or when the plan itself is changed.
- MIKE SCOTT PLUMBING INC shall ensure that the alarm system is distinctive and recognizable as a signal to evacuate the work area or perform actions designated under the emergency action plan.

List of Emergency Types

Potential emergency types shall be addressed in each site specific emergency action plan and shall include procedures for:

- Fires or Explosions
- Release of hazardous gases or chemical substances
- Bomb or Terror Threats
- Health / Medical Emergencies
- Workplace Violence
- Natural Disasters

Emergency Equipment

Each site shall have a detailed list within its site-specific emergency action plan that outlines emergency equipment requirements. Unless otherwise determined by the site emergency coordinator, each site will have a minimum of the following emergency equipment items:

- 1 First Aid Kit for every 20 employees
- Emergency exit signs and lighting as required by local fire codes
- Portable fire extinguishers which are properly mounted and marked so they are easily identified
- Alarms and other required audible emergency sounding devices

Training & Education

MIKE SCOTT PLUMBING INC shall facilitate emergency action and evacuation training to ensure that employees understand the emergency and evacuation procedures applicable to their specific site. Training shall include the safe and orderly evacuations of other employees.

Records & Documentation

Each site shall maintain all training and / or other documentation related to its' site for at least 5 years.

Appendix

1. Site-Specific Emergency Action Plan Template

FALL PROTECTION

Purpose

The purpose of this program is to establish requirements for working at heights, which exceed or are equal to the fall protection requirement height threshold and where guard rails, safety nets or other engineering controls are not present. Because MIKE SCOTT PLUMBING INC could work on both general industry, construction or other industry sites; the fall protection requirement height threshold will vary. Therefore, the fall protection requirement height shall be determined by the industry list below and the corresponding fall protection requirement height thresholds.

Important Note: OSHA requires that fall protection be provided at elevations of 4 feet or more in general industry workplaces, 5 feet or more in shipyards, 6 feet or more in the construction industry and 8 feet or more in longshoring operations. In addition, OSHA requires that fall protection be provided when working over dangerous equipment and machinery, regardless of the fall distance. Therefore, threshold heights & requirements will vary depending on the type of job being performed. Please refer to 29CFR for detailed specifications.

Additional Note: Some states have state specific fall protection criteria which MIKE SCOTT PLUMBING INC must comply with. Therefore, it is the safety manager's responsibility to determine when state specific fall protection requirements conflict with Federal OSHA requirements and to establish fall protection criteria for that site's fall protection plan.

Scope

This program applies to all MIKE SCOTT PLUMBING INC employees who work on surfaces, which are at or above the fall protection requirement height threshold from the next lower level; including excavations.

Responsibilities

Safety Manager

- Ensure each site uses a fall protection plan which accounts for site specific hazards and conditions
- Ensure that other applicable personnel are trained to use fall protection systems and personal fall arrest systems where applicable.

Managers & Supervisor

- Ensure that no employees work at heights, which are at or above the fall protection requirement height threshold without using proper fall protection measures.
- Ensure that employees who use PFAS's are trained on how to use the systems.
- Attempt to use engineering controls such as guardrails or safety nets before PFAS whenever possible.
- Ensure that a competent person inspects all work areas, which are at or above the fall protection requirement height threshold to ensure proper controls are in place.

Employees

- Do not work at heights at or above the fall protection requirement height threshold unless you are trained and confident in the fall protection that is protecting you from falls.
- Report all unsafe conditions to your manager or supervisor.
- Think about your safety and the safety of those around you before you access a working surface that exceeds the fall protection requirement height threshold.

General Requirements

Anytime a MIKE SCOTT PLUMBING INC employee intends to work at or above the fall protection threshold height, guardrails, safety nets, personal fall arrest systems or other approved fall protection systems shall be used.
Fall protection requirement height thresholds depend solely upon the nature of the site or client location and shall be used in accordance with the following industry criteria list:

- Non-Construction Environments: 4 feet or more
- Construction Environments: 6 feet or more
- Shipyards: 5 feet or more
- Longshoring Environments: 8 feet or more

Site Specific Fall Protection Plan

Whenever site-specific fall protection plans are utilized; the plan may only be developed by the competent person. The plan must also take into account the site-specific requirements which initially called for the use of a site-specific fall protection plan.
Whenever conventional fall protection is not feasible or creates a greater hazard than the fall itself; a fall protection plan may be used. In these cases, the site-specific plan shall include the reason why conventional fall protection methods are not feasible, the locations of the areas where conventional fall protection is not feasible. These areas shall also be classified as “controlled access zones”.

Fall Protection Equipment

All fall protection equipment shall meet the requirements of applicable ANSI, ASTM, or OSHA requirements.

Rescue

In the event of a fall, MIKE SCOTT PLUMBING INC shall ensure prompt rescue of the affected employee(s). MIKE SCOTT PLUMBING INC shall ensure that rescue details are established prior to the commencement of work at elevated heights.

Incident Investigations

In the event of a fall, near miss, or other serious incident; MIKE SCOTT PLUMBING INC shall conduct a thorough incident investigation and shall maintain all incident investigation records for at least 10 years after the affected employee(s)’ employment has been terminated.

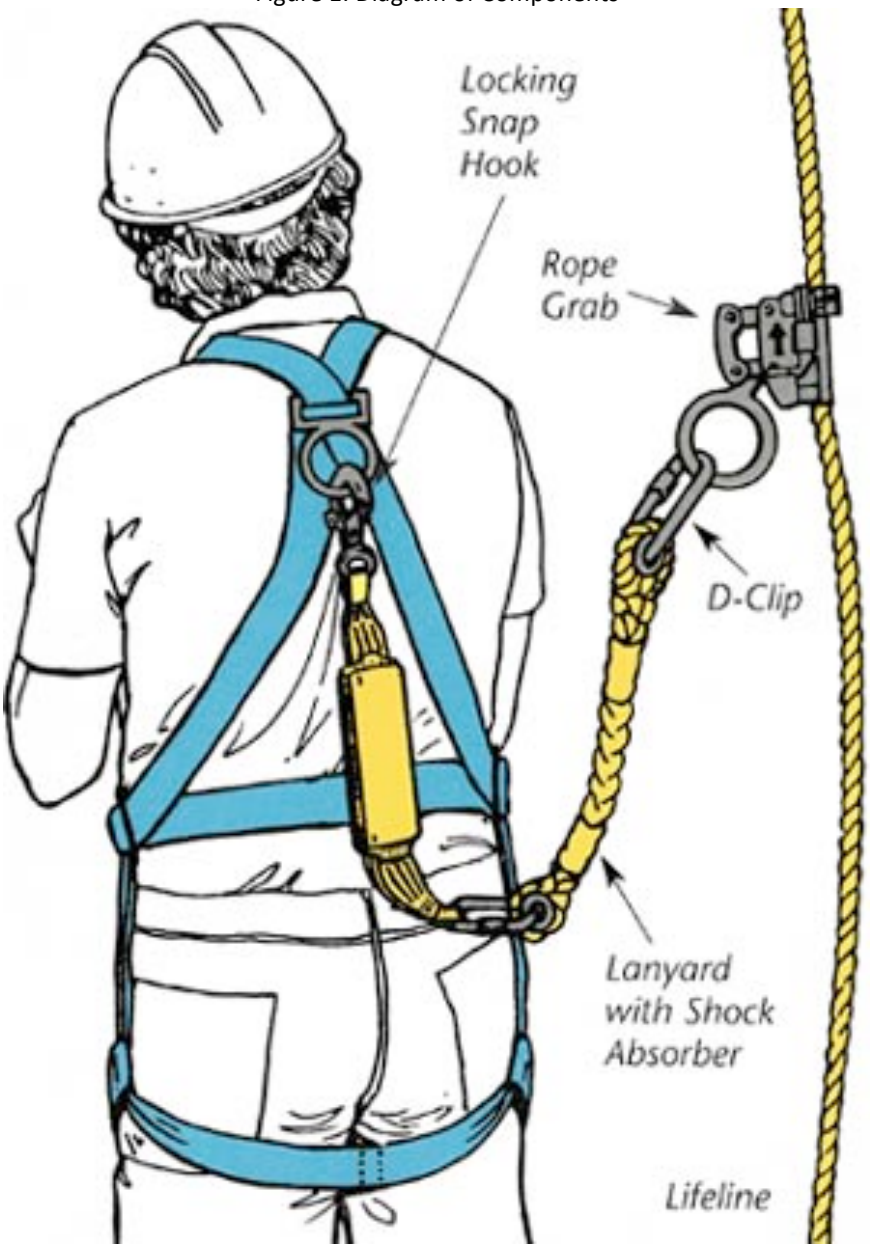
Training Requirements

All employees who work at or above the fall protection requirement threshold shall receive training which pertains to the recognition elimination of fall hazards.
Employees who have already received training, shall receive re-training either on an annual basis, whenever the employee demonstrates incompetence or whenever the employee requests to be re-trained.

Records & Documentation

All training shall be documented and records shall be maintained for at least 3 years after the termination of the employees employment with MIKE SCOTT PLUMBING INC.

Figure 1: Diagram of Components



FIRE PREVENTION/ EXTINGUISHERS

Purpose

This program is designed to provide procedures to ensure that fire extinguishers work properly and employees know how to operate the extinguishers safely in the event of a fire.

Scope

This program's scope encompasses all employees at all locations.

Responsibilities

Safety Manager

- Develops procedures for the use and maintenance of fire extinguishers,
- Devises training programs that teach the proper use of these devices.

Manager

- Implements fire extinguisher training at the manager's designated location.

Shop Foremen

- Enforce the provisions of the fire extinguisher section of the training manual.

All Employees

- Follow the provisions of the training manual.

Procedure

Selection and Distribution

Portable fire extinguishers are provided for use by employees. These fire extinguishers vary in class based on the type of fire they are made to extinguish, the size of the fire, and the degree of hazard that affects the use of the extinguisher.

The four classes of fire extinguishers used by MIKE SCOTT PLUMBING INC are as follows:

- Class A Fire Extinguishers: Used on common combustibles or fibrous materials such as wood, cloth, paper, rubber and some plastics. The distance from employees to any fire extinguisher must not exceed 75 feet (22.9 m),
- Class B Fire Extinguishers: Used on flammable or combustible liquids such as gasoline, kerosene, paint, paint thinners and propane. The distance of the extinguisher from an area with Class B hazardous materials must not exceed 50 feet (15.2 m),
- Class C Fire Extinguishers: Used on electrical equipment that has been energized, such as appliances, panel boxes and power tools. The distance from an area with Class C hazards to an extinguisher is no more than 50 feet (15.2m),
- Class D Fire Extinguishers: Used on combustible metals such as magnesium, titanium, potassium and sodium. The distance from a Class D working area to an extinguisher is no greater than 75 feet (22.9 m).

Fire Extinguisher Labels

- Fire extinguishers are mounted in locations that can be easily accessed by employees, are no more than 75 feet from any employee, and are identified by a sign reading, "Fire Extinguisher",
- Fire extinguishers will not be blocked, even on a temporary basis, by equipment, boxes or products,

- A unique number will be assigned to each fire extinguisher.

Maintenance

- All fire extinguishers must be mounted no higher and no lower than four feet from the floor,
- Must be numbered to identify their designated location,
- Must be fully charged and operable,
- Must be clean and free of defects,
- Must be accessible at all times.

Inspection, Maintenance and Testing

- All fire extinguishers shall be inspected on a monthly basis,
- Certified staff from a fire extinguisher dealer will perform an annual maintenance check on all fire extinguishers,
- Certified staff will inspect and recharge fire extinguishers after use,
- In the event a fire extinguisher shows a loss of pressure during the monthly inspection, certified staff will inspect and recharge the fire extinguisher,
- Completed fire inspection logs are to be maintained in the safety files for five years.

Use

- In the event of a fire, an employee will get the nearest appropriate fire extinguisher for use on the burning materials and will attempt to put out the fire,
- All other employees in the area will prepare to evacuate the area of the fire, if necessary,
- Other employees in the building will be notified of the fire,
- A standard fire extinguisher empties in 10-15 seconds. All employees must leave the area at this time, even if the fire is not out.

Training and Education

This section establishes the training procedures required for understanding fire extinguishers, their proper use and incipient-stage firefighting. Training is required prior to initial assignment and on an annual basis thereafter.

- Even Numbered Years: A member of the local fire department will conduct training, which will include hands on use of a fire extinguisher in a “live fire” situation,
- Odd Numbered Years: The safety manager will conduct training involving a demonstration of the use of a fire extinguisher, without the actual discharge of the unit.

New employees will undergo the odd numbered year training upon hire.

Initial Training Outline

- General fire principles and fire extinguishers,
- Hazards of fires in the beginning stages,
- When to evacuate the area of a fire,
- Hazards of fire extinguisher use,
- Proper use of a fire extinguisher.

Retraining

- Establishes employee proficiency and provides updated information on control procedures,
- Is provided for all authorized and affected employees on an annual basis, in the event of a change in job assignment, when knowledge of policies is found to be insufficient or when MIKE SCOTT PLUMBING INC determines that there have been deviations from established policies.

Training Documentation

- All training will be documented with the results of each employee's performance on a hands-on test,
- Documentation shall include the name of the employee, name of the trainer, date of training and an outline of the training provided.

FIRST AID

Purpose

The program outlined in this document has been implemented to ensure adequate amounts of first aid equipment and supplies are available for employees and to put in place proper procedures for situations requiring first aid.

Scope

This program specifically applies to all of our employees regardless of where they are performing work unless otherwise notified by the safety manager and documented on the site-specific plan.

Responsibilities

Safety Manager

- Implement and ensure the requirements of this program are followed at all times,
- Will work in conjunction with The Red Cross or other applicable entities to make sure employees are up-to-date on applicable training requirements,
- Keep all records pertaining to this program in order and current.

Supervisors

- Ensure that first aid kits are made available and adequately stocked for each work site,
- Will make sure that provisions for prompt medical attention, including transportation in case of a serious injury, are in place before a project begins,
- Will provide adequate first aid supplies and equipment within easy reach when required,
- Ensure that access to emergency and medical phone numbers is available in a conspicuous place to all employees.

Employees

- Will follow the requirements of this program where applicable,
- Will use first aid supplies and equipment responsibly,
- Immediately notify the supervisor of any low first aid kit supplies,
- Know the location of emergency telephone numbers.

Requirements

First Aid Supplies and Equipment
First aid supplies and equipment must be available and easily accessible to employees at all times.

First aid kits will contain all appropriate items determined to be adequate for the environment in which they will be used.

First aid kits will be assessed periodically to ensure adequate amounts of first aid supplies are always available. Inadequate first aid kits must be reported to your immediate supervisor who will then have the kits restocked with adequate supplies prior to the start of the work shift.

The site supervisor shall perform an inspection of the first aid supplies on a weekly basis. Kits shall be replenished as needed by the site supervisor.

A safety shower, eye wash, and/or other suitable facilities for quick drenching or flushing shall be provided within the work area of any facility where the eyes or body of any person may be exposed to injurious corrosive

materials. Ensure expiration dates are checked for safety reasons and that the water used in storage devices is sanitized.

An assessment of the material or materials used shall be performed to determine the type of flushing/drenching equipment will be required at the job site. Portable or temporary stations must be set up prior to the use of corrosive materials on all client job sites.

Medical Response
All minor first aid is to be self-rendered. Because of the risks associated with certain blood-borne pathogens, no one is allowed to tend the minor injuries of another person.

A person who has a valid certificate in first-aid shall be available to render first aid, in the absence of an infirmary, clinic, hospital, or physician that is reasonably accessible in terms of time and distance to the worksite. It is mandatory that a valid certificate in first-aid training must be obtained from the U.S. Bureau of Mines, The American Red Cross or an equivalent training authority which can be verified by documentary evidence.

Universal precautions must always be observed when first aid is rendered by authorized employees with the proper training. (Universal Precautions means that the aid giver treats all bodily fluids as if they were contaminated).

If 911 is not available refer to the list of posted phone numbers for prearranged medical response providers. All authorized first responders of MIKE SCOTT PLUMBING INC should have a cell phone as a means of communications; otherwise hand held radios or telephones shall be used as a means of communication.

Transportation
Based on the first responders' assessment of the injuries involved, decide what type of treatment will be performed and the location of the treatment (emergency room, occupational medicine provider, or on-site first aid).

Examples of serious injuries requiring transport to a medical provider are those resulting in severe blood loss, possible permanent disfigurement, head trauma, spinal injuries, internal injuries and loss of consciousness. Keep in mind that the needs and well-being of the injured are the first priority.

Proper equipment for prompt transportation of the injured person to a physician or hospital or a communication system for contacting necessary ambulance service should be available at all times.

Choices to consider for proper transport include: private automobile, MIKE SCOTT PLUMBING INC vehicle, helicopter, crew boat, EMS vehicles including medi-vac helicopters, or any other transportation that can provide safe transportation to the hospital or doctor’s office in order to provide medical attention to the injured in the quickest manner without the injured employee incurring any additional complications or injuries.

Transportation needs must be preplanned and coordinated with the transportation provider prior to an incident requiring such service.

Training
Volunteers or selected employees are trained by the American Red Cross or equivalent in CPR and first aid. Each of these trained and certified employees are equipped with protective gloves and other required paraphernalia. CPR training must be re-certified annually and first aid training must be re-certified every three years.

GENERAL SAFETY

Purpose

This program is written to ensure compliance regarding local regulatory and general safety requirements related to the operation and management of all MIKE SCOTT PLUMBING INC facilities. Furthermore, this program provides directives and guidelines to managers, supervisors and employees regarding their specific responsibilities.

This program applies to all regular employees, temporary employees, and any contractors working on MIKE SCOTT PLUMBING INC premises. In addition, for any off-site work, these guidelines are to be followed in the event an operator's program is either not in place, or is less stringent.

Key Responsibilities

Safety Manager

- The Safety Manager is responsible for developing and maintaining the General Safety Requirements program, and will keep these procedures in the designated safety manager's office.

Site Manager

- The site manager is responsible for enforcing and maintaining the safety plan and ensuring everything required for compliance is available at all times.

Employees

- Every employee shall be familiar with the workplace General Safety Requirements program of MIKE SCOTT PLUMBING INC,
- Must abide by the requirements laid forth and report all unsafe conditions to their immediate supervisor and/or the Safety Manager,
- Will use all safeguards, safety appliances, and personal protective equipment made available to them in order to follow the safe work practices and procedures of their workplace.

Competency and Training

All workers will be proficient in the operation of equipment in the performance of their assigned job tasks. A competent worker is someone who is sufficiently qualified, trained, and experienced enough to safely perform their job either without supervision, or with only a minimal degree of supervision. Any work that might endanger an employee must be performed by a qualified worker or by a worker who is under the direct supervision of a worker who is competent in the assigned job task. All workers must be trained in the procedures for each job they are required to perform until they become proficient in each task or skill. Only qualified workers who have been properly trained and experienced will be permitted to operate equipment.

Training must include:

- Procedures to be followed in the event of a fire or other emergency,
- The location of first aid facilities,
- The identification of all prohibited or restricted areas,
- Precautions to be taken in order to protect the worker against any physical, chemical or biological hazards they may come into contact with,
- Any procedures, plans, policies and programs that MIKE SCOTT PLUMBING INC is mandated to develop, and
- Anything else deemed necessary to ensure the health and safety of the worker while they are on the job.

All employees shall be instructed in both the recognition and avoidance of unsafe conditions that pertain to their specific work environments and work activities.

Inspections

MIKE SCOTT PLUMBING INC must:

- Ensure that frequent, regular inspections of the workplace, jobsites, materials, and equipment are performed by a competent person,
- Ensure that all work processes and procedures are examined in order to identify any risk to the safety or health of any person at the workplace,
- Investigate every dangerous occurrence or incident as soon as is reasonably possible.
- Ensure that all identified risks and unsafe conditions will be corrected as soon as is reasonably practicable and, in the interim, take immediate steps to protect the safety and health of any person who may be at risk.

General Facility Requirements

Housekeeping

Each work site shall be kept clean and free from materials or equipment that could cause workers to slip or trip. All surfaces used by any worker shall be clear of obstructions, hazards, and accumulations of refuse, snow or ice.

MIKE SCOTT PLUMBING INC requires that a worksite is as clean and sanitary as reasonably practicable.

An adequate supply of potable drinking water shall be kept easily accessible at a project for the use of all workers.

Safe Equipment Maintenance

MIKE SCOTT PLUMBING INC is responsible for ensuring that work site maintenance, systems of work, and working environments are maintained properly for the health, safety, and welfare of workers while at the job site.

MIKE SCOTT PLUMBING INC will ensure all equipment is maintained at regular intervals to ensure the equipment will function safely in the way it was purposed and to be free from obvious defects. Damaged and faulty equipment reporting procedures must be in place to facilitate timely repair of all malfunctioning equipment.

Where a defect is found, MIKE SCOTT PLUMBING INC will ensure that immediate action is taken to protect the health and safety of any worker who may be at risk until the defect is corrected by a competent person.

Any machinery, tool, material, or equipment which is not in compliance with any applicable OSHA requirement is prohibited. The machine, tool, material or equipment shall either be identified as unsafe by tagging or locking the controls to render them inoperable or by physically removing the non-compliant object from its place of operation.

Any worker who knows or has reason to believe that equipment under their control is not in a safe operating condition shall immediately report the condition to MIKE SCOTT PLUMBING INC so repairs to the malfunctioning equipment can be made by the proper personnel.

MIKE SCOTT PLUMBING INC expressly prohibits and does not permit compressed air to be directed towards a worker for the purpose of cleaning clothing or personal protective equipment used by that worker or for any other purpose if the use of compressed air may cause contaminant dispersion into the air which may be harmful to workers.

Whenever workers are present at a worksite, MIKE SCOTT PLUMBING INC will provide adequate lighting for the health and safety of our workers to ensure all work is done properly and safely.

No worker is allowed to smoke in an enclosed place of employment, worksite or work-related area except in designated smoking areas.

Impairment

No person shall enter or remain at any workplace of employment while the person's behavior or ability to work is impaired by alcohol, intoxicating beverages, drugs or other substances so as to create a nuisance or to endanger any person, or to create an undue risk to workers, themselves or anyone else.

Improper Conduct

All workers shall engage in proper activity or behavior. Improper behavior that might create or constitute a hazard to any person is unacceptable. Improper activity or behavior includes horseplay, scuffling, fighting, practical jokes, and unnecessary running or jumping.

Industrial Hygiene

An eyewash fountain shall be provided anywhere a worker may be exposed to any biological or chemical substance hazardous in nature.

All workers who may potentially be exposed to a chemical, biological, or physical agent that may endanger their safety or health shall be trained in the necessary precautions and procedures to be followed when handling, using, and storing the agent. They will also be trained in the proper use and care of all required personal protective equipment, and in the proper use of emergency measures and procedures.

No food, drink or tobacco shall be taken into, left, or consumed in any area where any poisonous substance may be present.

Protective clothing or other safety devices that have been worn next to the skin shall be cleaned and disinfected prior to being worn by another worker.

Workers who handle or use corrosive, poisonous or other substances likely to endanger their health shall be provided with washing facilities with clean water, soap and individual towels.

Thermal Stress

A worker must not be exposed to levels that exceed those listed in the screening criteria for heat stress exposure in the heat stress and strain section of the ACGIH Standard. Clothing corrections must be applied in accordance with the heat stress and strain section of the ACGIH Standard.

The MIKE SCOTT PLUMBING INC must conduct a heat stress assessment to determine the potential for hazardous exposure of workers, using measures and methods that are acceptable to the local government or territorial agency in whose jurisdiction MIKE SCOTT PLUMBING INC resides. MIKE SCOTT PLUMBING INC will also develop and implement a heat stress exposure control plan.

MIKE SCOTT PLUMBING INC must implement engineering controls to reduce the heat exposure of workers to levels below those listed in the screening criteria for heat stress exposure in the heat stress and strain section of the ACGIH Standard. If the above action is not practical, the employer must reduce the exposure of workers to levels below those listed in the screening criteria for heat stress exposure in the heat stress and strain section of the ACGIH Standard by providing:

- Administrative controls, including a work-rest cycle, or
- Personal protective equipment, if the equipment provides protection equally effective as administrative controls.

The employer must provide and maintain an adequate supply of cool potable water close to the work area for the use of a heat exposed worker.

If a worker shows signs or reports symptoms of heat stress or strain, the worker must be removed from the hot environment and treated by an appropriate first aid attendant, if available, or by a physician.

The employer must conduct a cold stress assessment to determine the potential for hazardous exposure of workers, using measures and methods that are acceptable and to develop and implement a cold exposure control plan, if a worker is-or may be exposed to-the conditions specified below:

- Thermal conditions that could cause cold stress or injury,
- Thermal conditions that could cause a worker's core body temperature to fall below 36°C (96.8°F), or
- Thermal conditions that are below the levels classified as "little danger" to workers in the criteria for the cooling power of wind on exposed flesh in the cold stress section of the ACGIH Standard.

MIKE SCOTT PLUMBING INC must implement effective engineering controls to reduce the exposure hazard to levels above those classified as "little danger" to workers in the criteria for the cooling power of wind on exposed flesh in the cold stress section of the ACGIH Standard. If the above action is not practical, MIKE SCOTT PLUMBING INC must reduce the exposure to the hazard by providing effective administrative controls or personal protective equipment if the equipment provides protection equally effective as administrative controls.

All workers must wear adequate insulating clothing and personal protective equipment to protect them from the cold if their work takes place outdoors in snow or ice covered terrain. If excessive ultraviolet light, glare or blowing ice crystals may present a risk of injury to the eyes, workers must wear eye protection appropriate to the hazardous conditions.

If a worker exposed to cold shows signs or reports symptoms of cold stress or injury, the worker must be removed from further exposure and treated by an appropriate first aid attendant, if available, or a physician.

GENERAL WASTE MANAGEMENT

Purpose

This waste management strategy has been developed to provide the guidance and requirements necessary for efficient, effective and compliant waste management during construction and day-to-day operations.

Scope

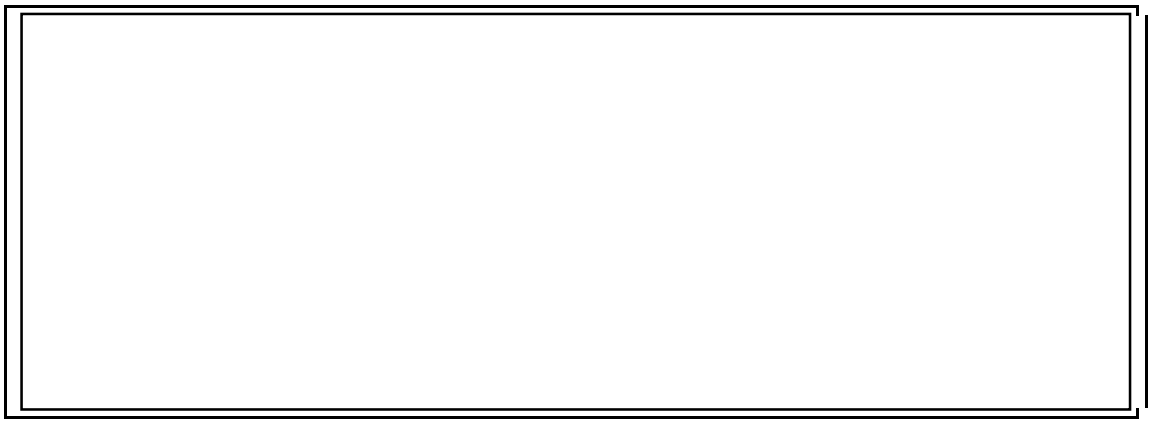
This document covers all MIKE SCOTT PLUMBING INC employees and contractors and shall be used on owned premises, or when an operator's program doesn't exist or is less stringent.

Procedure

MIKE SCOTT PLUMBING INC Safety Manager or other designated person is accountable for managing waste and the disposal of wastes generated at the work site.

Waste Estimation
Each work site will estimate the waste, trash and/or scrap that will be generated and taken into consideration prior to work being performed so the need for containers and waste removal, if necessary, can be determined.

Each site should utilize the following for planning of dumpster scheduling and total non-hazardous dry waste material. These figures do not include any recycling or waste minimization efforts and reflect no use of an incinerator. Dumpster figures are based on a 40 yard container and should be changed to reflect the use of another size dumpster by changing the table below.



MIKE SCOTT PLUMBING INC must work in conjunction with the project site or owner to ensure proper disposal of wastes or scrap materials.

MIKE SCOTT PLUMBING INC must ensure the owner or client is aware of how wastes and scrap materials will be disposed of and whether they will be taken off site by MIKE SCOTT PLUMBING INC or will be disposed of on the owner or client's site.

