ENACH city Injury Protection Manual

Mission Statement

2016 - 17

Protecting the health and safety of employees, residents and the environment is the primary concern. Enoch City will make every reasonable effort to promote, create, and maintain a safe and healthy work environment.

A Site-Specific Illness and Injury Prevention Program for Enoch City Corporation

900 East Midvalley Road Enoch City, Utah 84721

Phone: 435-586-1119

Primary SIC: 91 Primary NAICS: 92

November 27, 2012

Annually Reviewed and Revised

Date:	Signature:
August 2017	Safety Committee

Enoch City Corporation Management Safety Policy

The management of this organization is committed to providing employees with a safe and healthful workplace. It is the policy of this organization that employees report unsafe conditions and do not perform work tasks if the work is considered unsafe. Employees must report all accidents, injuries, and unsafe conditions to their supervisors. No such report will result in retaliation, penalty, or other disincentive.

Employee recommendations to improve safety and health conditions will be given thorough consideration by this company. Management will give true attention to and provide the financial resources for the correction of unsafe conditions. Management will promote and influence safe behavior. This will be accomplished by both positive reinforcement of correct and safe activity, and by disciplinary action for those who willfully or repeatedly work in an unsafe manner.

Disciplinary action will take the form of

- 1) Written warning or,
- 2) Written warning and suspension without pay or,
- 3) Termination of employment.

Management reserves the right to terminate the employment of any employee at any time for violation of company policies.

Management will participate in establishing and maintaining an effective safety program. This will include the following:

- Holding all management and supervisory staff accountable for their safety responsibilities in their respective departments, jobs, crews or workplaces;
- Providing safety and health education and training as needed; and
- Reviewing and updating workplace safety policies, practices and performances.

This policy statement serves to express this city's commitment to and involvement in providing our employees a safe and healthy workplace. This workplace safety and health program will be incorporated as the standard of practice for this organization. Compliance with these safe practices and those of any regulatory agency will be required of all employees as a condition of continued employment.

Enoch City Corporation Safety Plan

Responsibilities

Senior Managers / Managers

- Ensure that safety is adequately budgeted for the department, job, etc.
- Communicate safe work practices regularly within the department.
- Attend departmental and company-wide safety meetings.
- Formally recognize outstanding safety performance by any/all personnel.
- Assist the Supervisor/Superintendent or any other personnel with the safety process as needed or as requested. This can include formal worksite periodic inspections.
- Uphold and enforce all known safe work practices.

Supervisors / Superintendents

- Ensure new-hire orientation is given to new employees, or is followed up at the work level
- Ensure employees are given training that includes safe work practices on equipment, tools, machines, processes, etc.
- Personally conduct--or designate a qualified personnel to conduct-- regular inspections of the workplace
- Conduct frequent work discussions prior to the start of work that include safe work practices
- Uphold and enforce safe work practices. This includes influencing safe behavior by positive reinforcement such as recognition of worker's safe work performance, and/or monetary or gift awards for safe behavior. Enforcement action can also influence safe behavior when applied towards workers who blatantly perform unsafe acts, or who continually perform in an unsafe manner
- Investigate all incidents and take immediate corrective action to prevent reoccurrence
- Provide safety meetings on a regular basis and require attendance of all workers

All Employees

- Are to follow safe work practices, and if they are unsure of what is the correct/safe way to perform a task or a job, they are to ask their foreman, supervisor or manager
- Must immediately report all unsafe equipment or tools to their foreman, supervisor or manager. This includes reporting unsafe behavior of other workers, if these workers are approached and remain unwilling to correct their unsafe actions or conditions.
- Are to uphold the safe work practices this city has established
- If injured on the job, or become ill, immediately inform their supervisor, foreman or manager

WORKSITE ANALYSIS

• All work areas, departments, and jobs need to be inspected on a regular basis to ensure safe work practices and safe and healthy conditions. For the most part, these inspections are to be conducted by the Supervisor/Superintendent or his/her qualified and designated worker. Each inspection may not be required to be formal (written) although regular written completed inspections will be expected.

- This includes the purchase of new equipment or tools, or the re-working or retrofitting of workstations or equipment so as to ensure that safety and health is considered.
- This can include the assessment of a workstation or process that may need to be fitted to the worker (ergonomics) so as to avoid injury or illness.
- If approached by workers who appear to have a true concern regarding a safety or health issue, supervisors or managers need to act accordingly and give attention to the matter.
- All incidents (this includes property damage, equipment damage, incidents involving injury or illnesses, and near-miss type incidents) need to be investigated. In most cases, the department, job foreman or supervisor will complete this investigation. Managers will be involved as necessary or when requested.
- Incidents that involve injury and illnesses will be evaluated and analyzed for trends, common causes, and patterns so as to prevent further incidents.

HAZARD PREVENTION AND CONTROL

- If feasible, engineering controls will be used first, rather than immediately providing personal protection equipment (PPE).
- Safe work practices will be developed and employees will be trained on using these safe work practices to avoid injury and illnesses. This may include the implementation of task or job hazard analyses.
- PPE will be provided as necessary, and its use enforced by Supervisory and Management staff.
- If feasible, administrative controls, such as reducing the duration of exposure can be implemented.
- Equipment, tools, machines, trucks, vehicles, and structures/facilities etc., need to be maintained in good working order by a continued preventative maintenance process.
- All workers will be made aware of workplace emergency procedures. Training on this process will begin at orientation. Drills will be conducted periodically to assist in making all workers aware of the procedures in the event of an emergency such as fire or explosion.

SAFETY AND HEALTH TRAINING

Safety and Health Orientation

Workplace safety and health orientation begins on the first day of initial employment or job transfer. Each employee should have access to a copy of the written safety program, through his or her supervisor, for review and future reference, and will be given a personal copy of any safe work practices, policies, and procedures pertaining to his / her job. Supervisors should question employees and should answer employees' questions to ensure knowledge and understanding of safe work practices, policies, and job-specific procedures. Supervisors are responsible to inform all employees that compliance with the safe work practices is required.

Job-Specific Training

- Managers, Supervisors and Foremen should receive basic safety and health training as it relates to their positions
- Supervisors will initially train employees on how to perform assigned job tasks safely.
- Supervisors will carefully review with each employee any specific safe work practices, policies, and procedures that are applicable.
- Supervisors will observe employees performing the work. If necessary, the supervisor will provide a demonstration using safe work practices, or remedial instruction to correct training deficiencies before an employee is permitted to do the work without supervision.
- All employees will receive safe operating instructions on seldom-used or new equipment before using the equipment.
- Supervisors will review safe work practices with employees before permitting the performance of new, non-routine, or specialized procedures.

Periodic Retraining of Employees

All employees will be retrained periodically on safe work practices, policies and procedures, and when changes are made to the written safety program.

If necessary, individual employees will be retrained after the occurrence of a work-related injury caused by an unsafe act or work practice, or when a supervisor observes employees displaying unsafe acts, practices, or behaviors.

FIRST AID AND MEDICAL ASSISTANCE

There will be adequate first aid supplies and /or an adequate first aid kit available at each workplace. Where required, or in the case of an emergency where the workplace is located in a remote location and emergency medical assistance cannot arrive within a few minutes, there will be a designated certified first aid (and possibly CPR) trained employee who can assist in first aid emergency cases. Employees who receive work related injuries or illnesses will be given immediate attention in regards to the nature of their injury or illness.

INCIDENT INVESTIGATION

Incident Investigation Procedures

The supervisor at the location where the incident occurred will perform an incident investigation. Incidents can include property damage, near misses and workplace injuries and illnesses. These investigations are to assess the nature and the cause of the incident,

not to place blame on personnel. Supervisors need to investigate incidents using procedures that include:

- Implement temporary control measures to prevent any further injuries to employees or damage to equipment or property or the public.
- Review the equipment, operations, and processes to gain an understanding of the accident situation.
- Identify and interview each witness and any other person who might provide clues to the causes.
- Investigate causal conditions and unsafe acts; make conclusions based on existing facts.
- Complete the incident investigation report.
- Provide recommendations for corrective actions.
- Indicate the need for additional or remedial safety training, if needed.

Incident investigation reports must be submitted to the designated management personnel as soon as possible after the incident.

Incident Report Form

The incident report form should be a simple format for the supervisor to complete in a timely manner. It can be similar to the Workers Compensation form 122. To correctly assess the nature and causes of the incident, the form should contain questions such as

- What was the employee doing just prior to the incident
- Were there any witnesses? What were their names? Did the witnesses provide statements of the incident?
- What happened? ("Ladder kicked out and employee fell to floor", "forklift struck wall, wall collapsed.")
- What part of the body was affected by the incident? (Eye, arm, leg, fingers, hand, etc.) And what was the nature of the injury? (Object in eyes, fractured arm, sprained leg, lacerated finger, cut in right hand, etc.).
- What was the object or substance that directly harmed the employee (if substance/object is known)?
- Was the injury fatal?

RECORD KEEPING PROCEDURES

The city will control and maintain all employee accident and injury records. Records are maintained for a minimum of five (5) years following the end of the year to which they relate. The data on the Injury and Illness log and posting of the Summary of Work-related injuries and illnesses will be in accordance with government regulations. The following will be included in the record keeping process:

- Log of Work-related Injuries and Illnesses (OSHA form 300)
- Summary of Work-related Injuries and Illnesses (OSHA form 300A)
- Incident investigation reports (Workers Compensation form 122)
- Workers' Compensation Notice of Injury

ENOCH CITY INJURY PROTECTION MANUAL

TABLE OF CONTENTS

- 1- Enoch City Corporation Safety Plan
- 2- Enoch City Safety Committee
- 3- Emergency Action Plan
- 4- Exposure Control Plan
- 5- Confined Space Safety Program
- 6- Lockout/Tagout Safety Program
- 7- Hazard Communication Program
- 8- Respiratory Protection Safety Program
- 9- Personal Protective Equipment (PPE)
- **10- General Safety Procedures**
- 11- Automotive Repair
- NAICS# 811118 12- Auto Transmission Repair NAICS# 811113 13- Commercial & Industrial Equipment Repair/Maintenance NAICS# 811310 14- Electrical Work NAICS# 238210 15- Excavation/Site Preparation NAICS# 238910 16- Fluid Power Equipment NAICS# 333995 17- Landscape Architectural Services NAICS# 541320 **18-** Landscape Services NAICS# 561730 19- Masonry, Stone Work NAICS# 238140 20- Plumbing, Heating, Air Conditioning NAICS# 238220 21- Roofing NAICS# 238160
- 22- Steel Erection NAICS# 238120 23- Sheet Metal Work NAICS# 332322 24- Auto Transmission Repair NAICS #811113 SIC #7692/7699 25- Welding Repair

9

Enoch City Safety Committee

Safety Committee Organization

- A safety committee is established as a management tool to recommend improvements to workplace safety programs and to identify corrective measures needed to eliminate or control recognized safety and health hazards.
- Safety committee employer representatives will not exceed employee representatives.

Responsibilities

- The safety committee will be responsible for assisting management in communicating procedures for evaluating the effectiveness of control measures used to protect employees from safety and health hazards in the workplace.
- The safety committee will be responsible for assisting management in reviewing and updating workplace safety rules based on accident investigation findings, any inspection findings, and employee reports of unsafe conditions or work practices; and accepting and addressing anonymous complaints and suggestions from employees.
- The safety committee will be responsible for assisting management in updating the workplace safety program by evaluating employee injury and accident records, identifying trends and patterns, and formulating corrective measures to prevent recurrence.
- The safety committee will be responsible for assisting management in evaluating employee accident and illness prevention programs, and promoting safety and health awareness and co-worker participation through continuous improvements to the workplace safety program.
- Safety committee members will participate in safety training and be responsible for assisting management in monitoring workplace safety education and training to ensure that it is in place, that it is effective, and that it is documented.
- Management will provide written responses to safety committee written recommendations.

Meetings

- Safety committee meetings are held quarterly and more often if needed and each committee member will be compensated at his or her hourly wage when engaged in safety committee activities.
- Management will post the minutes of each meeting in a conspicuous place and the minutes will be available to all employees.

• All safety committee records will be maintained for not less than three calendar years.

ENOCH CITY SAFETY COMMITTEE

Chairman Vice-Chair – Councilman

<u>Consultant</u> Office Employee Police Dept. Employee Public Works Employee <u>Compliance</u> City Manager Police Chief Public Works Director

Consultant: Identification of safety and health hazards in your workplace with recommendations to reduce or eliminate hazards, meet current safety and health regulations and develop an ongoing, effective safety and health management system.

Compliance: See that all safety and health standards are followed and notify violators of challenges. Then work towards compliance by communication and providing opportunities and tools to accomplish minimal safety and health violations.

EMERGENCY ACTION PLAN Enoch City Corporation

SCOPE

The following Emergency Action Plan applies to all situations where a particular OSHA Standard specifies that a plan be established.

ELEMENTS

A. Emergency Escape Procedures and Routes

Emergency escape procedures and route assignments have been posted in each work area and all employees have been trained by supervision in the correct procedures to follow. New employees are trained when assigned to the work area. A sample escape procedure and route sheet that is posted in work areas is attached.

B. Procedures for Employees Who Remain to Operate Critical Operations Before They Evacuate

<u>The attached sheet</u> describes those operations, procedures, and personnel required for critical operations before the assigned personnel evacuate during emergency situations. A description of the special training provided is also included.

C. Employee Accountability Procedures After Evacuations

Each city supervisor is responsible for accounting for all their assigned employees by the supervisor or his or her designee by reporting go to a predetermined, designated rally point and conduction a head count. Each assigned employee will be accounted for by name. All supervisors are required to report their head count (by name) to the Emergency Evacuation Coordinator. A summary of the evacuation rally points and the supervisors and their assigned employees who must report to the designated rally point is attached.

D. Rescue and Medical Duties

Specific rescue and medical duties have been assigned to designated company individuals. These personnel have received special training and instructions to properly carry out these assignments. A list of individuals assigned and a summary of their training is attached for review. E. Preferred Means of Reporting Fire and Emergencies

All city facility fires and emergencies will be reported by:

Enoch City Manager or designee

Enoch City Public Works Director or designee

F. Emergency and Fire Protection Coordinator

The City's Emergency and Fire Protection Plan Coordinator:

Rob Dotson, City Manager

Telephone# 435-586-1119 Cell# 435-463-4065

Alternate Contact:

Jackson Ames, Police Chief

Telephone# <u>435-586-9445</u> Cell# <u>435-559-3889</u>

The Coordinator may be contacted for further information or explanation of the City's Emergency and Fire Protection Plans.

G. Fire Protection and Prevention Assignments

Appropriate city personnel have been assigned specific fire protection and prevention responsibilities. Fire prevention equipment must be routinely inspected and tested. Systems that can increase the likelihood or severity of a fire must be inspected and maintained.

EMPLOYEE ACCOUNTABILITY FOLLOWING AN EMERGENCY EVACUATION

Each city supervisor is responsible for accounting for each of his or her assigned employees following an emergency evacuation. This will be accomplished by following the procedures shown below.