Waste Segregation

- Do not mix waste streams or types,
- Only place waste in the designated container, satellite accumulation area (SAA), recyclable accumulation area (RAA), universal waste accumulation area (UWAA) or designated dumpster.

Recycling
Wastes should be recycled whenever practicable. MIKE SCOTT PLUMBING INC will encourage the proper separation of all waste materials to ensure opportunities for reuse or recycling occurs at each work site. The collection of recycled material will reduce the total load on the environment. Sufficiently sized bins must be lined with a plastic bag and clearly labeled for use. Posters from MIKE SCOTT PLUMBING INC will be posted throughout the work site to encourage recycling by everyone. Collection bins will also be placed in administrative areas and will use the following color guiding:

- Blue – Paper
- Green - Aluminum cans
- Yellow – Plastic

All cardboard will be flattened. Staples and excess shipping tape removed from the cardboard. No cardboard shall be placed in dumpsters heading for a landfill.

Waste Handling Matrix
Each work site will develop a Waste Handling Matrix (sample shown) that will:

- Address safe practices related to the immediate storage and handling of waste, scrap or leftover material;
- The handling, organization and storage of waste and scrap materials to minimize potential impact to the environment. In order to minimize the potential for a spill or impact to the environment, waste materials will be properly stored and handled. During outdoor activities receptacles must be covered to prevent dispersion of waste materials and to control the potential for runoff.

Waste Stream	Location	Activity Generating Waste	Hazardous /Non Hazardous	Safe Storage Practice	Disposal Method	PPE or Other Precautions
Aerosol Can Contents	Equipment Repair Shop	Puncturing of aerosol cans	Hazardous	SAA is self-contained in the equipment repair shop	Ship to assigned site for recycling or disposal	Read warnings before use of unit.
Aerosol Can Puncturing Unit Filter	Equipment Repair Shop	Filter Changes	Hazardous	Place in designated labeled container	Ship to assigned site for recycling or disposal	Change filter every 3 months
Aerosol Cans	Various Locations	Painting, lubricants, cleaning	Non-Hazardous if aerosol can is punctured and drained	Place punctured aerosol can in RAA storage drum	Crush RAA storage drum and place in the scrap metal dumpster from client.	See "Scrap Metal" for waste stream management
Ash	Smart Ash Unit	Incineration of acceptable waste	Non-Hazardous	Dispose of Immediately	Place in the Burnable Waste	Gloves Goggles

Waste Stream	Location	Activity Generating Waste	Hazardous /Non Hazardous	Safe Storage Practice	Disposal Method	PPE or Other Precautions
					Dumpster	
Automotive and Heavy Equipment Parts-Used	Equipment Repair Shop and Fab Shop	Replacement	Non-Hazardous	Place in RAA	Returned to vendors for recycling	Starters, Alternators, Pumps, Transmissions
Batteries (Alkaline)	Various Locations	Battery Failures	Universal Waste	Place in the UWAA	"D" cell and below are acceptable in the Non-Burnable Waste Dumpster	Ship to designated site for recycling or disposal
Batteries (Lead Acid)	Equipment Repair Shop and Fab Shop	Battery Failures	Universal Waste	No storage allowed. Containment boxes are labeled and available in the shops.	Lead acid batteries are returned to the Vendor upon removal	Ship to designated site for recycling
Batteries (NiCad)	Various Locations	Battery Failures	Universal Waste	UWAA in the equipment repair shop.	Ship to assigned site for recycling or disposal	Cell phones, radios
Butane Torch Bottle	Various Locations	Mechanic activities	Excluded Hazardous if recycled	Place drained Butane Torch Bottles in RAA storage drum	Crush RAA storage drum and place in the scrap metal dumpster	Prosolv Butane Bottle processor l
Cardboard/ Office Paper	Parts Department & Offices	Shipping Boxes & Office Activities	Non-Hazardous	Place in RAA	Place on pallet in RAA and band for shipment to assigned site for recycling.	

Waste Stream	Location	Activity Generating Waste	Hazardous /Non Hazardous	Safe Storage Practice	Disposal Method	PPE or Other Precautions
Computers Discarded	Parts Department & Offices	Replacement	Non-Hazardous	Place in RAA	Ship to assigned site for recycling or disposal	
Diesel Filters-Used	Equipment Repair Shop and Fab Shop	Filter Changes	Non-Hazardous	RAA for drained and crushed used filters	Drain for 12 hrs., crush and incinerate in Smart Ash unit	Place metal in recycle metal dumpster
Diesel Rags	Various Locations	Mechanic activities	Non-Hazardous	Oily waste rag in clear bags w/yellow stripes.	Incinerated in Smart Ash unit	See "Ash" for management and disposal
Drained Diesel	Equipment Repair and Fab Shop	Draining diesel fuel and filters	Non-Hazardous when burned as off-Spec fuel	Place in "used oil" tank in the equipment repair shop and fab shop.	Burned for energy recovery in clean burn multi-oil heating system.	
Empty Paint Cans	Various Locations	Painting activities	Non-Hazardous	No storage allowed	Ship to assigned site for recycling or disposal	Paint cans must be RCRA empty.
Fluorescent Light Ballast	Various Locations	Failure	Non-Hazardous unless they contain PCB's or DEHP	None	Place in Non-Burnable Dumpster	Ballast will say on the label if it contains PCB's
Fluorescent Light Bulbs	Shops, Office Areas	Bulb replacement	Universal Waste	Place bulbs in their original container in the RAA in the shop area	Ship to assigned site for recycling or disposal	Label bulbs "Used Bulb" when put into RAA.
Glass	Various Locations	Replacement	Non-Hazardous	None	Place in Non-Burnable Dumpster	Ensure glass containers are empty.

Waste Stream	Location	Activity Generating Waste	Hazardous /Non Hazardous	Safe Storage Practice	Disposal Method	PPE or Other Precautions
Glycol Rags	Equipment Repair Shop and Fab Shop	Fluid Changes	Non-Hazardous	Oily waste rag WAA's lined w/clear bags w/yellow stripes.	Incinerated in Smart Ash unit	Minimize use of absorbent rags
Glycol-Used	Equipment Repair Shop and Fab Shop	Fluid Changes	Non-Hazardous	RAA - self-contained tank on recycling unit	Recycled in glycol recycling unit	Recycling unit stored in shop
Grinding Wheels	Equipment Repair Shop and Fab Shop	Grinding activities	Non-Hazardous	None	Place in Non-Burnable Dumpster	
Hoses & Belts	Equipment Repair Shop and Fab Shop	Replacement	Non-Hazardous	Place in Non-Burnable Dumpster	Place in Non-Burnable Dumpster	Drain all fluids from hoses
Metal Shavings/Cuttings	Equipment Repair Shop and Fab Shop	Fabricating activities	Excluded Hazardous if recycled	Placed in recycle metal dumpster or metal only RAA's	Place in recycle metal dumpster	Ensure there are no free flowing cutting fluids present before disposal.
Oil Filters-Used	Equipment Repair Shop and Fab Shop	Oil filter changes	Excluded Hazardous	RAA for drained and crushed used filters	Drain for 12 hrs., crush and incinerate in Smart Ash unit	Place metal in recycle metal dumpster
Oil-Used	Equipment Repair Shop, Fab Shop, Service Trucks	Draining oil and filters	Excluded Hazardous if burned for energy recovery	Receiving sumps are located in the Equipment Repair Shop and Fab Shop	Burned for energy recovery in clean burn multi-oil heating system.	Keep lids on receiving sumps at all times. DO NOT PUT SOLVENTS INTO USED OIL
Oily Waste (rags, absorbents)	Various Locations	Mechanic activities, equipment drips and leaks	Non-Hazardous	Oily waste rag WAA's lined w/clear bags w/yellow stripes.	Incinerated in Smart Ash unit	Collected daily. See "Ash" for management and disposal

Waste Stream	Location	Activity Generating Waste	Hazardous /Non Hazardous	Safe Storage Practice	Disposal Method	PPE or Other Precautions
Paint Waste (rags, rollers, brushes, etc.)	Various Locations	Painting activities	Determine on per occurrence basis. Use MSDS or testing	If hazardous, store in the assigned area. If non-hazardous, no storage is required.	If hazardous, ship to assigned site for disposal. If non-hazardous, place in burnable waste dumpster.	Need to review MSDS, do analytical test, or use generator knowledge to make waste determinations.
Parts Cleaner Rags	Equipment Repair Shop	Cleaning parts	Non-Hazardous	Oily waste rag WAA's lined w/clear bags w/yellow stripes.	Incinerated in Smart Ash unit	See "Ash" for management and disposal
Scrap Metal	Various Locations	Fabrication activities & house cleaning	Excluded Hazardous if recycled	Placed in recycle metal dumpster or metal only RAA's	Place in recycle metal dumpster	Eye Protection Gloves
Sodium Vapor/ Metal Halide Light Bulbs	Various Locations	Bulb replacement	Universal Waste	Place bulbs in their original container in the RAA.	Ship to assigned site for recycling or disposal	Label bulbs "Used Bulb" when put into RAA.
Tires	Various Locations	Replacement	Non-Hazardous	None	Place tires up to 20" rim diameter into dumpster.	
Toner Cartridges	Offices	Copiers, printers, fax machines	Non-Hazardous	Placed in original container in RAA	Ship to assigned site for recycling or disposal	Verify toner is expended before disposal.
Water Scrubber Filter & Absorbents	Equipment Repair Shop and Fab Shop	Filtering sump water in shops	Non-Hazardous	None	Incinerated in Smart Ash unit	See "Ash" for management and disposal

Waste Stream	Location	Activity Generating Waste	Hazardous /Non Hazardous	Safe Storage Practice	Disposal Method	PPE or Other Precautions
Welding Rods	Various Locations	Welding activities	Excluded Hazardous	Placed in recycle metal dumpster or metal only RAA's	Ship to assigned site for recycling or disposal	See "Scrap Metal" for waste stream management
Wood Waste	Various Locations	Various activities and shipping pallets	Non-Hazardous	Store on the far back corner of the pad or in the dump truck box if available.	Place in recycle wood dumpster	Pallets are refurbished and recycled when possible

Storage Requirements
Project related wastes are to be stored and maintained in an organized fashion to encourage proper disposal and minimize risks to employees. Proper waste receptacles must be provided for all trash and materials that may be reused or recycled during a project.

PPE
As part of each site waste management plan MIKE SCOTT PLUMBING INC shall determine a PPE matrix that includes gloves, hand protection, eye and face protection and/or other necessary PPE.

Education and Training

Employees shall be instructed on managing waste generated at the work site along with the proper disposal method of wastes. Examples include:

- Instruction on the proper handling, storage and disposal of wastes. General instruction on disposal of non-hazardous wastes, trash or scrap materials generated at the site will also be given to all employees. If wastes generated are classified as hazardous, employees must also be trained to ensure proper disposal and compliance with regulations;
- Methods for minimizing waste;
- Recycling methods and proper PPE to be utilized.

HAND AND POWER TOOLS PROGRAM

Purpose

The purpose of the Hand and Power Tools Program is to establish policies and procedures for the safe operation of hand tools, power tools and other portable tools, including guarding. All hand and power tools shall be maintained in a safe working condition.

Scope

This program applies to all employees who use hand and power tools while engaged in work at MIKE SCOTT PLUMBING INC facilities and/or offsite facilities.

Responsibilities

Managers and Supervisors

Make sure that operation, maintenance and proper use of tools are fully understood by all employees,

- Train employees and provide them with all personal protective equipment (PPE) needed to safely operate portable tools.

Employees

- Will use the proper tool for each task,
- Will follow the manufacturer's recommendations on the safety and operation for the tool.

Requirements

General
All tools must be an approved type and in good condition in order to be used.

Any tool which is not in compliance with any applicable requirement of this part is prohibited and shall be identified as unsafe by tagging or locking the controls to render them inoperable.

Tools may be inspected at any time,

Any employee has the authority, and is responsibility, to remove unsafe tools from use, no matter who they belong to

Tools deemed unsafe by any employee must be labeled with a "DO NOT USE OR OPERATE" tag to prevent use of the tool.

Employees are required to always use the appropriate tool for the task at hand. Substitute tools are not allowed. Makeshift tools are strictly prohibited.

Avoid using tools containing metal around energized electrical circuits or equipment (e.g., hammers with metal handles, screwdrivers with metal in the handle, metal measuring tapes).

Throwing tools from one place to another or one person to another is prohibited. Tools must be safely carried and, if lowered from one elevation to another, must be secured in tool bags or buckets and firmly attached to hand

lines.

Tools must never be placed on unsecure, elevated surfaces.

Impact tools (e.g., chisels and punches) that become cracked or mushroomed must be dressed, repaired or replaced prior to further use.

Pipes, ground rods, drills, chisels and punches must be held with applicable holders or tongs while being struck by another employee. These must never be held with the hands.

Employees are not permitted to use shims to make a wrench fit. Wrenches with damaged or sprung jaws will not be used.

Employees may only use tools for the purposes for which they are intended.

Sharp-edged tools must be safely handled and stored to prevent injury or damage to the tool or other property. These tools will not be carried in pockets without the use of appropriate protectors to preserve the edge.

Splintered, loose or cracked wooden handles must be replaced. Taping or lashing the handle with wire is unacceptable.

Employees must not leave tools lying around where they may cause other persons to trip or fall.

Employees working on or above open grating must cover the grating with a canvas or other covering to prevent tools and parts from dropping through the grate where others are present. Alternately, the danger area below the grating may be guarded or barricaded.

The insulation on hand tools is primarily for comfort and must not be depended on to protect employees from high voltage shock. Exceptions to this are approved live line tools.

Portable Electric Tools
Metal portable electric tool parts that do not carry current (e.g. drills and saws) must be effectively grounded when connected to a source of power unless:

- The tool has approved double insulation, or
- The tool is connected to an isolated transformer or power supply.

Power tools must be inspected before each use to ensure the device is in proper working order and has all of its applicable safety devices.

Power tools may only be used as they were designed and intended to be used, according to the manufacturer's instructions. Using the tool's electrical cords for raising or lowering tools is prohibited.

Tools should be well-maintained. Power tools should be safely disconnected from the power source before adjustments or repairs are made.

Employees without a valid Hot Work Permit are prohibited from using electrical tools in hazard areas exposed to flammable vapors, gases or dusts

When using portable electric tools, ground fault circuit interrupters or an Assured Grounding Program must be in place. This requirement does not apply to equipment that runs off of portable or vehicle mounted generators at 5 kilowatts or less, those that are isolated from ground or to equipment running directly off of secondaries.

Pneumatic Tools

- Pneumatic tools must never be pointed toward another person,
- Pneumatic power tools must be secured to the hose or whip in such a way to prevent accidental disconnection of the tool from the hose,
- Pneumatic impact tools (percussion tools) must have safety clips or retainers installed and maintained to prevent accidental discharge of their attachments.

Compressed Air Tools

- Must be reduced to less than 30 psi when used for cleaning purposes and then only used with personal protective equipment (PPE) and effective chip guarding,
- Cannot be used to blow dust or dirt off clothing,
- May not be left unattended while under pressure,
- Are only to be operated by competent persons trained in the appropriate use of the tool.

Safe operating pressure, as recommended by the manufacturer, must be maintained for hoses, valves, pipes, filters and other fittings. The manufacturer recommended limits must not be exceeded.

Use of hoses for lifting or lowering tools is strictly prohibited.

Adjusting or changing air tools requires that the air is shut off at the air supply valve, ahead of the hose. Before breaking the connection, bleed the hose at the tool. This is not necessary for tools equipped with quick-change connectors.

Secure air tool connections before turning on the air pressure. The tool should be properly under control by the operator before the air is turned on.

Clamps and couplings on pressurized air hoses must be pinned with appropriate fasteners. Only approved end-fitting clamps may be used. Screw type heater hose clamps are unacceptable.

Hoses and their connections used in the conduction of compressed air to equipment must be designed for the pressure and service they are being used for. Never point a hose toward someone while blowing it down. Conductive hoses should not be used near energized equipment.

Employees are required to wear foot protection when operating impact tools (e.g., paving breakers, rotary drills, tampers, clay spades, etc.) and any other time as required by the supervisor.

Pneumatic nailers, staplers and other equipment with automatic fastener feeds that operate at 100 psi or higher pressure at the tool are required to have a safety device on the muzzle to prevent against the ejection of fasteners, unless this muzzle would be in contact with the work surface.

Airless spray guns that atomize paint and fluids at high pressures of 1,000 lbs. or more per square inch must be equipped with safety devices (automatic or manual) to prevent accidental pulling of the trigger and to prevent the release of paint or fluid before the safety device is manually released. Alternately, a diffuser nut, high velocity release and a nozzle tip guard or other equivalent protection is acceptable.

Powder Actuated Tools

Powder actuated tools are those that are activated by an explosive charge, and:

- Only qualified employees certified in the use of these tools may operate them,
- Explosive charges for these tools must be transported and carried in approved containers,
- Employees using these tools will be provided with face, eye and hearing protection.

Tools are to be maintained and serviced regularly by qualified persons. Prior to using these tools, the materials on

which the tools are to be used must be inspected to eliminate hazards and to determine the tool's suitability for the task at hand.

Prior to Use

- The operator will make sure the protective shield is securely attached to the tool,
- The operator will inspect the tool to determine that:
    - It is clean,
    - Its moving parts operate smoothly,
    - Guards and safety devices are in place,
    - The barrel is free of obstructions.
- Only qualified employees certified in the use of these tools may operate them,
- The operator must read and familiarize himself/herself with the operating guidelines and procedures as recommended by the manufacturer.

When a tool sustains damage or develops a defect during use, the employee will stop using the tool and remove it from service, as noted in this program.

Tools are not to be loaded until just before the intended firing time. Unattended tools should not be left loaded. Tools, whether loaded or unloaded, should never be pointed at another person. Tools must never be left unattended in a place where unauthorized persons may have access to the tool.

If the tool misfires, the operator will hold the tool in the operating position for at least 30 seconds. The operator will then try the tool a second time. If the tool misfires again, the operator will hold the tool in position for another 30 seconds. The operator must then remove the explosive charge with strict adherence to the manufacturer's instructions.

Fasteners must not be driven into unusually hard or brittle materials including, but not limited to, surface hardened steel, live rock, hollow tile, glazed tile, cast iron, glass block, live rock or face brick.

On the other hand, driving into easily penetrable materials should be avoided unless the materials are backed in such a way that will prevent the pin or fastener from passing completely through the material and creating a flying missile hazard on the other side.

Tools must not be used in flammable or explosive atmospheres.

Hydraulic Power Tools

Hydraulic powered tools must use fire-resistant fluids approved according to Schedule 30 of the U.S. Bureau of Mines, Department of the Interior, which will retain its operating properties at the most extreme temperatures to which it is exposed.

The manufacturer's safe operating pressures must be adhered to for hoses, pipes, valves, filters and other fittings.

When using hydraulic tools on or around energized lines or equipment, non-conducting hoses of adequate strength for the normal operating pressure must be used.

Hydraulic Jacks

Loading and Marking

- The operator must ensure that the jack being used is rated sufficiently to lift and sustain the load to which it is subjected,
- The rated load must be marked in a legible and permanent manner in a prominent location on the jack via stamping, casting or other means.

Operation and Maintenance

- If a firm foundation is not available, the base of the jack must be blocked. If there is a possibility that the cap will slip, a block must be placed between the load and the cap,
- The operator must keep an eye on the stop indicator, which must be kept clean, in order to determine the travel limit. The indicated limit must not be exceeded.
- After the load is raised, it must be secured at once,
- Antifreeze will be supplied in adequate quantities for hydraulic jacks that are exposed to freezing temperatures,
- Jacks must be well-lubricated according to the manufacturer's recommendations at regular intervals.

The operator must inspect the jack before each use. Jacks that are deemed unsafe must be tagged accordingly and taken out of use until repairs are made.

Abrasive Blast Cleaning Nozzles

Blast cleaning nozzles will have an operating valve that must be held open manually. A support will be provided to mount the nozzle on when it is not in use.

Fuel Powered Tools

Fuel-powered tools must be stopped during refueling, servicing or maintenance. Fuel must be handled, stored and transported according to the Flammable and Combustible Liquids Program.

When using fuel powered tools in enclosed spaces, the requirements for concentrations of toxic gases apply. The use of protective equipment must be adhered to.

Guarding Portable Tools

Guarding must be in place and in operating condition at all times when the tool is in use. The operator is prohibited from manipulating the guard in a manner that will compromise the integrity of the guard or the protection for which it is intended. Guarding on portable tools will meet ANSI B15.1 requirements.

Portable Circular Saws

- Portable, powered circular saws that have a blade diameter greater than 2 in. must have guards in place above and below the base plat or shoe,
- The upper guard must cover the depth of the saw's upper teeth, except for the minimum arc required to allow retraction of the guard and contact with the work surface,
- The lower guard must cover the depth of the saw's lower teeth, except for the minimum arc required to allow the retraction of the guard and contact with the work surface,
- When the tool is pulled back from the work surface, the lower guard automatically returns to the covering position
- Cracked or damaged saw blades must be removed from service.

Switches and Controls

- All hand held power tools are required to have a constant pressure switch or control and may be provided with a lock-on control that allows turnoff by a single motion of the same finger or fingers that turn it on,
- A constant pressure switch or a control that will shut off the power when the pressure is released must be in place on all hand-held powered circular saws with blade diameters of 2 inches or more, hydraulic, electric, or pneumatic chain saw, and percussion tools without positive accessory holding,
- Hand-held gasoline powered chain saw must have a constant pressure throttle control to shut off the power to the chain when the pressure is released,
- Operating controls on hand-held power tools will be placed to minimize the possibility of accident operation, if accidental operation would be a potential hazard to employees,
- Portable electric powered tools will be grounded according to the requirements set forth in the Electrical Safety Program. All electric power tools must have a three-prong plug.

Portable Abrasive Wheels

Safety Guards Exceptions

- Mounted wheels used in portable operations 2 inches or less in diameter,
- Wheels used for internal work while within the work being ground,
- Types 16, 17, 18, 18R, and 19 cones, plugs and threaded-hole pot balls where the work offers protection,
- Guards must be made of steel or other material of suitable strength,
- A safety guard must cover the spindle end, nut and flanges. The guard must be mounted in a way that maintains its proper alignment with the wheel. The strength of the fasteners must exceed the strength of the guard,
    - Exception: Safety guards may be constructed so that the spindle end, nut, and outer flange are exposed if the work provides adequate protection to the operator. These may also be exposed when the portable machine is designed for and used with type 6, 11, 27 and 28 abrasive wheels, cutting off wheels, and tuck pointing wheels,
- When the work provides cover for the entire side of the wheel, the guard's side covers can be omitted.

Mounting and Inspection of Abrasive Wheels

- All wheels must be examined before mounting. A ring test must be conducted to ensure they have not been damaged during transit, storage, etc.,
- To conduct the ring test, "tap" the wheels about 45 degrees each side of the vertical midline and about 1-2 inches from the periphery. Then, rotate the wheel 45 degrees and repeat the test. Undamaged wheels will have a clear metallic sound. If the wheel is cracked, there will not be a clear "ring",
- The machine's spindle speed must be checked before mounting wheels to ensure that it doesn't exceed the maximum operating speed as marked on the wheel,
- Grinding wheels must fit freely and remain free on the spindle under all grinding conditions,
- To avoid excessive pressure from spindle expansion and mounting, a controlled clearance must be maintained between the wheel hole and spindle,
- The machine's spindle must be manufactured to nominal (standard) size plus zero minus .002 inch. The wheel hole must be suitably oversized to ensure safety clearance under the conditions of operating heat and pressure,
- All surfaces in contact with wheels, flanges and blotters must be flat and free of aberrant objects,
- When the use of a bushing is required in a wheel hole, it must not exceed the width of the wheel and must not come into contact with the flanges.

Portable Grinders

"Revolving cup guards" that mount behind and turn with the wheel will be used. These will be made of steel or other adequate materials and will enclose the wheel sides up from the back for one third (1/3) of the thickness of the wheel. A clearance of no more than one-sixteenth inch must be maintained between the guard and wheel side.

Right angle grinders, or vertical portable grinders, will have a maximum angle of exposure of 180 degrees. The guard will be placed between the wheel and the operator during use. The guard may be adjusted to ensure that, in case of an accident, pieces of the broken wheel will be deflected away from the worker.

Other Portable Grinders

The maximum allowable angular exposure for the periphery of the grinding wheel and the sides for safety guards must not exceed 180 degrees. The top half of the wheel must be enclosed at all times.

Personal Protective Equipment

Employees will be provided with personal protective equipment (PPE) if they may be exposed to any of these possible hazards:

- Falling, flying, abrasive or splashing objects,
- Harmful dust, vapors, gases, fumes or mists.

HAZARD COMMUNICATION

Purpose

The purpose of this program is to ensure that the hazards of all chemicals and substances identified and evaluated, and that the information concerning their hazards is communicated to employees, emergency response organizations, state and federal agencies, and other employers and contractors, as necessary. This hazard information will be clearly communicated, and displayed in accordance with this Hazard Communication Program.

MIKE SCOTT PLUMBING INC is firmly committed to providing each of its employees a safe and healthy work environment. It is recognized that workers may use chemicals or substances that have potentially hazardous properties. When using these substances, workers must be aware of the identity, toxicity or hazardous properties of a chemical or substance. We believe an informed employee is more likely to be a safe employee. To this end, we have established and implemented a written Hazard Communication Program.

Scope

This program is applicable to all employees who may come in contact with hazardous chemicals while working for MIKE SCOTT PLUMBING INC. This document is to be followed by all MIKE SCOTT PLUMBING INC employees and contractors on MIKE SCOTT PLUMBING INC owned premises. In addition, this program is to be used in the event an operator program does not exist or is less stringent than our own.

Definitions

Chemical - any element, chemical compound, or mixture of elements and/or compounds.

Chemical Inventory List - a list of chemicals used at this facility, or by personnel that report to this facility.

Electronic Access – using electronic media (telephone, fax, internet, etc.) to obtain Material Safety Data Sheets or health information.

Facility - an establishment at one geographical location containing one or more work areas.

(GHS) Globally Harmonized System - The Globally Harmonized System (GHS) is an international approach to hazard communication, providing agreed criteria for classification of chemical hazards, and a standardized approach to label elements and safety data sheets. NOTE: Most new GHS requirements apply to substance manufacturers or distributors since they are responsible for including safety data sheets with purchased substances. However, all employers are still required to train each employee on the new label elements and safety data sheets format. Specific training information can be found at: https://www.osha.gov/dsg/hazcom/

Hazardous Chemical - any chemical that is a physical hazard, a health hazard, or has a Permissible Exposure Limit established for it.

Hazardous Substance - see hazardous chemical.

Hazard Communication Program Coordinator - the person who has overall responsibility at a facility for that facility's Hazard Communication Program.

Health Hazard - a substance for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic adverse health effects may occur in exposed employees.

IDLH - immediately dangerous to life and health.

Immediate Use - the chemical will be under the control of and used only by the person who transfers it from a labeled container and only within the work shift in which it is transferred.

Job Site - an area remote from a facility where hazardous chemicals are stored or used and employees are present for the purpose of business.

(MSDS) Material Safety Data Sheet - a written or printed document containing chemical hazard and safe handling information, prepared in accordance with the OSHA Occupational Safety & Health Standards, Section 1910.1200, paragraph (g). Recently referred to as (SDS) "Safety Data Sheets" under 2013 GHS HAZCOM update.

(NFPA) National Fire Protection Association Labeling - a common industry labeling method developed by the National Fire Protection Association to identify the hazards associated with a particular chemical.

(PEL) Permissible Exposure Limit - the maximum eight-hour time weighted average of any airborne contaminant to which an employee may be exposed.

Readily Available - when an employee has access during the course of his/her normal work shift.

(SDS) Safety Data Sheet – a written or printed document containing chemical hazard and safety handling info, prepared in accordance with the new HAZCOM GHS requirements.

Substance - see Chemical.

(TLV) Threshold Limit Value - the airborne concentration of a substance that represents conditions under which it is believed that nearly all normal workers may be repeatedly exposed day after day without adverse effect.

Work Area - a room or defined space in a facility where hazardous chemicals are stored or used and where one or more employees are present.

Workplace - see Facility.

Workplace Chemical List - see Facility Chemical List.

Responsibilities

A written hazard communication program shall be developed, implemented and maintained at each MIKE SCOTT PLUMBING INC workplace. The program will describe how labels and other forms of warning, material safety data sheets and employee information will be kept, maintained, and disseminated.

The Safety Manager is responsible for developing and implementing the Hazard Communications Program. Managers are responsible for maintaining Material Safety Data Sheets and the Chemical Inventory List for their respective locations. The Safety Manager reviews the MSDS files and Chemical Inventory List at each location at least annually to ensure they are current and complete.

The Safety Manager is also responsible for ensuring that all containers from manufacturers or distributors have the correct and updated labels per the new GHS requirements and for ensuring that all applicable employees are trained on the new label elements and safety data sheets format. Training info can be found here: https://www.osha.gov/dsg/hazcom/

Employees are responsible for following the requirements set forth in the Hazard Communication Program, to use proper personal protective equipment, to report containers without labels immediately to their supervisor and to never deface any label.

Any employee who transfers any material from one container to another is responsible for labeling the new container with all required information.

All employees are responsible for learning the requirements of this section and for applying them to their daily work routine.

Requirements

Introduction
This Hazard Communication Program was prepared for use by MIKE SCOTT PLUMBING INC to explain how we meet the requirements of the federal Occupational Safety and Health Administration's (OSHA's) Hazard Communication Standard (29 CFR 1910.1200). It spells out how we inventory chemicals stored and used, how we obtain and use material safety data sheets, how we maintain labels on chemical substances, and how we train employees about the hazards of chemicals they are likely to come in contact with on the job.

Preparation of this program indicates our continuing commitment to safety among our employees in all of our locations.

- Each facility is expected to follow this program and maintain its work areas in accordance with these requirements.
- Employees, their designated representatives, and government officials must be provided copies of this program upon request.
- As part of our ongoing hazard communication effort, we will make available other information in addition to the program to any worker requesting it.
- Asking to see this information is an employee's right,
- Using this information is part of our shared commitment to a safe, healthy workplace.

List of Hazardous Chemicals
MIKE SCOTT PLUMBING INC maintains a listing of all known hazardous chemicals known to be present at each job site by using the identity it is referenced by on the appropriate material safety data sheet (MSDS). This identity is often a common name, such as the product or trade name (i.e., Lime-A-Way).

The Chemical Inventory List is updated annually by the Hazard Communication Program Coordinator or their designee with additional updates being made when necessary.

The facility Chemical Inventory List must be available for review upon request. Additionally, a written hazard communication program must be developed, implemented & maintained at each workplace.

Material Safety Data Sheets | Now “Safety Data Sheets” due to the new GHS requirements.
Chemical manufacturers are responsible for developing MSDS's, now SDS’s. MIKE SCOTT PLUMBING INC shall have an SDS for each chemical used with the exception of consumer products. SDS’s must be obtained for each required chemical from the chemical manufacturer, supplier, or vendor. The purchasing of any potentially hazardous chemical products from any supplier that does not provide an appropriate Material Safety Data Sheet in a timely fashion is strictly prohibited.

MSDS's now known as SDS’s shall be maintained and readily accessible in each workplace. SDS’s can be maintained at the primary work site, however, they should be immediately available in case of emergency. SDS’s must be made available upon request to employees, their designated representatives, the Assistant Secretary of Labor, and to the Director of OSHA.

Safety Data Sheets are filed alphabetically, and by material classification, in the SDS Book. A Chemical Inventory List is provided in the front of the MSDS Book, listing all MSDS' contained therein. This inventory serves as the

index of the MSDS Book. The SDS Book shall be displayed in a prominent location in the work area where it is accessible to all employees.

A copy of a SDS request form is located in the first section of the SDS Book. An employee may use a copy of this form to request an SDS or he may ask the Manager for one. In either case, the requested SDS must be given to the employee within 24 hours of being requested.

The Safety Data Sheet must be kept in the SDS library for as long as the chemical is used by the facility.

Electronic access (telephone, fax, Internet, etc.) may be used in the acquisition of any needed SDS and to maintain SDS libraries and archives.

The Manager is responsible for seeing that the Chemical Inventory List inventory is maintained, is current, and is complete. He will review and update the inventory and the SDS Book at least annually. When a hazardous material has been permanently removed from the work place, its SDS is to be removed from the SDS's Book and the Chemical Inventory List. The SDS is then placed in a "dead file" in case it is needed in the future.

SDS's for hazardous materials to which employees have been exposed must be maintained after the employee leaves the employment of MIKE SCOTT PLUMBING INC.

Employees will be advised of all special instructions, PPE, and the hazards associated with chemicals-including chemicals contained in unlabeled pipes-in their work areas. The Manager will inform employees of the hazards of non-routine tasks by presenting a copy of the site specific hazardous materials list, ensuring that the employee is aware of their presence should a non-routine task with unfamiliar materials present itself.

Employees have the right to request MSDS on any chemical, which must then be provided without any issues.

Labels, Labeling and Warnings:
The Manager will ensure that all hazardous chemicals used or stored in the facility are properly labeled.

- Damaged labels or labels with incomplete information shall be reported immediately,
- Damaged labels on incoming containers of chemicals will not be removed,
- New labels shall be provided as needed so that all containers are labeled correctly,
- Only containers into which an employee transfers a chemical for their own immediate use will not require labeling,
- Employees who are unsure of the contents of any container, vessel, or piping must contact their supervisor for information regarding the substance including:
    - The name of the substance,
    - The hazards associated with the substance,
    - The safety precautions required for working with the substance.

Labels, tags, or markings on containers shall use the following 16-section (GHS) formatting convention and headings:

- Identification
- Hazard(s) identification
- Composition/information on ingredients
- First-Aid measures
- Fire-fighting measures
- Accidental release measures
- Handling & Storage
- Exposure controls/personal protection

- Physical and chemical properties
- Stability and reactivity
- Toxicological information
- Ecological information
- Disposal considerations
- Transport information
- Regulatory information
- Other information, including date of preparation or last revision

All containers must be labeled correctly under the new GHS HAZCOM standard (this responsibility usually falls upon the manufacturers shoulders. However, if labels are not present for any reason, employers are responsible for labeling containers. Upon transferring the content of one container to another, the employee must label the new container with all required information. This information can be obtained from the labeling of the original container or from the material's SDS. Any container of a potentially hazardous material that will not be emptied during one shift must be labeled, without exception.

Personnel in the Shipping and Receiving Departments are responsible for the proper labeling of all containers shipped by MIKE SCOTT PLUMBING INC and for the inspection of all incoming materials for correct labeling. Chemicals received from vendors that are improperly labeled must be rejected.

NFPA Standard 704 labels shall be the preferred hazard identification method used in MIKE SCOTT PLUMBING INC facilities and on materials containers used on client sites. All employees, clients, subcontractors, and visitors who may come in contact with a hazardous substance must be briefed to ensure understanding of the NFPA 704 labeling system.

Training
Employees shall be provided with appropriate, effective information and training on the hazardous chemicals in their work area at the time of their initial assignment, and upon the introduction of a new physical or health hazard into their work area. Information and training may be designed to cover categories of hazards (e.g., flammability, carcinogenics) or specific chemicals. However, chemical-specific information must always be available through labels and safety data sheets.

Additional training will be provided whenever a new chemical hazard is introduced into the work area. Supervisors will conduct supplementary training when deemed necessary in order to reinforce the importance of the proper use and handling of chemicals.

Only facility employees and individuals knowledgeable with MIKE SCOTT PLUMBING INC Hazard Communication program will conduct training sessions.

The Manager shall ensure records of employee training are maintained properly.

When an outside contractor, such as a pest control worker or a carpenter, enters a MIKE SCOTT PLUMBING INC site in order to perform a service for MIKE SCOTT PLUMBING INC, they must first present MSDS' for any and all hazardous chemicals which will be used. These MSDS' will be treated with the same training requirements as the MSDS' kept on site for regularly used chemicals and materials. The Manager will be responsible for contacting each contractor prior to work commencing, in order to gather and disseminate any information concerning chemical hazards the contractor is bringing into the work place.

The Hazard Communication Program documented training shall, as a minimum, include:

- Requirements, details, and rights of the employee as contained in the Hazard Communication regulation,
- Operations and work areas where hazardous chemicals are present,

- Location of the written Hazard Communication Program, SDS's and the Chemical Inventory List,
- How to access SDS's or SDS information,
- How to read labels and Material Safety Data Sheets for pertinent hazard information,
- How employees can obtain and use the appropriate hazard information,
- Methods and observations that may be used to detect the presence or release of hazardous chemicals by use of monitoring devices, visual appearance or odor,
- The physical & health hazards of chemicals in the immediate work area,
- Protection measures utilized for the prevention of hazards related to exposure,
- Appropriate work practices,
- Emergency procedures,
- The use of proper PPE.

Multiple Work Sites

Where employees must travel between work places during a work shift, the written HAZCOM Program shall be kept at a primary job site. If there is no primary job site, then the program shall be sent with employees.

The program shall be made available, upon request, to employees, their designated representatives, the Assistant Secretary, and the Director in accordance with requirements of 29 CFR 1910.1020(e).

Multiple Employer Job Sites

A pre-job briefing shall be conducted with the contractor before work commences on site.

- During this pre-job briefing, contractors shall provide to MIKE SCOTT PLUMBING INC current copies of all Safety Data Sheets along with the label information for every hazardous substance brought on-site.
- MIKE SCOTT PLUMBING INC must notify and provide required MSDS and label information for all hazardous materials the contractor may encounter on the job,
- Labeling systems and precautionary measures to be taken by the contractor during both normal conditions and emergencies shall be addressed,
- By providing such information to other employers, MIKE SCOTT PLUMBING INC does not assume any obligations that other employers have for the safety of their employees,
- In this regard, other employers working on MIKE SCOTT PLUMBING INC property, or for MIKE SCOTT PLUMBING INC on client's property, remain fully responsible for developing and implementing their own compliant hazard communication programs.

Hazard Warnings / NFPA 704

The NFPA 704 Diamond is a means of disseminating hazard warning and information for a specific material. The diamond is divided into four sections. Each of the first three colored sections has a number in it associated with a particular hazard. The higher the number is, the more hazardous a material is for that particular characteristic. The fourth section includes special hazard information. The four sections and an explanation of the numbers in them are provided as a reference below:

NFPA Rating Explanation Guide

RATING NUMBER	HEALTH HAZARD	FLAMMABILITY HAZARD	INSTABILITY HAZARD
4	Can be lethal	Will vaporize and readily burn at normal temperatures	May explode at normal temperatures and pressures
3	Can cause serious or permanent injury	Can be ignited under almost all ambient temperatures	May explode at high temperature or shock
2	Can cause temporary incapacitiation or residual injury	Must be heated or high ambient temperature to burn	Violent chemical change at high temperatures or pressures
1	Can cause significant irritation	Must be preheated before ignition can occur	Normally stable. High temperatures make unstable
0	No hazard	Will not burn	Stable

RATING SYMBOL	SPECIAL HAZARD
ALK	Alkaline
ACID	Acidic
COR	Corrosive
OX	Oxidizing
☢	Radioactive
₩	Reacts violently or explosively with water
₩OX	Reacts violently or explosively with water and oxidizing

HAZARDOUS WASTE OPERATIONS/ EMERGENCY RESPONSE

Purpose

This program covers emergency and post-emergency response procedures including training for staff responding to releases or serious threats of releases of chemical or petroleum products, regardless of the location of the hazard. Although there is a section dedicated to hazardous materials and emergency response (29 CFR 1910.120), this section does not cover all work procedures regarding emergency response and 29 CFR 1910 and 29 CFR 1926 continue to apply in all aspects of emergency response procedures. If there is a conflict or overlap, the requirement that more suitably provides for the safety and health of employees will apply. Requirements of 29 CFR 1910.120(q) applies to land or water emergency response efforts to the release of chemicals or petroleum products stemming from MIKE SCOTT PLUMBING INC facilities or in the course of business transportation. The primary concern, in times of emergency response, is the protection of responding personnel.

Scope

This document covers all MIKE SCOTT PLUMBING INC employees and contractors when responding to the release of chemicals or petroleum products.

Definitions

Emergency response – effort by employees or other designated responders from outside the immediate release area to an incident resulting in, or likely to result in, an uncontrolled release of crude oil or petroleum products.

Health hazard – Dangers to a person's health that include, but are not limited to: chemicals that are carcinogens, reproductive toxins, toxic agents, irritants, sensitizers, corrosives, hepatotoxins, neurotoxins and nephrotoxins; agents that act on the hematopoietic system; agents that damage the skin, lungs, eyes or mucous membranes; and stress due to temperature extremes.

Post emergency response – The portion of an emergency response conducted after the immediate threat of an uncontrolled release of a substance has been stabilized or eliminated and clean-up has begun.

Requirements

Written Safety and Health Program and Emergency Response Plan

MIKE SCOTT PLUMBING INC and its contractors will develop a written pre-incident health and safety program to handle possible emergencies before employees begin emergency response operations. For those employees required to be involved in product spill emergency and post-emergency response, the program will identify, assess and control safety and health hazards to provide for safe response efforts. These programs will be described in controlled manuals and designated as contingency plans or hazardous materials handling procedures. The plan must be in writing and available for employees, their representatives and OSHA representatives to inspect.

The following elements must be included in a site-specific safety plan or a combination of plans meant to address response action:

- Pre-emergency planning and coordination with third parties,
- Roles of staff, chain of command, training and communication,
- Emergency prevention and identification,
- Safe distances and places of sanctuary,
- Site security and control,
- Escape routes and procedures,
- Decontamination procedures,
- Emergency notification and response procedures,

- Method to evaluate the response and ensure follow-up,
- Personal protective equipment (PPE),
- Spill control, containment and recovery equipment,
- Worker and site monitoring to ensure protective actions are appropriate to the conditions at the site.

Decontamination procedures will be developed by MIKE SCOTT PLUMBING INC safety office and communicated to all employees through training. Drills will be conducted before any employees or equipment are allowed to enter areas where potential for exposure to hazardous materials exists.

Engineering controls, work practices and PPE must be used to reduce and maintain exposure limits. Practical engineering controls include using pressurized cabs or control booths on equipment and/or the use of remotely operated material handling equipment.

Procedure

The following safety and control procedures will be used by those in charge at the scene of the accident to ensure the safety and health of all staff at spill locations.

Person Discovering the Spill:

- Evaluate and secure the area. Assess the seriousness of the situation as it pertains to the health and safety of workers and the public. Do not approach the spill if the smell of hydrocarbons or other chemicals is present,
- Notify your supervisor as soon as possible. Place your call from a safe distance from the spill,
- If the situation requires it, stay put at the scene and control access to the spill until the first response team arrives. The spill area will then fall under regulatory controls with limited access.

Initial Spill Control Actions:

- Actions will be designed to prevent the spread of a spill, contain its movement or minimize the area affected by the spill and must not begin until all of the following conditions are met:
    - A site safety survey is conducted,
    - Air has been monitored to identify and qualify levels of airborne hazardous substances,
    - Gas detector readings are equal to, or less than, 10% of the lower explosive limit (LEL). Readings above 10% of the LEL require immediate evacuation of the spill site to a place where LEL conditions are less than 10%.

Initial Approach and Gas Testing:

- Gas testing employees and contractors must be trained to proficiently operate their equipment and be knowledgeable about other site-specific requirements,
- LEL meters (combustible gas detectors) must be calibrated and tested before approaching a spill site,
- Oxygen, LEL and permissible exposure levels (PEL) must be assessed throughout the area and around the perimeter of the spill at as many points as possible. These levels need to be monitored periodically throughout the shift in order to detect changes in airborne hazards that may result from changing weather conditions, work activities and other conditions,
- When approaching the spill site:
    - Conduct a function test and check the zero reading on the gas detector,
    - Put the respirator on,
    - Monitor the gas detector readings while approaching the spill site,
    - Continue until one of the following conditions are met:
        - You can see all that you need to see,
        - The LEL reads 10% or higher on the gas detector, or
        - Gas or liquid oil condensates are found,
        - CAUTION: Gas detectors must be kept warm. Avoid rough handling of the detectors.

        - NOTE: Do not move any closer to the spill site once one of the above conditions is met.
        - NOTE: First aid kits, decontamination units and eye flushing kits will be on-site before contact is permitted with gas or liquid oil condensates.
- Initial observations and site conditions must be reported to the Incident Commander,
- Hot zones (exclusion areas) must be marked or flagged around the spill to prevent access.

Personal Protective Equipment (PPE) and Chemical Protective Clothing

- Respiratory protection – When gas detectors indicate a 10% or higher level of LEL during spill response procedures, persons trained in gas testing must evaluate PEL levels to determine the amount of respiratory protection needed.
- Skin protection – In order to minimize skin exposure to chemicals, the following PPE is recommended:
    - Hands – neoprene, butyl or nitrile rubber gloves,
    - Feet – neoprene, butyl or nitrile rubber boots,
    - Body – PVC rain suits or coated Tyvek,
    - Eye Protection – Safety glass are the minimum required protection. If splash hazards are present, chemical goggles or face shields with chemical goggles must be used. Additional eye protection is not required if a full-face respirator is used,
    - NOTE: Both one-piece and two-piece chemical suits (magnum 445) are acceptable for use. Gloves and boots may be taped to the arms and legs of suits if needed. The flaps of a two-piece suit may be taped. When taping, heavy duty duct tape is recommended.

Other Considerations:

- Personal protective clothing and equipment is designed to protect individuals from the physical, chemical and biological hazards associated with handling crude oil. There is no single combination of PPE and clothing that can protect against all hazards,
- Using PPE can, in itself, create operator hazards including heat, mental and physical stress. It can also cause impairments to vision, communication and mobility.
- Clothing and equipment that provide a sufficient amount of protection from the hazard at hand will be used,
- Avoid overprotection and under-protection whenever possible.

Post-Emergency Decontamination Procedures and Response Cleanup

Employees exiting contaminated areas must be decontaminated accordingly, and all contaminated clothing and equipment must be disposed of or decontaminated. Engineering controls, work practices and PPE will be used to minimize and maintain exposure limits.

MIKE SCOTT PLUMBING INC does not remove contaminated soil or other contaminated elements of the natural environment.

The safety office will oversee MIKE SCOTT PLUMBING INC decontamination procedures to evaluate their effectiveness. Steps will be taken to correct deficiencies when procedures are found to be ineffective.

Regular showers and change rooms will be placed outside of contaminated areas when required for decontamination; they will meet 29 CFR 1910.141 requirements. Decontamination will be done in areas to limit the exposure of uncontaminated employees and equipment to contaminants. Ground water, wind direction, barriers, fencing, signage, construction material and training must all be considered when trying to control contaminants.

PPE and other equipment must be decontaminated, cleaned, maintained or replaced as needed in order to maintain effectiveness. If an employee's non-impermeable clothing becomes saturated with hazardous materials, the employee must immediately remove the clothing.

Only authorized employees are permitted to remove protective clothing and gear from change rooms.

General Safety/Physical Hazards
The physical working conditions will be continually assessed during training drills, spill responses and remediation operations. Long working hours coupled with exposure to hot or cold weather conditions may adversely affect persons involved both psychologically and physically. Continued exposure may cause physical discomfort, loss of productivity and a higher propensity to injuries and accidents.

Staff must always be on alert to signs of distress in order to reduce the risk of accidents. Procedures for everyday tasks and emergency response should be reviewed on a regular basis to ensure that all employees perform their duties as safely and effectively as possible.

Supervisors must keep the following procedures and safety precautions in mind when making decisions as to how work will be conducted with petroleum and petroleum products:

- The job must be pre-planned, and all workers informed of their responsibilities and procedures to be followed,
- Supervisors will remain at the job site at all times and, if required to leave, will appoint a qualified person to oversee operations,
- Hazardous areas will be defined when responding to hydrocarbon spills or gas leaks. No personnel or equipment will be allowed to enter the spill area until the hazards in the contaminated area have been clearly identified by a qualified person,
- Prior to beginning work, supervisors should ensure that tools and safety equipment (including PPE) are safe, functional and that all necessary equipment is available,
- Precautions must be taken before allowing vehicles, heavy equipment, and hand and power tools into a spill area. Power tools used in repairs at contaminated sites must be removed from the area as soon as work is completed. Nonessential personnel are not permitted to enter the work area,
- Lighters, matches and smoking materials must be placed in areas designated as safe by management,
- Repaired equipment should be checked to ensure it is in proper working order before the unit is placed back into service,
- The most senior official at the accident site is responsible for managing operations at the site,
- Medical Surveillance – Persons exhibiting signs or symptoms resulting from possible exposure to hazardous materials during the course of an emergency response must be provided with a medical consultation at no cost to them. This includes all employees who are, or may be exposed to hazardous materials or health hazards at or exceeding the allowed exposure limit, for 30 days or more a year.

Training

MIKE SCOTT PLUMBING INC's new hire orientation program trains all new employees and contractors to ensure they know what to do in the event of a chemical release. Personnel are required to leave the area and take no further action beyond notifying MIKE SCOTT PLUMBING INC of the release.

Training for employees expected to participate in an emergency or post-emergency response must be completed before they participate in the response operations. Personnel will receive initial training before beginning work and refresher training thereafter. The level of training received will be commensurate with their assigned job duties and functions and will take place in the area in which they are working.

Initial Emergency Response Training

Who needs emergency response training?

- Support Personnel – Support personnel are those that support in the operation of equipment or material who are needed temporarily to perform immediate emergency support work that cannot reasonably be

done in a timely manner by MIKE SCOTT PLUMBING INC employee responders. This includes, but is not limited to, equipment operators, general laborers, crane and hoisting equipment operators and mechanized earth moving operators. Support staff at risk of exposure to hazards during emergency response procedures must be trained in using PPE, work practices to minimize dangerous risks and the safe use of equipment and engineering controls.

- First Responder Awareness Level – This designation applies to employees who are likely to encounter the release of a hazardous material and are trained to initiate the emergency response sequence by notifying MIKE SCOTT PLUMBING INC facility operations staff of the release. Employees at this classification are required to receive initial training or have a combination of experience and demonstrated competency. Refresher training or proof of competency is required annually. First Responder Awareness Level workers must have adequate training or experience to demonstrate competency in the following areas:

    - Understand what hazardous substances are and the risks associated with them in an accident,
    - Understand the potential outcomes in an emergency when hazardous materials are present,
    - Recognize the presence of hazardous substances in an emergency,
    - Ability to identify the hazardous substances,
    - Understand the role of the first responder awareness individual in the client's emergency response plan including security and control of the site and the U.S. Department of Transportation's Emergency Response Guideline,
    - Ability to recognize the need for additional resources and to make notifications to obtain those resources, if necessary.

- First Responder Operations Level – This designation applies to staff who are identified in contingency plans as responders to the release or potential release of hazardous substances. These workers are part of the initial response to the site to protect nearby people, property or the environment from the effects of the release and will be trained to do so. Their role is to limit the release from a safe distance and prevent it from spreading. All personnel at this level must have eight (8) hours of initial training or sufficient experience to demonstrate equivalent competency. Certification is required.

- Hazardous Materials Technicians – This designation applies to workers who are identified in contingency plans as responders to releases or potential releases of hazardous substances in order to prevent the release and are trained at this level. Technicians know: how to implement emergency response plans; know how to classify, identify and verify known or unknown substances; knows how to select and use appropriate PPE; functions with an assigned role in the incident command system; performs advanced containment, and understands decontamination and toxicology. Personnel at this level must receive 24 hours of training equivalent to first responder operations level. Annual refresher training or demonstration of equivalent competency is required. Certification is also required.

- Hazardous Materials Specialists – This designation applies to employees working as field safety specialists who are trained to this level. Material specialists must have at least 24 hours of training at the technical level and must have the ability to develop a site and safety control measure. Refresher training or demonstration of equivalent competency is required annually. Certification is required.

- On-Scene Incident Commander – This designation applies to those personnel with at least 25 hours of training equal to the first responder operations level and know how to implement the program and policy, PPE requirements, hazard and risk assessment, state and federal regulations and all elements of decontamination. Certification is required.

Post-Emergency Response Training

Post-emergency response workers who have job duties with a low measure of risk must participate in four hours of training for chemical spills.

Refresher Training

- Employees trained in Initial Emergency Response Training must participate in annual refresher training with sufficient content and duration to maintain their competencies. Alternately, the employee may demonstrate competency in those areas annually. MIKE SCOTT PLUMBING INC must maintain records of all employee training and competency demonstrations,
- The following may be substituted for, or used in conjunction with, formal classroom training to demonstrate competency (the method used to demonstrate competency must be documented):
    - Participation in drills,
    - Completion of approved response training modules,
    - On-the-job training based on the duties and functions the employee is expected to perform during an emergency response.

Trainers and Training Material

- The Safety Manager must determine who has the authority to approve trainers and training materials used in MIKE SCOTT PLUMBING INC training for employees who are identified in contingency plans as responders to hazardous material spills, emergency and post-emergency response procedures. All instructors must have the training or academic credentials and instructional experience to demonstrate competency.

HEAT ILLNESS PREVENTION

Purpose

The purpose of this program is to reduce risks associated with heat illnesses in the work environment.

Scope

The scope of this program extends to all tasks performed in heat-exposed environments.

Definitions

"Acclimatization" refers to the gradual process the body goes through when a person is exposed to heat on a consistent basis. The acclimatization peaks within four to fourteen days for most people with at least two hours of exposure to heat each day.

"Heat Illness" is a serious medical condition caused by the body's failure to handle a particular amount of heat. Signs of heat illness include cramps, heat exhaustion, fainting and heat stroke.

The "preventative recovery period" is the time it takes the body to recover from heat exposure in order to avoid heat illness.

"Shade" refers to the blocking of sunlight. Shade can be provided by canopies, umbrellas, and temporary structures designed to block out or minimize direct sunlight. Shade is sufficient when objects in the shaded area do not cast a shadow. Shade is inadequate when it does not allow the body to cool. For instance, a car parked in the sun does not provide adequate shade, unless the air conditioning is also used to assist with cooling the body.

Requirements

The responsibility of carrying out and maintaining the Heat Illness Program belongs to managers and supervisors. Physical work factors that may contribute to heat related illnesses shall be taken into consideration prior to performing a task. Additionally, supervisors must take personal factors into consideration prior to assigning a task where heat related illnesses are probable.

Access to Water

All employees will have access to safe and potable drinking water. Where there is no plumbing or continuous supply of water, it will be provided, in sufficient quantities, at the beginning of the employee's shift.

Access to Shade

All employees will have access to shade. Employees believed to be suffering from heat illness, or believed to be in need of a recovery period, will be provided a shaded area. The shaded area will be open to the air, ventilated or cooled. Access to shade will be permitted at all times. For more information, refer to definition of "Shade".

Control Measures

Each work location that is involved in working in heat exposed environments will set forth procedures to control the effects of environmental factors that may contribute to heat illness. The most common of these factors are temperature, air circulation, humidity, and exposure to radiant heat sources; while controls shall include proper PPE, engineering controls and administrative controls as outlined in this program.

Physical factors that may induce heat related illness must be considered before a task is performed. Common physical factors include level and duration of physical activity, type of work and clothing factors such as color, breath-ability and weight.

Supervisors must consider personal factors that may contribute to heat illness before assigning tasks where heat related illness may occur. These factors include weight, level of fitness, age, prior heat related illnesses and use of drugs or alcohol.

The following measures shall be in place to control the effects of environmental factors that can contribute to heat related illnesses. Each work site will develop procedures specific to the site, but will include these minimums:

- At least 2 quarts of water per employee must be provided at the beginning of the shift.
- Supervisors or other designated personnel will check the water containers every 30 minutes.
- Employees are encouraged to report low water levels or dirty water to the supervisor or designee,
- Supervisors will frequently encourage employees to drink water,
- Short meetings will be held every morning to remind workers to drink water frequently throughout the duration of the shift during hot weather,
- Water containers will be placed as close as possible to workers,
- Water will be replenished when levels of drinking water fall below 50%
- Disposable drinking cups will be provided to workers or workers will be provided with their own cups daily,
- Umbrellas, canopies or other shade devices will be set up by supervisors at the beginning of the shift and will be relocated to be closer to the workers, as needed,
- Those that employ non-agricultural workers are permitted to use other cooling measures provided that the measures are proven to be as effective as shade.