Employee Accountability

- 1. Rally points have been established for all city evacuation routes and procedures. These points are designated on each posted work area escape route.
- 2. All work area supervisors and employees must report to their designated rally points immediately following an evacuation.
- 3. Each employee is responsible for reporting to his or her supervisor so an accurate headcount can be made. Supervisors will check off all those reporting and report those not checked off as missing to the Emergency Evacuation coordinator.
- 4. The Emergency Evacuation Coordinator will determine the method that will be utilized to locate missing personnel.

Supervisor and Employee Rally Points

SPECIAL INSTRUCTIONS:

In the event of a power outage and generator failure, office staff will handle duties as follows: Check and Cash Payments – give handwritten receipts (keep copies to use for posting when computer is back up); Credit Card Payments – customer can verbally provide credit card info, go home and pay online or return to office later. Service Orders – have paper blank forms available. Phones – use cell phones or radios. Building Inspection Requests – use manual forms.

EMERGENCY PLAN AND FIRE PROTECTION COORDINATOR:

Rob Dotson, City Manager

Signature:_____

Date:_____

Procedures for Employees Who Remain to Operate Critical Operations BEFORE They Evacuate

This document describes those operations, procedures, and personnel required for critical operations before the assigned personnel evacuate during emergency situations. A description of the special training provided is also included.

Critical Operation and Procedures

Personnel Remaining in the Critical Operation

Police: Traffic accidents – stay on scene, make scene safe, do traffic control, provide whatever is needed. Domestic disputes – If barricaded in, stay to provide safety for public.

Public Works: Remain to take care of water, traffic control, roads, sewer system—protect City resources. .

Animal Control: Move all animals to other shelters, have crates, etc. available to transport them.

Office: Stand by phone, use radio.

Personnel to trade off every 8 to 12 hours.

Special Training Provided

Exposure Control Plan

Enoch City Corporation

POLICY

Enoch City Corporation is committed to providing a safe and healthful work environment for our entire staff. In pursuit of this endeavor, the following Exposure Control Plan (ECP) is provided to eliminate or minimize occupational exposure to bloodborne pathogens in accordance with OSHA standard 29 CFR 1910.1030, "Occupational Exposure to Bloodborne Pathogens."

The ECP is a key document to assist our city in implementing and ensuring compliance with the standard, thereby protecting our employees. This ECP includes:

- Determination of employee exposure
- Implementation of various methods of exposure control, including:
 - Universal precautions
 - Engineering and work practice controls
 - Personal protective equipment
 - o Housekeeping
- Hepatitis B vaccination
- Post-exposure evaluation and follow-up
- Communication of hazards to employees and training
- Recordkeeping
- Procedures for evaluating circumstances surrounding an exposure incident

The methods of implementation of these elements of the standard are discussed in the subsequent pages of this ECP.

PROGRAM ADMINISTRATION

- Enoch City Manager is responsible for the implementation of the ECP. Enoch City Manager will coordinate the maintenance, review, and update the ECP at least annually, and whenever necessary to include new or modified tasks and procedures. Contact location/phone number: 435-586-1119
- Those employees who are determined to have occupational exposure to blood or other potentially infectious materials (OPIM) must comply with the procedures and work practices outlined in this ECP.

- Enoch City Manager will maintain and provide all necessary personal protective equipment (PPE), engineering controls (e.g., sharps containers), labels, and red bags as required by the standard. Enoch City Manager will ensure that adequate supplies of the aforementioned equipment are available in the appropriate sizes. Contact location/phone number: 435-586-1119
- Enoch City Manager will be responsible for ensuring that all medical actions required are performed and that appropriate employee health and OSHA records are maintained. Contact location/phone number: 435-586-1119
- Enoch City Manager will be responsible for training, documentation of training, and making the written ECP available to employees, OSHA, and NIOSH representatives. Contact location/phone number: 435-586-1119

EMPLOYEE EXPOSURE DETERMINATION

The following is a list of all job classifications at our establishment in which **all** employees have occupational exposure:

JOB TITLE	DEPARTMENT/LOCATION
<u>Police Chief</u>	Police Department
Police Officers	Police Department
Janitorial Staff	Public Works and Office Staff

The following is a list of job classifications in which **some** employees at our establishment have occupational exposure. Included is a list of tasks and procedures, or groups of closely related tasks and procedures, in which occupational exposure may occur for these individuals:

DEPARTMENT/LOCATION	TASK/PROCEDURE
Animal Shelter	Protect Animals
<u>City</u>	Protect Resources
<u>Community</u>	Protect People
	DEPARTMENT/LOCATION Animal Shelter City Community

METHODS OF IMPLEMENTATION AND CONTROL

Universal Precautions

All employees will utilize universal precautions.

Exposure Control Plan

Employees covered by the bloodborne pathogens standard receive an explanation of this ECP during their initial training session. It will also be reviewed in their annual refresher training. All employees have an opportunity to review this plan at any time during their work shifts by contacting Enoch City Manager. If requested, we will provide an employee with a copy of the ECP free of charge and within 15 days of the request.

Enoch City Manager is responsible for reviewing and updating the ECP annually or more frequently if necessary to reflect any new or modified tasks and procedures which affect occupational exposure and to reflect new or revised employee positions with occupational exposure.

Personal Protective Equipment (PPE)

PPE is provided to our employees at no cost to them. Training is provided by Enoch City Manager in the use of the appropriate PPE for the tasks or procedures employees will perform.

The types of PPE available to employees are as follows:

Hard hat, safety glasses, gloves, masks, steel- toed boots, animal safety equipment, Police department safety equipment.

PPE is located <u>on person, in Public Works vehicles</u>, <u>Public Works building</u>, <u>Animal shelter</u>, <u>Police</u> <u>department</u>, <u>Police vehicles</u> and may be obtained through the employees' supervisors.

All employees using PPE must observe the following precautions:

- Wash hands immediately or as soon as feasible after removal of gloves or other PPE.
- Remove PPE after it becomes contaminated, and before leaving the work area.
- Used PPE may be disposed of in the City dumpster.
- Wear appropriate gloves when it can be reasonably anticipated that there may be hand contact with blood or OPIM, and when handling or touching contaminated items or surfaces; replace gloves if torn, punctured, contaminated, or if their ability to function as a barrier is compromised.
- Utility gloves may be decontaminated for reuse if their integrity is not compromised; discard utility gloves if they show signs of cracking, peeling, tearing, puncturing, or deterioration.
- Never wash or decontaminate disposable gloves for reuse.
- Wear appropriate face and eye protection when splashes, sprays, spatters, or droplets of blood or OPIM pose a hazard to the eye, nose, or mouth.
- Remove immediately or as soon as feasible any garment contaminated by blood or OPIM, in such a way as to avoid contact with the outer surface.

The procedure for handling used PPE is as follows: Disposal

Housekeeping

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This facility will be cleaned and decontaminated according to the following schedule: (List area and schedule.)

. . . .

Area	Schedule
Public Works Building	Daily and as needed
Animal Shelter	Daily and as needed

(For example: all contaminated work surfaces will be decontaminate after completion of procedures and immediately or as soon as feasible after any spill of blood or other potentially infectious materials, as well as the end of the work shift if the surface may have become contaminated since the last cleaning.)

Decontamination will be accomplished by utilizing the following materials: (List the materials which will be utilized, such as bleach solutions or EPA registered germicides.)

Brand Name / Chemical Name Over-the-counter cleaning items

Location

Public Works Building and Animal Shelter

Regulated waste is placed in containers which are closable, constructed to contain all contents and prevent leakage, appropriately labeled or color-coded (see Labels), and closed prior to removal to prevent spillage or protrusion of contents during handling.

The procedure for handling sharps disposal containers is:

Public Works – N/A

Animal Shelter – Sharps Disposal Container

The procedure for handling other regulated waste is: N/A

Contaminated sharps are discarded immediately or as soon as possible in containers that are closable, puncture-resistant, leak-proof on sides and bottoms, and labeled or color coded appropriately. Sharps disposal containers are available at the Animal Shelter in the examining/intake room in the medicine cabinet. (<u>Must be easily accessible and as close as feasible to the immediate area where sharps are used</u>).

Bins and pails (e.g., wash or emesis basins) are cleaned and decontaminated as soon as feasible after visible contamination.

Broken glassware which may be contaminated is picked up using mechanical means, such as a brush and dust pan.

<u>Labels</u>

The following labeling method(s) is used in this facility:

EQUIPMENT TO BE LABELED

LABEL TYPE (size, color, etc.)

(e.g., specimens, contaminated laundry, etc.)	(Red bag, biohazard label, etc.)
Public Works - Weed Spray Containers	Container labeled "Weed Spray"

<u>Public Works Director</u> will ensure warning labels are affixed or red bags are used as required if regulated waste or contaminated equipment is brought into the facility. Employees are to notify <u>the Public Works Director</u> if they discover regulated waste containers, refrigerators containing blood or OPIM, contaminated equipment, etc. without proper labels.

HEPATITIS B VACCINATION

Enoch City Administration will provide training to employees on hepatitis B vaccinations, addressing the safety, benefits, efficacy, methods of administration, and availability.

The hepatitis B vaccination series is available at no cost after training and within 10 days of initial assignment to employees identified in the exposure determination section of this plan. Vaccination is encouraged unless: 1) documentation exists that the employee has previously received the series, 2) antibody testing reveals that the employee is immune, or 3) medical evaluation shows that vaccination is contraindicated.

However, if an employee chooses to decline vaccination, the employee must sign a declination form. Employees who decline may request and obtain the vaccination at a later date at no cost. Documentation of refusal of the vaccination is kept at Enoch City Administration Offices, 900 East Midvalley Road, Enoch, Utah 84721

Vaccination will be provided by Cedar City Hospital or Work med.

Following the medical evaluation, a copy of the health care professional's "Written Opinion" will be obtained and provided to the employee. It will be limited to whether the employee requires the hepatitis vaccine, and whether the vaccine was administered.

POST-EXPOSURE EVALUATION AND FOLLOW-UP

Should an exposure incident occur, contact Valley View Medical Center.

An immediately available confidential medical evaluation and follow-up will be conducted by a licensed health care professional. Following the initial first aid (clean the wound, flush eyes or other mucous membrane, etc.), the following activities will be performed:

- Document the routes of exposure and how the exposure occurred.
- Identify and document the source individual (unless the employer can establish that identification is infeasible or prohibited by state or local law).
- Obtain consent and make arrangements to have the source individual tested as soon as possible to determine HIV, HCV, and HBV infectivity; document that the source individual's test results were conveyed to the employee's health care provider.
- If the source individual is already known to be HIV, HCV and/or HBV positive, new testing need not be performed.
- Assure that the exposed employee is provided with the source individual's test results and with information about applicable disclosure laws and regulations concerning the identity and infectious status of the source individual (e.g., laws protecting confidentiality).
- After obtaining consent, collect exposed employee's blood as soon as feasible after exposure incident, and test blood for HBV and HIV serological status
- If the employee does not give consent for HIV serological testing during collection of blood for baseline testing, preserve the baseline blood sample for at least 90 days; if the exposed employee elects to have the baseline sample tested during this waiting period, perform testing as soon as feasible.

ADMINISTRATION OF POST-EXPOSURE EVALUATION AND FOLLOW-UP

Enoch City Manager ensures that health care professional(s) responsible for employee's hepatitis B vaccination and post-exposure evaluation and follow-up are given a copy of OSHA's bloodborne pathogens standard.

Enoch City Manager ensures that the health care professional evaluating an employee after an exposure incident receives the following:

- a description of the employee's job duties relevant to the exposure incident
- route(s) of exposure
- circumstances of exposure
- if possible, results of the source individual's blood test
- relevant employee medical records, including vaccination status

Enoch City Manager provides the employee with a copy of the evaluating health care professional's written opinion within 15 days after completion of the evaluation.

PROCEDURES FOR EVALUATING THE CIRCUMSTANCES SURROUNDING AN EXPOSURE INCIDENT

Enoch City Manager will review the circumstances of all exposure incidents to determine:

- engineering controls in use at the time
- work practices followed
- a description of the device being used (including type and brand)
- protective equipment or clothing that was used at the time of the exposure incident (gloves, eye shields, etc.)
- location of the incident (O.R., E.R., patient room, etc.)
- procedure being performed when the incident occurred
- employee's training

Enoch City Manager will record all percutaneous injuries from contaminated sharps in the Sharps Injury Log. If it is determined that revisions need to be made, Enoch City Manager will ensure that appropriate changes are made to this ECP. (*Changes may include an evaluation of safer devices, adding employees to the exposure determination list, etc.*)

EMPLOYEE TRAINING

All employees who have occupational exposure to bloodborne pathogens receive training conducted by a qualified trainer.

All employees who have occupational exposure to bloodborne pathogens receive training on the epidemiology, symptoms, and transmission of bloodborne pathogen diseases. In addition, the training program covers, at a minimum, the following elements:

- a copy and explanation of the standard
- an explanation of our ECP and how to obtain a copy
- an explanation of methods to recognize tasks and other activities that may involve exposure to blood and OPIM, including what constitutes an exposure incident
- an explanation of the use and limitations of engineering controls, work practices, and PPE
- an explanation of the types, uses, location, removal, handling, decontamination, and disposal of PPE
- an explanation of the basis for PPE selection
- information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine will be offered free of charge
- information on the appropriate actions to take and persons to contact in an emergency involving blood or OPIM
- an explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available
- information on the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident
- an explanation of the signs and labels and/or color coding required by the standard and used at this facility
- an opportunity for interactive questions and answers with the person conducting the training session.

Training materials for this facility are available at Enoch City Administration Offices, 900 East Midvalley Road, Enoch, Utah 84721

RECORDKEEPING

Training Records

Training records are completed for each employee upon completion of training. These documents will be kept for at least **three years** at Enoch City Offices.

The training records include:

- the dates of the training sessions
- the contents or a summary of the training sessions
- the names and qualifications of persons conducting the training
- the names and job titles of all persons attending the training sessions

Employee training records are provided upon request to the employee or the employee's authorized representative within 15 working days. Such requests should be addressed to Enoch City Manager.

Medical Records

Medical records are maintained for each employee with occupational exposure in accordance with 29 CFR 1910.1020, "Access to Employee Exposure and Medical Records."

Enoch City Manager or designee is responsible for maintenance of the required medical records. These **confidential** records are kept at Enoch City Offices for at least the **duration of employment plus 30 years**.

Employee medical records are provided upon request of the employee or to anyone having written consent of the employee within 15 working days. Such requests should be sent to Enoch City Manager.

OSHA Recordkeeping

An exposure incident is evaluated to determine if the case meets OSHA's Recordkeeping Requirements (29 CFR 1904). This determination and the recording activities are done by Enoch City Manager or designee.

Sharps Injury Log

In addition to the 1904 Recordkeeping Requirements, all percutaneous injuries from contaminated sharps are also recorded in the Sharps Injury Log. All incidences must include at least:

- the date of the injury
- the type and brand of the device involved
- the department or work area where the incident occurred
- an explanation of how the incident occurred.

This log is reviewed at least annually as part of the annual evaluation of the program and is maintained for at least five years following the end of the calendar year that they cover. If a copy is requested by anyone, it must have any personal identifiers removed from the report.

Hepatitis B Vaccine Declination (Mandatory)

I understand that due to my occupational exposure to blood or other potentially infectious materials I may be at risk of acquiring hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with hepatitis B vaccine, at no charge to myself. However, I decline hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring hepatitis B, a serious disease. If in the future I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with hepatitis B vaccine, I can receive the vaccination series at no charge to me.

Signed:

Date:

Establishment/Facility Name: Enoch City Corporation

Sample Sharps Injury Log

Year 2____

Date	Case/ Report No.	Type of Device (e.g., syringe, suture needle)	Brand Name of Device	Work Area where injury occurred (e.g., Geriatrics, Lab)	Brief description of how incident occurred [i.e., procedure being done, action being performed (disposal, injection, etc.), body part injured]

29 CFR 1910.1030, OSHA's Bloodborne Pathogens Standard, in paragraph (h)(5), requires an employer to establish and maintain a Sharps Injury Log for recording all percutaneous injuries in a facility occurring from *contaminated* sharps. The purpose of the Log is to aid in the evaluation of devices being used in healthcare and other facilities and to identify problem devices or procedures requiring additional attention or review. This log must be kept in addition to the injury and illness log required by 29 CFR 1904. The Sharps Injury Log should include all sharps injuries occurring in a calendar year. The log must be retained for five years following the end of the year to which it relates. The Log must be kept in a manner that preserves the confidentiality of the affected employee.

Confined Space

Safety Program

For

Enoch City Corporation

1. BACKGROUND

A confined space is defined as any location that has limited openings for entry and egress, is not intended for continuous employee occupancy, and is so enclosed that natural ventilation may not reduce air contaminants to levels below the threshold limit value (TLV). Examples of confined spaces include: manholes, stacks, pipes, storage tanks, trailers, tank cars, pits, sumps, hoppers, and bins. Entry into confined spaces without the proper precautions could result in injury and/or impairment or death due to:

- * An atmosphere that is flammable or explosive,
- * Lack of sufficient oxygen to support life,
- * Contact with or inhalation of toxic materials, or
- * General safety or work area hazards such as steam or high pressure materials.

The overall objectives of this procedure are to provide the minimum safety requirements to be followed while entering, exiting and working in confined spaces during environmental restoration work. This chapter provides pertinent details on the following:

- * Duties and responsibilities,
- * Identification and evaluation,
- * Hazard assessment,
- * Hazard controls,
- * Entry permits,
- * Entry procedures,
- * Opening a confined space,
- * Atmospheric testing,

- * Isolation and lockout/tagout safeguards,
- * Ingress/egress safeguards,
- * Warning signs and symbols,
- * Training, and
- * Emergency response

2. DUTIES AND RESPONSIBILITIES

- A. Enoch Public Works Director_is responsible for implementing the confined space program in accordance with this procedure.
- B. Enoch Public Works Director is responsible for implementing the confined space program and:
 - * Ensuring that a list of confined spaces is maintained,
 - * Ensuring that cancelled permits are reviewed for lessons learned,
 - * Ensuring training of personnel is conducted,
 - * Ensuring coordination with outside responders,
 - * Ensuring equipment is in compliance with standards, and
 - * Maintaining a master inventory of identified confined spaces.
- C. Enoch Public Works Director is in charge of any confined space work and:
 - * Ensuring requirements for entry have been completed before entry is authorized;
 - * Ensuring confined space monitoring is performed by personnel qualified and trained in confined space entry procedures;
 - * Ensuring a list of monitoring equipment and personnel qualified to operate the equipment is maintained by the Public Works Department;
 - * Ensuring that the rescue team has simulated a rescue in a confined space within the past twelve months;
 - * Knowing the hazards that may be faced during entry, including the mode, signs or symptoms, and consequences of exposure;
 - * Filling out a permit (see attachment);

- * Determining the entry requirements;
- * Requiring a permit review and signature from the authorized entry supervisor;
- * Notifying all involved employees of the permit requirements;
- * Posting the permit in a conspicuous location near the job;
- * Renewing the permit or have it reissued as needed (a new permit is required every shift);
- * Determining the number of attendants required to perform the work;
- * Ensuring the attendant knows how to communicate with the entrants and how to obtain assistance;
- * Posting any required barriers and signs;
- * Remaining alert to changing conditions that might affect the conditions of the permits, (i.e., require additional atmospheric monitoring or changes in personal protective equipment);
- * Changing and reissuing the permit, or issue a new permit as necessary;
- * Ensuring periodic atmospheric monitoring is done according to permit requirements;
- * Ensuring that personnel doing the work and all support personnel adhere to permit requirements;
- * Ensuring the permit is canceled when the work is done; and
- * Ensuring the confined space is safely closed and all workers are cleared from the area.
- D. Entry Supervisors

An Entry Supervisor is a qualified person authorized to approve confined space entry permits and is responsible for:

- * Determining if conditions are acceptable for entry,
- * Authorizing entry and overseeing entry operations,
- * Terminating entry procedures as required,
- * Serving as an attendant, as long as the person is trained and equipped appropriately for that role,
- * Ensuring measures are in place to keep unauthorized personnel clear of the area,

- * Checking the work at least twice a shift to verify and document permit requirements are being observed (more frequent checks should be made if operations or conditions are anticipated that could affect permit requirements),
- * Ensuring that necessary information on chemical hazards is kept at the work site for the employees or rescue team,
- * Ensuring a rescue team is available and instructed in their rescue duties (e.g., an onsite team or a prearranged outside rescue service), and
- * Ensuring at least one member of the rescue team has current certification in first aid and CPR.
- E. Employees Entering Confined Space (Entrants)

Employees who are granted permission to enter a confined space are responsible for:

- * Reading and observing the entry permit requirements;
- * Staying alert to the hazards that could be encountered in a confined space;
- * Using the protective equipment required by the permit;
- * Immediately exit the confined space when:
 - Ordered to do so by the attendant,
 - Automatic alarms sound,
 - They perceive they are in danger, or
 - They notice physiological stresses or changes in themselves or co-workers (e.g., dizziness, blurred vision, shortness of breath).
- F. Attendant

The Attendant should be stationed outside the work space and should:

- * Be knowledgeable of, and be able to recognize potential confined space hazards;
- * Maintain a sign-in/sign-out log with a count of all persons in the confined space and ensure all entrants sign in/sign-out;
- * Monitor surrounding activities to ensure the safety of personnel;

- * Maintain effective and continuous communication with personnel during confined space entry, work and exit;
- * Order personnel to evacuate the confined space if he/she:
 - Observes a condition which is not allowed on the entry permit;
 - Notices the entrants acting strangely, possibly as a result of exposure to hazardous substances;
 - Notices a situation outside the confined space which could endanger personnel;
 - Notices within the confined space a hazard which has not been previously recognized or taken into consideration;
 - Must leave his/her work station; or
 - Must focus attention on the rescue of personnel in some other confined space that he/she is monitoring;
- * Immediately summon the Rescue Team if crew rescue becomes necessary; and
- * Keep unauthorized persons out of the confined space, order them out, or notify authorized personnel of the unauthorized entry.
- G. Rescue Team

The Rescue Team members should:

- * Complete a training drill using mannequins or personnel in a simulation of the confined space prior to the issuance of an entry permit for any confined space and at least annually thereafter;
- * Respond immediately to rescue calls from the Attendant or any other person recognizing a need for rescue from the confined space;
- * In addition to emergency response training, receive the same training as that required of the authorized entrants; and
- * Have current certification in first-aid and CPR.

3. IDENTIFICATION AND EVALUATION

The Public Works Director or designee should ensure a survey is conducted of the work site to identify confined spaces. This survey can be partially completed from initial and continuing site characterizations, as well as other available data (e.g. blueprints, job safety analysis). The purpose of the survey is to develop an inventory of those locations and/or equipment that meet the definition of a confined space. This information should be communicated to personnel and appropriate procedures developed prior to entry. The initial surveys should include air monitoring to determine the air quality in the confined spaces. The following situations should be evaluated by competent personnel:

- * Flammable or explosive potential,
- * Oxygen deficiency, and
- * Presence of toxic and corrosive material.

A. Hazard Evaluation

The Project Manager should ensure the identification and evaluation of the hazards based on possible changes in activities, and/or other physical or environmental conditions, which could adversely affect work. A master inventory of confined spaces should be maintained. Any change in designation of a confined space will be routed through the Site Safety and Health Officer (SSHO) for review, prior to the change being made.

B. Hazard Assessment

A hazard assessment should be completed prior to any entry into a confined space. The hazard assessment should identify the sequence of work to be performed in the confined space, the specific hazards known or anticipated, and the control measures to be implemented to eliminate or reduce each of the hazards to an acceptable level. No entry should be permitted until the hazard assessment has been reviewed and discussed by all persons engaged in the activity. Personnel who enter confined spaces should be informed of known or potential hazards associated with the confined spaces to be entered.

C. Hazard Controls

Hazard controls include changes in the work processes and/or working environment with the objective of:

- * Controlling the health hazards either by eliminating the responsible agents,
- * Reducing health hazards below harmful levels, and
- * Preventing the contaminants from coming into contact with the workers.

The following order of precedence should be followed in reducing confined space risks:

- * Engineering controls, such as ventilation to limit exposure to hazards;
- * Work practice controls, such as wetting of hazardous dusts, frequent cleaning; and
- * Use of PPE, such as air purifying or supplied-air respirators.
- D. Engineering Controls

Engineering controls are those controls which eliminate or reduce the hazard through implementation of sound engineering practices.

Ventilation is one of the most common engineering controls used in confined spaces. When ventilation is used to remove atmospheric contaminants from the confined space, the space should be ventilated until the atmosphere is within the acceptable ranges. Ventilation should be maintained during the occupancy if there is a potential for the atmospheric conditions to move out of the acceptable range. When ventilation is not possible or feasible, alternate protective measures or methods to remove air contaminants and protect occupants should be determined by the qualified person prior to authorizing entry. Conditions regarding continuous forced air ventilation should be used as follows:

- * Employees should not enter the space until the forced air ventilation has eliminated any hazardous atmosphere,
- * Forced air ventilation should be so directed as to ventilate the immediate areas where an employee is or will be present within the space,
- * Continuous ventilation is maintained until all employees have left the space, and
- * Air supply for forced air ventilation should be from a clean source.
- E. Work Practice (Administrative) Controls

Work practice (administrative) controls are those controls which eliminate or reduce the hazard through changes in the work practice (e.g., rotating workers, reducing the amount of worker exposure, and housekeeping). Confined spaces should be cleaned/decontaminated of hazardous materials to the extent feasible before entry. Cleaning/decontamination should be the preferred method of reducing exposure to hazardous materials. Where this is not practicable, PPE should be worn by the entry personnel to provide appropriate protection against the hazards which may be present.

F. Personal Protective Equipment (PPE)

If the hazard cannot be eliminated or reduced to a safe level through engineering and/or work practice controls, PPE should be used. A qualified person should determine PPE needed by all personnel entering the confined space, including rescue teams. PPE which meet the specifications of applicable standards should be selected in accordance with the requirements of the job to be performed.

4. ENTRY PERMITS

The Confined Space Entry Permit is the major tool in assuring safety during entry in confined spaces with known hazards or with unknown or potentially hazardous atmospheres. The entry permit process guides the supervisor and workers through a systematic evaluation of the space to be entered. The permit should be used to establish appropriate conditions. Before each entry into a confined space, an entry permit will be completed by a qualified person and the contents communicated to all employees involved in the operation and conspicuously posted near the work location. A standard entry permit should be used for all entries.

1. Key Elements for Entry Permits

A standard entry permit should contain the following items:

- * Permit space to be entered;
- * Purpose of the entry;
- * Date of the permit and the authorized duration of the entry permit,
- * Name of authorized entrants within the permit space;
- * Means of identifying authorized entrants inside the permit space, e.g., rosters or tracking systems;
- * Personnel, by name, currently serving as attendants,
- * Individual, by name, currently serving as entry supervisor, with a space for the signature or initials of the entry supervisor who originally authorized entry,
- * Hazards of the permit space to be entered,
- * Measures used to isolate the permit space and to eliminate or control permit space hazards before entry, e.g., lockout or tagout of equipment and procedures for purging, inerting, ventilating, and flushing permit spaces;
- * Acceptable entry conditions,
- * Results of initial and periodic tests performed, accompanied by the names or initials of the testers and by an indication of when the tests were performed;
- * Rescue and emergency services that can be summoned and the means, (e.g., equipment to use, phone numbers to call) for summoning those services,
- * Communication procedures used by authorized entrants and attendants to maintain contact during the entry,
- * Equipment to be provided for compliance with this section, (e.g., PPE, testing, communications, alarm systems, and rescue);
- * Other information whose inclusion is necessary, given the circumstances of the particular confined space, in order to ensure employee safety; and
- * Additional permits, such as for hot work, that have been issued to authorize work on the permit space.

A permit is only valid for one shift. For a permit to be renewed, several conditions should be met before each re-entry into the confined space. First, atmospheric testing should be conducted and the results should be within acceptable limits. If atmospheric test results are not within acceptable limits, precautions to protect entrants against the hazards should be addressed on the permit and should be in place. Second, a qualified person should verify that all precautions and other measures called for on the permit are still in effect. Finally only operations or work originally approved on the permit should be conducted in the confined space.

A new permit should be issued or the original permit reissued whenever changing work conditions or work activities introduce new hazards into the confined space. The employer should retain each cancelled entry permit for at least one year to facilitate the review of the confined space entry program. Any problems encountered during an entry operation should be noted on the pertinent permit so that appropriate revisions to the confined space permit program can be made.

5. ENTRY PROCEDURES

Whenever entry into a confined space is needed, either an Entry Supervisor or the person in charge of the job may initiate entry procedures, including the completion of a confined space entry permit. Entry into a confined space should follow the standard entry procedure.

The following are requirements for standard entry:

- * Training to establish personnel proficiency in the duties required,
- * Atmospheric testing for entry, and
- * Atmospheric monitoring during the entry.

Before an employee enters the space, the internal atmosphere should be tested with a calibrated, direct-reading instrument. If a hazardous atmosphere is detected during entry:

- * The space should be evaluated to determine how the hazardous atmosphere developed, and
- * Measures should be implemented to protect employees before any subsequent entry takes place.

Personnel should be prohibited from entering hazardous atmospheres without wearing proper respiratory equipment as determined by qualified entry supervisors. The entire confined space entry permit should be completed for a standard entry. Entry should be allowed only when all requirements of the permit are met and it is reviewed and signed by an Entry Supervisor.

6. OPENING A CONFINED SPACE

Any conditions making it unsafe to remove an entrance cover should be eliminated before the cover is removed. When entrance covers are removed, the opening should be promptly guarded by a railing, temporary cover, or other temporary barrier that will prevent anyone from falling through the opening. This barrier or cover should protect each employee working in the space from foreign objects entering the space. If it is in a traffic area, adequate barriers should be erected.