The following high-heat procedures shall be followed whenever the temperature exceeds 95 degrees Fahrenheit:

- (1) Ensuring that effective communication by voice, observation, or electronic means is maintained so that employees at the work site can contact a supervisor when necessary. An electronic device, such as a cell phone or text messaging device, may be used for this purpose only if reception in the area is reliable.
- (2) Observing employees for alertness and signs or symptoms of heat illness. The employer shall ensure effective employee observation/monitoring by implementing one or more of the following:
    - (A) Supervisor or designee observation of 20 or fewer employees, or
    - (B) Mandatory buddy system, or
    - (C) Regular communication with sole employee such as by radio or cellular phone, or
    - (D) Other effective means of observation.
- (3) Designating one or more employees on each worksite as authorized to call for emergency medical services, and allowing other employees to call for emergency services when no designated employee is available.
- (4) Reminding employees throughout the work shift to drink plenty of water.
- (5) Pre-shift meetings before the commencement of work to review the high heat procedures, encourage employees to drink plenty of water, and remind employees of their right to take a cool-down rest when necessary.
- (6) For employees employed in agriculture, the following shall also apply:
  When temperatures reach 95 degrees or above, the employer shall ensure that the employee takes a minimum ten minute net preventative cool-down rest period every two hours. The preventative cool-down rest period required by this paragraph may be provided concurrently with any other meal or rest period required by Industrial Welfare Commission Order No. 14 if the timing of the preventative cool-down rest period coincides with a required meal or rest period thus resulting in no additional preventative cool-down rest period required in an eight hour workday. If the workday will extend beyond eight hours, then an additional preventative cool-down rest period will be required at the conclusion of the eighth hour of work; and if the workday extends beyond ten hours, then another preventative cool-down rest period will be required at the conclusion of the tenth hour and so on. For purposes of this section, preventative cool-down rest period has the same meaning as “recovery period” in Labor Code Section 226.7(a).

When possible, working hours may be adjusted to work during cooler times of the day.

If modified hours or a shorter work shift are not possible, workers will be provided with more water and more frequent rest breaks.

Supervisors will monitor all workers and be aware of the onset of heat related symptoms.

Cell phones or other immediate means of communication will be provided to supervisors to ensure that emergency services can be reached, if necessary. Supervisors shall ensure the functionality of these devices at the designated worksite prior to the beginning of the shift.

Workers will be reminded every morning of the worksite address and directions to the site to inform first responders in case of emergency.

All new hires will be assigned a buddy to ensure that training and MIKE SCOTT PLUMBING INC procedures are understood and followed.

Training

Training on the following topics will be provided to all employees:

- Environmental, physical and personal factors that contribute to heat illness,
- The importance of water consumption, frequently and in small quantities, throughout the duration of the shift when the work environment is hot and workers are sweating more than usual while working,
- The significance of the process of acclimatization,
- Types of heat illness and the associated signs and symptoms,
- The importance of reporting to the supervisor or employer when signs or symptoms of heat illness are present in themselves or in another worker,
- Procedures set forth for responding to symptoms of heat illness, including the processes for providing emergency medical services, should those measures be necessary,
- Procedures for contacting emergency services and/or for transporting workers to a place that can be reached by emergency responders,
- Procedures to ensure that simple and accurate directions to the site can be provided to emergency responders.

It is mandatory that supervisors receive training in the prevention and detection of heat related illnesses prior to supervising workers. Supervisors must also be trained in all heat illness emergency response procedures.

Training will be provided on MIKE SCOTT PLUMBING INC heat illness procedures to prevent heat illness and the procedures to follow when heat illness is suspected.

Communication regarding these policies will be provided in an easily understandable format to all affected employees.

MIKE SCOTT PLUMBING INC will make certain that all outdoor workers, including temporary workers, have been trained in the prevention and detection of heat illness.

HYDROGEN SULFIDE PROGRAM

Purpose

This program has been established to provide minimum requirements for H2S safety specific to each worksite. Its purpose is to enhance safety in the work settings where hydrogen sulfide (H2S) is present or may be present.

Scope

This program applies to all MIKE SCOTT PLUMBING INC employees, temporary employees, and contractors providing services for MIKE SCOTT PLUMBING INC. This program establishes accepted practices for Hydrogen Sulfide. This document covers MIKE SCOTT PLUMBING INC employees and contractors and must be used on all MIKE SCOTT PLUMBING INC owned premises. When work is performed offsite, that operator's program will take precedence unless a program is non-existent or is less stringent than this program.

Definitions

Contingency Plan – a written document, specific to each work site, that provides a plan for alerting and protecting the public located within the area of exposure in the case of accidental release of potentially hazardous concentrations of H2S.

Exposure Level – the permitted exposure level of H2S is 10 parts per million (PPM) for an eight (8) hour time weighted average (TWA).

Gas Detector Instrument – an instrument used to detect and measure levels of Hydrogen Sulfide. These instruments may be manually or electronically operated.

Hydrogen Sulfide (H2S0 – an extremely toxic and potentially deadly gas that, in its pure state, is colorless and heavier than air. H2S:

- Smells like rotten eggs at low concentrations,
- Is one of the three most toxic gases known to man, ranking second between hydrogen cyanide and carbon monoxide,
- Paralyzes the olfactory nerves (sense of smell) in higher concentrations,
- Is soluble in water, and
- Is flammable and poses a great threat of explosion.

Parts Per Million (PPM) – a measure of volume indicating parts of vapor or gas per million parts of contaminated air.

Personal H2S Monitor – an electronic instrument worn by a person that detects H2S and alarms when levels reach 10 PPM.

Possible Locations of H2S – H2S can often be found in drilling operations, water from sour crude wells, recycled drilling mud, blowouts, tank gauging and during routine field maintenance involving tank batteries, wells and hydrocarbons. Clients are required to notify MIKE SCOTT PLUMBING INC of known H2S locations.

Venting – the process whereby materials are discharged into the atmosphere through piping and/or ventilation devices in order to safely disperse toxic materials and to reduce employee exposure.

Key Responsibilities

Managers and Supervisors

- Must ensure all employees are trained in hydrogen sulfide safety when the employee is assigned to work in locations where hydrogen sulfide is known to be present or may be present,
- Must ensure employees have received medical approval to wear respiratory equipment and have been trained in the safe use of respiratory equipment, according to MIKE SCOTT PLUMBING INC's Respiratory Protection Program,
- Must ensure employees have been trained and are knowledgeable with gas detection instruments and personal H2S monitors,
- Must ensure they have been provided with the client's safety procedures,
- Must ensure the availability of respiratory equipment required to perform the work safely,
- Must ensure all employees have received a copy of this program.

Employees

- Must ensure they are in compliance with the rules and procedures of this program.

Hydrogen Sulfide Risks

Physical Effects of H2S

- H2S is dangerous and deadly. It is a colorless gas that is heavier than air,
- Hydrogen sulfide accumulates in low places in small concentrations. In these low concentrations, its smell is similar to rotten eggs,
- High concentrations of H2S paralyze the sense of smell. Do not rely on smell to detect H2S. Only instruments specifically designed to measure concentrations of H2S should be relied on,
- Serious injury or death is possible if exposed to certain concentrations of hydrogen sulfide.

Toxic Effects of H2S

- At 0.01 PPM, an odor can be detected,
- At 10 PPM, the odor is obvious and unpleasant. Eye irritation begins. This level of exposure is ANSI permitted for eight (8) hours. This is enforced by OSHA,
- At 100 PPM, the sense of smell is paralyzed within 3-15 minutes. It may sting the eyes and throat. Drowsiness or coughing may ensue. This level is Immediately Dangerous to Life or Health (IDLH). Death may result within 48 hours,
- At 200 PPM, the sense of smell is paralyzed within a short time. It may sting the eyes and throat and cause respiratory irritation. Death will result after 1-2 hours of exposure at this level,
- At 500 PPM, dizziness occurs and breathing ceases within a few minutes. CPR is needed immediately. Self-rescue is impossible due to the loss of muscle control,
- At 700 PPM, one becomes unconscious quickly and death will result if not rescued quickly,
- At 1000 PPM, one becomes unconscious immediately, resulting in death within minutes.

Procedure

General

MIKE SCOTT PLUMBING INC will have a documented confined space program, per 29 CFR 1910.146 requirements. Employees will be trained under 1910.146(g) requirements. MIKE SCOTT PLUMBING INC employees will be aware of all applicable contingency plans.

Persons entering hydrogen sulfide locations, no matter the concentration, must wear a personal H2S monitor that is set to alarm at 10 PPM. They must carry a 5-minute escape pack at all times when working in H2S designated locations.

When equipment has the potential to release 100 PPM or more of H2S when it is opened, two or more H2S trained employees must be present and will use the following procedures before and during the opening of the equipment:

- Persons entering H2S locations must put on a personal H2S monitor before entering the location,
- A tailgate meeting will be held on location to review the work plan, each person's responsibilities and the site's contingency plan,
- Each person must have a self-contained breathing apparatus (SCBA) or a supplied airline respirator supplied with a 5-minute escape pack. These must be worn when opening the equipment,
- One person for every two workers must be equipped with a SCBA. This person will act as a standby and will not engage in the work being performed until the atmosphere has been tested and found to have less than 10 PPM H2S. The standby person must be positioned up-wind, within 100 feet and in clear view of the workers,
- If the standby person is provided by the operator or other third party, MIKE SCOTT PLUMBING INC manager or supervisor must verify that the standby has been trained in H2S, CPR and First Aid, and that they have the required respirator equipment,
    - Only MIKE SCOTT PLUMBING INC employees can wear MIKE SCOTT PLUMBING INC-provided respiratory equipment,
    - If MIKE SCOTT PLUMBING INC employees are required to use client or third party equipment, the equipment must be inspected to ensure it meets MIKE SCOTT PLUMBING INC's requirements for safety.

Once the equipment has been locked and tagged out according to MIKE SCOTT PLUMBING INC's Lockout/Tagout Program, opened and H2S concentration cleared to be less than 10 PPM, the standby person is no longer required. At that point, work can be performed without all respiratory equipment except the 5-minute escape pack.

Safe Work Procedures

- Be in compliance with the permit requirements of MIKE SCOTT PLUMBING INC and the client,
- Ensure that appropriate safety equipment is available, functioning and used,
- Check and monitor wind conditions and direction,
- Conduct a thorough check of the downwind area before starting potentially hazardous work activities,
- Check the area for other personnel and sources of ignition,
- Ensure work areas are ventilated by venting and purging lines and vessels before beginning work activities,
- Keep all non-essential workers away from work areas,
- Immediately leave the area when any H2S monitor sounds. Do not re-enter the area without proper respiratory protection.

Equipment

The following equipment will be provided and is required to be used according to the procedures set forth in this program:

- Personal H2S monitors that will alarm at 10 PPM (OSHA 1926 requirements) and 20 PPM (OSHA 1910 requirements). Fixed monitors may also be placed at the same alarm settings, but do not substitute for personal H2S monitors,
- Electronic or manually operated portable H2S gas testing instruments capable of testing the suspected concentrations of hydrogen sulfide in the system,
- Test instruments must be calibrated according to the manufacturer's instructions, and at least annually,
- Calibration kits with a regulator for calibrating personal monitors,
- Calibration gas cylinders for testing the personal monitors,
- NIOSH-certified self-contained breathing apparatus (SCBA) with a minimum 30 minute air supply, or an airline respirator with an escape SCBA must be used,

- Full face, air supplied, positive pressure hose line respirator with an attached 5-minute escape pack,
- Spectacle kits for employees who wear respirators and require corrective eyewear. These will be provided at no cost to the employee,
- Respirators and their components (including fittings of hoses) must not be interchanged because this would void the approval rating of the respirator and/or its related equipment.

Medical

Every employee must have a completed medical evaluation by a physician or licensed health care professional to determine his or her ability to wear a respirator when required by MIKE SCOTT PLUMBING INC's Respiratory Protection Program.

Each employee is required to successfully complete the medical questionnaire and examination before they are permitted to be fit tested with a respirator.

Training

Employees who work on H2S locations must be trained in the following:

- Sources of hydrogen sulfide,
- Physical and chemical properties of hydrogen sulfide,
- Human physiology,
- Signs and symptoms of exposure to H2S, to include acute and chronic toxicity,
- Medical evaluation,
- Work procedures,
- Contingency plan use and emergency response,
- Required PPE use when working around H2S,
- Burning, venting and flaring of H2S,
- H2S release dispersion models,
- State and federal regulatory requirements,
- Calibration, care and use of personal monitors and gas detection instruments,
- Inspection of respirators,
- Record keeping, and
- Rescue techniques, first aid and post-exposure evaluation.

Each employee required to wear a respirator must successfully complete Respiratory Protection training. After medical clearance, the respirator wearer must take a Respirator Fit Test and select an appropriate respirator prior to entering H2S locations.

Employees and other persons in H2S locations who are not involved in the work must be informed of the following before entering the area:

- Health hazards of H2S,
- Site-specific sources of H2S,
- Escape routes,
- Emergency assembly areas,
- Alarm signals,
- How to respond in case of emergency.

Rescue

All employees working alone in designated H2S areas must have a plan for escape and be familiar with self-escape procedures, including awareness of wind direction and obstacles to avoid when escaping the work area.

All employees working under the buddy system must plan an emergency evacuation procedure and emergency rescue procedure before beginning work. These employees must periodically communicate these procedures with the supervisor; these discussions will be documented on each employee's service report.

Respirator Inspections

Respirators must be inspected prior to each use and at least every month. The respirator's components, including the face piece, hose, harness, 5-minute escape pack and cylinder must also be inspected. Monthly inspections must be documented according to MIKE SCOTT PLUMBING INC's Respiratory Protection Program and will be kept on file in the local office.

Monitors and Gas Detector Calibration

All personal H2S monitors must be calibrated at least every month. The results of the calibration must be recorded on the calibration log. Monitors that do not require calibration must be bump checked with calibration gas in order to test the alarms. This must be done monthly or prior to each use if not used routinely.

INCIDENT INVESTIGATION AND REPORTING

Purpose

The purpose of this program is to put in place effective procedures for reporting, evaluating, and investigating reported incidents and non-conformance in order to prevent further occurrences.

Responsibilities

Responsibilities for incident investigation will be assigned to individuals prior to occurrence of an incident. Individual responsibilities for reporting and investigation must also be already in place and assigned prior to incidents.

MIKE SCOTT PLUMBING INC Safety Manager

Ensures investigations are conducted in a timely manner, assists in the identification of corrective actions, and makes sure the corrective actions are carried out expeditiously.

Site Manager and Supervisors

- Investigates (or assists in) incident investigations,
- Ensures all incidents are corrected in order to comply with MIKE SCOTT PLUMBING INC policy,
- Will assist MIKE SCOTT PLUMBING INC injured employees to a medical provider for initial treatment.

Employees

- Immediately report any injury, job related illness, spill, or damage to any property to their immediate supervisor.
- If their immediate supervisor is unavailable, the employee will then immediately notify the project manager or next person higher up the chain of command. Employees who are eligible to be first responders will be trained and qualified in first aid techniques in order to help mitigate the degree of loss during the immediate post-incident phase.

Procedure

After rescue or response, actions to prevent further loss should immediately occur if the scene is safe. For example, maintenance personnel should be summoned to assess integrity of buildings and equipment, engineering personnel to evaluate the need for bracing of structures, and special equipment/response requirements such as safe rendering of hazardous materials or explosives employed.

Investigations of Incidents & Non-conformance

Investigation is an important part of an effective safety program in that it determines the root cause and corrective actions necessary to prevent similar incidents or non-conformance from occurring in the future.

The following incident must be reported IMMEDIATELY to the employee's supervisor. If that person is not available then MIKE SCOTT PLUMBING INC Safety Manager shall be immediately notified for:

- Near miss incidents with the potential to harm people, the environment, or assets,
- Work related injuries or illnesses,
- Any damage to property, including vehicle incidents,

- Hazardous chemical spillage, which includes loss of containment and contamination,
- Non-conformance to safety or environmental rules, policies, or standards.

The supervisor will notify all necessary individuals and agencies and then begin the incident investigation process.

In the case of a major injury or incident, the scene of the event should be closed off and kept "as is" at the time of the incident. This is vital for effective incident investigation.

Incident investigation will take place as soon as possible, while the facts are still fresh within the minds of everyone involved (i.e. witnesses). Take the opportunity to talk to all of those involved before they become unavailable or their memory fades. An incident investigation must be thorough and only focused with the cause and prevention. Administrative disciplinary action will be kept separate from the investigation process.

Equipment

All necessary equipment will be made available to aid in conducting a proper investigation. Equipment may include some or all of the following items:

- writing equipment such as pens/paper,
- measurement equipment such as tape measures and rulers,
- cameras, small tools, and audio recorder,
- PPE, flags, equipment manuals, etc.

The Safety Manager shall have a incident investigation kit prepared in advance to facilitate a thorough investigation.

Incident Reporting Matrix

The Incident Reporting Matrix identifies, based on type of incident, who within corporate management shall be verbally notified and when. It also specifies which type of report from the field shall be completed based on the type of incident.

Reporting of the incident must occur in a specified manner based on site specific requirements and the reporting sequence shall be posted.

EXTERNAL INCIDENT NOTIFICATION MATRIX

TYPE OF INCIDENT	WHO TO NOTIFY VERBALLY	WHEN	INCIDENT REPORT FORM
Minor First Aid	Owner Client	24 hrs	Yes
Injury Above Minor First Aid	911 / Site Medical Response / Owner Client	ASAP	Yes
As Required Injury Reporting	OSHA / Owner Client	Within 8 hrs	Yes
Fire / Explosion	911 / Site Fire Response / Owner Client	ASAP	Yes
Reportable Spill	Site Environmental / Owner Client	Within 24 hrs	Yes
Property/Vehicle Damage	Owner Client	Within 24 hrs	Yes

INTERNAL INCIDENT NOTIFICATION MATRIX

TYPE OF INCIDENT	WHO TO NOTIFY VERBALLY	WHEN	INCIDENT REPORT FORM
Minor First Aid	Safety Manager	ASAP	Yes
Injury Above Minor First Aid	Safety Manager	ASAP	Yes
As Required Injury Reporting	President then Safety Manager	ASAP	Yes
Fire / Explosion	Safety Manager	ASAP	Yes
Reportable Spill	Safety Manager	ASAP	Yes
Property/Vehicle Damage	Safety Manager	ASAP	ASAP

Time Elements for OSHA and Client Notification

Required incidents must be verbally reported to OSHA within 8 hours of their discovery. Incidents must also be reported to the owner client as soon as possible or no longer than within 24 hours of the occurrence.

Incident Review Team and Incident Investigation Report

All incidents will be investigated according to levels of incident severity. While all incidents will be investigated, the extent of such investigation shall reflect the seriousness of the incident according to a root cause analysis process or other similar method approved and put in place by MIKE SCOTT PLUMBING INC Safety Manager. An Incident Review Team that participates in the determination of the final root cause will be formed to aid investigative incident reporting. The team will consist of representatives of management, or other personnel assigned by MIKE SCOTT PLUMBING INC Safety Manager.

Initial Identification/Assessment of Evidence

Initial identification of evidence immediately following the incident should include:

- the location of the incident, a listing of people on the scene,
- equipment, and materials involved,
- and a recording of environmental factors such as weather, illumination, temperature, noise, ventilation, etc.

Collection/Preservation and Security of Evidence

Evidence such as people, positions of equipment, parts, and papers must be preserved, secured and collected through the use of notes, photographs, witness statements, flagging, and the seizing of documents and equipment. All evidence shall be dated appropriately.

Witness Interviews and Statements

Witness interviews and statements must be collected. Locating witnesses, ensuring unbiased testimony, obtaining appropriate interview locations, and use of trained interviewers should be detailed. The need for follow-up interviews should also be addressed. All items shall be dated.

The final incident investigation report will consist of findings with critical factors, evidence, corrective actions, responsible parties, and a schedule for corrective action and timeline for completion.

Results of incident investigations are communicated to employees via the Incident Notice form.

Preparation of the Written Incident Report

Written incident reports will be prepared and will include the Field Incident Report Form along with a detailed narrative statement concerning the events. The format of the narrative report should include an introduction, methodology, summary of the incident, Incident Review Team member names, narrative of the event, findings and recommendations. Photographs, witness statements, drawings, etc. should be included in the report.

The supervisor completes a MIKE SCOTT PLUMBING INC Field Incident Report and takes the steps outlined below when beginning an incident investigation:

- Provide emergency assistance, as needed and if qualified to do so,
- Secure the area as quickly as possible to retain area in the same condition as the time of the incident,
- Notify management by phone according to the Incident Notification Matrix,
- Identify potential witnesses,
- Use investigation tools, as needed (camera, drawings, video, etc.),
- Secure by Lock out/Tag out any equipment involved, as evidence,
- Interview witnesses (including the affected employee) and obtain written, signed statements which will be faxed to the MIKE SCOTT PLUMBING INC Safety Manager,
- Prepare a MIKE SCOTT PLUMBING INC Field Incident Report, sign the form, and then fax it to the MIKE SCOTT PLUMBING INC Safety Manager
- Implement any corrective actions needed immediately.

Incident Notice Form

MIKE SCOTT PLUMBING INC shall provide documentation and communication of lessons learned and reviews of similar operations to prevent re-occurrence. Lessons learned are reviewed and communicated to the appropriate personnel. Changes to processes and procedures must then be put into immediate effect to prevent re-occurrence of similar events.

In order to communicate incident information and the lessons learned from them, MIKE SCOTT PLUMBING INC Safety Manager shall send the Incident Notice to all work sites. The form shall be posted on all employee bulletin boards and shall be discussed in weekly safety meetings until all employees at the job site have been informed of both the incident and the corrective actions put in place.

Corrective Actions Resulting from Incident Investigations

Incident investigations should result in corrective actions. Individuals should be assigned responsibilities relative to the corrective actions, and should be monitored until all corrective actions have been implemented. The incident investigation and report can be closed after verifying the necessary corrective actions are now in place.

Site Managers are held accountable for closing corrective actions. Corrective actions for safety improvement input are posted at each site and tracked by MIKE SCOTT PLUMBING INC Safety Manager to ensure timely follow up and completion.

Corrective actions will also use as needed for revisions to site specific safety plans and MIKE SCOTT PLUMBING INC wide Safety and Health Management System.

Injury Classifications

Injuries shall be classified per the following:

- First Aid – Dressing on a minor cut, removal of a splinter, or other such typical treatments for household type injuries,

- Lost Work Day Case (LWDC) – An injury that results in an employee being unfit to perform any work on any day after the occurrence of an occupational injury,

- Number of Lost or Restricted Work Days – The number of days, excluding the day of injury and the day of return, missed from scheduled work due to being unfit for work or medically restricted to the point that the essential functions of a position cannot be worked,

- Occupational Injury – An injury which results from a work related activity,

- Occupational Illness – Any abnormal condition or disorder caused by exposure to environmental factors while performing work. The illness would result in medical treatment by a physician for a skin disorder, respiratory condition, poisoning, hearing loss, or other disease (frostbite, heatstroke, sunstroke, welding flash, diseases caused by parasites, etc.). Minor treatments (first aid) for illnesses do not fall within this classification,

- Recordable Medical Case (RMC) – An occupational injury more severe than first aid that requires advanced treatment (such as fractures, more than one stitch, prescription medication of more than one dose, unconsciousness, removal of foreign body embedded in eye (not flushing), admission to a hospital for more than observation purposes) but does not result in lost work time beyond the day of injury,

- Restricted Work Day Case (RWDC) – An occupational injury which results in a person being unfit for essential functions of the regular job on any day after the injury but where there is no time lost beyond the actual day of injury. For example, an injured employee is kept at work but not performing the essential functions of their regular job,

- Work or Work Related Activity – All incidents that occur in work related activities during work hours, field visits, etc. are reportable must be included if the occupational injury or illness is more serious than requiring simple first aid. Incidents occurring during off hours and incidents while in transit to or from locations that are not considered an employee's primary work are not reportable.

The following are examples of incidents that will not be considered as recordable:

- The injury or illness involves signs or symptoms that surface on the job but are the result of a non-work-related event or exposure that occurs outside the work environment,
- The injury or illness results from voluntary participation in a wellness program or a flu shot, exercise class, racquetball, baseball, or other such activities,
- The injury or illness is the result of an employee eating, drinking, or preparing food or drink for personal consumption (whether bought on the employer's premises or brought in).
- The injury or illness is the direct result of an employee doing personal tasks (unrelated to their employment) at the establishment outside of the employee's assigned working hours,
- The illness is the common cold or flu (Note: contagious diseases such as tuberculosis, brucellosis, hepatitis A, or plague are considered work-related if the employee is infected at work).

Training

MIKE SCOTT PLUMBING INC shall train all personnel in their roles, responsibilities, and in proper incident investigation techniques.

Training frequency will be based on the specific area of responsibility but will never be more than two years apart.

Training requirements relative to incident investigation and reporting shall include the following:

- Awareness,
- First Responder Responsibilities,
- Initial Investigation at the Accident Scene,
- Managing the Accident Investigation,
- Collecting and analyzing data,
- Developing Conclusions,
- Judgments needs, and
- Reporting the Results

INJURY AND ILLNESS RECORDKEEPING

Purpose

The purpose of this program is to establish standards for recording MIKE SCOTT PLUMBING INC injuries and illnesses and to comply with applicable regulatory requirements.

Scope

This program applies to all employees on all MIKE SCOTT PLUMBING INC or client facilities.

Responsibilities

Safety Manager

- Implement this program and make supervisors aware of its requirements.
- Responsible for maintaining all records pertaining to this program.

Supervisors

- Ensure that all work related injuries and illnesses are promptly reported to the safety manager.
- Shall become familiar with the requirements of this program.

Employees

- Ensure that all work related injuries and illnesses are reported to your supervisor immediately.

Procedure

Written records of all work-related fatalities, injuries and illnesses must be kept to ensure accurate recordkeeping procedures. Therefore, MIKE SCOTT PLUMBING INC shall:

- Use the following instructions and forms to record injuries and illnesses: http://www.osha.gov/recordkeeping/RKforms.html
- Record all illnesses or injuries on the OSHA 300 log within 7 calendar days of receiving information that the injury or illness occurred.
- Post the OSHA 300A summary form in a place that is accessible and visible to employees from February 1st through April 30th.
- Maintain OSHA 300 records for at least 5 years.

* The OSHA 300A form shall be reviewed and signed by a MIKE SCOTT PLUMBING INC official.

Posting Requirements

MIKE SCOTT PLUMBING INC shall post the OSHA 300A summary form in a conspicuous place that is easily accessible and available to employees such as a lunchroom, time clock area or other effective common area.

Post the OSHA 300A summary form from February 1st through April 30th as per the OSHA recordkeeping requirements.

If the posted OSHA 300 summary form is defaced, altered or otherwise unreadable, it shall be replaced so that employees can effectively read the form information.

All OSHA recordkeeping forms shall be kept for at least 5 years as per the OSHA recordkeeping requirements.

LADDER SAFETY

Purpose

This program is designed to establish rules and requirements for the construction, maintenance and utilization of common ladder types.

All ladders installed on MIKE SCOTT PLUMBING INC equipment, whether purchased or engineered, are subject to this program's requirements.

Scope

Procedures outlined in this program apply to all employees who use ladders. This document covers MIKE SCOTT PLUMBING INC employees and contractors and shall be used on all MIKE SCOTT PLUMBING INC owned and operated premises. When work is performed off-site, the agent's program has precedence unless it is less stringent than MIKE SCOTT PLUMBING INC program.

Definitions

Ladder – a device consisting of side rails joined at regular intervals by rungs, steps or cleats, on which a worker may step in an ascending or descending motion.

Step ladder - a portable ladder that is self-supporting and nonadjustable length-wise. Steps are flat; the back is hinged. The size of a step ladder is designated by the length of the ladder when measured along the front edge of the side rails.

Single ladder – a portable, nonadjustable ladder with only one section. This ladder requires support. The length of the side rail denotes its size.

Extension ladder – a portable ladder consisting of two or more sections that can be adjusted length-wise by moving the sections along brackets. Its size is denoted by the sum of the lengths of all sections measured along the side rails.

Fixed ladder – a ladder that is permanently attached to equipment or a structure.

Individual-rung ladder - a fixed ladder with no side rails. Each rung is individually attached to a building, structure, or equipment.

Cage – an enclosure surrounding a fixed ladder designed to encircle the climbing space of the ladder to keep the climber safe.

Key Responsibilities

Managers and Supervisors

- It is the responsibility of all managers and supervisors to ensure that all employees and contractors are trained to use and inspect ladders according to the manufacturer's guidelines,

- It is the responsibility of all managers and supervisors to ensure that all employees and contractors are aware that any inspected ladder found to have a defect may not be used and must be taken out of service.

Employees

- Employees are responsible for inspecting ladders before, during and after each use to make certain the condition of the ladder is safe for its occupants,

- Employees are responsible for following the procedures outlined in this program,

- Employees are responsible for reporting damage or needed repairs to the supervisor.

Procedure

Inspection, Care and Safe Work Practices of Ladders

Inspection
Ladders must be inspected for visible defects by a qualified person periodically and after any incidents that may affect the safe use of the ladder.

- Ladders must have uniformly spaced rungs or meet OSHA/ANSI specifications for rungs. These rungs, steps or cleats must be parallel and level while the ladder is positioned for use,
- Any portable or fixed ladder that is found to have structural defects must immediately be marked in such a way that identifies the ladder as defective, or tagged with a "Do Not Use" sign and removed from service until repaired. These structural defects include, but are not limited to: broken rails, corrosion, broken or missing rungs or other faulty parts,
- Ladders that are tipped over must be inspected by a qualified person for dents and bends in the side rails or unusually dented rungs. Hardware connections, rivets and connections between rungs and side rails shall also be inspected at this time,
- Use of ladders with broken side rails, broken or missing steps, or other defective equipment is strictly prohibited. Employees are not permitted to make improvised repairs to these ladders,
- Wooden ladder parts must be free from splinters and sharp edges, free from shake and free from other irregularities.

Care
Ladders must be well-maintained at all times.
- The joints between steps and side rails must be tight with all hardware and fittings attached securely,
- Movable parts must operate freely without play or binding in the movement,
- Metal bearings in locks, pulleys, wheels, etc. must be lubricated frequently,
- Rope must be replaced when it is frayed or badly worn,
- Auxiliary equipment and safety feet must be kept in good condition,
- Rungs must be clean of grease and oil,
- Ladders must be stored in areas that are well-ventilated to avoid sagging and warping.

Ladder Safe Work Practices
Ladders must only be used for their intended purposes.

Ladders are required to be secured at the top or held in place by a person standing at the base.

Ladder footing must be placed on a level, stable surface.

Extension ladders are to be placed in a 4:1 ratio. Non-self-supporting ladders are to be used at an angle to ensure that the horizontal distance from the top support to the foot of the ladder is one-quarter of the working length of the ladder (the distance between the foot and top support).

If a ladder cannot be extended, the ladder must be secured at the top to a strong support that will not allow the ladder to bend or veer.

Ladders must never be placed on unstable bases, such as boxes or barrels, in order to get additional height.

Ladders may not be placed in a horizontal position to be used as runways, scaffolds or platforms.

Only one person shall occupy a ladder at any given time.

Ladders must not be placed in a doorway wherein the door opens toward the ladder unless the door is locked, guarded, or blocked open.

Ladders used in high traffic areas must be barricaded to avoid accidents and collisions.

Ladder occupants are not permitted to stand on the top two rungs of a ladder or on the top of a step ladder.

The minimum overlap during the use of two-section extension ladders is 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 must extend at least three (3) feet above the top of the upper landing surface. Side rails must extend a minimum of three (3) feet above the upper landing surface. When ladders cannot be extended, the top of the ladder must be secured to a rigid support to prevent movement.

Employees must keep a three (3) point grip on the ladder at all times. Tools and equipment must be carried up on a hoist or belt. Employees are prohibited from carrying anything in the hands that could result in a fall or injury.

Employees must face the ladder when going up or down the ladder.

Employees shall not climb on the back legs of stepladders; these are designed for increased stability, not climbing.

No person may move a ladder while it is occupied.

Portable Ladders
Length of stepladders shall not exceed 20 feet. Single ladder length shall not exceed 30 feet.

Two-section extension ladders shall not exceed 60 feet in length. All two-section ladders are designed with sections that fit together and are arranged to enable the upper section to be raised and lowered.

Ladders must be kept a minimum of 10 feet away from power lines.

Ladders must have the appropriate load capacity for the task at hand. Ladders may not be loaded beyond the maximum recommended load for that ladder, nor in excess of the capacity as rated by the manufacturer. Weight consists of the combined weight of the climber and his equipment:

- I (250 lbs capacity)
- I-A (300 lbs capacity)
- II (225 lbs capacity)
- III (200 lbs capacity)

Fixed Metal Ladders
Ladders must be made to withstand a minimum of 200 pounds.

Metal rungs must have a diameter of at least ¾ inches; wooden rungs must have a diameter of at least 1 1/8 inches.

The distance between rungs shall not be more that 12 inches (1 ft.) apart and must be uniform along the length of the ladder.

Rungs must be at least 16 inches long and provide protection to prevent a foot from slipping off the end.

A rung must have at least seven (7) inches between itself and the structure behind it.

Employees must use fall restrain systems when on fixed ladders exceeding six (6) feet in length,

- A cage is required if the ladder is 20 feet tall or greater,
- Cages on fixed ladders must be positioned at least seven (7) feet but no more than eight (8) feet from the walking surface below the cage,
- Cage widths must clear 15 inches on either side of the centerline of the rung,
- Cages must not extend less than 27 inches or greater than 28 inches from the rung's centerline,
- Fall restraint systems may be used in place of ladder cages.

LOCKOUT TAGOUT PROGRAM

Purpose

This program establishes policies and procedures for attaching suitable lockout/tagout equipment to energy isolated devices. Procedures will also be established to disable equipment to prevent unintended start up, energization or release of stored energy that may cause accidents or injury.

Scope

The procedures outlined in this program cover the maintenance and servicing of equipment and machines where unintentional energization or start-up of said equipment, or the release of stored energy, could result in an accident. Minimum performance standards for the control of hazardous energy shall be established. Work performed offsite is regulated by the site operator's program unless it is less stringent than MIKE SCOTT PLUMBING INC program. This document covers all MIKE SCOTT PLUMBING INC contractors and employees and must be used on MIKE SCOTT PLUMBING INC owned premises.

Definitions

Affected employees – Employees who operate or use machines and equipment that require maintenance and service under the lockout/tagout program, or employees who work in areas where maintenance and servicing of such equipment is performed.

Authorized employees – Employees that conduct lockout/tagout operations on machines and equipment so as to service or perform maintenance on that equipment. Affected employees become authorized employees when their duties include performing service or maintenance as prescribed in this program.

Energy source – Any source of electrical, chemical, thermal, gas, mechanical, pneumatic, hydraulic, tension, gravitational, electrical or other energy source.

Energized – Having connection to a source of energy or containing stored or residual energy.

Energy isolating devices – Mechanical devices that prevent energy from being transmitted or released. Energy isolating devices include, but are not limited to:

- Manually operated electrical circuit breakers, manually operated switches that prevent conductors and poles from being independently operated, disconnect switches, line valves, blocks and any other devices used to isolate or block energy,
- The following are not isolating devices: selector switches, push buttons and other control circuit type devices.

Hot tap – Welding on equipment under pressure (pipelines, tanks or vessels) to install connections or other accessories. This procedure is used in maintenance, service and repair of said equipment.

Lockout – Placing a lockout device on an energy isolating device to make sure that the device and controlled equipment is inoperable until the lockout device is removed.

Lockout device – A device that uses a key or combination lock to fix an energy isolating device in a safe position to prevent start up and energizing of the equipment. This includes bolted slip blinds and blank flanges.

Capable of being locked out – Energy isolating devices are able to be locked out if that particular device has a hasp or other attachment for attachment of a lock, or if the device has a locking mechanism built in. Other energy

isolating devices can be locked out if lockout can be performed without dismantling, rebuilding or replacing the device or permanently altering its energy control capabilities.

Tagout: - Using established procedures to place a tagout device on an energy isolating device. This is used to indicate that the energy isolating device and the controlled equipment cannot be used until the tagout device is safely removed.

Tagout device – A warning device, such as a tag and a means of attaching it, located in a prominent area and securely attached to an energy isolating device according to these established procedures. This is used to indicate that the energy isolating device and the controlled equipment cannot be used until the tagout device is safely removed.

Normal operation – Using a machine or piece of equipment as it is intended.

Servicing and/or maintenance – Activities such as setting up, constructing, inspecting, adjusting, modifying, maintaining, or servicing machines and equipment in environments where the employee is potentially exposed to release of hazardous energy sources or accidental start up or energization of equipment.

Setting up - Any work performed to prepare a machine or equipment for performing its normal operation.

Key Responsibilities

Managers/Supervisors

- Responsible for maintaining and enforcing this program,
- Ensure that all employees and contractors affected by the lockout/tagout program have the required training and competency to ensure the safe installation, utilization and removal of all energy controls and devices,
- Ensure employees are in compliance with the requirements set forth in this program.

Employees

- Affected employees are required to attend annual training for the lockout/tagout program,
- Responsible for following all requirements and provisions of the program.

Procedure

General
Only employees authorized to perform service or maintenance under this program are permitted to perform lockout or tagout.

Devices
Lockout Device – If it is possible for an energy source to be locked out to hold an energy isolating device in a safe position, a device that utilizes a lock will be used. MIKE SCOTT PLUMBING INC will specify the type of lock and will provide them to each site.

Tagout Device – If an energy source cannot be locked out, a tagout device must be used. Tagout devices are only warnings and must be resistant to chemicals and weather, of the standardized color with a clear written warning of hazardous energy. Examples of tags include: Do Not Start, Do Not Operate, Do Not Energize, etc. MIKE SCOTT PLUMBING INC will provide each site with the same standardized style of tags.

Specific Energy Control Procedures
Each supervisor or manager is responsible for the development of site specific step-by-step startup and shutdown procedures for each type of machine and piece of equipment in their respective areas. Periodic inspections of the energy control procedure will be conducted and documented annually to ensure procedures and requirements are being followed.

- Written, step-by-step isolation procedures detailing shutdown and startup will be put together for each type of equipment or machine,
- These procedures will include the following:
    - Assigned equipment number, if applicable,
    - Location of equipment,
    - Source of energy (e.g., hydraulic, electrical, gas, etc.),
    - Isolating controls location (e.g., valves, breaker switches, etc.),
    - Number of isolating controls
    - Number of locks required to isolate the piece of equipment
    - Hardware required to isolate the equipment (e.g., blocks, valve covers, chains, etc.),
    - Information regarding any residual energy that must be expended prior to beginning work.

Specific Sequence for Application of Energy Control

- *Notification* – Authorized employees are required to notify affected employees when lockout/tagout devices are put on or removed prior to the controls being implemented.

- *Preparation for Shutdown* – Prior to an authorized or affected employee shutting down a piece of equipment or machinery, the authorized employee must know the energy's type and magnitude, the potential hazards of the energy to be controlled, and the method or device required to control the energy source.

- *Shutdown of Machines and/or Equipment* – Machinery and equipment must be shut down using the established procedures in this program for that particular type of machine or equipment. Shutdown must be conducted in a safe and orderly fashion to prevent additional hazards to employees as a result of the shutdown.

- *Isolation of Machines or Equipment* – When energy isolating devices are required to control energy, the device will be placed and used in such a manner as to isolate the machine or piece of equipment from the energy source.

- *Lockout/Tagout Devices and Application*
  - Authorized employees will have the appropriate number of locks and devices to enable them to perform lockout/tagout procedures for machines or equipment they are working on,
  - Lockout/tagout devices will be attached to energy isolating devices by authorized employees,
  - Each lockout/tagout device will include the name of the person who placed the device,
  - Lockout devices will placed in such a way as to hold the energy isolating device in a safe or off position,
  - Tagout devices will be placed in such a way that will clearly indicate that operating or moving the isolating device from the safe or off position is not permitted,
  - When using tagout devices on energy isolating devices that could be locked out, the tagout device shall be attached at the same point the lock would have been attached. If a tag cannot be attached directly to the energy isolating device, it will be placed as closely as possible to the device in a safe position that will immediately alert anyone who attempts to operate the device,
  - Each source of energy must be locked out, completely isolating the equipment,
  - Isolating machines or equipment include, but are not limited to:
    - Pumps, generators, compressors, storage tanks, electric distribution, etc.,
    - Each type of isolated equipment will have its own specific procedures for isolation. For example, to isolate compressors: suction, discharge, power, starting, fuel and dumps must be closed, locked and tagged out properly. The blow-down valve must be opened, locked, and tagged out. NOTE: If the compressor has a side stream, the side stream must also be closed, locked and tagged out properly.

- *Stored Energy and the Possibility of Re-accumulation* – After lockout/tagout devices are affixed to energy isolating devices, all potentially hazardous stored or residual energy must be restrained, relieved or disconnected and rendered safe in some manner. If re-accumulation of stored energy is a possibility, isolation will be verified until the equipment receives service or maintenance or until the possibility of re-accumulation does not exist.

- *Verification of Isolation* – The authorized employee who performs the lockout procedure must verify that the equipment is disconnected or isolated from the source of energy by:
  - Checking that no personnel are exposed,
  - Verifying the isolation of the equipment by operating the controls, or
  - Testing to ensure the equipment is inoperable.

Multiple Workers & Group Lockout

Crews of authorized employees can use group lockout/tagout devices, which will provide the same level of protection as a personal lockout or tagout device. The authorized employee has primary responsibility for all employees working under the protection of a group lockout or tagout device.

- A short tailgate meeting will be held to go over the lockout procedures and other information needed to continue to work safely. All affected departments are required to participate,
- Isolation of the equipment will be performed by an authorized employee who must also determine the exposure status of the individuals in the group,
- All individual members will put their individual locks on the group's lockout or tagout device after they have verified the procedure,
- The crew leader or other designated authorized employee will be responsible for ensuring consistency of the lockout procedures including documenting lockout information to be passed along during shift or personnel changes.

Release from Lockout/Tagout
Upon completion of service or maintenance, or when lockout/tagout devices are removed temporarily, the equipment must be tested to determine whether the equipment is ready to return to its normal operations. The follow steps must be taken, in this order, to assess and prepare the equipment:

- Check the piece of equipment and its surrounding area to make sure that all extraneous items have been removed and that the components of the equipment are intact for operation,
- Ensure that all personnel in the work area have been removed from or safely positioned in the area,
- Remove the lockout/tagout device,
- Energize and begin testing,
- De-energize and reapply controls and lockout/tagout devices,
- Use the completed isolation log to document the procedure. Provide this documentation to the supervisor to be filed.

Lock Removal
The authorized employee who puts the lock on should be the one to remove the lock. Certain conditions may be encountered which prohibit this person from being present to remove the lock after the work is completed. The following procedures must be adhered to when removing the lock that another person has applied:

- Try to contact the authorized employee who put the lock on in order to obtain the key(s),
- If the key cannot be obtained, the employee who requires the lock to be removed must contact their supervisor,
- The supervisor must confirm that every effort was made to contact the employee who applied the lock,
- It shall be noted on the Service Report that the lock(s) were taken off with the permission of the supervisor,
- The supervisor will make a reasonable effort to notify the employee that their lock has been removed to ensure the worker has knowledge of the same before returning to work,
- If the equipment is owned by a client, the supervisor or employee requiring the lock's removal must contact the client to have the lock removed,
- Clients must remove their own lock(s). NOTE: MIKE SCOTT PLUMBING INC employees are not permitted to remove any client locks.

Personnel or Shift Changes
When personnel or shifts change during the maintenance or repair of equipment, the designated person in charge is responsible for ensuring the continuity of the lockout/tagout procedures. This includes ensuring that all procedures are strictly followed and that the required transfers of lockout/tagout devices between authorized personnel is achieved.

Contractors
Contractors who perform lockout procedures on MIKE SCOTT PLUMBING INC owned or leased property must comply with these procedures. Contractors are responsible for supplying their own locks.

MIKE SCOTT PLUMBING INC will initially lock out its own equipment. The contractor's lock will be used in addition to the lock provided by MIKE SCOTT PLUMBING INC.

Annual Audits
The manager, supervisor, or designee will perform an annual evaluation of the Lockout Program in their respective areas to assess the program's effectiveness. An authorized employee (other than the person performing the energy control procedure) will conduct the audit and confirm that:

- All affected and authorized employees have received the required training,

- Specific lockout procedures have been developed and documented in writing for each new piece of equipment,
- Procedures currently in place adequately address completely isolating equipment in order to obtain a zero energy state,
- Annual audits must be certified in writing. A copy of the audit will be filed and maintained in the supervisor's office.

TRAINING

Training will be provided by MIKE SCOTT PLUMBING INC to verify that the purpose and implementation of the energy control program are understood by employees and that they have acquired the knowledge and skills necessary to safely apply, use, and remove the energy controls. Training will include the following:

- Identification of relevant hazardous energy sources, the magnitude and type of energy present in the workplace and the procedures necessary for the isolation and control of energy,

- The purpose and utilization of procedures to control energy,

- When using tagout systems, authorized employees will be trained in these tag limitations:

    - Tags are warning devices attached to energy isolating devices. Tags do not provide the same physical hold that is provided by a lock,
    - Tags attached to energy isolating devices are not to be removed without prior authorization of the person responsible for it,
    - Tags must be legibly written and easily understood by all authorized and affected employees and other personnel in the work area,
    - Tags and tag attachments must be constructed of materials that can withstand the environmental conditions in which they will be placed,
    - Tags will be securely affixed to the energy isolating devices to prevent against accidental detachment,
    - The meaning of tags should be understood to avoid evoking a false sense of security regarding their effectiveness in the overall energy program.

Other personnel whose work operations are in or near areas where energy control procedures are necessary must be instructed about this procedure. They must also be informed about the prohibitions regarding restarting or re-energizing locked out or tagged out equipment.

Retraining
Retraining will be conducted when:

- An inspection reveals deviations from the use of or inadequacies in the employees' knowledge of the energy control procedures,
- MIKE SCOTT PLUMBING INC has reason to believe there are deviations from the use of or inadequacies in the employee's knowledge of the energy control procedures,
- There is a change in machines, energy control procedures or in job assignments,
- A new hazard is introduced.

Retraining will validate the proficiency of the employees and introduce new or revised control procedures when necessary.

Training Documentation
MIKE SCOTT PLUMBING INC will verify that the required employee training has been completed and is kept up to date. All training and retraining must be documented, signed, certified and kept on file.

NOISE EXPOSURE & HEARING CONSERVATION

Purpose

This program is designed to establish processes and procedures to reduce hearing loss of employees exposed to excessive occupational noise.

Scope

All employees who are at risk of exposure to noise levels greater than 85 decibels are subject to the procedures and requirements of this program. This program covers MIKE SCOTT PLUMBING INC employees and contractors and will be used on all MIKE SCOTT PLUMBING INC owned premises. When performing work offsite, that operator's program takes precedence over this one unless there is no program or it is less stringent.

Definitions

Audiometric testing – testing the intensity and frequency range of sound by playing a series of pure tones to determine which are perceptible by the human ear. For each tone, the person being tested indicates the lowest intensity that he or she is able to hear.

Decibels – a unit of measurement of the volume of sounds. More specifically, decibels are measured by a sound level meter using the "A" scale, which simulates the response of the human ear to low and high noise frequencies.

Slow Response – sound level meter settings that average impulses of brief duration that would result in wide fluctuations in the sound level meter readings.

Standard Threshold Shift – a significant change in hearing thresholds, characterized by a decline of 10 decibels or more, corrected for age, at 2000, 3000, and 4000 Hz in either ear relative to the baseline audiogram.

Key Responsibilities

Managers and Supervisors

- Make certain that the program requirements are implemented and maintained,
- Make certain that affected employees are trained and in compliance with the program requirements.

Employees

- Wear hearing protection when required by this program,
- Attend training,
- Comply with testing and sampling according to this program.

Procedures

Occupational hearing loss occurs as a result of repetitive and continual sound absorption by the ear. Protection is provided to employees to reduce the noise level at the ear or to limit the employee's exposure time to noise. The MIKE SCOTT PLUMBING INC will provide hearing protection to all employees who are exposed to potentially damaging noise levels and to all employees who request hearing protection.

Hearing Conservation Program

The MIKE SCOTT PLUMBING INC will implement a hearing conservation program for employees who work in areas with exposure to noise levels of 85 decibels or more for the eight (8) hour time-weighted average. These employees are required to wear hearing protection. A monitoring program will be established to identify employees to be included in this program. Employees will also wear hearing protection in all designated areas while on client owned premises.

Surveys
Surveys must be administered by a qualified employee or third party.

In order to evaluate the noise exposure and risk of hearing damage, one must know the overall sound level ("A" measurement), the exposure time of the employee measured as hours per day and the length of time the employee has worked in the surveyed area. The following data will also be considered:

- Name of surveyed area and its location,
- Date and time of the survey,
- Instruments used in the survey, including the model and serial numbers of said instruments,
- Environmental conditions,
- Description of the employees exposed, and
- Name of the person conducting the survey.

The MIKE SCOTT PLUMBING INC is responsible for notifying each employee of their monitoring results and/or if their job exposes them to noise levels of 85 decibels or more.

A plot of noise levels will be made for MIKE SCOTT PLUMBING INC owned facilities and will be posted.

The MIKE SCOTT PLUMBING INC will evaluate hearing protective equipment for effectiveness for the specific noise environments the equipment will be used in. The sufficiency of hearing PPE will be reevaluated whenever noise exposure increases to the point that the PPE may no longer provide sufficient hearing protection. At that point, the MIKE SCOTT PLUMBING INC will provide PPE appropriate to those conditions.

Sound measuring equipment must be calibrated both before and after each survey. Records of calibration and surveys must be kept for 20 years.

Surveys must be repeated when changes in the work place environment pose a risk of exposing additional employees to high noise levels or when PPE does not adequately reduce the exposure to noise to a level below 85 decibels.

Sound Level Surveys

- MIKE SCOTT PLUMBING INC owned facilities that are suspected of having noise levels in excess of 85 decibels must be screened according to this program.

Exposure Surveys

- A sampling of employees will be surveyed to determine noise exposure over a period of time. This sampling will be representative of all employees present in the noise exposed environment,
- Noise dosimeters must integrate all continuous, intermittent and impulsive sounds in the range of 80 decibels to 130 decibels,
- Noise dosimeters must be calibrated so a dose of 50% corresponds to a time weighted average of 85 decibels.

Signage
Clear and conspicuous signs will be posted at all entrances to areas where employees are at risk of exposure to noise levels greater than 85 decibels. These signs must describe the hazard and the protective actions required to reduce risk of exposure.

Audiometric Testing
The MIKE SCOTT PLUMBING INC will implement and maintain an audiometric testing program by making said testing available to all employees who are exposed to noise levels in excess of 85 decibels (8 hour time weighted average). Employees are required to take an audiogram every year; this will be provided at no cost to employees.

- The MIKE SCOTT PLUMBING INC will determine a valid baseline audiogram to compare future audiograms to. Employees must take a baseline audiogram within the first six months of exposure to noise levels in excess of 85 decibels for an eight (8) hour period. When a mobile van is used, the baseline must be established within the first year,
- Employees must take annual audiograms for every year they work in areas exposed to noise in excess of 85 decibels,
- A qualified third party will perform all audiometric tests, evaluations, reports and retesting,
- Prior to taking an audiogram, employees must not be exposed to sound levels in excess of 80 decibels for a period of 14 hours or more:
    - Employees will be notified to avoid high noise levels,
    - This requirement may be satisfied by wearing PPE to reduce the noise exposure level below 80 decibels.
- An otoscopic exam is required before an audiogram is performed. This otoscopic exam must be performed by a qualified person who will examine the ear canal for ear plugs, signs of infection or other irregularities that may affect the audiogram.

Records

The MIKE SCOTT PLUMBING INC will maintain accurate records regarding employee exposure measurements. All records are maintained according to the Occupational Noise Exposure requirements set forth by CFR 1910.95. Audiograms are considered medical/exposure records and will be kept for the length of employment plus 30 years.

Hearing Protection Devices

Earplugs and earmuffs will be available to employees in a variety of sizes and configurations in order to provide comfortable protection for employees. Hearing protection will be available to all employees who are exposed to noise levels of 85 decibels or greater (8 hour TWA) at no cost to employees. Employees will be given the opportunity to choose their hearing protection from the MIKE SCOTT PLUMBING INC provided selection. Hearing protective equipment should be replaced as necessary. Employees will be instructed on selecting the proper fit for hearing protectors. The MIKE SCOTT PLUMBING INC will ensure that hearing protectors are worn when required.

Training

A training program will be provided and required for all employees who work in high noise areas as determined by this program. Noise awareness training will be provided to employees before their initial assignment and every year thereafter. Employees must repeat this training annually.

The training will address:

- Effects of noise on hearing,
- Purpose of hearing protectors, to include the advantages and disadvantages of using them,
- Various types of hearing protectors,
- Instructions for selecting, fitting, using, and caring for hearing protectors,
- Purpose of audiometric testing,
- Explanation of audiometric test procedures.

Training must be updated to ensure its pertinence to changes in the work process, PPE requirements and appropriate usage and wear of hearing protection.

Training must be documented.

All employees will have a copy of this program and noise exposure procedures. These will be posted at the worksite and made available to employees, their representatives, and regulatory agencies. The Assistant Secretary and Director will have access to records.

NON-DOT DRUG & ALCOHOL POLICY

PURPOSE

It is the objective of MIKE SCOTT PLUMBING INC to:

- Promote, provide and maintain a safe working environment for its employees and employees of its affiliates or subsidiaries.
- Protect MIKE SCOTT PLUMBING INC property.
- Cooperate with customers in their efforts to establish a safe, drug and alcohol free work environment.
- Comply with contractual obligations and existing Federal regulations.

MIKE SCOTT PLUMBING INC PREMISES

For the purpose of this Policy, the term "premises" refers to MIKE SCOTT PLUMBING INC premises, its affiliates or subsidiaries and includes all property, facilities, land, platforms, buildings, structures, fixtures, installations, automobiles, truck and other vehicles and equipment – whether owned or leased. This policy also includes any other work location, parking lots or mode of transportation to and from locations while in the course and scope of MIKE SCOTT PLUMBING INC employment and/or business.

POLICY STATEMENT

Being under the influence of drugs and/or alcohol, or possessing any firearms while working or while on MIKE SCOTT PLUMBING INC premises is strictly prohibited. The unauthorized use, possession, sale, transfer, storage or manufacture of illegal substances or drug paraphernalia; the abuse of legal drugs; or the unauthorized use, possession or sale of alcoholic beverages by an employee of MIKE SCOTT PLUMBING INC is strictly prohibited. No

MIKE SCOTT PLUMBING INC employee will report to work, enter MIKE SCOTT PLUMBING INC premises, or conduct MIKE SCOTT PLUMBING INC business under the influence of illegal/controlled substances or alcohol. "Under the influence" means:

A sufficient amount of a substance is in the employee's system to produce a positive test result

The employee is exhibiting erratic abnormal behavior posing a risk to the employee and/or others.

Compliance to this policy, including consent to searches and medical testing, is a condition of employment. Employees have the right to refuse to cooperate with MIKE SCOTT PLUMBING INC medical testing and search requirements. However, refusal to permit such searches and/or medical testing will be grounds for termination.

Illegal drugs, unauthorized controlled substances, look-a-likes, designer and synthetic drugs (including the presence of any detectable amount in the employee while working), and any other drugs or abnormal substances which may affect an employee's senses, motor functions or alter a person's perception while working are strictly prohibited.

Alcoholic Beverages - under no circumstances will alcoholic beverages be brought onto MIKE SCOTT PLUMBING INC property or consumed while on MIKE SCOTT PLUMBING INC premises.

Drug paraphernalia and other unauthorized items may not be brought onto MIKE SCOTT PLUMBING INC premises under any circumstances.

Firearms, Weapons, and Ammunition may not be brought onto MIKE SCOTT PLUMBING INC premises under any circumstances.

Prescription Drugs may not be brought onto MIKE SCOTT PLUMBING INC premises - except under the following conditions:

- Employees shall have a valid medical prescription for any prescription drugs. If this medication can/does impair the employee's performance, the employee will immediately notify his/her supervisor or alternate member of management.
- The medication shall be in the employee's name in the original vial and have the doctor's name and prescription number on the label.
- Each prescription shall not be older than one year of the date issue.
- Employees shall only possess enough medication for the normal work shift.
- NOTE: MIKE SCOTT PLUMBING INC SHALL RESERVE THE RIGHT TO HAVE AN OUTSIDE PHYSICIAN DETERMINE IF A PRESCRIPTION DRUG OR MEDICATION INHIBITS EMPLOYEE PERFORMANCE. MIKE SCOTT PLUMBING INC SHALL RESTRICT THE USE OF ANY SUCH DRUG OR MEDICATION WHILE ON MIKE SCOTT PLUMBING INC PREMISES OR CONDUCTING MIKE SCOTT PLUMBING INC BUSINESS. THIS SHALL ALSO INCLUDE RESTRICTING THE EMPLOYEE'S WORK ACTIVITY OR PRESENCE AT THE CUSTOMER'S WORK SITE.

EMPLOYEE ASSISTANCE PROGRAM

The Employee Assistance Program will include displaying/providing a list of community service hot-line numbers, and distributing informational material on drug use, chemical dependency and MIKE SCOTT PLUMBING INC Alcohol, Firearms and Controlled Substance policy.