7. ATMOSPHERIC TESTING

Atmospheric test data is needed prior to entry into any confined space. Atmospheric testing is required for two distinct purposes: evaluation of the hazards of the permit space and verification that acceptable conditions exist for entry into that space. If a person must go into the space to obtain the needed data, then Standard Confined Space Entry Procedures should be followed (i.e., rescue team, attendant, entry supervisor). Before entry into a confined space, a qualified person should conduct testing for hazardous atmospheres. The internal atmosphere should be tested with a calibrated, direct-reading instrument for the following, in the order given:

- * Oxygen content,
- * Flammable gases and vapors, and
- * Potential toxic air contaminants.

Testing equipment used in specialty areas should be listed or approved for use in such areas. This listing or approval should be from nationally recognized testing laboratories such as Underwriters Laboratories or Factory Mutual Systems.

A. Evaluation Testing

The atmosphere of a confined space should be analyzed using equipment of sufficient sensitivity and specificity the analysis should identify and evaluate any hazardous atmospheres that may exist or arise, so that appropriate permit entry procedures can be developed and acceptable entry conditions stipulated for that space. Evaluation and interpretation of these data and development of the entry procedure should be done by, or reviewed by, a technically qualified professional (e.g., OSHA consultation service, certified industrial hygienist, registered safety engineer, certified safety professional).

B. Verification Testing

A confined space which may contain a hazardous atmosphere should be tested for residues of all identified or suspected contaminants. The evaluation testing should permit specified equipment to determine that residual concentrations at the time of testing and entry are within acceptable limits. Results of testing (i.e., actual concentration) should be recorded on the permit. The atmosphere should be periodically retested to verify that atmospheric conditions remain within acceptable entry parameters. Initial testing of atmospheric conditions and subsequent tests after a job has been stopped should be done with the ventilation systems shut down. If the confined space is vacated for any period of time, the atmosphere of the confined space should be retested before re-entry is permitted. Further testing should be conducted with ventilation systems turned on to ensure the contaminants are removed and that the ventilation system is not causing a hazardous condition.

C. Acceptable Limits

The atmosphere of the confined spaces should be considered within acceptable limits whenever the following conditions are maintained:

- * Oxygen 19.5% to 23.5%,
- * Flammability less than 10% of the Lower Flammable Limit (LFL), and
- * Toxicity less than recognized ACGIH exposure limits or other published exposure levels (e.g. OSHA PELs, NIOSH RELs).

Whenever testing of the atmosphere indicates levels of oxygen, flammability, or toxicity that are not within acceptable limits, entry should be prohibited until appropriate controls are implemented. If the source of the contaminant cannot be determined, precautions should be adequate to deal with the worst possible condition in the confined space. If there is the possibility that the confined space atmosphere can become unacceptable while the work is in progress, the atmosphere should be constantly monitored and procedures and equipment should be provided to allow the employees to quickly and safely exit the confined space.

8. ISOLATION AND LOCKOUT / TAGOUT SAFEGUARDS

All energy sources which are potentially hazardous to confined space entrants should be secured, relieved, disconnected and/or restrained before personnel are permitted to enter the confined space. Equipment systems or processes should be locked out or tagged out or both per 29 CFR 1910.147 and ANSI Z244.1-1982, Lockout/Tagout of Energy Sources prior to permitting entry into the confined space. The current lockout/tagout program being used at the site should be used as guidance. In confined spaces where complete isolation is not possible, provisions should be made for as rigorous isolation as practical. Special precautions should be taken when entering double walled, jacketed, or internally insulated confined spaces that may discharge hazardous material through the vessel's internal wall.

Where there is a need to test, position or activate equipment by temporarily removing the lock or tag or both, a procedure should be developed and implemented to control hazards to the occupants. Any removal of locks, tags, or other protective measures should be done in accordance with ANSI Z244.1-1982.

9. INGRESS / EGRESS SAFEGUARDS

Means for safe entry and exit should be provided for confined spaces. Each entry and exit point should be evaluated to determine the most effective methods and equipment to be utilized to enable employees to safely enter and exit the confined space.

Appropriate retrieval equipment or methods should be used whenever a person enters a confined space. Use of retrieval equipment may be waived by the designated qualified persons if use of the equipment increases the overall risks of entry or does not contribute to the rescue. A mechanical device should be available to retrieve personnel from vertical type confined spaces greater than five feet in depth.

10. WARNING SIGNS AND SYMBOLS

All confined spaces that could be inadvertently entered should have signs identifying them as confined spaces. Signs should be maintained in a legible condition. The signs should contain a warning that a permit is required before entry. Accesses to all confined spaces should be prominently marked.

11. TRAINING

Enoch City Corporation will provide training so that all employees whose work is regulated by this section acquire the understanding, knowledge, and skills necessary for the safe performance of their duties in confined spaces. Training will be provided to each affected employee:

- * Before the employee is first assigned duties under this section,
- * Before there is a change in assigned duties,
- * Whenever there is a change in permit space operations that presents a hazard for which an employee has not been trained, and
- * Whenever the employer has reason to believe either that there are deviations from the permit space entry procedures required in this section or that there are inadequacies in the employee's knowledge or use of these procedures.

The training will establish employee proficiency in the duties required by this section and should introduce new or revised procedures, as necessary, for compliance with this section.

A. General Training

All employees who will enter confined spaces will be trained in entry procedures. Personnel responsible for supervising, planning, entering or participating in confined space entry and rescue will be adequately trained in their functional duties prior to any confined space entry. Training will include:

- * Explanation of the general hazards associated with confined spaces;
- * Discussion of specific confined space hazards associated with the facility, location or operation;
- * Reason for, proper use, and limitations of PPE and other safety equipment required for entry into confined spaces;
- * Explanation of permits and other procedural requirements for conducting a confined space entry;
- * A clear understanding of what conditions would prohibit entry;
- * How to respond to emergencies;
- * Duties and responsibilities as a member of the confined space entry team; and
- * Description of how to recognize symptoms of overexposure to probable air contaminants in themselves and co-workers, and method(s) for alerting attendants.

Refresher training will be conducted as needed to maintain employee competence in entry procedures and precautions.

- B. Specific Training
 - i. Training for Atmospheric Monitoring Personnel

Training will include proper use of monitoring instruments such as:

- * Proper use of the equipment;
- * Knowledge of calibration;
- * Knowledge of sampling strategies and techniques; and
- * Knowledge of PELs, TLVs, LELs, UELs, etc.

ii. Training for Attendants

Training will include the following:

- * Procedures for summoning rescue or other emergency services, and
- * Proper utilization of equipment used for communicating with entry and emergency/rescue personnel.
- ii. Training for Emergency Response Personnel

Training will include:

- * Rescue plan and procedures developed for each type of confined space that are anticipated to be encountered,
- * Use of emergency rescue equipment,
- * First aid and CPR techniques, and
- * Work location and confined space configuration to minimize response time.
- iv. Verification of Training

Periodic assessment of the effectiveness of employee training will be conducted by a qualified person. Training sessions will be repeated as often as necessary to maintain an acceptable level of personnel competence.

12. EMERGENCY RESPONSE

A. Emergency Response Plan

A plan of action will be written with provisions to conduct a timely rescue for individuals in a confined space should an emergency arise.

B. Retrieval Systems or Methods to Facilitate Non-entry Rescue

Retrieval systems will be used whenever an authorized person enters a permit space, unless the equipment increases the overall risk of entry or the equipment would not contribute to the rescue of the entrant. Retrieval systems should have a chest or full body harness and a retrieval line attached at the center of the back near shoulder level or above the head. If harnesses are not feasible or create a greater hazard, wristlets may be used in lieu of the harness. The retrieval line should be firmly fastened outside the space so that rescue can begin as soon as anyone is aware that retrieval is necessary. A mechanical device should be available to retrieve personnel from vertical confined spaces more than five feet deep.

Confined Space

Contractor Safety Program

For

Enoch City Corporation

Policy:

Any "Contractor" working on or around Enoch City facilities must provide a copy of their "Confined Space" Policy or Procedures before working in a "confined space".

Lockout/Tagout: The Control of Hazardous Energy Safety Program For Enoch City Corporation

I. OBJECTIVES

To establish a means of positive control to prevent the accident starting or activating of machinery or systems while they are being repaired, cleaned and/or serviced.

- A. To establish a safe and positive means of shutting down machinery, equipment and systems.
- B. To prohibit unauthorized personnel or remote control systems from starting machinery or equipment while it is being serviced.
- C. To provide a secondary control system (tagout) when it is impossible to positively lockout the machinery or equipment.
- D. To establish responsibility for implementing and controlling lockout/tagout procedures.
- E. To ensure that only approved locks, standardized tags and fastening devices provided by the company will be utilized in the lockout/tagout procedures.

II. AREAS OF RESPONSIBILITY

- A. Public Works Director will be responsible for implementing the lockout/tagout program.
- B. The Public Works Director is responsible to enforce the program and insure compliance with the procedures in their department.
- C. The City Manager is responsible for monitoring the compliance of this procedure and will conduct the annual inspection and certification of the authorized employees.
- D. Authorized employees (those contained in attachment #A-1) are responsible to follow established lockout/tagout procedures.
- E. Affected employees (all other employees in the facility) are responsible for insuring they do not attempt to restart or re-energize machines or equipment which are locked out or tagged out.

PROCEDURES

PREPARATION FOR LOCKOUT OR TAGOUT

Employees who are authorized to utilize the lockout/tagout procedure (see attachment #A-1) must be knowledgeable of the different energy sources and the proper sequence of shutting off or disconnecting energy means.

The four types of energy sources are:

- (1) Electrical (most common form)
- (2) Hydraulic or pneumatic
- (3) Fluids and gases
- (4) Mechanical

More than one energy source can be utilized on some equipment and the PROPER procedure must be followed in order to identify energy sources and lockout/tagout accordingly. See Attachment D for specific procedure format.

ELECTRICAL

- A. Shut off power at machine and disconnect.
- B. Disconnecting means must be locked or tagged.
- C. Press start button, or test circuit with tool, to see that correct systems are locked out.
- D. All controls must be returned to their safest position.
- E. Points to remember:
 - 1. If a machine or piece of equipment contains capacitors, they must be drained of stored energy.
 - 2. Possible disconnecting means include the power cord, power panels (look for primary and secondary voltage), breakers, the operator's station, motor circuit, relays, limit switches, electrical interlocks.

NOTE:

- 1. Some equipment may have <u>a motor isolating shut-off and a control isolating</u> <u>shutoff.</u>
- 2. If the electrical energy is disconnected by simply unplugging the power cord, the cord must be kept under the control of the authorized employee or the plug end of the cord must be locked out or tagged out.

HYDRAULIC/PNEUMATIC

- A. Shut off all energy sources (pumps and compressors). If the pumps and compressors supply energy to more than one piece of equipment, lockout or tagout the valve supplying energy to this piece of equipment.
- B. Stored pressure from hydraulic/pneumatic lines shall be drained/bled when release of stored energy could cause injury to employees.
- C. Make sure controls are returned to their safest position (off, stop, standby, inch, jog, etc.).

FLUIDS AND GASES

- A. Identify the type of fluid or gas and the proper
- B. Close valves to prevent flow, lockout/tagout.
- C. Determine the isolating device, close, and lockout or tagout.
- D. Drain and bleed lines to zero energy state.
 - **NOTE:** Some systems may have electrically controlled valves; if so, they must be shut off, locked or tagged out.
- E. Check for zero energy state at the equipment.

MECHANICAL ENERGY (Gravity activation, or stored in springs, etc)

- A. Block out or use die ram safety chain.
- B. Lockout or tagout safety device.
- C. Shut off, lockout or tagout electrical system.
- D. Check for zero energy state.
- E. Return controls to safest position.

RELEASE FROM LOCKOUT/TAGOUT

- A. Inspection - Make certain the work is completed and inventory tools and equipment used.
- B. Clean-up - Remove all towels, rags, work-aids, etc.
- C. Replace guards - Replace all guards possible. Sometimes a particular guard may have to be left off until the start sequence is over due to possible adjustments, however, all other guards should be put back into place.
- D. Check controls - All controls should be in their safest position.
- E. The work area shall be checked to ensure that all employees have been safely positioned or removed and notified that the lockout/tagout devices are being removed.
- F. Remove locks/tags - Remove only <u>your</u> lock or tag.

PROCEDURE INVOLVING MORE THAN ONE PERSON

When servicing and/or maintenance is performed by more than one person, each authorized employee shall place his own lock or tag on the energy isolating source. This shall be done by utilizing a multiple lock scissors clamp if the equipment is capable of being locked out. If the equipment cannot be locked out, then each authorized employee must place his tag on the equipment.

PROCEDURE FOR THE REMOVAL OF AN AUTHORIZED EMPLOYEE'S LOCKOUT/TAGOUT BY THE CITY

Each location must develop written procedures under the above heading that complies with 1910.147(e)(3) that can be utilized at that location. Your procedures should include the following:

- 1. Verification by employer that the authorized employee who applied the device is not in the facility.
- 2. Make reasonable efforts to advise the employee that his device has been removed. (This can be done when he returns to the facility).
- 3. Ensure that the authorized employee has this knowledge before he resumes work at the facility.

PROCEDURES FOR SHIFT OR PERSONNEL CHANGES

Each facility must develop their own written procedures based on their need and capabilities. However, your procedure must specify how you will ensure the continuity of lockout or tagout protection during that time. See 1910.147(e) (4).

PROCEDURES FOR OUTSIDE PERSONNEL/CONTRACTORS

Outside personnel/contractors shall be advised that the city has and enforces the use of lockout/tagout procedures. They will be informed of the use of locks and tags and notified about the prohibition relating to attempts to restart or re-energize machines or equipment that are locked out or tagged out.

The city will obtain information from the outside personnel/contractor about their lockout/tagout procedures and advise affected employees of this information.

The outside personnel/contractor will be required to sign a certification form (see attachment C). If outside personnel/contractor has previously signed a certification that is on file, there is no need to have them sign a new certification.

TRAINING AND COMMUNICATION:

Each authorized employee who will be utilizing the lockout/tagout procedure will be trained in the recognition of applicable hazardous energy sources, type and magnitude of energy available in the work place, and the methods and means necessary for energy isolation and control.

Each affected employee (all employees other than authorized employees utilizing the lockout/tagout procedure) shall be instructed in the purpose and use of the lockout/tagout procedure and the prohibition relating to attempts to restart or re-energize machines or equipment which are locked out or tagged out.

Training will be certified using attachment #A-2 (Authorized personnel) or #A-3 (Affected Personnel). The certification will be retained in the employee's personnel file.

PROCEDURES FOR PERIODIC INSPECTION

A periodic inspection (at least annually) will be conducted of each authorized employee under the lockout/tagout procedure. This inspection shall be performed by the Public Works Director, provided they are not the ones utilizing the energy control procedure being inspected.

The inspection will include a review between the inspector and each authorized employee, of that employee's responsibilities under the energy control (lockout/tagout) procedure. The inspection will also consist of a physical inspection of the authorized employee while performing work under the procedures.

The Enoch City Manager shall certify in writing that the inspection has been performed. The written certification (see attachment #B) shall be retained in the individual's personnel file.

ATTACHMENT A-1

LIST OF AUTHORIZED PERSONNEL

FOR

LOCKOUT/TAGOUT ITEMS

NAMES

JOB TITLE

ATTACHMENT A-2

CERTIFICATION OF TRAINING

(AUTHORIZED PERSONNEL)

I CERTIFY THAT I RECEIVED TRAINING AS AN AUTHORIZED EMPLOYEE UNDER ENOCH CITY LOCKOUT/TAGOUT PROGRAM. I FURTHER CERTIFY THAT I UNDERSTAND THE PROCEDURES AND WILL ABIDE BY THOSE PROCEDURES. **ATTACHMENT A-3**

CERTIFICATION OF TRAINING

(AFFECTED PERSONNEL)

I CERTIFY THAT I RECEIVED TRAINING AS AN AFFECTED EMPLOYEE UNDER

ENOCH CITY LOCKOUT/TAGOUT PROGRAM. I FURTHER CERTIFY

AND UNDERSTAND THAT I AM PROHIBITED FROM ATTEMPTING TO RESTART OR RE-

ENERGIZE MACHINES OR EQUIPMENT WHICH ARE LOCKED OUT OR TAGGED.

AFFECTED EMPLOYEE SIGNATURE

DATE

ATTACHMENT B

LOCKOUT/TAGOUT INSPECTION CERTIFICATION

I CERTIFY THAT ______ WAS INSPECTED ON THIS DATE

UTILIZING LOCKOUT/TAGOUT PROCEDURES. THE INSPECTION WAS PERFORMED

WHILE WORKING ON ______.

AUTHORIZED EMPLOYEE SIGNATURE

DATE

INSPECTOR SIGNATURE

DATE

ATTACHMENT C

OUTSIDE PERSONNEL/CONTRACTOR CERTIFICATION

I CERTIFY THAT	AND	(OUTSIDE

PERSONNEL/CONTRACTOR) HAVE INFORMED EACH OTHER OF OUR RESPECTIVE

LOCKOUT OR TAGOUT PROCEDURES.

NAME (PRINTED)

SIGNATURE

OUTSIDE PERSONNEL/CONTRACTOR (PRINTED)

SIGNATURE

DATE

DATE

DATE

DATE

60

ATTACHMENT D

EQUIPMENT SPECIFIC PROCEDURE FOR

(Date)

Machine Identification

General Description:

Manufacturer:

Model Number:

Serial Number:*

* If more than one piece of same equipment, list all serial numbers.

Location of equipment:

Operator Controls

The type of controls available to the operator need to be determined. This should help identify energy sources and lockout capacity for the equipment.

List types of operator controls:

Energy Sources

The energy sources present on this equipment are: (electrical, steam, hydraulic, pneumatic, natural gas, stored energy, etc.)

ENERGY SOURCE	LOCATION	Lockable		Type lock or block
		Yes	No	needed

Shutdown Procedures

List the steps in order necessary to shut down and de-energize the equipment. Be specific. For stored energy, be specific about how the energy will be dissipated or restrained.

Procedure:

Lock Type & Location:

De-energized State To Be Verified? How?

NOTIFY ALL AFFECTED EMPLOYEES WHEN THIS PROCEDURE IS IN APPLICATION

Start Up Procedures

List the steps in order necessary to reactivate (energize) the equipment. Be specific.

Procedure:

Energy Source Activated:

NOTIFY ALL AFFECTED EMPLOYEES WHEN THIS PROCEDURE IS IN APPLICATION

Procedures for Operations and Service/Maintenance

List those operations where the procedures above do not apply. [See 29CFR 1910.147 (a) (2)] Alternate measures which provide effective protection must be developed for these operations. Job Safety Analysis is one method of determining appropriate measures.

Operation Name:

Affected and Authorized Employees

List each person <u>affected</u> by this procedure and those <u>authorized</u> to use this procedure.

AFFECTED EMPLOYEES				
Name	Job Title			

Approved by (& date):

AUTHORIZED EMPLOYEES				
Name	Job Title			

Approved by (& date):

Enoch City Corporation

HAZARD COMMUNICATION PROGRAM

1. General

The purpose of this instruction is to ensure that **Enoch City Corporation** is in compliance with the Occupational Safety and Health Administration's Hazard Communication Standard (<u>HCS</u>) 29 CFR 1910.1200.

The Enoch City Manager is designated as the Hazard Communication Program Coordinator and as such acts as the representative of the Mayor of **Enoch City Corporation**, who has overall responsibility.

In general, each employee in the facility will be apprised of the substance of the <u>HCS</u>, the hazardous properties of chemicals they work with, and measures to take to protect themselves from these chemicals.

2. List of Hazardous Chemicals

The Public Works Director or designee will maintain a list of all hazardous chemicals used in the facility, and update the list as necessary. The hazardous chemical list will be updated upon receipt of hazardous chemicals at the facility. The list of hazardous chemicals is maintained at Enoch City Public Works Building.

3. Safety Data Sheets (SDS's)

The Public Works Director or designee will maintain an SDS on every substance listed on the hazardous chemical list in. The SDS will consist of a fully completed OSHA Form 174 or equivalent. The Hazard Communication Coordinator will ensure that all SDS's are kept in the Enoch City Public Works Building. All SDS's will be readily available to all employees.

The HazCom Coordinator is responsible for acquiring and updating SDS's. The Coordinator will review each SDS for accuracy and completeness. All new procurements for the facility must be cleared by the Hazard Communication Coordinator. Whenever possible, the least hazardous substance will be procured. SDS's that meet the requirements of the <u>HCS</u> must be fully completed and received at the facility either prior to or at the time of receipt of the first shipment of any potentially hazardous chemical purchased from a vendor. It may be necessary to discontinue procurements from vendors failing to provide approved SDS's in a timely manner.

4. Labels and Other Forms of Warning

Enoch Public Works Director is designated to ensure that all hazardous chemicals in the facility are properly labeled. Labels should list at least the chemical identity, appropriate hazard warnings, and the name and address of the manufacturer, importer, or other responsible party. Enoch Public Works Director will refer to the corresponding SDS to verify label information. Immediate use containers, small containers in which materials are poured for use on that shift by the employee drawing the material, do not require labeling. To meet the labeling requirements of <u>HCS</u> for other in-house containers, refer to the label supplied by the manufacturer. All labels for in-house containers will be approved by Enoch Public Works Director prior to their use.

Enoch Public Works Director will check on a monthly basis to ensure that all containers in the facility are labeled and that the labels are up to date.

5. Training

Each employee who works with or is potentially exposed to hazardous chemicals will receive initial training on the <u>HCS</u> and the safe use of those chemicals. Additional training will be provided for employees whenever a new hazard is introduced into their work areas. Hazardous chemical training will be conducted by Enoch Public Works Director or designee.

The training will emphasize these elements:

- > A summary of the standard and this written program;
- Hazardous chemical properties including visual appearance and odor and methods that can be used to detect the presence or release of hazardous chemicals;
- > Physical and health hazards associated with potential exposure to workplace chemicals;
- Procedures to protect against hazards, e.g., personal protective equipment, work practices, and emergency procedures;
- > Hazardous chemical spill and leak procedures; and,
- Where SDS's are located, how to understand their content, and how employees may obtain and use appropriate hazard information.

The Public Works Director or designee will monitor and maintain records of employee training and advise the Safety Moment person on training needs.

6. Contractors and Other "Outside" Employers

The Hazard Communication Coordinator, upon notification from management, will advise outside contractors of any chemical hazards which may be encountered in the normal course of their work on the premises. Likewise, contractors and other outside employers will be required provide information to the Hazard Communication Coordinator regarding any hazardous materials they will introduce into our facilities. This information may be conveyed by providing SDS's to the appropriate personnel.

7. Non-Routine Tasks

Supervisors contemplating a non-routine task will consult with the Hazard Communication Coordinator and ensure that employees are informed of chemical hazards associated with the performance of these tasks and appropriate protective measures. This will be accomplished by a meeting of supervisors and the Hazard Communication Coordinator with affected employees before such work is begun.

8. Outside Chemicals

Employees are prohibited from bringing chemicals from home to the workplace without prior review and authorization of the chemical(s) by the Hazard Communication Coordinator.

9. Additional Information

Further information on this written program, the Hazard Communication Standard, and applicable SDS's is available by contacting the City Safety Director.

Respiratory Protection

Safety Program

For

Enoch City Corporation

1.0 Purpose

Enoch City Corporation has determined that employees performing painting <u>activities</u> are exposed to respiratory hazards during routine operations. These hazards include wood dust, particulates, and vapors, and in some cases represent Immediately Dangerous to Life or Health (IDLH) conditions. The purpose of this program is to ensure that all company employees are protected from exposure to these respiratory hazards.

Engineering controls, such as ventilation and substitution of less toxic materials, are the first line of defense at Enoch City Corporation; however, engineering controls have not always been feasible for some of our operations, or have not always completely controlled the identified hazards. In these situations, respirators and other protective equipment must be used. Respirators are also needed to protect employees' health during emergencies. The work processes requiring respirator use at Enoch City Corporation are outlined in Table 1 in the Scope and Application section of this program. In addition, some employees have expressed a desire to wear respirators during certain operations that do not require respiratory protection. As a general policy Enoch City Corporation will review each of these requests on a case-by-case basis. If the use of respiratory protection in a specific case will not jeopardize the health or safety of the worker(s) Enoch City Corporation will provide respirators for voluntary use. As outlined in the Scope and Application section of this program.

2.0 Scope and Application

This program applies to all employees who are required to wear respirators during normal work operations, and during some non-routine or emergency operations such as a spill of a hazardous substance. This includes all employees performing <u>painting</u>, <u>sanding and sewer activities</u>. All employees working in these areas and engaged in certain processes or tasks (as outlined in the table below) must be enrolled in the City's respiratory protection program.

In addition, any employee who voluntarily wears a respirator when a respirator is not required (i.e., in certain maintenance and coating operations) is subject to the medical evaluation, cleaning, maintenance, and storage elements of this program, and must be provided with certain information specified in this section of the program. Employees who voluntarily wear filtering facepieces (dust masks) are not subject to the medical evaluation, cleaning, storage, and maintenance provisions of this program.

Employees participating in the respiratory protection program do so at no cost to them. The expense associated with training, medical evaluations and respiratory protection equipment will be borne by the city.

TABLE 1:				
VOLUNTARY AND REQUIRED RESPIRATOR USE AT Enoch City Corporation				
Respirator	Department/Process			
Filtering facepiece (dust mask)	Voluntary use for warehouse workers			
Half-facepiece APR (Air Purifying Respirator) or PAPR with P100 filter	Prep and Assembly Voluntary use for maintenance workers when cleaning spray booth walls or changing spray booth filter			
SAR (Supplied Air Respirator), pressure demand, with auxiliary SCBA (Self-Contained Breathing Apparatus)	Maintenance - dip coat tank cleaning			
Continuous flow SAR with hood	Spray booth operations Prep (cleaning)*			
Half-facepiece APR with organic vapor cartridge	Voluntary use for Dip Coat Tenders, Spray Booth Operators (gun cleaning), and Maintenance workers (loading coating agents into supply systems)			
Escape SCBA	Dip Coat, Coatings Storage Area, Spray Booth Cleaning Area			

* until ventilation is installed.
3.0 Responsibilities

A. Program Administrator

The Program Administrator is responsible for administering the respiratory protection program. Duties of the program administrator include:

- Identifying work areas, processes or tasks that require workers to wear respirators, and evaluating hazards.
- Selection of respiratory protection options.
- Monitoring respirator use to ensure that respirators are used in accordance with their certifications.
- Arranging for and/or conducting training.
- Ensuring proper storage and maintenance of respiratory protection equipment.
- Conducting qualitative fit testing with Bitrex.
- Administering the medical surveillance program.
- Maintaining records required by the program.
- Evaluating the program.
- Updating written program, as needed.

The Program Administrator for Enoch City Corporation is the Public Works Director.

B. Supervisors

Supervisors are responsible for ensuring that the respiratory protection program is implemented in their particular areas. In addition to being knowledgeable about the program requirements for their own protection, supervisors must also ensure that the program is understood and followed by the employees under their charge. Duties of the supervisor include:

- a. Ensuring that employees under their supervision (including new hires) have received appropriate training, fit testing and initial medical evaluation.
- b. Ensuring the availability of appropriate respirators and accessories.
- c. Being aware of tasks requiring the use of respiratory protection.
- d. Enforcing the proper use of respiratory protection when necessary.
- e. Ensuring that respirators are properly cleaned, maintained, and stored according to the respiratory protection plan.
- f. Ensuring that respirators fit well and do not cause discomfort.
- g. Continually monitoring work areas and operations to identify respiratory hazards.
- h. Coordinating with the Program Administrator on how to address respiratory hazards or other concerns regarding the program.

C. Employees

Each employee has the responsibility to wear his or her respirator when and where required and in the manner in which they were trained. Employees must also:

- Care for and maintain their respirators as instructed, and store them in a clean sanitary location.
- Inform their supervisor if the respirator no longer fits well, and request a new one that fits properly.
- Inform their supervisor or the Program Administrator of any respiratory hazards that they feel are not adequately addressed in the workplace and of any other concerns that they have regarding the program.
- 4.0 Program Elements
 - A. Selection Procedures

The Program Administrator will select respirators to be used on site, based on the hazards to which workers are exposed and in accordance with all OSHA standards. The Program Administrator will conduct a hazard evaluation for each operation, process, or work area where airborne contaminants may be present in routine operations or during an emergency. The hazard evaluation will include:

- 1. Identification and development of a list of hazardous substances used in the workplace, by department, or work process.
- 2. Review of work processes to determine where potential exposures to these hazardous substances may occur. This review shall be conducted by surveying the workplace, reviewing process records, and talking with employees and supervisors.
- Exposure monitoring to quantify potential hazardous exposures. Monitoring will be contracted out. Enoch City Corporation currently has a contract with _______to provide monitoring when needed.

B. Updating the Hazard Evaluation

The Program Administrator must revise and update the hazard evaluation as needed (i.e., any time work process changes may potentially affect exposure). If an employee feels that respiratory protection is needed during a particular activity, he/she is to contact his or her supervisor or the Program Administrator. The Program Administrator will evaluate the potential hazard, arranging for outside assistance as necessary. The Program Administrator will then communicate the results of that evaluation back to the employees. If it is determined that respiratory protection is necessary, all other elements of this program will be in effect for those tasks and this program will be updated accordingly.

C. NIOSH Certification

All respirators must be certified by the National Institute for Occupational Safety and Health (NIOSH) and shall be used in accordance with the terms of that certification. Also, all filters, cartridges, and canisters must be labeled with the appropriate NIOSH approval label. The label must not be removed or defaced while it is in use.

D. Voluntary Respirator Use

Enoch City Corporation will provide respirators at no charge to employees for voluntary use for the following work processes:

- Employees may wear half-facepiece APRs with organic vapor cartridges while working in the dip coat area.
- Warehouse workers may wear filtering facepieces.
- Spray Booth Operators may wear half-facepiece APRs with organic vapor cartridges while cleaning spray guns.
- Maintenance personnel may wear half-facepiece APRs with P100 cartridges while cleaning spray booth walls, and organic vapor cartridges while loading spray guns.