- All Management and supervisory personnel who will determine whether an employee should be tested for prohibited drug use based upon reasonable cause will receive a minimum of sixty (60) minutes of training. This training will provide instruction on the specific and contemporaneous physical, behavioral and performance indicators of probable prohibited drug use.
- All employees will participate in an informational session structured to give the participants; (1) an understanding of the effects/consequences of substance abuse/dependency on personal safety, health and work environment and (2) an understanding of the substance abuse regulations (DOT, USCG).
- All Employee Assistance Program training will be documented and kept on file.

ACKNOWLEDGMENT

Employees shall acknowledge that compliance with this policy is a condition of employment.

DRUG TESTING PROCEDURE

Personnel may be tested for drugs and/or alcohol by any accepted method to include but not limited to urinalysis and/or blood testing:

- During the pre-employment physical.
- Randomly, whenever random testing is in effect.
- Upon reasonable cause as determined by a competent person.
- When any injury, accident or incident occurs that may create reasonable suspicion that drugs and/or alcohol may have been involved.
- Refusal to take a test for the presence of drugs and/or alcohol will result in disciplinary action to include termination.

UNACCEPTABLE RESULTS

Employees with unacceptable test results shall be prohibited from working on client / host sites or facilities.

PPE PROGRAM

Purpose

The purpose of the Personal Protective Equipment program is to establish procedures for using and maintaining personal protective equipment that must be used by employees in order to prevent injuries.

Scope

This program applies to all MIKE SCOTT PLUMBING INC employees. It is to be used at all times on MIKE SCOTT PLUMBING INC worksite. If a MIKE SCOTT PLUMBING INC employee performs work on a site other than MIKE SCOTT PLUMBING INC's site, the facility owner's plan should be used if it exists and is as strict (or more strict) than this plan. In cases where the other facility's plan does not exist or is less strict than this plan, MIKE SCOTT PLUMBING INC employees will operate under this plan.

Key Responsibilities

SAFETY Manager

- Helps to select appropriate PPE. Some work tasks expose employees to hazards that cannot be eliminated by means of engineering or administrative controls. In these cases, the SAFETY Manager assists the supervisor and project manager in identifying and selecting suitable PPE based on the task being performed, the work conditions, and the frequency and duration of the exposure. MIKE SCOTT PLUMBING INC employees provide feedback to the supervisor regarding the fit, comfort, and suitability of the PPE to be used. The reasons for the PPE selected are provided to the employees.
- Assists the supervisor and site manager to ensure the PPE obtained meets the requirements of this program and applicable regulations
- Conducts Worksite Hazard Assessments - This assessment must determination whether hazards exist or are likely to exist, that require the use of PPE. Hazards may include those related to: high/low temperatures, impact/motion, sharp objects, falling objects, rolling or pinching objects, chemicals, materials, radiation, electrical hazards, and general workplace layout. The SAFETY Manager documents the tasks that were evaluated, hazards that were discovered and the PPE required to protect employees. They also ensure that affected employees are aware of hazards and the required PPE prior to being assigned to the hazardous task. The documents are certified and include the certifier's name, signature, and dates, and identifies the assessment documents.

Managers and Supervisors

- Managers and supervisors regularly monitor employees to ensure PPE is being properly used and cared for. They also ensure employees receive follow-up training if required so they have the adequate knowledge, skill, and ability to use PPE.
- Managers and supervisors will use MIKE SCOTT PLUMBING INC progressive discipline to enforce PPE safety rules and ensure that the Required PPE Poster is properly posted.

Employees

- Properly use and care for PPE.
- Report any changes in exposure that may necessitate a re-assessment of the task for PPE.
- Report and replace defective or damaged PPE. Never use defective or damaged PPE.
- You must wear the required PPE. Failure to do so could result in termination of employment.

Procedure

General

MIKE SCOTT PLUMBING INC will provide protective equipment, including personal protective equipment (for head, eyes, face, and extremities), respiratory devices, protective clothing, and protective shields and barriers. This protective equipment must be used wherever injury or impairment of function of any body part (through absorption, inhalation or physical contact) is likely that because of process or environmental hazards, radiological hazards, chemical hazards, or mechanical irritants. All PPE shall be provided, used and maintained in a sanitary and reliable condition.

Employees are NOT allowed to use employee-owned equipment, except prescription safety glasses and safety footwear. MIKE SCOTT PLUMBING INC must ensure that employee-owned safety glasses and footwear are adequate, and MIKE SCOTT PLUMBING INC will maintain and clean them.

Defective or damaged equipment shall not be used and must be tagged or destroyed and replaced.

All issued personal protective equipment will be cost-free to the employee. All employees must understand and follow the procedures identified in this program.

Eye Protection

When exposed to facial or eye hazards from flying fragments, chemicals, acids or caustic liquids, melted metal, or chemical gases or vapours, employees must use the required eye or face protection. PPE used to protect the eyes and face must be in compliance with ANSI Standard Z87.1-2003 (Z87+), *Occupational and Educational Personal Eye and Face Protective Devices.*

Safety Glasses

While on MIKE SCOTT PLUMBING INC property, employees, subcontractors, and visitors must at all times wear safety glasses with side shields that meet ANSI Z-87.1-2003 standards with “high Impact lenses”. Requirements as described below:

- In shops and warehouses, and at field locations, except in striped safety zones that have been designated and approved.
- In all yard work zones. Everyone in the vicinity of loading or unloading equipment. All employees who perform mechanic or maintenance work, operate equipment (e.g., forklift and welding), test stand operations, or do any work that may potentially cause an eye injury.
- In a restroom, office, or any other building when performing work that may potentially cause an eye injury.
- MIKE SCOTT PLUMBING INC will provide with visitor glasses. If approved prescription safety glasses are not available for an individual, they must wear “Over the glass” type safety goggles or glasses over their regular prescription glasses until they obtain approved prescription safety glasses.
- When assisting welders, employees must wear absorbent safety glasses to protect the assistant from ultra-violet (UV) and/or infrared rays (IR).
- No employee is allowed to wear dark shaded lens (sunglasses) darker than # 1 shade unless welding or assisting a welder.
- The requirement to wear safety eyewear will be exempt only based on a written “exceptions for medical reasons” from a doctor.
- Employees are not required to wear safety glasses:
    - Inside an office.
    - In parking lots when traveling to and from vehicles, or office buildings using main doors that do not enter shops.

Goggles

- When handling or mixing liquid chemicals, solvents, paints, etc., employees must wear chemical splash proof goggles as recommended on the Material Safety Data Sheet for the material being handled.
- When blowing equipment down with air the employee must wear dust proof goggles. They must also be worn when the employee is performing a job task where safety glasses do not do an adequate job of preventing airborne particles from entering the openings around the lenses and side shields.

Face Shields

- When operating a hand held or immobile grinder with a wire or abrasive wheel the employee must wear a full face shield over safety glasses. The full face shield must also be used when chipping paint or concrete. Also, when performing job tasks where flying objects may potentially strike the face, if safety glasses or goggles do not provide adequate protection, the employee must wear a full face shield over safety glasses.

Head Protection

When working in areas where a head injury is possible due to employee initiated impact, or impact from falling or other moving objects, employees must wear protective helmets. Helmets must be in compliance with ANSI Standard Z89.1-1997 Class E, *American National Standard for Industrial Head Protection* for Type II head protection, or must be equally effective.

- Hardhats must be worn when working in areas where head injury is possible from falling objects.
- Hardhats must be worn at all warehouse, field, and shop locations, or any location where it is determined to be necessary as per the location's PPE Hazard Assessment.
- Never alter hardhats in any way.
- Never paint or apply unauthorized stickers, name plates, etc. on hardhats.
- Never drill, cut, bend, or apply heat to a hardhat.
- Never alter the suspension system of a hardhat.
- Employees must inspect hardhat regularly for chips, scratches, cracks, signs of heat exposure (sun cracks), etc.
- Immediate replace any defective hardhats.
- Never place a hardhat in the rear window of a vehicle (they will be exposed to the sun or may become a projectile in a vehicle accident).
- Hardhats must be made available to visitors.
- MIKE SCOTT PLUMBING INC must provide hardhats.
- MIKE SCOTT PLUMBING INC will train employees in the use, care and maintenance of head protection equipment.

Hearing Protection

While in posted "High Noise" areas, all employees, subcontractors, and visitors must wear hearing protection. See MIKE SCOTT PLUMBING INC Hearing Conservation Program for additional information.

All areas that are known, or suspected to have, noise levels in excess of 85 dBA (constantly or intermittently) must have warning signs posted.

When noise caused by machinery, tools, etc., prevents normal conversations to be clearly heard, employees shall wear hearing protection even if warning signs are not posted.

General rule of thumb: If you must yell to be heard, you require hearing protection.

Types

- Preformed Inserts (ear plugs)
- Canal Caps (head band type)
- Muff, either headband or hard hat mounted

- MIKE SCOTT PLUMBING INC will supply ear muffs and ear plugs employees in sizes and configurations that are comfortable for the employee.

Care and Maintenance

- Employees must inspect hearing protection before each use.
- Keep hearing protection clean to prevent ear infections.
- Discard disposable ear plugs when they become dirty, greasy, or cracked.
- Replace any ear muffs that have cracked seals, deteriorated foam inserts, or are defective.

Fit

- Because everyone is different, hearing protection must be selected for the individual. The employee must try a variety of styles to find one that is comfortable and provides adequate protection.
- MIKE SCOTT PLUMBING INC will instruct employees in how to obtain the proper fit.

Hand Protection

Gloves

- When performing work tasks that may expose the hands to extreme temperatures, cuts and abrasions, or exposure to chemicals, employees must wear gloves.
- Welding: When performing arc welding or oxy/gas cutting, employees must wear welding gloves made of leather or other heat resistant materials.
- Chemical: When handling chemicals that specify gloves as PPE, the employee must impervious (chemical resistant) gloves.
- To select the correct glove type, refer to the specific chemical's Material Safety Data Sheet.
- Employees who work with chemicals, i.e., solvent vats, will be issued their own gloves for hygienic purposes.
- Leather: When working with sharp materials, or when handling rigging equipment, employees must wear leather gloves.
- Cloth: When handling objects or materials that could cause blisters, splinters, cuts, etc., the employee must wear cloth gloves.
- Heat Resistant: When handling hot bearings, races, or other materials or objects (heated beyond room temperature), employees must wear heat resistant gloves.
- Insulated: To prevent frostbite in extreme cold climates, employees must wear insulated gloves.
- Glove Inspections
    - Prior to each use, inspect gloves for holes, tears, and worn areas.
    - Periodically air test chemical gloves for pinholes by tightly twisting the cuff, expand the glove by applying low air pressure, and submersing the glove in water to check for bubbles.
    - Immediately discard any defective gloves.
- Exception: While working with rotating machinery, machinists are exempt from wearing gloves.

Foot Protection

All employees with regular duties at field locations, in shops and warehouses must wear safety footwear.

- Visitors and office workers entering these areas infrequently are not required to wear foot protection as long as they stay away from the work being performed.
- If visitors or office workers must be in the close proximity to the work, the work must be stopped while in the area or safety footwear must be worn.
- When in shops, warehouses, field locations and parts departments, employees must wear leather or equivalent boots (lace up or pull up).
- Boots must provide ankle protection, and have must have soles that are designed to protect the feet from punctures, and must have defined heels for climbing ladders.
- When job tasks there is a risk of equipment or material crushing the foot, toe guards must be worn.
- Safety footwear must comply with ANSI Z41-1999 standards.

- Some client locations may require everyone to wear safety footwear. Before visiting field locations, check with the local supervisor for client requirements.

Fall Protection
When performing certain elevated jobs (over six feet), employees must use personal fall protection. Refer to MIKE SCOTT PLUMBING INC Fall Protection Program.

Electrical Protection
Refer to MIKE SCOTT PLUMBING INC Electrical Safety Program.

Worksite Hazard Assessment
Hazard assessments must be performed, signed and documented. If it is determined that a hazard exists or is likely to exist, a PPE must be used. Following are some hazard sources that may be identified:

- High or low temperatures
- Chemical exposure (see MSDS for guidance)
- Flying fragments, melted metal or other face, eye, or skin hazards
- Falling objects, or the possibility of dropping an object
- Employee falling from a height in excess of 6'
- Sharp objects
- Rolling or pinching that could crush hands or feet
- Electrical hazards

Anytime that these hazards may cause injury to employees, PPE must be selected to eliminate or substantially reduce the potential for injury. Employees will be notified for the selection and reason.

Each affected employee will be apprised of the results of this assessment, and a copy of the assessment will be kept at the local office.

Each affected employee must be fitted with the selected/identified PPE. The Training section of this program addresses fitting (including proper donning, and doffing), cleaning and maintenance of PPE. All PPE use exemptions must be supported by the PPE hazard assessment.

Monitoring
Site managers and supervisors must monitor worksite tasks to identify changes in hazards, or the introduction of new hazards. If the site manager or supervisor discovers a new hazard, they must advise the SAFETY Manager. The SAFETY Manager conducts a hazard assessment for appropriate PPE for the new hazard.
The SAFETY Manager monitors how effective the PPE Procedure is, and recommends improvements to management.

Training

MIKE SCOTT PLUMBING INC will train all employees who may need to wear PPE. Each affected employee must be fitted for PPE as required. Training will include:

- When it is required to use PPE.
- What type of PPE is required.
- How to put PPE on, take it off, adjust it and wear it.
- PPE limitations.
- How long PPE is useful, and how to dispose of it.
- How to clean and maintain PPE in to ensure it is sanitary and in reliable condition.
- How to report and replace defective or damaged PPE. Never use defective or damaged PPE.

Retraining
Retraining is necessary when:

- There are changes to workplace the workplace that makes the previous training obsolete.
- There are changes in the type of PPE.
- The employee shows improper use, a lack of use, or insufficient skill or understanding in selecting PPE, the necessity of PPE, the use of PPE and its limitations.

Documentation
Records of training will be kept at the local office. The training record will include:

- The name of the employee(s) trained;
- The training dates; and
- The subject of the training.

RESPIRATORY PROTECTION PROGRAM

Purpose

This document shall serve as MIKE SCOTT PLUMBING INC's respiratory protection program, which is designed to meet or exceed federal safety standards. MIKE SCOTT PLUMBING INC will make every attempt to remove potentially harmful vapors and exposure to oxygen deficient hazards from the workplace environment. Respiratory equipment shall be provided at no cost to all employees that may be exposed to harmful vapors and oxygen deficient atmospheres. Respirators will be provided during emergencies with high risk of exposure and whenever engineering controls do not effectively eliminate respiratory hazards.

Scope

This program is applicable to all MIKE SCOTT PLUMBING INC projects, operations, employees and contractors.

Respiratory Program Administrator

Responsibility for the respiratory protection program falls to the Safety Manager who must make sure that the requirements are followed.

The Administrator must have appropriate training, a thorough knowledge of the program and be able to conduct evaluations.

MIKE SCOTT PLUMBING INC recognizes that individual supervisors will need to implement and enforce most of this program. Performance problems will be reported by the Program Administrator to the appropriate manager. The manager is responsible for implementing a plan to resolve performance problems. The Project Manager or their designee carries the responsibility of administering all aspects of the Respiratory Protection Program.

Program Administrator responsibilities include, but are not limited to:

- Administering an annual written evaluation of the Respiratory Protection Program. This evaluation must be completed by December 31st of each year,
- Making certain that respirators and their required parts are in sufficient supply. This duty may be delegated to a designee, but the Program Administrator maintains overall responsibility. The title of the designee to whom this duty is assigned is the Project Manager or Field Supervisor,
- Determining hazards and providing only those respirators certified by NIOSH based on those hazards,
- Ensuring that all workers who may need to use a respirator have been trained in how to use, select and know the limitations of the respirators that may be used. This must be done before the first time the respirator is used. The training may be delegated to another person, but the Program Administrator has the overall responsibility of ensuring that all employees are suitably trained,
- Ensuring that those who use respirators have been evaluated by a medical professional and deemed fit to use the type of respirator required for their job. Medical evaluations are to be completed before an employee is assigned to a task that involves the use of a respirator,
- Establishing that all workers who use respirators are tested at least annually for fit or more often if other federal requirements stipulate it,
- Making certain that each individual has their own respirator, and ensuring that all respirators are cleaned regularly and stored in a clean, easily accessible area. If this duty is delegated, the Program Administrator still maintains final responsibility over the task,
- Selecting respirators based on the hazards that are encountered. This program details basic types of respirators used at this site and which tasks they are used for. In certain circumstances, the Program Administrator may consult with health and safety staff for assistance in selecting the appropriate respirators,

- Ensuring that employee exposure is monitored to assure correct respirator type is used. Exposure monitoring may be delegated to others; however, the Program Administrator has final responsibility of monitoring completion and to request assistance when necessary,
- Monitoring employees who wear respirators to ensure the employees leave the area to wash, change respirator cartridges or if break through or resistance is detected,
- Enforcing the program requirements for the selection, use, storage, maintenance and fit are followed.
- Seeing to it that there is no exchange of parts between brands of respirators,
- Guaranteeing that respirators, required training for respirators and medical evaluations are provided to the employees at no cost to them.

Medical Requirements

General
A medical evaluation will be provided by MIKE SCOTT PLUMBING INC to evaluate the employee's ability to safely use a respirator before the employee is fitted or uses a respirator in the workplace. Should the employee be no longer required to use a respirator, MIKE SCOTT PLUMBING INC may suspend medical evaluations for that employee.

Procedures for Medical Evaluations
Medical evaluations will be performed by a physician or other licensed health care professional selected by MIKE SCOTT PLUMBING INC. These evaluations will be conducted using a medical questionnaire or an equivalent measure. See Medical Questionnaire form.

This medical evaluation will be conducted prior to fit-testing, will be confidential, and conducted during normal business hours, at a convenient location and time. The results of the evaluation must be understandable; the employee is provided the opportunity to discuss the results with a physician or PLHCP.

Supplemental Information for the PLHCP
In order to make an informed recommendation, the following information will be provided to the PLHCP to help determine whether an employee is able to use a respirator:

- Type and weight of the respirator to be used by the employee,
- Extent and frequency of respirator use, including emergency use,
- Physical work effort expected of the employee,
- Protective equipment and clothing to be worn in addition to the respirator, and
- Extreme variations in temperature and humidity that may be encountered by the employee.

The PLHCP will be given a copy of MIKE SCOTT PLUMBING INC's Respiratory Protection Program.

Note: When a PLHCP is replaced, MIKE SCOTT PLUMBING INC is responsible for ensuring that the new PLHCP is provided with this information either by providing the documents directly or by transfer of documents from the former PLHCP. Employees will not be re-evaluated just because a new PLHCP is selected.

Medical Determination
To aid MIKE SCOTT PLUMBING INC in determining an employee's ability to safely use a respirator, MIKE SCOTT PLUMBING INC will get a written recommendation from the PLHCP. The PLHCP's recommendation will contain the following information:

- Whether or not the employee is subject to any medical conditions or workplace conditions that may prevent the employee from being medically able to use the respirator,
- Recommendations for follow-up evaluations if needed, and

- A signed statement that the employee has received a copy of the PLHCP's written recommendations.

The Safety Manager will receive a copy of all recommendations.

Additional Medical Evaluations
The MIKE SCOTT PLUMBING INC will provide additional medical evaluations according to the program requirements if:

- An employee discloses medical symptoms or signs that may affect the employee's ability to use a respirator,
- A supervisor, the Program Administrator or a PLHCP recommends that an employee should be re-evaluated,
- Information from the procedures set forth in this program, including observations during fitting, indicates that the employee needs to be re-evaluated, or
- Changes in workplace conditions (e.g., an increase in physical work effort or changes in protective clothing or temperature) that may create increased physiological burden on the employee.

Work Site Respirator Procedures

Each work site that employs the use of respirators shall have site procedures that adhere to the guidelines set forth in this program. Additional procedures may be enforced by the client, which will be followed. The following site specific information must be included:

- Identification of site specific hazards that require respiratory protection,
- Selection of respiratory equipment that shall be appropriate to the particular hazards, characteristics and concentration levels at the site. Identification of particular brand and models of recommended respiratory equipment shall be included in the procedures,
- Confirmation that all users of respiratory protection are qualified, trained and competent according to the guidelines set forth in this program (i.e., approved medical evaluation, fit tested and trained annually).

Criteria for the Selection of Respirators

Respiratory equipment is selected based on the hazards the employee is exposed to. MIKE SCOTT PLUMBING INC will:

- Identify hazards,
- Provide respirators according to those hazards and factors that affect performance,
- Identify specific brands and models to be used, and
- Provide information on estimated exposures and contaminants.

Hazard Identification
Due to the variety of work locations, MIKE SCOTT PLUMBING INC will identify respiratory hazards according to specific work site safety plans. Common respiratory hazards that employees may be exposed to include:

- Chemical particles
- Gases
- Oxygen deficient conditions
- Fumes
- Dust

Characteristics of Hazardous Operations or Processes
Shaping operations to include cutting, filing, sawing, grinding, drilling and milling,

- Solid operations to include pouring, mixing, separating, conveying, crushing, loading, extracting, bagging and demolishing,
- Liquid operations to include degreasing, spraying, painting, dipping, etching, cleaning, brushing, coating, plating, mixing, pickling, galvanizing and other chemical reactions,
- Hot operations including soldering, melting, burning, melding, welding and other chemical reactions,
- Pressurized spraying to include applying pesticides, cleaning parts, sand blasting, degreasing and painting.

Gaseous Contaminants

- Inert gases (neon, argon, helium, etc.), which displace air to create oxygen deficiencies but do not metabolize in the body,
- Alkaline gases (NH3, etc.) which are alkalis or create alkalis when they react with water,
- Acidic gases (HCL, SO2, H2S, etc.), which are acids or create acids when they react with water,
- Organic gases (acetone, butane, etc.), which exist as true gases or vapors from organic liquids,
- Organometallic gases (organo-phosphates, tetraethyl lead, etc.), which have metals attached to organic groups.

Particulate contaminants

- Smoke is a combination of chemically generated gases and airborne particles (solid and liquid) of organic origins (0.01 to 0.3 µm),
- Fumes are particles of solid condensation (0.1 to 1.0 µm diameter),
- Dusts are solid particles, (0.5 to 10µm diameter), generated by mechanical means,
- Mists are liquid particulate matter (5 to 100 µm diameter).

Selection of Respirator
When selecting a respirator, the following factors should be considered:

Contaminant Type and Concentration
The model and type of respirator selected, and their affiliated parts such as cartridges and filters, is determined based on the type and concentration of the contaminant. The concentration is obtained by taking a sample from the atmosphere.

Identification of the Location of Hazardous Areas
Hazardous areas may include confined spaces, those exposed to nearby contaminants, etc.

Worker Activity
Worker activities include being exposed to extreme heat or cold, wearing a welding hood, etc.

Types of Respirators
Air-purifying respirators are either half masks or full-faced masks that filter dusts, fumes, gases, mists or vapors through mechanical or chemical cartridges.

Powered air-purifying respirators are those that pass contaminated air through a filter using a blower. Like regular air-purifying respirators, they filter dusts, fumes, gases, mists or vapors. The purified air goes into a mask or hood.

Air-purifying respirators are not suitable for environments that are oxygen-deficient. This can result when another gas displaces the oxygen in the atmosphere or by a chemical reaction that consumes the oxygen. When oxygen levels drop below 19.5%, a source of supplied air or supplied-air respirators are required. Oxygen levels below 16% are considered very dangerous and could result in death. Contact the Safety Manager or qualified safety representative of the client to help determine the appropriate cartridge for air-purifying respirators. Take into consideration the information on the Material Safety Data Sheet regarding the substance that requires filtering.

All cartridges are assigned a color designating the type of contaminant they will filter:

White:	Acid gas
Black:	Organic vapors
Green:	Ammonia gas
Yellow:	Acid gases and organic vapors
Purple:	Radioactive materials
Orange:	Dust, fumes and mists
Olive:	Other gases and vapors (multi-contaminants)

As soon as the respirator's user can detect an odor, irritation, or taste the contaminant, the cartridge should be immediately replaced. At the beginning of the shift, all cartridges and filters should be changed.

Supplied-air respirators provide the best protection against potentially highly toxic materials. Supplied air respirators are air-line respirators or self-contained breathing apparatuses (SCBAs). SBCAs allow a limited amount of air to be carried by the user, providing fewer restrictions and more mobility than air-line respirators.

Air-line respirators are connected to a central supply of fresh air via a hose. Fresh air can be obtained from a compressed air cylinder or an air compressor with a minimum of Grade D breathing air.

Emergency Escape Breathing Apparatuses (EEBAs) provided oxygen in 5, 10 or 15 minutes depending on the apparatus. EEBAs are to be used in emergencies when an employee needs to escape a situation that is immediately dangerous to life or health (IDLH).

SCBA (Self Contained Breathing Apparatus)

NOTE: MIKE SCOTT PLUMBING INC does NOT permit employees to work in environments that are Immediately Dangerous to Life and Health (IDLH).

To maintain NIOSH and MSHA approval of respirators, mixing parts (e.g., valves, cartridges, airline hoses, gaskets, etc.) between respirator manufacturers is strictly prohibited. For example, do not use MSA cartridges or gaskets with a North product.

Brand and Models
North Safety brand NIOSH-certified respirators have been selected for use by MIKE SCOTT PLUMBING INC. Only North Safety brand may be used to be in compliance with the policies and conditions of this Respiratory Protection Program. Additionally, NIOSH certified respirators are selected based on the hazards that the worker is exposed to.

The specific model to be used will be based on the type of hazard encountered, oxygen levels, concentration of the contaminant, type of work being performed, and work environment. Selections shall be made by identifying the appropriate North respiratory equipment for the work performed and the encountered hazard using the following guides.

- NIOSH Pocket Guide to Chemicals
- North Respirator Selection Guide
- North Cartridge Selection Guide

Estimate of Exposures and Contaminant Information

- Employees are not permitted to enter IDLH environments,
- Oxygen levels shall be maintained at a normal level,
- Employees will not be exposed to atmospheric conditions that contain concentrations exceeding the STEL or PEL for a particular hazard.

Respirator Fit Testing

Prior to an employee using a respirator with negative or positive pressure tight-fitting face pieces, the employee must be fitted with the same make, model, size, and style of respirator that will be used when situations require it. This portion of the document lays out the types of fit tests allowed, how to conduct them, and how the results of the tests are to be used.

Employees using respirators must be fit-tested annually, at a minimum, and more frequently if federal requirements dictate. Supplied air respirators must also be tested for fit.

Qualitative fit tests (QLFTs) or quantitative fit tests (QNFTs) are required for all employees using tight-fitting face piece respirators. Fit tests for tight-fitting face piece respirators must be conducted prior to an employee using the respirator, when the employee uses a different respirator or face piece (make, model, size or style) and at least annually after that.

Additional fit tests are required if the employee reports, or a MIKE SCOTT PLUMBING INC supervisor, PHLCP or Program Administrator observes changes in the physical condition of the employee that could affect fit. These physical conditions include, but are not limited to: obvious changes in body weight, cosmetic surgery, facial scarring or dental changes.

If an employee passes a QLFT or QNFT and later notifies MIKE SCOTT PLUMBING INC, supervisor, PLHCP or Program Administrator that the fit is not suitable, the employee will be given opportunity to choose a different respirator face piece to be retested.

Fit tests are conducted according to OSHA-accepted QLFT or QNFT protocol. The accepted procedures and protocols are outlined in this section.

QLFT is only to be used for fit-testing negative pressure air-purifying respirators that are required to have a fit factor of 100 or less. Half face air filtering respirators are fit tested with a smoke irritant. Full face respirators must be fit tested using Portacount.

If protocol determines that the fit factor is 100 or greater for tight-fitting half face pieces, or 500 or greater for tight-fitting full face pieces, the quantitative fit test has been passed with that particular respirator.

The negative pressure mode will be performed during the QLFT or QNFT to fit test tight-fitting atmosphere-supplying respirators and tight-fitting powered air-purifying respirators. The negative pressure mode will be used for the fit test regardless of whether the usual mode of operation for that respirator is positive or negative.

To conduct a qualitative fit test for these respirators, the respirator user's face piece will be converted into a negative pressure respirator with appropriate filters. Alternately, an identical negative pressure air-purifying face piece with the same sealing surfaces may be substituted.

To conduct a quantitative fit test for these respirators, the face piece will be modified to allow sampling inside the face piece's breathing zone, halfway between the nose and mouth. This will be accomplished by installing a fixed sampling probe onto a substitute face piece or by using a sampling adapter which provides a temporary means of sampling the air.