The Program Administrator will provide all employees who voluntarily choose to wear either of the above respirators with a copy of Appendix D of the standard. (Appendix D details the requirements for voluntary use of respirators by employees.) Employees choosing to wear a half facepiece APR must comply with the procedures for Medical Evaluation, Respirator Use, and Cleaning, Maintenance and Storage. The Program Administrator shall authorize voluntary use of respiratory protective equipment as requested by all other workers on a case-by-case basis, depending on specific workplace conditions and the results of the medical evaluations.

- E. Medical Evaluation
 - Employees who are either required to wear respirators, or who choose to wear an APR voluntarily, must pass a medical exam before being permitted to wear a respirator on the job. Employees are not permitted to wear respirators until a physician has determined that they are medically able to do so. Any employee refusing the medical evaluation will not be allowed to work in an area requiring respirator use.
 - 2. A licensed physician will provide the medical evaluations. Medical evaluation procedures are as follows:
 - The medical evaluation will be conducted using the questionnaire provided in Appendix C of the respiratory protection standard. The Program Administrator will provide a copy of this questionnaire to all employees requiring medical evaluations.
 - To the extent feasible, the city will assist employees who are unable to read the questionnaire (by providing help in reading the questionnaire). When this is not possible, the employee will be sent directly to the physician for medical evaluation.
 - All affected employees will be given a copy of the medical questionnaire to fill out, along with a stamped and addressed envelope for mailing the questionnaire to the company physician. Employees will be permitted to fill out the questionnaire on company time.
 - Follow-up medical exams will be granted to employees as required by the standard, and/or as deemed necessary by the ABC medical clinic physician.
 - All employees will be granted the opportunity to speak with the physician about their medical evaluation, if they so request.
 - The Program Administrator has provided the medical clinic physician with a copy of this program, a copy of the Respiratory Protection standard, the list of hazardous substances by work area, and for each employee requiring evaluation: his or her work area or job title, proposed respirator type and weight, length of time required to wear respirator, expected physical work load (light, moderate, or heavy), potential temperature and humidity extremes, and any additional protective clothing required.

- Any employee required for medical reasons to wear a positive pressure air purifying respirator will be provided with a powered air purifying respirator.
- After an employee has received clearance and begun to wear his or her respirator, additional medical evaluations will be provided under the following circumstances:
 - * Employee reports signs and/or symptoms related to their ability to use a respirator, such as shortness of breath, dizziness, chest pains, or wheezing.
 - * The medical clinic physician or supervisor informs the Program Administrator that the employee needs to be reevaluated;
 - * Information from this program, including observations made during fit testing and program evaluation, indicates a need for reevaluation;
 - * A change occurs in workplace conditions that may result in an increased physiological burden on the employee.
- 3. A list of Enoch City Corporation employees currently included in medical surveillance is provided in Table 2 of this program.
- 4. All examinations and questionnaires are to remain confidential between the employee and the physician.
- F. Fit Testing
 - 1. Fit testing is required for employees wearing half-facepiece APRs for exposure to wood dust in Prep and Assembly, and maintenance workers who wear a tight-fitting SAR for dip tank cleaning. Employees voluntarily wearing half-facepiece APRs may also be fit tested upon request.
 - 2. Employees who are required to wear half-facepiece APRs will be fit tested:
 - Prior to being allowed to wear any respirator with a tight fitting facepiece.
 - Annually.
 - When there are changes in the employee's physical condition that could affect respiratory fit (e.g., obvious change in body weight, facial scarring, etc.).
 - 3. Employees will be fit tested with the make, model, and size of respirator that they will actually wear. Employees will be provided with several models and sizes of respirators so that they may find an optimal fit. Fit testing of PAPRs is to be conducted in the negative pressure mode.

- 4. The Program Administrator will conduct fit tests following the OSHA approved Bitrex Solution Aerosol QLFT Protocol in Appendix B (B4) of the Respiratory Protection standard.
- 5. The Program Administrator has determined that QNFT is not required for the respirators used under current conditions at Enoch City Corporation. If conditions affecting respirator use change, the Program Administrator will evaluate on a case-by-case basis whether QNFT is required.
- G. Respirator Use

Respiratory protection is required for the following personnel:

TABLE 2: Enoch City Corporation Personnel in Respiratory Protection Program			
Name	Department	Job Description/ Work Procedure	Respirator
		Operator	Half mask APR P100 filter when sanding/ AR continuous flow hood for cleaning
		Dip tank cleaning	SAR, pressure demand with auxiliary SCBA
		Spray Booth	SAR, continuous

H. General Use Procedures

1. Employees will use their respirators under conditions specified by this program, and in accordance with the training they receive on the use of each particular model. In addition, the respirator shall not be used in a manner for which it is not certified by NIOSH or by its manufacturer.

- All employees shall conduct user seal checks each time that they wear their respirator. Employees shall use either the positive or negative pressure check (depending on which test works best for them) specified in Appendix B-1 of the Respiratory Protection Standard.
- 3. All employees shall be permitted to leave the work area to go to the locker room to maintain their respirator for the following reasons: to clean their respirator if the respirator is impeding their ability to work, change filters or cartridges, replace parts, or to inspect respirator if it stops functioning as intended. Employees should notify their supervisor before leaving the area.
- 4. Employees are not permitted to wear tight-fitting respirators if they have any condition, such as facial scars, facial hair, or missing dentures, that prevents them from achieving a good seal. Employees are not permitted to wear headphones, jewelry, or other articles that may interfere with the facepiece-to-face seal.
- I. Emergency Procedures

The following work areas have been identified as having foreseeable emergencies:

- Spray Booth Cleaning Area spill of hazardous waste
- Dip Coat Area malfunction of ventilation system, leak in supply system
- Coatings Storage Area spill or leak of hazardous substances

When the alarm sounds, employees in the affected department must immediately don their emergency escape respirator, shut down their process equipment, and exit the work area. All other employees must immediately evacuate the building. Enoch City Corporation's Emergency Action Plan describes these procedures (including proper evacuation routes and rally points) in greater detail.

Emergency escape respirators are located: (This is specific to the facility)

- Locker #1 in the Spray Booth Area
- Storage cabinet #3 in Dip Coat/Drying Area
- Locker #4 in the Coatings Storage Area

Respiratory protection in these instances is for escape purposes only. Enoch City Corporation employees are not trained as emergency responders, and are not authorized to act in such a manner.

- J. Respirator Malfunction
 - For any malfunction of an APR (e.g., such as breakthrough, facepiece leakage, or improperly working valve), the respirator wearer should inform his or her supervisor that the respirator no longer functions as intended, and go to the designated safe area to maintain the respirator. The supervisor must ensure that the employee receives the needed parts to repair the respirator, or is provided with a new respirator.

All workers wearing atmosphere-supplying respirators will work with a buddy. Buddies shall assist workers who experience an SAR malfunction as follows:

- 2. If a worker in the spray booth experiences a malfunction of an SAR, he or she should signal to the buddy that he or she has had a respirator malfunction. The buddy shall don an emergency escape respirator and aid the worker in immediately exiting the spray booth.
- 3. Workers cleaning wood pieces or assembled furniture in the Prep department will work with a buddy. If one of the workers experiences a respirator malfunction, he/she shall signal this to their buddy. The buddy must immediately stop what he or she is doing to escort the employee to the Prep staging area where the employee can safely remove the SAR.
- K. IDLH Procedures

The Program Administrator has identified the following area as presenting the potential for IDLH conditions:

<u>EXAMPLE</u>

Dip Coat Tank Cleaning: Maintenance workers will be periodically required to enter the dip tank to perform scheduled or unscheduled maintenance. In such cases, workers will follow the permit required confined space entry procedures specified in the Enoch City Corporation Confined Space Program. As specified in these procedures, the Program Administrator has determined that workers entering this area shall wear a pressure demand SAR. In addition, an appropriately trained and equipped standby person shall remain outside the dip tank and maintain constant voice and visual communication with the worker. In the event of an emergency requiring the standby person to enter the IDLH environment, the standby person shall immediately notify the Program Administrator and will proceed with rescue operations in accordance with rescue procedures outlined in the Enoch City Corporation Confined Space Program.

L. Air Quality

For supplied-air respirators, only Grade D breathing air shall be used in the cylinders. The Program Administrator will coordinate deliveries of compressed air with the company's vendor,________, and require _______to certify that the air in the cylinders meets the specifications of Grade D breathing air.

The Program Administrator will maintain a minimum air supply of one fully charged replacement cylinder for each SAR unit. In addition, cylinders may be recharged as necessary from the breathing air cascade system located near the respirator storage area. The air for this system is provided by Enoch City Corporation's supplier, and deliveries of new air are coordinated by the Program Administrator.

M. Cleaning, Maintenance, Change Schedules and Storage

1. Cleaning

Respirators are to be regularly cleaned and disinfected at the designated respirator cleaning station located in the employee locker room. Respirators issued for the exclusive use of an employee shall be cleaned as often as necessary, but at least once a day for workers in the Prep and Assembly departments.

Atmosphere supplying and emergency use respirators are to be cleaned and disinfected after each use.

The following procedure is to be used when cleaning and disinfecting respirators:

- Disassemble respirator, removing any filters, canisters, or cartridges.
- Wash the facepiece and associated parts in a mild detergent with warm water. Do not use organic solvents.
- Rinse completely in clean warm water.
- Wipe the respirator with disinfectant wipes (70% Isopropyl Alcohol) to kill germs.
- Air dry in a clean area.
- Reassemble the respirator and replace any defective parts.
- Place in a clean, dry plastic bag or other air tight container.
- Note: The Program Administrator will ensure an adequate supply of appropriate cleaning and disinfection material at the cleaning station. If supplies are low, employees should contact their supervisor, who will inform the Program Administrator.
 - N. Maintenance
 - Respirators are to be properly maintained at all times in order to ensure that they
 function properly and adequately protect the employee. Maintenance involves a
 thorough visual inspection for cleanliness and defects. Worn or deteriorated parts will
 be replaced prior to use. No components will be replaced or repairs made beyond
 those recommended by the manufacturer. Repairs to regulators or alarms of
 atmosphere-supplying respirators will be conducted by the manufacturer.
 - 2. The following checklist will be used when inspecting respirators:

Face piece:

- * Cracks, tears, or holes
- * face mask distortion
- * Cracked or loose lenses/face shield

Head straps:

- * Breaks or tears
- * Broken buckles

Valves:

- * Residue or dirt
- * Cracks or tears in valve material

Filters/Cartridges:

- * Approval designation
- * Gaskets
- * Cracks or dents in housing
- * Proper cartridge for hazard
- Air Supply Systems:
 - * breathing air quality/grade
 - * Condition of supply hoses
 - * hose connections
 - * Settings on regulators and valves
- 3. Employees are permitted to leave their work area to perform limited maintenance on their respirator in a designated area that is free of respiratory hazards. Situations when this is permitted include to wash their face and respirator facepiece to prevent any eye or skin irritation, to replace the filter, cartridge or canister, and if they detect vapor or gas breakthrough or leakage in the facepiece or if they detect any other damage to the respirator or its components.
- O. Change Schedules
 - 1. Employees wearing APRs or PAPRs with P100 filters for protection against wood dust and other particulates shall change the cartridges on their respirators when they first begin to experience difficulty breathing (i.e., resistance) while wearing their masks.
 - 2. Based on discussions with our respirator distributor about Enoch City Corporation's workplace exposure conditions, employees voluntarily wearing APRs with organic vapor cartridges shall change the cartridges on their respirators at the end of each work week to ensure the continued effectiveness of the respirators.
- P. Storage
 - Respirators must be stored in a clean, dry area, and in accordance with the manufacturer's recommendations. Each employee will clean and inspect their own air-purifying respirator in accordance with the provisions of this program and will store their respirator in a plastic bag in their own locker. Each employee will have his/her name on the bag and that bag will only be used to store that employee's respirator.

- 2. Atmosphere supplying respirators will be stored in the storage cabinet outside of the Program Administrator's office.
- 3. The Program Administrator will store Enoch City Corporation's supply of respirators and respirator components in their original manufacturer's packaging in the equipment storage room.

Q. Defective Respirators

- Respirators that are defective or have defective parts shall be taken out of service immediately. If, during an inspection, an employee discovers a defect in a respirator, he/she is to bring the defect to the attention of his or her supervisor. Supervisors will give all defective respirators to the Program Administrator. The Program Administrator will decide whether to:
 - Temporarily take the respirator out of service until it can be repaired.
 - Perform a simple fix on the spot such as replacing a head strap.
 - Dispose of the respirator due to an irreparable problem or defect.
- 2. When a respirator is taken out of service for an extended period of time, the respirator will be tagged out of service, and the employee will be given a replacement of similar make, model, and size. All tagged out respirators will be kept in the storage cabinet inside the Program Administrator's office.

R. Training

- The Program Administrator will provide training to respirator users and their supervisors on the contents of the Enoch City Corporation Respiratory Protection Program and their responsibilities under it, and on the OSHA Respiratory Protection standard. Workers will be trained prior to using a respirator in the workplace. Supervisors will also be trained prior to using a respirator in the workplace or prior to supervising employees that must wear respirators.
- 2. The training course will cover the following topics:
 - the Enoch City Corporation Respiratory Protection Program
 - the OSHA Respiratory Protection standard
 - respiratory hazards encountered at Enoch City Corporation and their health effects
 - proper selection and use of respirators
 - limitations of respirators
 - respirator donning and user seal (fit) checks

- fit testing
- emergency use procedures
- maintenance and storage
- medical signs and symptoms limiting the effective use of respirators
- 3. Employees will be retrained annually or as needed (e.g., if they change departments and need to use a different respirator). Employees must demonstrate their understanding of the topics covered in the training through hands-on exercises and a written test. Respirator training will be documented by the Program Administrator and the documentation will include the type, model, and size of respirator for which each employee has been trained and fit tested.

5.0 Program Evaluation

- A. The Program Administrator will conduct periodic evaluations of the workplace to ensure that the provisions of this program are being implemented. The evaluations will include regular consultations with employees who use respirators and their supervisors, site inspections, air monitoring and a review of records.
- B. Problems identified will be noted in an inspection log and addressed by the Program Administrator. These findings will be reported to Enoch City Corporation management, and the report will list plans to correct deficiencies in the respirator program and target dates for the implementation of those corrections.

6.0 Documentation and Recordkeeping

- A. A written copy of this program and the OSHA standard is kept in the Program Administrator's office and is available to all employees who wish to review it.
- B. Also maintained in the Program Administrator's office are copies of training and fit test records. These records will be updated as new employees are trained, as existing employees receive refresher training, and as new fit tests are conducted.
- C. The Program Administrator will also maintain copies of the medical records for all employees covered under the respirator program. The completed medical questionnaire and the physician's documented findings are confidential and will remain at Enoch City Offices. The company will only retain the physician's written recommendation regarding each employee's ability to wear a respirator.

Table 3: Hazard Evaluation- Date				
Department	Contaminants	Exposure Level (8 Hrs. TWA)*	PEL**	Controls

- * Summarized from Industrial Hygiene report provided by _____.
- ** These values were obtained from a survey on average exposures as published in the American Journal of Industrial Hygiene _____.