Any face pieces that are modified for the purposes of fit testing will be completely restored to their NIOSH-approved configurations before they are used by employees in the workplace.

Fit Test Procedures
The requirements in this section apply to all QLFT and QNFT OSHA-accepted fit test methods.

The test subject will be provided with a sufficient variety of respirator sizes to select the most acceptable respirator that correctly fits the subject.

Before beginning the selection process, the subject will be shown how to put a respirator on, how to position it on the face, how to set strap tension and how to evaluate acceptable fit. A mirror will be provided to aid the test subject in determining the position and fit of the respirator. The instruction provided during fit testing does not substitute for the formal training on respirator use; it is only a review.

The test subject will be informed that a respirator is to be selected that provides the best fit. Each respirator presented is of a different size and shape. If fitted and used properly by the subject, the respirator will provide sufficient protection.

Test subjects will be instructed to hold up each chosen face piece to the face to quickly eliminate those that are obviously a poor fit.

The acceptable face pieces are noted. The most comfortable mask must be put on and worn for five minutes or more to evaluate comfort. To assess comfort, the following points should be considered:

- If the subject is not familiar with how to use a respirator, he or she will be instructed to put the mask on several times and to adjust the straps each time so the subject becomes well-versed in setting the proper tension on the straps,
- Position of the mask on the cheeks and face,
- Room to talk,
- Position of the mask on the nose,
- Room for eye protection.

The following criteria will be used to evaluate the suitableness of the respirator's fit:

- Proper placement of the chin,
- Sufficient, but not overly tight, strap tension,
- Proper fit across the bridge of the nose
- Respirator's tendency to slip,
- Respirator sized appropriately to span the distance of the subject's nose to chin,
- Subject's self-evaluation in mirror to assess the respirator's fit and position.

Evaluations should incorporate use of the Fit Test form.

User Seal Check
Prior to beginning the negative and positive pressure checks, subjects will be instructed to place the mask on the face and move the head up and down and from side to side while taking slow, deep breaths. The subject will perform a user seal check by using either the positive or negative pressure seal checks outlined below:

Positive Pressure Check
Remove the exhalation valve cover and close off the exhalation valve. Exhale gently into the face piece. If a slight positive pressure builds up inside the face piece with no outward leaks of air at the seal, the face fit is sufficient. Carefully replace the exhalation valve cover after conducting the pressure check.

Negative Pressure Check
Replace the filter seal over the opening of the canister or cartridge. If the filter seal is not available, cover the inlet opening with the palm of the hand. If the hand does not sufficiently cover the inlet opening, cover it with a thin latex or nitrile glove. Inhale gently. The face piece should collapse slightly. Hold the breath for ten (10) seconds. If the face piece remains slightly collapsed, and no air leaks inward, the tightness of the respirator is sufficient.

The test cannot be conducted if the subject has hair growth at the areas with the skin seals with the surface of the respirator. This includes a beard, moustache, sideburns, or stubble. Any apparel or accessories (including glasses) that interfere with fit should be removed.

If the subject determines that the fit of the respirator is unsatisfactory, the subject will be allowed to select a different respirator and will be retested. The fit test will be terminated immediately if the subject has difficulty breathing during the tests. The subject will be referred to a physician or other health care profession for evaluation regarding whether the subject can wear a respirator in the performance of his or her job duties.

Subjects will be given a description of the fit test and the subject's responsibilities during testing prior to beginning the test. This will include a description of the exercises to be performed by the test subject. The respirator must be worn for at least five minutes prior to beginning a test.

The subject must wear any safety equipment that may be required during actual respirator use while the fit test is performed.

Test Exercises

Each test exercise lasts one minute except the grimace test, which lasts 15 seconds. The test conductor will ask the subject questions about the comfort of the respirator upon completion of the procedures. If the respirator has been deemed unacceptable during or after completion of the tests, another model will be tested. If the subject cannot perform the test exercises due to medical or health conditions, the fit test will not be performed. In this case, the subject is prohibited from using a respirator until all elements of the fit test can be completed.

The subject will not be permitted to adjust the respirator once the exercises begin. Any adjustment made voids the test, and the test must be repeated.

All fit-testing methods will require the following exercises to be performed:

- Normal breathing. The subject will be required to breathe normally while in a standing position without talking,
- Deep breathing. The subject will be asked to stand in a normal position and take slow, deep breaths, taking care not to hyperventilate,
- Turning head side to side. While standing in place, the subject will be required to turn the head from side to side, to the farthest position at each side. At the farthest position, the subject will be asked to hold and inhale,
- Moving head up and down. While standing in place, the subject will be asked to move the head in an up and down motion. The subject will be asked to inhale when the head is in the up position,
- Talking. The subject will be asked to speak slowly and loud enough for the voice to be heard by the test conductor. For this exercise, the subject will read from the Rainbow Passage below for one minute.

Rainbow Passage

> "When the sunlight strikes raindrops in the air, they act like a prism and form a rainbow. The rainbow is a division of white light into many beautiful colors. These take the shape of a long round arch, with its path high above, and its two ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look, but no one ever finds it. When a man looks for something beyond reach, his friends say he is looking for the pot of gold at the end of the rainbow." Continue to read for one minute.

- Grimacing. The test subject will be asked to grimace by smiling or frowning. (This exercise is only performed during QNFT tests),

- Jogging in place. The subject will be required to jog in place for one minute while taking care to be aware of their surroundings.
- Normal breathing. Repeat the first exercise.

Qualitative Fit Test (QLFT) Protocols

General
MIKE SCOTT PLUMBING INC requires that persons conducting QLFT are able to calibrate equipment, ensure that equipment is in proper working order, prepare test solutions, properly perform tests and recognize invalid tests. MIKE SCOTT PLUMBING INC is responsible for ensuring that QLFT equipment is clean, well-maintained and operational within its intended parameters.

Irritant Smoke (Stannic Chloride) Protocol
This QLFT tests for leakage into the respirator by using the subject's reaction to chemical irritants released in "smoke" produced by a stannic chloride ventilation smoke tube.

General Requirements and Precautions for the Irritant Smoke Protocol:

Respirators will be equipped with high efficiency particulate air (HEPA) or P100 series filters for this test.

The test shall not be performed in an enclosure. The test subject shall not use a hood. Only stannic chloride smoke tubes are permitted for use during this protocol.

The smoke from this test may be irritating to the eyes, nasal passages and lungs. The test conductor will take precautionary measures to minimize the smoke irritant the subject is exposed to. Sensitivity varies according to the individual; some may experience greater irritation to the smoke. Precautions will be taken when performing the screening to use only the minimum amount of smoke necessary to elicit an olfactory response from the test subject.

This fit test will be conducted in an adequately ventilated area to prevent build-up of irritant smoke and to avoid exposing the test conductor to smoke.

The subject must be able to demonstrate that he or she can detect a weak concentration of the irritant smoke.

- The test conductor will break both ends of the stannic chloride ventilation smoke tube. One end of the smoke tube will be attached to a low flow air pump to administer 200 milliliters per minute, or an aspirator squeeze bulb. The conductor will cover the opposite end of the smoke tube with a short piece of tubing to guard against potential injury from the jagged end.
- The test conductor will inform the test subject that smoke can irritate the eyes, nasal passages, and lungs and will instruct the test subject to keep the eyes closed while the test is performed.
- The test subject will be permitted to smell a weak concentration of the smoke before putting the respirator on in order to become familiar with its irritating properties and to determine if the subject can detect the smoke's irritating properties. The test conductor will *carefully administer a small amount* of the smoke directed toward the test subject to determine if he or she can detect it.

Irritant Smoke Fit Test Procedure

- The test subject will put the respirator on without assistance and will perform the required user seal checks,
- The test subject will be instructed to keep the eyes closed if he or she is wearing a half face respirator,
- The test conductor will direct the stream of smoke from the tube toward the face seal area of the subject by using a low flow pump or squeeze bulb. The test conductor will be 12 inches or more from the face

piece and will move the smoke stream around the entire perimeter of the mask. Gradually, the test conductor will make two more passes (for a total of three times) around the perimeter of the mask, moving closer each time. The test conductor will not move the smoke tube closer than six inches,

- If the irritant smoke does not elicit a response from the test subject, proceed with the test exercises,
- The exercises in the Test Exercises will be performed by the test subject. The respirator seal will continue to be challenged by directing smoke around the perimeter at a distance of six inches,
- If the test subject reports detection of the irritant, this is a failed test. The test subject must repeat the entire sensitivity check and fit test procedure before being retested,
- If the test subject passes the irritant smoke test (with no evidence of a response such as irritation or involuntary cough), the subject will be screened for sensitivity again after the respirator is removed, using smoke from the same tube used during the fit test. If he or she still reacts to the smoke, the fit test is valid. If there is no response to the irritant smoke, the results of the fit test are invalid,
- The glass tube will be properly disposed of after conducting the screenings and fit test.

Quantitative Fit Test (QNFT) Protocols

OSHA has deemed it acceptable to use controlled negative pressure and suitable instrumentation to measure a face piece's leak rate by volume in order to quantify the respirator.

MIKE SCOTT PLUMBING INC requires that all persons administering quantitative fit tests (QNFT) are capable of calibrating equipment, ensuring that equipment is in proper working order, performing tests properly, calculating fit factors properly, and recognizing invalid tests.

MIKE SCOTT PLUMBING INC is responsible for ensuring that equipment for GNFT is clean, well maintained and calibrated according to the manufacturer's recommendations in order to operate as it was designed to.

Portacount Fit Test Requirements

- Examine the respirator to ensure it is fitted with a high efficiency filter. Make sure the sampling probe and line are attached to the face piece according to established standards,
- Instruct the subject to put the respirator on five minutes prior to the beginning of the test to rid the respirator of ambient particles trapped inside and allow the subject to make sure the respirator is comfortable. The subject must already have been trained on proper use of the respirator,
- Check the following to ensure the respirator fits the subject sufficiently: Proper placement of chin, sufficient strap tension, correct placement on the nose, appropriate distance from nose to chin, tendency of the respirator to slip and subject's self-evaluation (in a mirror) of fit and position,
- Instruct the subject to perform a user seal check. If a leak is detected, examine the cause. If it is determined to be caused by an inadequately fitting face piece, instruct the subject to select a different size of the same model, or a different model of respirator,
- Proceed with the test ensuring the Portacount is operated according to the manufacturer's instructions.
- Instruct the test subject to perform the exercises according to the Test Exercises section of this procedure,
- After the subject has completed the test exercises, question the subject about the comfort of the respirator. If the fit has become unacceptable, instruct the subject to select another respirator model.

Portacount Test Instrument

The Portacount automatically stops and calculates the overall fit factor for all of the exercises completed. The overall fit factor is the one that counts; this is determined by a Pass or Fail message. If the test reads Pass, the test is over. Because the criteria for Pass or Fail are programmable by the user, the test conductor will make sure that the programmed criteria meet the requirements for the respirator's minimum performance.

Test results for passing tests will be sent to the Safety Manager and kept on file. This record must contain the subject's name; overall fit factor; make, model, style and size of respirator; and test date.

Use, Maintenance and Care of Respirators

MIKE SCOTT PLUMBING INC is required to provide for the use, inspect, repair, storage, cleaning and disinfecting of respirators used by MIKE SCOTT PLUMBING INC employees. All respiratory protective equipment shall be properly stored and inspected by MIKE SCOTT PLUMBING INC.

Use

- Factors that can affect the mask to face seal are not permitted. This includes, but is not limited to, glasses, clothing and facial hair,
- A positive and negative pressure check must be conducted each time a respirator is worn.

Cleaning and Disinfecting Requirements

MIKE SCOTT PLUMBING INC will provide each employee who requires a respirator one that is clean, sanitary, and in proper working order. The responsible person for the maintenance and care of respiratory equipment is the respiratory program administrator and safety manager. MIKE SCOTT PLUMBING INC will make sure that respirators are cleaned and sanitized according to the procedures in the Respiratory Protection Program, or procedures recommended by the manufacturer if they are equivalently effective. Respirators are required to be cleaned and disinfected:

- When issued to an employee who will use the respirator exclusively, the respirator will be cleaned as often as necessary by the employee to maintain sanitary condition,
- When used in training and fit testing, the respirator must be cleaned by the Safety Manager or his/her designee after each use,
- Employees who are assigned cartridge respirators are responsible for the cleaning, inspection and proper storage of the respirator.

Cleaning Procedures

- Remove the respirator's filters, cartridges or canisters. Face pieces should be disassembled by removing speaking diaphragms, valve assemblies, hoses and any other components as recommended by the manufacturer. Defective parts should either be discarded or repaired,
- Wash all parts in a solution of warm water and mild detergent or with a manufacturer recommended cleaner. A non-wire, stiff bristled brush may be used to help remove dirt,
- Rinse all the washed components in clean, warm, running water. Drain after rinsing,
- If the cleaner does not contain a disinfectant, parts should be submerged for two minutes in a disinfectant. Alternatively, alcohol wipes may be used, so long as they are intended for use with respirators,
- Rinse parts in clean, warm, running water. It is important to rinse thoroughly because dried detergents or disinfectants on face pieces may cause dermatitis. These cleansing agents may also deteriorate or corrode rubber and metal parts if they are not completely removed,
- Drain the parts after rinsing,
- Components should be hand-dried with a clean lint-free cloth or air dried. Reassemble face piece, replacing filters, cartridges, and canisters where necessary. Test the respirator to ensure that all components work properly.

Storage and Inspection

- Respirators and respiratory equipment must be stored properly to protect them from contamination, temperature extremes and other damaging conditions,
- Respiratory equipment that is intended for use in emergencies will be stored in an easily accessible area that is clearly marked.

Respirators must be inspected as outlined:

- Respirators used routinely must be inspected by its assigned employee before and after each use and during cleaning,
- The employee must also check the respirator for proper function, tightness of connections and the condition of its parts (e.g., the face piece, valves, head straps, connecting tubes, and cartridges, canisters or filters), and
- Elastomeric parts must be checked for pliability and possible signs of deterioration,
- Emergency respiratory equipment must be inspected monthly, at a minimum, and before and after each use,
- Respiratory equipment used for escape only must be inspected before carrying into the workplace.

Breathing Air Quality and Use
MIKE SCOTT PLUMBING INC will make certain that compressed air complies with the following specifications:

- Compressed breathing air shall meet at least the requirements for Type 1-Grade D breathing air described in ANSI/Compressed Gas Association Commodity Specification for Air, G-7.1-1989, to include:

    - Oxygen content (v/v) of 19.5-23.5%,
    - Carbon monoxide (CO) content equal to or less than 10 ppm,
    - Hydrocarbon (condensed) content of 5 mg per cubic meter of air or less,
    - Carbon dioxide content equal to or less than 1,000 ppm, and
    - Lack of noticeable odor.
- MIKE SCOTT PLUMBING INC will make sure that oxygen is not used in compressed air units,
- MIKE SCOTT PLUMBING INC will make sure that only equipment designed for oxygen service or oxygen distribution will use oxygen concentrations greater than 23.5%,
- MIKE SCOTT PLUMBING INC will make sure that cylinders used in supplying breathing air to respirators meet Department of Transportation requirements and:

    - Cylinders of purchased breathing air have a certificate of analysis from the supplier stating that the breathing air meets the requirements for Type 1 Grade D breathing air, and
    - The moisture content of a cylinder does not exceed a dew point of -50 deg. F (045.6 deg. C) at 1 atmosphere pressure,
    - Cylinders are tested and maintained as recommended in the Shipping Container Specification Regulations of the DOT (49 CFR part 173 and part 178).

- MIKE SCOTT PLUMBING INC will make sure that compressors used in supplying breathing air to respirators are constructed and placed in a manner that:

    - Prevents entry of contaminated air into the air-supply system,
    - Minimizes moisture content to keep the dew point at 1 atmosphere pressure to 10 deg. F (5.56 deg. C) below the ambient temperature,
    - Have appropriate in-line air-purifying sorbent beds and filters to protect the quality of the breathing air. Sorbent beds and filters must be maintained regularly and refurbished or replaced periodically according to the manufacturer's recommendations.
- Have a tag maintained at the compressor that contains the most recent change date and the signature of the authorized person who performed the change,
- For compressors that are not oil-lubricated, MIKE SCOTT PLUMBING INC will make sure that carbon monoxide levels of the breathing air do not exceed 10 ppm,
- For oil-lubricated compressors, MIKE SCOTT PLUMBING INC will use a carbon monoxide alarm and/or high temperature alarm to monitor levels of carbon monoxide. If using only high-temperature alarms, the air supply must be monitored at regular intervals to sufficiently prevent carbon monoxide in the breathing air from exceeding 10 ppm.

- MIKE SCOTT PLUMBING INC will make sure that breathing air couplings are incompatible with outlets for non-breathable worksite air and other gas systems so as to prevent asphyxiating substances from being introduced into the breathing air lines.

Repairs
MIKE SCOTT PLUMBING INC will make sure that respirators that fail inspection or are otherwise deemed defective are immediately removed from service. The defective respirators will be discarded, repaired or adjusted according to the following procedures:

- Adjustments and repairs are to be made only by authorized persons trained to perform those operations. Only the respirator manufacturer's NIOSH-approved parts designed for the respirator may be used,
- Repairs will be made according to the manufacturer's instructions, according to the type and extent of repairs needed to be performed.

Voluntary Use
If an employee elects to voluntarily wear a respirator when not required by this Program, they will be advised of the following during their training:

When properly selected and worn, respirators are an effective form of protection against designated hazards. Use of respirators is encouraged, even if exposures are below the exposure limit, to provide additional protection and comfort for employees.

If a respirator is not used properly, not maintained and not kept clean, the respirator may become a hazard to the employee. Certain precautions should be taken when employees are provided with respirators for voluntary use to include the following:

- Read thoroughly and follow all instructions as set forth by the manufacturer on the use, cleaning, care, maintenance, warnings and limitations of the respirator,
- Select respirators certified by NIOSH (National Institute for Occupational Safety and Health) to protect against the contaminant of concern. A label or statement of certification should be on the respirator or its packaging. This certification details what the respirator is designed for and how much protection it provides,
- Do not wear respirators into contaminated areas for which your respirator is not designed and certified to protect against. For example, a respirator designed to filter dust particles does not protect against vapors, gases, or very small solid particles of fumes or smoke,
- Keep track of your respirator to avoid mistakenly using someone else's respirator and vice versa.

Workplace Monitoring

The corporate health department has implemented a program to monitor potential employee exposures. Project personnel may be assigned to the task of air monitoring. Direct-reading instruments will be utilized to aid in characterizing potential exposures. The data collected will be used to determine the respiratory equipment's appropriateness.

Recordkeeping

MIKE SCOTT PLUMBING INC will establish and maintain written records regarding medical evaluations, fit testing and the respirator program. Medical evaluation records will be retained and made available according to 29 CFR 1910.1020. MIKE SCOTT PLUMBING INC will give the employee an opportunity to discuss the questionnaire and the results of the employee's examination with the PLHCP.

Records will be treated in a confidential manner and maintained in the files of the Safety Manager in the corporate office.

Program Evaluation

MIKE SCOTT PLUMBING INC will conduct evaluations of the workplace and environment whenever necessary to make sure that the policies and procedures of the current program are being implemented and continue to be effective.

MIKE SCOTT PLUMBING INC will, on a regular basis, consult employees who use respirators to evaluate the employee's opinions on the effectiveness of the program and to identify any problems with said program. Identified problems will be corrected. Factors to be evaluated include, but are not limited to:

- Respirator fit,
- Ability to use the respirator without interfering with work duties and performance,
- Proper usage of the respirator under the usual conditions the employee encounters, and
- Proper maintenance of the respirator.

Training

Every employee will participate in respirator training initially and at least annually thereafter, if their job classification requires it. Training will be provided prior to requiring the employee to use the respirator and shall address employee knowledge of the following:

- Respirators and fit,
- Wearing, use, and limitations,
- Emergency situations,
- Fit Checks,
- Maintenance and storage,
- Medical signs and symptoms of effective use,
- General OSHA standards and requirements.

Retraining

Employees must be retrained annually and when the following circumstances apply:

- Changes in the workplace or the type of respirator make the previous training obsolete,
- The employee's knowledge is found to be inadequate, or
- Other situations that arise that make retraining necessary to ensure employee safety.

RIGGING MATERIAL HANDLING

Purpose

This program ensures onshore and offshore lifting operations are safe and incident free.

Scope

This program applies to all MIKE SCOTT PLUMBING INC employees that work onshore, or in the Outer Continental Shelf (OCS). It is to be used at all times on MIKE SCOTT PLUMBING INC worksite. If a MIKE SCOTT PLUMBING INC employee performs work on a site other than MIKE SCOTT PLUMBING INC's site, the facility owner's plan should be used if it exists and is as strict (or more strict) than this plan. In cases where the other facility's plan does not exist or is less strict than this plan, MIKE SCOTT PLUMBING INC employees will operate under this plan.

Definitions

Rigging - the process of safely lifting a load by attaching it to a hook using appropriate slings and related hardware.

Qualified Rigger – anyone who has successfully completed training that meets the requirements set forth by American Petroleum Institute's Recommended Practice 2D 5th Edition (API RP-2D 5th Edition) and attaches or detaches lifting equipment.

Outer Continental Shelf – all submerged lands, subsoil, and seabed that belong to the United States (federal) and lie seaward and outside of the individual states' jurisdiction (land beneath navigable waters are in the jurisdiction of the individual states).

Key Responsibilities

Management determines whether this program is necessary to comply with regulations within their region. If the program is necessary, management determines which employees are required to take this training. Management may select a training facility, or may use an in-house qualified trainer to conduct the training.

Supervisors assist the managers in completing the above tasks. The supervisor must verify that each employee has the appropriate training before reporting for duty onshore, or on an OCS facility.

Employees must follow safe rigging practices, and will assist their supervisor in tracking required training. Employees will be aware of expiration dates of required training, and will notify their supervisor in advance of expiry.

Attaching or detaching lifting equipment to loads (or lifting loads) must only be performed by qualified, trained rigger employees. MIKE SCOTT PLUMBING INC employees never operate nor inspect offshore cranes.

Procedure

General

"Qualified riggers" are the only employees allowed to attach loads to a lifting hook. "Qualified operators" are the only employees allowed to operate a crane while involved in lifting operations onshore or on the OCS.

API RP-2D has developed a classification system with three-tiers. Before starting any job assignment requiring rigging and lift operations offshore, employees must be certified in the required classifications:

- Qualified rigger.

- Qualified inspector.
- Qualified operator. (MIKE SCOTT PLUMBING INC employees DO NOT operate offshore cranes.)

Material Handling

- Rigging equipment must be inspected to ensure its safety. Prior to using rigging equipment for material handling, the equipment must be inspected. In addition, it must be inspected on each shift and as necessary during its use.

- Rigging equipment that is determined to be defective must be removed from service, and must never be used.

- Rigging equipment must have load identification information attached to it. Never load rigging equipment in excess of its recommended safe working load.

- All rigging equipment that is not currently being used must be removed from the work area to prevent it from being a hazard to employees.

- Tag lines shall be used at all times unless their usage presents hazards.

- All hooks (e.g., those on overhaul ball assemblies, lower load blocks, or other attachment assemblies) must be able to be closed and locked, without a hook throat opening. Or, you may use an alloy anchor shackle with bolt, nut and retaining pin.

- Employees must stay clear of loads that are about to be lifted, and those that are suspended. Never allow an employee under a suspended load.

Training and Education

"Qualified Offshore Riggers" must successfully complete an approved "API2D Rigger" course. This requires MIKE SCOTT PLUMBING INC employee to verify that the knowledge they have gained by participating in classroom lectures, hands-on training and then they must pass a written exam. Upon successful completion of the course, the employee will be issued a "Rigger" card. During the training MIKE SCOTT PLUMBING INC employee must display competency in the following topics:

- Selecting the proper hardware (hooks, wire rope products, eye bolts, shackles, synthetic slings, chain slings, etc) to apply correctly to the load (hitches, angles, weight, temperatures, center of gravity, etc.).

- Inspecting the selected hardware before, during and after the lift.

- Properly securing the load, attaching it to the hook, lifting it, handling it during the movement, and lowering and placing the load.

- Properly storing rigging equipment.

- MIKE SCOTT PLUMBING INC "qualified riggers" must re-certify their training every four (4) years.

RISK ASSESSMENT

Purpose

- To establish procedures for the identification, assessment and management of hazards in the workplace;
- To proactively determine the possible risks of new materials and processes before they are incorporated into the work environment;
- To determine which job duties require risk assessment.

Key Responsibilities

Responsibilities are as set forth in this program.

MIKE SCOTT PLUMBING INC is to evaluate a work site to determine all possible and existing hazards prior to the associated work of said site or prior to the commencement of work at the site.

Hazard and Risk Determination

The processes for hazard identification and assessment of risk are used for all routine and non-routine activities. New processes and changes in current processes, services, or products will also be evaluated using the hazard identification process.

Safety Managers are responsible for administering a baseline hazard assessment of each worksite. This evaluation will identify the tasks to be performed and the potential hazards associated with those tasks. The results should be compiled into a report detailing the hazard assessment and recommendations for managing or eliminating the identified hazards. This report must be signed and dated by the Safety Manager.

The following data should be included in the baseline hazard identification. This list is not all-inclusive:

- Extent of the work,
- Safety, legal and other requirements to be met,
- Prior occurrences and failures in compliance,
- Environmental conditions that may cause harm, including hazardous energy sources and other contaminants,
- Detailed walk through and assessment of the work site.

Identification of hazards shall include, but are not limited to:

- General Preventative Measures
- Work Isolation
- Driving
- Enclosed Spaces
- Heat Exposure
- Energy Isolation
- Bloodborne Pathogens
- Noise Exposure
- Musculoskeletal Disorders
- Other policies and procedures set forth by MIKE SCOTT PLUMBING INC
- Other identified measures specific to a particular site or work scope

MIKE SCOTT PLUMBING INC is responsible for implementing formal procedures for the identification of potential hazards through the use of Job Safety Analysis (JSA), Job Hazard Analysis (JHA), and evaluations specific to particular sites and facilities.

For each hazard identified or risk assessed, controls to manage or eliminate those specific hazards and risks are assigned to the work-site.

Employees and contractors are encouraged to participate in the identification of hazards. MIKE SCOTT PLUMBING INC's program ensures that employees and sub-contractors are actively involved in hazard identification process and the concerns of said employees and contractors are thoroughly addressed.

Employees shall be trained in the identification of hazards, to include usage and care of Personal Protection Equipment (PPE).

Identified hazards are to be reported to the supervisor and addressed by the supervisor immediately. Supervisors shall review the worksite hazard assessment with all employees during orientation at the employee's assigned worksite. The safety manager shall implement methods such as weekly JHA and risk assessment reviews to ensure identified hazards are addressed and mitigated. Documentary evidence of such review shall also be maintained in order to further ensure mitigation of such hazards.

Worksite Hazard Assessment Review

Worksite hazard assessments are to be reviewed annually and repeated as necessary to ensure the worksite maintains safe and healthy working conditions. Specifically, evaluations must be updated when new tasks are assigned that have not been evaluated for risk, when operating processes or procedures change, prior to construction of new work sites or when significant changes are made to an existing worksite.

Supervisors and project managers are responsible for informing the Safety Manager when new hazards are introduced into the work environment. This will require revision of the site's planning and assessment needs.

Risk Assessment
Hazards are classified and ranked based on severity. The program requires that hazards are identified, classified and prioritized based on their associated risk. (For further information regarding severity and probability of risks and hazards, see the risk analysis matrix.)

Risk Management: Ensuring Identified Hazards are Addressed and Moderated
The following describes how identified hazards are addressed and moderated:

- Assessed hazards and their associated risks are addressed and moderated through assignment, documentation of completion, and implementation of controls, which include administrative and engineering controls and the required PPE as set forth in the assessment of specific worksite hazards. Work will not commence prior to the assessment of the worksite. Tasks with a High (Intolerable) risk assessment shall not be performed.
- Upon identification of existing or potential hazards to workers during a hazard assessment, MIKE SCOTT PLUMBING INC shall implement measures to eliminate the hazard whenever possible. If the hazard cannot be eliminated, it will be controlled to the greatest practicable extent. When possible and practicable, engineering controls must be used to eliminate or control hazards. If engineering controls cannot adequately address a hazard, administrative controls will be implemented to control the hazard to the greatest extent possible. If the hazard is uncontrollable by both engineering and/or administrative controls, MIKE SCOTT PLUMBING INC will provide appropriate PPE to be used by workers exposed to the hazard. If an increased level of worker safety may be attained by combining engineering and administrative controls and PPE, MIKE SCOTT PLUMBING INC may use this combination.

Control of Hazards in an Emergency

Only employees trained in the emergency control of hazards may expose themselves to the hazard. The hazard will be controlled by the minimum number of employees required to resolve the emergency situation. For example, in

the event of a gas leak, only those trained in fire safety, gas shut off and other related measures may attempt to contain the hazard.

MIKE SCOTT PLUMBING INC shall contain the hazard to the greatest extent possible while the situation is being remedied.

Hazard Assessment Certification
A worksite hazard assessment shall be completed and signed by the Safety Manager, and will include the site specific Health, Safety and Environment (HSE) plan. Worksite hazard assessments are reviewed annually and shall be updated as new tasks arise that have not been assessed for risk.

Job Safety Analysis (JSA)
Job Safety Analyses shall be performed for the following: jobs with a high rate of risk or illness, new jobs, complex jobs that require written instructions and/or jobs that have been subjected to major changes in policies or procedures. Completed JSAs may be obtained from the Safety Manager.

Site Specific HSE Plan (SSSP)
Each worksite shall have a site specific HSE plan. All employees reporting to a site will receive orientation from their supervisor. This orientation shall include the Site Specific Safety Program (SSSP) for that particular location. SSSPs contain policies on health and safety, site specific safety requirements, a personal protective equipment matrix and a worksite hazard assessment specific to that site and signed by the Safety Manager.

Review Process

Reviews of the hazard assessment program will be conducted to guard against new hazards deriving from corrective measures. This review will involve the safety committee and will include a consideration for management of change.

SPILL PREVENTION/ RESPONSE

Purpose

The purpose of this program is to identify spill prevention and response requirements. Each MIKE SCOTT PLUMBING INC work site develops a spill prevention and response plan based on these requirements and the template provided.

Scope

This program applies to all MIKE SCOTT PLUMBING INC operations. It is to be used at all times on MIKE SCOTT PLUMBING INC worksite. If a MIKE SCOTT PLUMBING INC employee performs work on a site other than MIKE SCOTT PLUMBING INC's site, the facility owner's plan should be used if it exists and is as strict (or more strict) than this plan. In cases where the other facility's plan does not exist or is less strict than this plan, MIKE SCOTT PLUMBING INC employees will operate under this plan.

Requirements

Each work site develops a spill prevention and response plan that must contain the following requirements.

- Store all chemical substances in proper containers to minimize the likelihood of a spill. Whenever possible, keep chemicals in closed containers and store them so they are not exposed to storm water.
- As part of this program, identify all chemicals used that have a potential to be spilled or released. This includes liquid chemicals used at our facilities, or those brought on to owner client sites.
- Spill kits must be sufficient for any spills likely to occur. A proper spill kit must include supplies appropriate for materials that may be spilled. Spill kits must be readily available when they are required, and must include appropriate supplies for the type and quantity of material.
- MIKE SCOTT PLUMBING INC will assess spill response kits periodically to ensure supplies are available, and will adjust inventory as necessary.
- MIKE SCOTT PLUMBING INC will instruct employees on spill prevention and proper procedures when responding to a spill. Training will include information about the availability of supplies, how to properly dispose of waste and communication procedures.
- Good housekeeping must be practiced in areas where chemicals may be used or stored. This includes (but is not limited to) clean and organized storage, labeling of materials, and supplementary containment where necessary.
- Each site will create a procedure for proper communication that employees would initiate in the event of a spill. The procedures will be tailored to the type and quantity of material spilled.
- Any environmental spill will be reported to environmental authorities if required. The reporting procedures will be tailored to the type and quantity of material spilled.

Each work site will use the following template to develop a Spill Prevention and Response Plan.

Copies of this plan are stored at the facility and are available to all employees.

Location(s) of plan(s): _____

Facility Information

Facility Name: _____

Mailing Address: _____

_____

Physical address (if different): _____

_____

_____

Owner's Name: _____

Owner's Address: _____

_____

Primary Contact Name: _____
Work Phone Number: _____
Home Phone Number: _____
Mobile Phone Number: _____

Secondary Contact Name: _____
Work Phone Number: _____
Home Phone Number: _____
Mobile Phone Number: _____

Date of Initial Operation: _____

Site Assessment

Location - Describe where the facility is located.

_____

_____

_____

_____

_____

_____

Facility Description

Facilities and Equipment (examples are shown but you must complete a page per site description):

___Garage for vehicle processing
___Manufacturing Building
___Parts Storage
___Parts Washer
___Refrigerant (Freon) Extractor
___Spill Kit/Emergency Equipment

Please list: _____
_____
_____
_____

Services:

___Dismantler/Recycler
___Equipment Repair
___Manufacturing
___Moving Equipment
___Painting/Sandblasting

Please list: _____
_____
_____
_____

Fixed Storage (For each storage container, list the capacity and contents)
For example, "One 6,000 gallon above- ground tank containing diesel fuel."
Be sure to include gasoline, diesel, heating oil, waste oil, kerosene, paint thinner and other solvents. Also, for each Container describe the type of container, secondary containment for each, alarms, liquid level indicators, and method of corrosion protection.

_____
_____
_____
_____
_____
_____
_____

Non-Fixed Storage (For each storage container, list the capacity and contents)
For example, "One 55 gallon drum for recycled oil."
Be sure to indicate the use of each container, its condition, type of container, and how secondary containment is provided.

_____
_____
_____
_____
_____
_____
_____

Total quantity of stored material: The total quantity of the material listed above:_____ gallons

Oil spill history

Place an X besides the appropriate line.

___ There has never been a significant spill at this facility.

___ There has been at least one significant spill at this facility. Details of the spill(s) are included below. For each spill that occurred, supply the following:

- Type and amount of oil spilled
- Location, date and time of spill(s)
- Watercourse(s) affected
- Description of physical damage
- Cost of the damage
- Cost of the clean-up
- Cause of the spill
- Action(s) taken to prevent recurrence

Potential Spill Volumes and Rates

Fill in all applicable blanks.

Potential Event	Volume Released	Spill Rate
Full tank - complete failure*	___ gallons	instantaneous
Full tank - partial*	1 to ___ gallons	gradual to instantaneous
Tank overflow**	1 to ___ gallons	up to ___ gallons per minute
Leaking during unloading***	up to ___ gallons	up to ___ gallons per minute
Pipe failure****	up to ___ gallons	up to ___ gallons per minute
Leaking valve or pipe****	several ounces to gallons	up to ___ gallons per minute
Fueling operations****	several ounces to gallons	up to ___ gallons per minute
Oil and grease	several ounces to quarts	spotting

* Volume of largest tank
** Calculate using the fuel dispensing rate of the delivery truck into your tank(s).
*** Calculate using the fuel withdrawal rate from the tank if it should have to be emptied (e.g., if it was being taken out of service).
**** Calculate based on the equipment specifications

Spill Prevention and Control

Spill Prevention (Provide a description of containment facilities and practices)
Include a description of items such as double-walled tanks, containment berms, drip pans, emergency shut-offs, fueling procedures and spill response kits. Also, describe employee training in proper handling procedures and spill prevention and response procedures – how and when.

Spill discharge and flow (Describe where fuel would go if a spill occurred for each potential spill source)
For example, "The 6,000 gallon diesel tank includes a pre-manufactured secondary containment system that is capable of holding 110 percent of the total volume of the tank" or, "A spill from an engine repair would be contained inside the shop building and would be quickly cleaned up with oil absorbents."
Include a site map (see instructions under *Appendices*).

Spill response (Identify the equipment that would be used, by whom, and in what circumstances)
Also, include phone numbers for response agencies, *e.g.,* fire department, spill response contractors, U.S. Coast Guard, etc.
A copy of the worksite spill response plan may be attached as an appendix to this plan instead of completing this section.

Security (Provide a description of how all containers are protected when the facility is unattended or not in operation. Include a description of access control, fencing, gates, locks, etc. that prevent access by unauthorized individuals.)

Facility Inspections

Routine Inspections (Identify the facilities and the frequency of inspection)

For example, "The fuel pumps are inspected daily. The materials storage area is inspected monthly."

Describe all facility containers, piping, etc. that must be inspected. Include the name of the person responsible to implement preventative maintenance programs, oversee on-site inspections, maintain records, coordinate employee training, update the plan as necessary, and ensure that reports are submitted to the proper authorities.

Annual Inspections (Include a description of annual comprehensive inspections)

For example, "A site inspection is conducted annually by appropriate responsible personnel to verify that descriptions of potential spill sources are accurate, that the site map reflects the current site conditions, and that the controls to reduce the pollutants identified in this plan are being implemented and are sufficient. This annual site inspection is conducted above and beyond the routine inspections (these focus on designated equipment and areas where potential sources are located)."

Record Keeping

Describe record keeping procedures.

For example, "Record keeping includes maintenance of all records for a minimum of three years. The following items will be stored on file: current plan, training records, internal site reviews, and documentation of spills or maintenance conducted in regards to these sites."

(*Maintenance Inspection, Employee Training,* and *Record Keeping* logs are included in this template for your use.)

Maintenance Inspections

Maintenance Coordinator Name: _____

Maintenance Coordinator is responsible to implement the preventative maintenance programs and oversee on-site inspections.

Use the following table to record inspections:

Facility Inspected	Date of Inspection	Name of Inspector	Result Pass/Fail	Comments

Employee Training

Employee Training Coordinator Name: _____

Use the following table to record spill prevention and response training.

Name of Employee	Date of Training	Type of Training/Topics Addressed

Record Keeping of Incidental Spills

Record Keeper Name: _____

The Record Keeper maintains records of incidents, updates the plan as necessary and ensures reports are submitted to the proper authorities when necessary.

Incident No.	Type of Incident	Date of Occurrence	How it was Cleaned Up

Appendices

Site map
Attach a site map as Appendix A to this plan. You may create your own or attach an existing site map. If you use an existing map, check that the items listed below are included. If you need to create a site map, use paper large enough to include all site plan elements on it and try to keep the map to a scale (e.g. 1" = 20'). The following instructions should guide you step-by-step. Please use a straight edge (ruler) while creating the sketch.

- The sketch should be an aerial view, with North at the top (draw an arrow indicating North).
- Draw and label roadways surrounding the work site.
- Draw and label all facilities within the work site as close to proportionate as possible.
- Draw an arrow(s) indicating the direction of the flow of water when it rains.
- Draw the location and general layout of all vehicle storage associated with the work site.
- Label any waterways or rivers surrounding the work site.
- Draw and label all entry locations to the work site.
- Draw and label the location of all fuel containment facilities.
- Draw and label the location of all in-place spill prevention, control and countermeasure devices.

Other attachments
(List any additional information to be attached as Appendix B, C, D, etc. Label and staple the attachments to the end of this plan.)

Appendix A: Site Map
Appendix B: Emergency Response Posting Locations
Appendix C: _____
Appendix D: _____

Management Approval

I certify that I have examined the information submitted in this document personally, and am familiar with it, and that, based on questions answered by the responsible individuals, the information submitted is true, accurate and complete.

_____	_____
Signature	Title
_____	_____
Printed name	Date

WELDING, CUTTING, HOT WORK

Purpose

This program has been designed for the purpose of ensuring a safe work environment during the performance of welding, cutting and hot work operations.

Scope

The procedures set forth in this program apply to all employees who are directly involved, or assist in, welding, cutting and hot work tasks. This program covers MIKE SCOTT PLUMBING INC employees and contractors and must be used on MIKE SCOTT PLUMBING INC owned premises. When off site, the site operator's program takes precedence unless it is less stringent than MIKE SCOTT PLUMBING INC program. Defective equipment or other safety hazards should be reported immediately. Defective equipment must be pulled from service until its safety has been validated. Repairs may only be made by qualified, authorized personnel.

If objects to be cut or welded are immovable and if all the present fire hazards cannot be cleared, the object must be removed or guards must be used to restrain the heat, slag and sparks, and to protect the immovable fire hazards.

Definitions

Welding and Hot Work Procedures – activities that have the potential to cause fires or explosions due to sparks, molten slag, fire or other hot material.

Hot Work Examples – welding, cutting, soldering, grinding, brazing, thawing pipes and using electric tools in hazardous areas.

Hazards – dangerous conditions that include, but are not limited to, the following: skin burns, fires, welding "blindness", explosions, fumes and smoke.

Special Hazard Occupancies – areas where the following potential fire hazards are present: gases, flammable liquids, accumulation of dust, rubber, plastics and paper products.

Key Responsibilities

Managers and Supervisors

- Establish if the site is safe for cutting and welding operations,
- Determine the safe areas for performing cutting and welding operations,
- Supply training for all employees and contractors whose job duties include performing operations that produce heat, spark or flames, such as welding, grinding or brazing,
- Create and implement effective hot work procedures,
- Provide appropriate personal protective equipment (PPE) for hot work,
- Supply safe, properly working equipment for hot work,
- Make certain that all PPE and hot work equipment are in safe working order,
- Oversee all hot work operations,
- Inspect the hot work area before work begins,
- Permit only trained and authorized employees and contractors to conduct hot work,
- Make sure permits are obtained for all hot work performed outside of authorized work areas.

Employees

- Inspect all hot work equipment before use,
- Use applicable hot work PPE,

- Follow all established hot work procedures,
- Report unsafe conditions or defective equipment immediately.

Procedure

General
Equipment operators must report equipment defects and discontinue use until it has been repaired or replaced.

Written permits must be obtained before hot work is performed. The work area must be inspected and authorization obtained via written permit before proceeding with cutting or welding operations.

Whenever possible, combustibles should be placed a minimum of 35 feet from the work area. When relocation of combustibles is not practicable, they must be protected via the following means to prevent accidental ignition of the material: flameproof covers, wetting the material, shielding with met, guards or curtains.

Augers conveyor systems and ducts that have the potential to carry sparks to distant combustibles must be protected or turned off.

If welding or cutting is performed near ceilings, walls, partitions or openings in the floor (such as grating and manholes), fire-resistant guards or shields must be used to avoid ignition.

When welding is conducted on metal ceilings, walls, partitions or flooring, care must be taken to prevent the ignition of combustible materials on the other side due to radiation or conduction of heat. When combustibles on the opposite side cannot be moved, a fire watch person will be provided on the opposite side to monitor the work.

Welding on a metal partition, ceiling, wall, or flooring made of combustible sandwich panels is strictly prohibited.

Welding and cutting operations may not be conducted when pipes or other metal to be welded are in contact with combustible walls, floors, partitions, ceilings or roofs closely enough to cause ignition by combustion.

If welding cannot be conducted safely, the welding and cutting shall not be performed.

Cutting or welding must not be performed under the following circumstances:

- Unauthorized areas,
- In the presence of flammable or explosive atmospheres,
- In sprinkled buildings where the sprinklers are impaired,
- In areas in close proximity to large quantities of stored combustible materials,
- In locations where the accumulation of dust is more than $1/16^{th}$ of an inch within a 35 feet perimeter of the area where hot work is to be conducted. All dust accumulation must be cleared before welding or hot work begins.

If welding or cutting is performed in an area where fires might develop, or if any of the conditions listed above cannot be satisfied, a fire watch will be provided.

- The fire watch must be present during welding procedures and for at least 30 minutes (an half hour) after welding is completed,
- The fire watch must be properly trained in the use of fire extinguishers and must have knowledge of the facility's alarm system,
- The fire watch will have the appropriate fire extinguishers at the ready during the procedure,
- Appropriate fire extinguishers will be supplied and available for immediate use,

- Hot work permits must be obtained for all welding or cutting procedures performed outside designated welding areas.

Fire Prevention Measures
Designated welding areas will be established according to the following specifications:

- Fire extinguishers shall be made readily available at all times during welding & cutting operations,
- Floors must be swept and cleared of combustible materials within 35 feet of the work area,
- Flammable and combustible materials must be placed 35 feet or more from the designated work area,
- Adequate ventilation must be provided to supply 20 air changes per hour,
- At least one 10 lb. dry chemical fire extinguisher must be within reach of the 35 feet of the work area,
- Welding curtains, noncombustible walls or other protective dividers will be supplied to confine slag and sparks to the combustible-free area.

Requirements for welding outside the designated area:

- A hot work permit must be obtained prior to beginning welding operations,
- Portable welding curtains or shield must be utilized for the protection of other workers in the welding area,
- Plastic materials must be protected by welding tarps during the welding operations,
- Respiratory protection must be used unless adequate airflow away from the welder and others present in the work area can be set up and maintained,
- A fire watch must be present during all hot work operations.

After the completion of welding operations, the welder must mark the metal as hot or warn other workers of the fact in some way.

Confined Space

- A space that is large enough that an employee can enter full-bodied into the area to perform the assigned work,
- Has limited means for entering and exiting the space (e.g., vessels, coolers, tanks, hoppers, storage bins, vaults and pits), and
- Is not intended for continuous occupancy.

Refer to MIKE SCOTT PLUMBING INC's Confined Space Program before beginning any cutting, welding or brazing operations that meet the requirements of a confined space.

Adequate ventilation is required to work in a confined space.

When welding or cutting in a confined space, the gas cylinders and welding machines must be left outside the confined space. Prior to beginning work, heavy portable equipment on wheels must be stabilized to prevent accidental movement.

When welding operations are performed in a confined space that must be entered through a manhole or similar opening, a quick means of exit must be provided to protect the welder in case of an emergency.

- When using safety belts for this purpose, the belt must be attached to the welders body in such a way that it does not get jammed in the opening,
- An attendant will be stationed outside the opening to observe the welder and put the preplanned rescue procedures into effect, if needed.

When arc welding procedures cease for a substantial amount of time (e.g. during lunch or overnight), the electrodes must be removed from the holders. The holders must be carefully placed to avoid accident contact. The machine must be disconnected from its power source.

Improperly closed valves pose a risk of allowing the escape of gas through leaks. In order to eliminate this risk, when gas welding or cuffing ceases for a substantial period of time, torch valves must be closed; the torch's fuel-gas and oxygen supply must be shut off along some point outside the confined area. If possible, remove the torch and hose from the confined space.

When welding must be performed in an area with screens on all sides, the screens must be arranged to avoid restriction of ventilation. Preferably, screens should be mounted approximately two (2) feet above the floor unless the work is performed at a level so low that the screens must be lower in order to protect nearby workers.
Fixed enclosures must have a top and at least two sides to surround the welding or cutting operations. A sufficient airflow must be in place to maintain a velocity away from the welder of 100 linear feet (30 m) per minute or greater.

When welding and cutting in confined spaces, adequate ventilation must be provided to avoid the accumulation of toxic materials and to avoid possible oxygen deficiencies. This is to protect the welder as well as helpers and other employees in the immediate area. When air is withdrawn, it will be replaced with clean air.

When circumstances will not allow for such ventilation, airline respirators or hose masks will be provided. These are approved for this purpose by the National Institute for Occupational Safety and Health (NIOSH). In areas where a threat to life is present, a positive pressure, full-face, self-contained breathing apparatus, or a combination of a full-face piece, positive pressure supplied-air respirator with an auxiliary, self-contained air supply approved by NIOSH must be used.

When welding operations are conducted in confined spaces where it is necessary for welders and their helpers to provide hose masks, hose masks with blowers or self-contained breathing apparatuses, an additional worker will be situated outside the confined space to monitor the safety of those in the confined work area.

Fumes, Gases and Dust
Toxic fumes may be produced during some welding procedures; these fumes may require extraction. An assessment of the work to be conducted must be completed before beginning the work. Fumes usually contain small particles of the material being welded; these fumes can have a severe effect on the respiratory system.

Welding of materials that have the potential to produce dangerous fumes require proper ventilation and/or the use of respiratory protection. This also applies when inert-gas metal-arc welding or oxygen-cutting stainless steel. These materials include:

- Lead base metals
- Zinc
- Mercury
- Cadmium
- Fluorides
- Beryllium
- Exotic metals or paints not otherwise listed

Employees must refer to MIKE SCOTT PLUMBING INC's Respiratory Protection Program to evaluate which type of respiratory protection should be used during welding procedures.

Welding and cutting operations must be adequately ventilated to avoid the accumulation of toxic materials for the safety of the welder, helpers, and other personnel in the work area.

Personal Protection
Helmets and hand shields must be made of a material that insulates from heat and electricity. Helmets, goggles, and shields must be capable of withstanding sterilization and should not be easily flammable. Helmets and hand shields must be in place to protect the face, ears and neck from direct radiant energy from the arc.

Helmets must have filter plates and cover plates that allow for easy removal. All parts must be constructed of materials that are not easily susceptible to corrosion and do not discolor the skin.

Goggles must be ventilated so as to avoid fogging of the lenses. All glass for goggle lenses must be tempered, free from scratches, waves, air bubbles and other imperfections. The front and rear surfaces of lenses and windows must be parallel and smooth; lenses used to provide vision corrections are the only exception to this. Lenses are required to have a permanent, distinct marking to easily identify their shade and source.
NOTE:
When high yellow light is produced in gas welding or oxygen cutting procedures, it is preferable to use a filter or lens capable of absorbing the yellow or sodium line in the visible light. All plates and filter lenses must meet the ANSI Z87.1 – 1968 – American National standard for eye and face protection for transmission of radiant energy. Where it is practicable, welders working in these conditions should be enclosed in a booth painted with a low reflectivity finish (such as zinc oxide) and lamp black. Alternately, the welder may be enclosed with noncombustible screens painted in a similar fashion. Both booths and screens must allow air circulation at floor level. Persons near the welding areas must be protected from radiant energy via noncombustible or flameproof shields or screens, or will be required to wear protective eyewear.

Appropriate clothing and hand protection must be worn to protect the skin from welding hazards.

Cleaning Compounds
Because cleaning materials are often toxic or flammable, precautions must be taken and the manufacturer's instructions must be followed.

- Cleaning and degreasing that involves chlorinated hydrocarbons must be performed in locations where no vapors from these processes can reach or be drawn into the atmosphere surrounding the welding operations,
- Trichloroethylene and perchloroethylene must also be kept out of atmospheres that may be penetrated by UV radiation of gas-shielding welding procedures.

Mechanical ventilation must be used when oxygen cutting procedures using a chemical flux, iron powder or gas shielded arc cutting for stainless steel. This ventilation must adequately remove the fumes generated by these procedures.

Cylinders
DOT-approved compressed gas cylinders are clearly marked near the cylinder's shoulder and identifies the chemical or trade name of the gas contained inside.

- Compressed gas cylinders must be ANSI B57.1-1965 compliant,
- Compressed gas cylinders must always be secured in an upright position except when it is not practicable, for short periods of time, when carrying or hoisting the cylinder.

Cylinders must be kept away from heat sources, radiators and piping systems used in grounding. Cylinders and their valves, including couplings and regulators, must be free from oily or greasy residue. Do not handle cylinders with gloves or rags that may contain oil or grease residue.

Stored oxygen cylinders must be located a minimum of 20 feet from fuel gas cylinders and other combustible materials, including grease and oil. Alternately, stored oxygen cylinders may be separated from these hazards by a noncombustible barrier that is at least five (5) feet high and has a fire safety rating of at least 30 minutes. Valves

on empty cylinders must be closed. Protective caps should always be placed on valves, hand-tight, except when the cylinder is connected for use.

Cylinders must never be kept in unventilated enclosures such as cupboards and lockers.

Storage of fuel gas cylinders inside buildings is limited to a total capacity of 2000 cubic feet (300 lbs.) of liquefied petroleum gas, except those cylinders in use or attached and ready for use.

Acetylene cylinders should be stored with the valve end up.

Appropriate storage spaces will be provided for cylinders to ensure they are not knocked over, damaged by falling objects or susceptible to tampering by unauthorized persons.

- Protection from back flow will be accomplished via an approved device that prevents fuel from flowing into the oxygen system and oxygen from flowing into the fuel-gas system,
- Flashback protection will be provided via an approved device that prevents flame from entering into the fuel-gas system,
- Backpressure protection will be provided via an approved pressure-relief device set at the recommended pressure.

The transportation of gas cylinders must follow these requirements:

- Valve caps must be installed,
- Cylinders must be secured,
- Cylinders must not be lifted by the valve protection caps. The regulators must be removed,
- Cylinders should not be dropped or otherwise allowed to strike each other,
- Regulators that are removed must be carried in the vehicle's cab,
- Cylinders are not to be tampered with, nor should any person attempt to repair a cylinder,
- Cylinders must be carefully handled at all times. Knocks, falls or rough handling may damage the cylinder, its valve or safety device, resulting in leakage.

Safety devices must never be tampered with.

Arc Welding and Cutting
Personnel are required to be qualified or trained prior to operating, maintaining or installing welding equipment.

- All workers instructed to operate or perform maintenance on equipment must be familiar with the following Requirement for Electric Arc Welding Standards:
    - 29 CFR 1910.254
    - 29 CFR 1910.252 (a) (b) (c)
    - American Welding Society Standard A6-1-1966 if gas shield arc welding is performed.
- Electrical welding equipment will be selected for safe operation that comply with the above standards,
- Arc welding equipment must be able to withstand exposure to corrosive fumes, excessive oil vapor and humidity, flammable gases, unusual vibration or shock, excessive dust and seacoast or shipboard conditions,
- Arc welding equipment must be operated at the voltage recommended in the manufacturer's recommendations,
- Leads must be inspected regularly and replaced if splices are unprotected or if insulation is broken,
- Electrical tape cannot be used to repair leads,
- When using an arc welder, all ground connections must be checked to ensure the mechanical strength and electrical capabilities are adequate for the required current.

A disconnecting switch or controller and an overcurrent protection will be provided near each welding machine.

Direct current machines are required to be connected with the same polarity. Alternating current machines must be connected to the same phase and polarity of the supply circuit.

- Electrode holders must be located to avoid contact with persons, conducting objects or fuel from compressed gas tanks,
- Cables with splices within 10 feet of the holder must not be used.

If objects to be cut or welded are immovable and if all the present fire hazards cannot be cleared, guards must be used to restrain the heat, slag and sparks, and to protect the immovable fire hazards.

Resistance Welding
Only personnel trained in the operation, maintenance and installation of welding equipment may do so.

- Shields, guarding, grounding, voltage and interlocks must conform to the manufacturer's recommendations,
- Protective measures such as ventilation, shields and flash guarding must be provided to control metal fumes, flashes and toxic elements.
- If the object to be welded or cut is immovable, all fire hazards should be moved.

Transmission Pipeline
Arc welding in wet or high humidity conditions requires special protection against electric shock and will be provided.

Pressure testing:

- Workers and the public must be protected against injury from the blowing out of closures or other pressure restraining devices when pipelines are being pressure tested,
- Protection will be provided against the discharge of loose dirt that may have become trapped in the pipe.

Welding construction of transmission pipelines must be performed according to the Standard for Welding Pipelines and Related Facilities, API St. 1104-1998.

Oxygen Fuel Gas Welding and Cutting:
Only approved implements such as regulators, torches, setting generators, pressure-reducing valves and manifolds will be used:

- Mixtures of oxygen or air and fuel gases may be explosive and should be avoided whenever possible,
- Hoses and their connections must adhere to the applicable standards of the Compressed Gas Association and Rubber Manufacturer's Association,
- Workers overseeing the oxygen or fuel-gas supply equipment and generators must be trained and deemed competent before left in a supervisory position.

If the object to be welded is immovable, all fire hazards must be removed from the work area.

Fire Watch Requirements
A fire watch will be provided under the following conditions when welding, soldering, cutting or brazing is conducted near combustible materials or locations where fire hazards may develop:

- Areas where fires that are not minor may develop,
- Combustible materials are within 35 feet or less to the area where hot work is conducted,
- Combustibles are 35 feet or more from the work area, but are easily set aflame,

- Wall or floor openings are present within 35 feet or less of exposed combustible materials,
- Combustible materials are next to the opposite side of metal roofs, ceilings or partitions.

Fire watch personnel must stay at least 30 minutes after welding or cutting operations have ceased. All fire watchers must have fire extinguishers at the ready.

First Aid Equipment
First aid equipment will be provided and available at all times. Injuries must be reported as soon possible in order to seek medical attention. First aid will be performed until medical attention can be provided.

Training

Training for welders, supervisors & fire watch must include:

- Responsibilities of the employee's position,
- Safe operation of the equipment to be used in performance of their job duties,
- Fire watch responsibilities to include:
    - Knowing that fire watching is the ONLY duty of the fire watch,
    - When the watch may be terminated,
    - How to use fire extinguishers,
    - Familiarity with the facilities and how to activate the fire alarm, if needed,
    - Contractor responsibilities,
    - Operator responsibilities,
    - Requirements for documentation,
    - Requirements for the use of respiratory equipment.