Personal Protective Equipment (PPE) For Enoch City Corporation

Written Hazard Assessment

For

Selecting Personal Protective Equipment

•	Identifying and evaluating equipment and
	processes

• Reviewing injury/accident/incident records

• Reviewing previously selected PPE

Date of Evaluation:

Workplace

Evaluated By:_____

Evaluator Title:_____

HAZARD TYPE	LOCATION/ SOURCES/	ANALYSIS OF (Low/ Medium / H	igh)	<u>PPE</u> (REQUIRED)	<u>PPE</u> (OPTIONAL)
(corrosive, reactive, toxic, irritant, flammable, etc), heat, harmful (or nuisance) dust, light / radiation, electrical, biohazard, noise, other]	<u>TASKS</u>	Seriousness	Level of Risk		
		of Potential Injury			

Personal Protective Equipment

Training Meeting Record

For

Name Enoch City Corporation

Address ______
Date of Training ______ Training Provided By ______

TRAINING TOPIC COVERED

- (1) A summary of the standard and our written program
- (2) When PPE is necessary
- (3) What PPE is necessary
- (4) How to properly don, doff, adjust, and wear PPE
- (5) Limitations of the PPE
- (6) Proper care, maintenance, useful life, and disposal of the PPE

EMPLOYEE NAME	DEPARTMENT	TITLE	SIGNATURE

Enoch City

Employee Acknowledgement

Of

Personal Protective Equipment Training

I, _____, have been trained in the city's personal protective equipment program. The protective equipment required in my work area has been explained and I am aware of the city's policy and requirement.

Employee's Signature

Date

Supervisor's Signature

Date

General Safety Procedures

2016-2017

Enoch City General Safety Procedures

Administrative

Ergonomics and Video Display Terminals

- 1. Take periodic rest breaks from repetitive or prolonged activities by standing up and stretching.
- 2. Use a chair that is padded, stable, mobile, swivels and allows operator movement.
- 3. Adjust your seat height so your knees are about the same level as your hips.
- 4. Sit straight up in your chair. Where needed, use a footrest that has an adjustable height and is large enough to allow operator movement.
- 5. Adjust your computer screen and keyboard so they are directly in front of you.
- 6. Place the keyboard low enough so operator is not required to reach up or out to the keys.
- 7. Keep wrists and hands in a straight position while keystroking by keeping forearms parallel to the floor and elbows at your sides.
- 8. Select low frequency vibratory tools and tools that bend at the handle.
- 9. Select tools by weight for the task to distribute pressure evenly over the hand, to fit your hand size, and to provide a handle that accommodates a relaxed grip position.

Office Safety

- 1. Close drawers and doors immediately after using them.
- 2. Do not stand on furniture to reach high places.
- 3. Do not kick objects out of your pathway; pick them up or push them out of the way.
- 4. Open one file cabinet drawer at a time.
- 5. Put heavy files in the bottom drawers of file cabinets.
- 6. Do not block your view by carrying large or bulky items; use the dolly or hand truck or get assistance from a fellow employee.
- 7. Use the handle when closing doors, drawers and files.
- 8. Store sharp objects, such as pens, pencils, letter openers or scissors in drawers or with the tips pointing down in a container.
- 9. Do not tilt the chair you are sitting in on its back two legs.
- 10. Carry pencils, scissors and other sharp objects with the tips pointing down.
- 11. Use the ladder or step stool to retrieve or store items that are located above your head.
- 12. Position hands and fingers onto the handle of the paper cutter before pressing down on the blade.
- 13. Keep the paper cutter handle in the closed or locked position when it is not being used.
- 14. Do not use paper-cutting devices if the finger guard is missing.
- 15. Keep your fingers away from the ejector slot when loading or testing stapling devices.
- 16. Do not use extension or power cords that have the ground prong removed or broken off.
- 17. Use a cord cover or tape the cord down when running electrical cords across aisles, between desks or across entrances or exits.
- 18. Do not place your fingers in or near the feed of a paper shredder.
- 19. Do not plug multiple electrical cords into a single outlet.

- 20. Do not throw matches, cigarettes or other smoking materials into trash baskets.
- 21. Keep doors in hallways fully open or fully closed.
- 22. Use a staple remover, not your fingers, for removing staples.
- 23. Turn the power switch to "off" and unplug office machines before adjusting, lubricating or cleaning them.
- 24. Do not use fans that have excessive vibration, frayed cords or missing guards.
- 25. Do not place floor type fans in walkways, aisles or doorways.
- 26. Use the handrails when ascending or descending stairs or ramps.
- 27. Obey all posted safety and danger signs.
- 28. Do not use frayed, cut or cracked electrical cords.
- 29. Do not store or leave items on stairways or walkways.
- 30. Do not run on stairs or take more than one step at a time.
- 31. Do not jump from ramps, platforms, ladders or step stools.
- 32. Clean up spills or leaks immediately by using a paper towel, rag or a mop and bucket.

Material Handling

Carts

- 1. Do not exceed the rated load capacity noted on the manufacturer's label on the cart.
- 2. Ask a spotter to help guide carts around corners and through narrow aisles.
- 3. Do not stand on a cart or float or use it as a work platform.

Compressed Gas Cylinders

Storage and Handling

- 1. Do not handle oxygen cylinders if your gloves are greasy or oily.
- 2. Store all cylinders in the upright position.
- 3. Place valve-protection caps on gas cylinders that are in storage or not in use.
- 4. Do not lift cylinders by the valve protection cap.
- 5. Do not store compressed gas cylinders in areas where they can come in contact with chemicals labeled "Corrosive."
- 6. Place cylinders on a cradle, sling board, pallet or cylinder basket to hoist them.
- 7. Do not place cylinders against electrical panels or live electrical cords where the cylinder can become part of the circuit.

Use of Cylinders

- 1. Do not use dented, cracked or other visually damaged cylinders.
- 2. Use only an open-ended or adjustable wrench when connecting or disconnecting regulators and fittings.
- 3. Do not transport cylinders without first removing regulators and replacing the valveprotection caps.

- 4. Close the cylinder valve when work is finished, when the cylinder is empty or whenever the cylinder is moved.
- 5. Do not store oxygen cylinders near fuel-gas cylinders such as propane or acetylene, or near combustible material such as oil or grease.
- 6. Stand to the side of the regulator when opening the valve.
- 7. If a cylinder is leaking around a valve or a fuse plug, move it to an outside area away from where work is performed and tag it to indicate the defect.
- 8. Do not hoist or transport cylinders by means of magnets or choker slings.
- 9. Do not use compressed gas to clean the work area, equipment or yourself.
- 10. Do not remove the valve wrench from acetylene cylinders while the cylinder is in use.
- 11. Open compressed gas cylinder valves slowly. Open fully when in use to eliminate possible leakage around the cylinder valve stem.
- 12. Purge oxygen valves, regulators and lines before use.

Hand Truck Safety

- 1. Tip the load slightly forward so the tongue of the hand truck goes under the load.
- 2. Push the tongue of the hand truck all the way under the load to be moved.
- 3. When loading hand trucks, keep your feet clear of the wheels.
- 4. Push the load so that weight will be carried by the axle and not the handles. The operator should only balance and push.
- 5. Place the load so it will not slip, shift or fall. Use straps, if provided, to secure the load.
- 6. Do not try to catch the load if it is falling or slipping. Get out of the way.
- 7. Do not walk backward with the hand truck, unless you are going up stairs or ramps.
- 8. When going down an incline, keep the hand truck in front of you so you can control it at all times.
- 9. Move hand trucks at a walking pace.
- 10. Keep the center of gravity of the load as low as possible by placing heavier objects below the lighter objects.
- 11. For extremely bulky or pressurized items such as gas cylinders, strap or chain the items to the hand truck.
- 12. When going down an incline, keep the hand truck in front of you so that it can be controlled at all times.
- 13. Store hand trucks with the tongue under a pallet, shelf, or table.
- 14. Do not exceed the manufacturer's load rated capacity. Read the capacity plate on the hand truck if you are unsure.

Pallet Jacks

- 1. Only pallet jack operators may operate pallet jacks.
- 2. Do not exceed the manufacturer's load rated capacity. Read the lift capacity plate on the pallet jack if you are unsure.
- 3. Do not leave the pallet jack unattended with the load suspended.
- 4. Do not use pallets or skids that are cracked or split or have other visible damage.
- 5. Do not ride on pallet jacks.

- 6. Start and stop the pallet jack gradually to prevent the load from slipping.
- 7. Pull manual pallet jacks; push them when going down an incline or passing close to walls or obstacles.
- 8. If your view is obstructed, use a spotter to assist in guiding the load.
- 9. Stop the pallet jack if anyone gets in your way.
- 10. Do not place your feet under the pallet jack when it is moving.
- 11. Keep your feet and other body parts clear of the pallet before releasing the load.

Storeroom/Stockroom

- 1. Use long-handled snips when cutting strapping bands away from a shipping container.
- 2. Wear your safety glasses when cutting strapping bands, uncrating materials and driving nails.
- 3. Stand to the side of the strapping band when cutting it.
- 4. Do not carry sheets of glass under your arm.
- 5. Do not use pallets or skids that are cracked or split or have other visible damage.
- 6. Stack heavy or bulky storage containers on middle and lower shelves of the storage rack.
- 7. Do not run on stairs or take more than one step of a staircase at a time.
- 8. Do not jump from elevated places such as truck beds, platforms or ladders.
- 9. Do not lift slippery or wet objects; use a hand truck.
- 10. Follow the safe-handling instructions listed on the label of the container or listed on the corresponding Material Safety Data Sheet when handling each chemical stored in the stockroom.
- 11. Do not smoke while handling chemicals labeled "Flammable."
- 12. Do not store chemicals labeled "Flammable" near sources of ignition such as space heaters and sparking tools.
- 13. Do not handle or load any containers of chemicals if the containers are cracked or leaking.
- 14. Do not leave the pallet jack unattended with the load suspended.
- 15. Obey all safety and danger signs posted in the workplace.
- 16. Store case cutters, exacto knives, or other tools, with the cutting edges in sheaths when they are not in use.

Warehouse

- 1. When stocking shelves by hand, position the materials to be shelved slightly in front of you, so you do not have to twist when lifting and stacking materials.
- 2. Visually inspect for sharp objects or other hazards before reaching into containers such as garbage cans, boxes, bags or sinks.
- 3. Remove or bend nails and staples from crates before unpacking the crates.
- 4. When cutting shrink-wrap with a blade, always cut away from you and your co-workers.
- 5. Do not try to kick objects out of pathways. Push or carry them out of the way.
- 6. Do not let items overhang from shelves into walkways.
- 7. Move slowly when approaching blind corners.
- 8. Place heavier loads on the lower or middle shelves.
- 9. Remove one object at a time from shelves.
- 10. Place items on shelves so that they lie flat and do not wobble.

Housekeeping, Floors

- 1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you use when cleaning.
- 2. Mop up water around drinking fountains, drink-dispensing machines and ice machines.
- 3. Clean up fuel spills or leaks immediately by using a paper towel, rag, or a mop and bucket.
- 4. When cleaning floors, wet only a small area of the floor at one time and dry mop it before cleaning another section.
- 5. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.
- 6. Do not use flammable liquids such as gasoline, acetone or paint thinner for cleaning floors.
- 7. Do not place material such as boxes or trash in walkways and passageways. Do not store or leave items on stairways. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
- 8. Keep power cords away from path of vacuum cleaners and floor polishers.
- 9. Keep doors fully open or fully closed.
- 10. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into trashcans, boxes, laundry bags or used-towel hampers.
- 11. Follow this procedure before picking up any trash bags or laundry bags: Grab the top of the bag above the tie-off with two hands and hold the bag away from your body.
- 12. In the event of a large oil spill, immediately spread the absorbent powder over the spill.
- 13. Straighten or remove rugs and mats that do not lie flat on the floor.
- 14. Return tools to their storage places after use.
- 15. Dispose of trash only in trash receptacles.
- 16. Dispose of oily rags in the container labeled "Oily Rags Only." Use only metal receptacles labeled "Oily Rags Only" for disposal of oily shop-rags.
- 17. Store liquid containers labeled "Flammable" only in cabinets, rooms or buildings labeled "Flammable Storage."

Floors and Openings

- 1. Do not work on open sided floors, elevated walkways or elevated platforms if there are no guardrails in place.
- 2. Stand clear of floor openings if guardrails or covers are removed or displaced.

Maintenance General Rules

- 1. Maintain a three-point contact by keeping both hands and one foot, or both feet and one hand on the ladder at all times when climbing up or down.
- 2. When performing machine maintenance and repair from a ladder, face the ladder and do not lean backward or sideways from the ladder.
- 3. Do not carry items in your hands while climbing up or down a ladder.
- 4. Do not jump from ramps, platforms, ladders or step stools.
- 5. Do not stand on toolboxes, chests or cabinets to gain extra height.
- 6. Keep walking surfaces of elevated working platforms, such as scaffolds, clear of tools and materials that are not being used.

- 7. Do not store food or eat where solvents or cutting fluids are stored or used.
- 8. Close the lids of containers of solvents tightly after each use or when not being used.
- 9. Do not use gasoline for cleaning purposes.

Machinery & Equipment

Battery Handling and Storage

- 1. Do not lay tools or metal parts on top of a battery.
- 2. Turn battery chargers to "Off" position prior to connecting the cables to the battery posts.
- 3. Do not smoke in the battery-charging areas.
- 4. Leave flame-arrester vent caps in place, but remove non-flame arrester-vent caps and lay a cloth over the vent holes before charging the battery.
- 5. Do not stand directly over the battery when performing a "load" test.
- 6. Obey all "No Smoking" signs posted in the battery-charging areas.
- 7. Do not use a screwdriver to test the charge of a battery.

Chain Saws

- 1. When transporting a chain saw by hand, stop the engine, grip the saw handle, place the muffler at the side away from your body and position the guide bar to the rear.
- 2. Do not remove the chain brake or alter handles, chain brake, chain or covers.
- 3. Always start a chain saw with a 10-inch or larger bar on the ground. Engage the chain brake, place one foot through the bottom handle, hold the top handle and pull the starter rope.
- 4. Do not place a chain saw on your knee when starting it.
- 5. Always use both hands to maintain control of the chain saw.
- 6. When moving from tree to tree or cut to cut, activate the chain brake, remove your finger from the trigger and keep the bar away from your body.
- 7. Do not operate a chain saw above your shoulder height.
- 8. To prevent kickback, keep the nose of the bar clear of other nearby objects during cutting.
- 9. Do not set a saw down while the blade is engaged.
- 10. Stop the engine and turn the switch to "Off" when the chain saw is to be left unattended.

Cranes and Hoists

- 1. Do not use load hooks that are cracked, bent or broken.
- 2. Passengers are not permitted to ride inside the operator's cab of a truck crane.
- 3. Keep crane windows clean. Do not use a crane if its windows are broken.
- 4. Do not exceed the rated load capacity of the crane as specified by the manufacturer.
- 5. Use the cribbing mats when operating the crane on "soft" ground.
- 6. Fully extend the outriggers of the crane before attempting a lift.
- 7. Stay outside the barricades of the posted swing radius of the crane.
- 8. Do not perform any crane refits or modifications without the manufacturer's approval.
- 9. Do not leave the crane you are working on unattended if you have a hoisted load suspended in the air.

- 10. Do not hoist loads over people.
- 11. Do not stand under a suspended load.
- 12. Do not drive the crane on the road shoulders.
- 13. Signalmen must wear the high-visibility, fluorescent orange vest.
- 14. When operating a crane, follow only signals of the person designated to give you signals.
- 15. Replace the belts, gears or rotating shaft guards after servicing a crane; do not use the crane if guards are missing from these areas.
- 16. "Trial Lift" the load by lifting the load approximately 2 feet to ensure the load is balanced. Adjust load if load is not balanced.

Electrical Powered Tools

- 1. Do not use power equipment or tools on which you have not been trained.
- 2. Keep power cords away from the path of drills, saws, vacuum cleaners, floor polishers, mowers, slicers, knives, grinders, irons and presses.
- 3. Do not use cords that have splices, exposed wires, or cracked or frayed ends.
- 4. Do not carry plugged-in equipment or tools with your finger on the switch.
- 5. Do not carry equipment or tools by the cord.
- 6. Disconnect the tool from the outlet by pulling on the plug, not the cord.
- 7. Turn the power switch of the tool to "Off" before plugging or unplugging it.
- 8. Do not leave tools that are "On" unattended.
- 9. Do not handle or operate electrical tools when your hands are wet or when you are standing on wet floors.
- 10. Do not operate spark-inducing tools such as grinders, drills or saws near containers labeled "Flammable" nor in an explosive atmosphere such as a paint spray booth.
- 11. Turn the power switch of electrical tools to "Off" and then unplug from the outlet before attempting repairs or service work. Tag the tool "Out of Service."
- 12. Do not use extension cords or other three pronged power cords that have a missing prong.
- 13. Do not remove the ground prong from electrical cords.
- 14. Do not use an adapter such as a cheater plug that eliminates the ground.
- 15. Do not plug multiple electrical cords into a single outlet.
- 16. Do not run extension cords through doorways, through holes in ceilings, walls or floors.
- 17. Do not drive over, drag, step on or place objects on a cord.
- 18. Do not stand in water or on wet surfaces when operating power hand tools, or portable electrical appliances.
- 19. Do not use a power hand tool to cut wet or water-soaked building materials or to repair pipe leaks.
- 20. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
- 21. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
- 22. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
- 23. Do not operate a power hand tool or portable appliance if a prong from the three-pronged power plug is missing or has been removed.
- 24. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two-conductor extension cord.

25. Do not operate a power hand tool or portable appliance while holding a part of the metal casing or while holding the extension cord in your hand. Hold all portable power tools by the plastic handgrips or other nonconductive areas designed for gripping purposes.

Powered Industrial Trucks (Forklifts)

Operators must be certified every 3 years

Pre-Use Inspection

- 1. Only forklift operators may operate the forklift.
- 2. Do not use the forklift if any of the following conditions exist:
- 3. The mast has broken or cracked weld-points.
- 4. The roller tracks are not greased or the chains are not free to travel.
- 5. The forks are unequally spaced or cracks exist along the blade or at the heels.
- 6. Hydraulic fluid levels are low.
- 7. The hydraulic lines and fittings have excessive wear or are crimped.
- 8. Fluid is leaking from the lift or the tilt cylinders.
- 9. The hardware on the cylinders is loose.
- 10. The tires are excessively worn or split, or have missing tire material.
- 11. Air-filled tires are not filled to the operating pressure indicated on the tire.
- 12. The batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

Starting the Forklift

1. Apply the foot brake and shift the gears to neutral before turning the key.

Picking up a Load

- 1. Square up on the center of the load and approach it straight on with the forks in the travel position.
- 2. Stop when the tips of your forks are about a foot from the load.
- 3. Level the forks and slowly drive forward until the load is resting against the backrest of the mast.
- 4. Lift the load high enough to clear whatever is under it.
- 5. Back up about 1 foot, and then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

- 1. "Square up" and stop about 1 foot from the desired location.
- 2. Level the forks and drive to the loading spot.
- 3. Slowly lower the load to the floor.
- 4. Tilt the forks slightly forward so you do not hook the load.
- 5. When the path behind you is clear of obstructions, back straight out until the forks have cleared the pallet.

Lifting

- 1. Do not exceed the lift capacity of the forklift. Read the lift capacity plate on the forklift if you are unsure.
- 2. Follow the manufacturer's guidelines concerning changes in the lift capacity before adding an attachment to a forklift.
- 3. Lift the load 1 to 2 inches to test for stability: If the rear wheels are not in firm contact with the floor, take a lighter load or use a forklift with a greater lift capacity.
- 4. After picking up a load, adjust the forks so the load is tilted slightly backward for added stability.

Driving

- 1. Do not raise or lower a load while you are en route. Wait until you are in the loading area and have stopped before raising or lowering the load.
- 2. Drive with the load at a ground clearance height of 4 to 6 inches at the tips and 2 inches at the heels to clear most uneven surfaces and debris.
- 3. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as oily and wet floors.
- 4. Do not drive over objects in your pathway.
- 5. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
- 6. Steer wide when making turns.
- 7. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
- 8. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
- 9. Do not exceed a safe working speed of five miles per hour and slow down in congested areas.
- 10. Drive in reverse and use a signal person when the load blocks your vision.
- 11. Look in the direction that you are driving; proceed when you have a clear path.

Ramps

- 1. Raise the forks an additional 2 inches to avoid hitting or scraping the ramp surface as you approach the ramp.
- 2. Drive loaded forklifts forward up ramps.
- 3. Drive loaded forklifts in reverse when driving down a ramp.
- 4. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
- 5. Do not attempt to turn around on a ramp.
- 6. Do not use "Reverse" to brake.

Loading Docks

- 1. Keep the forklift clear of the dock edge while vehicles are backing up to the dock.
- 2. Do not begin loading or unloading until the supply truck has come to a complete stop, the engine is turned off, the dock lock is engaged and the wheels are chocked.

- 3. Attach the bridge or dock plate before driving the forklift into the truck.
- 4. Do not drive the forklift into a truck bed that has soft or loose decking or other unstable flooring.
- 5. Drive straight across the bridge plates when entering or exiting the trailer.
- 6. Use dock lights or headlights when working in a dark trailer.

Lifting Fallen Drums

- 1. Do not manually upright fallen drums under any circumstances use a forklift.
- 2. Clear all personnel from the area of the drum being up righted.
- 3. Move the forks of the forklift approximately 18 to 20 inches apart.
- 4. Line up the forklift with one fork on each side of the top of the drum.
- 5. Upright the drum slowly by raising the forks while slowly moving forward.
- 6. If the drum is laying half off the dock, slowly drive the forks the complete length of the drum and completely lift it from the ground level.
- 7. Move it to a clear area before attempting to upright the drum.

Forklifts-Gasoline/Diesel Fueled

- 1. Never use anything with an open flame (such as lighters or lanterns) to check the fuel level in the tank.
- 2. Do not fuel forklifts while the engine is running.
- 3. Do not operate a forklift with a leak in the fuel system.
- 4. Use care when filling fuel tanks to avoid overfilling and spilling fuel.
- 5. Replace fuel tank cap before restarting engine.
- 6. Use only approved safety cans when storing or transporting fuel.

Forklifts-Propane Fueled

- 1. Do not refuel forklifts with permanently mounted propane containers inside the building.
- 2. Do not park forklifts in areas of excessive heat or sources of ignition such as heaters, furnaces or welding areas.
- 3. Check tanks to ensure there are no sharp dents or gouges that could weaken the vessel.
- 4. Do not throw, drag, drop, or roll the propane cylinder.
- 5. Check fuel lines for damage, such as cuts, dry rot, chafing, or exposure to manifold heat.
- 6. Wear protective gloves, such as leather or cotton when changing propane tanks.
- 7. After installing a full cylinder, check fittings for leaks with a soap solution. Do not check cylinder for leaks with an open flame or with bare hands.
- 8. Make sure locating pin is intact and that it properly secures the tank to the forklift.
- 9. Close the propane-tank service valve if the tank is kept on the forklift overnight.
- 10. Inspect quick-disconnect coupling for any signs of visible damage, deterioration, dirt or debris and for damaged or missing flexible seals.
- 11. Inspect threads to ensure they are not flattened or gouged.
- 12. Open the fuel-control valve fully, then turn it toward the closed position ¼ to ½ turn before starting the forklift.
- 13. Store propane tanks in a location where they will not be exposed to high temperature rise, physical damage or tampering.

14. Do not smoke when handling or changing propane fuel tanks.

Forklifts-Battery Operated

- 1. Do not lay tools or metal parts on top of a battery.
- 2. Turn battery chargers off prior to connecting the cables to the battery posts.
- 3. Position the fork truck so the battery is aligned with the rollers or the hoist used for moving the battery and engage the fork truck brake before removing the battery and placing it onto the charging rack.
- 4. Set the brakes on the lift truck prior to connecting the charging cables to the battery on the lift truck.
- 5. Return charging cables to their designated location as soon as battery charging is complete.
- 6. Do not smoke in the battery-charging areas.
- 7. Manually flip the fan motor to the "On" position before operating the battery charger.

Garage Doors

- 1. Do not use undersized rods or other improvised tools to wind garage door springs.
- 2. Engage garage door lock in the "locked" position before winding the springs.
- 3. Do not attempt to adjust winding cones or bars when the garage door is in the full open position.

Laser Tech Safety

- 1. Wear safety glasses appropriate to wavelength of laser being used.
- 2. Do not remove a lock from any equipment unless you placed it there yourself. Use your own lock /tag when required to isolate an energy source.
- 3. Do not start any adjustment, service or repair without verifying that the tag/locked out switch or control cannot be bypassed or overridden. Test the equipment to be certain that the locked-out switch is de-energized and not simply malfunctioning. Press all start buttons or valves to see if the equipment starts.
- 4. Ensure the system you will be working on is the same one that has been locked out.
- 5. Place all switches and breakers in the "Off" or "Safe" position or disconnect from the source.
- 6. Lockout or tagout all inline points of control. In most cases, this may be more than one place, or more than one lock, if several people are working on the equipment.
- 7. Leave all locks and tags in place until work is completely finished. A lock is never to be removed except by the person who placed it there.

Welding/Cutting/Brazing

- 1. Obey all signs posted in the welding area.
- 2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
- 3. Use the red hose for gas fuel and the green hose for oxygen.
- 4. Do not use worn or cracked hoses.
- 5. Do not use oil, grease or other lubricants on the regulator.

- 6. "Blow out" hoses before attaching the torch.
- 7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
- 8. Do not wear contact lenses when you are welding.
- 9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a longsleeve shirt, long pants, and a welding apron.
- 10. Do not change electrodes using your bare hands; use the dry rubber gloves.
- 11. "Bleed" oxygen and fuel lines at the end of the work shift.
- 12. "Blow out" the cylinder valve before attaching or re-attaching a hose to the cylinder.
- 13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

Hand Tool Safety

- 1. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
- 2. Use tied-off containers to keep tools from falling off scaffolds and other elevated work platforms.
- 3. Carry all sharp tools in a sheath or holster.
- 4. Tag worn, damaged or defective tools "Out of Service" and do not use them.
- 5. Do not use a tool if its handle has splinters, burrs, cracks, splits or if the head of the tool is loose.
- 6. Do not use impact tools such as hammers, chisels, punches or steel stakes that have mushroomed heads.
- 7. When handing a tool to another person, direct sharp points and cutting edges away from yourself and the other person.
- 8. When using knives, shears or other cutting tools, cut in a direction away from your body.
- 9. Do not chop at heights above your head when you are working with a hand axe.
- 10. Do not carry sharp or pointed hand tools such as screwdrivers, scribes, aviation snips, scrapers, chisels or files in your pocket unless the tool or your pocket is sheathed.
- 11. Do not perform "make-shift" repairs to tools.
- 12. Do not use "cheaters" on load binders or "boomers."
- 13. Do not carry tools in your hand when you are climbing. Carry tools in tool belts or hoist the tools to the work area using a hand line.
- 14. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
- 15. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

- 1. Do not use a file as a pry bar, hammer, screwdriver or chisel.
- 2. When using a file or rasp, grasp the handle in one hand and the toe of the file in the other.
- 3. Do not hammer on a file.

Hammers

- 1. Use a claw hammer for pulling nails.
- 2. Do not strike nails or other objects with the cheek of the hammer.
- 3. Do not strike one hammer against another hammer.

- 4. Do not use a hammer if your hands are oily, greasy or wet.
- 5. Do not use a hammer as a wedge or a pry bar.

Saws

- 1. Keep control of saws by releasing downward pressure at the end of the stroke.
- 2. Do not use an adjustable blade saw such as a hacksaw if the blade is not taut.
- 3. Do not use a saw that has a dull saw blade.
- 4. Keep hands and fingers away from the saw blade while using the saw.
- 5. Do not hold the work piece against your body while using the saw.
- 6. Do not carry a saw by the blade.
- 7. When using a hand saw, hold the work piece firmly against the work table.

Screwdrivers

- 1. Always match the size and type of screwdriver blade to fit the head of the screw.
- 2. Do not hold the work piece against your body while using a screwdriver.
- 3. Do not put your fingers near the blade of the screwdriver when tightening a screw.
- 4. Do not force a screwdriver by using a hammer or pliers on it.
- 5. Do not use a screwdriver as a punch, chisel, pry bar or nail puller.
- 6. Use a screwdriver that has an insulated handle for electrical work.
- 7. Use a drill, nail, or an awl to make a starting hole for screws.
- 8. Do not carry a screwdriver in your pocket.
- 9. Do not use a screwdriver if your hands are wet, oily or greasy.
- 10. When using the spiral ratchet screwdriver, push down firmly and slowly.
- 11. Do not use a screwdriver to test the charge of a circuit.

Wrenches

- 1. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open-end wrenches as a second choice.
- 2. Do not use wrenches that are bent, cracked, badly chipped or that have loose or broken handles.
- 3. When using an adjustable wrench, turn the wrench so that the fixed jaw, not the adjustable jaw, provides positive pressure in the item to be turned.
- 4. Do not slip a pipe over a single-head wrench handle for increased leverage.
- 5. Do not use a shim to make a wrench fit.
- 6. Size the adjustable wrench to fit the nut before turning.
- 7. Use a split box wrench on flare nuts.
- 8. Do not use a wrench with broken or battered points.

Pliers

- 1. Do not use pliers as a wrench or a hammer.
- 2. Do not slip a pipe over the handles of pliers to increase leverage.
- 3. Use pliers with an insulated handle for electrical work.
- 4. Do not use pliers that are cracked, broken or sprung.

5. When using diagonal cutting pliers, shield the loose pieces of cut material from flying into the air by using a cloth or your gloved hand.

Vises

- 1. When clamping a long work piece in a vise, support the far end of the work piece by using an adjustable pipe stand, sawhorse or box.
- 2. Position the work piece in the vise so that the entire face of the jaw supports the work piece.
- 3. Do not use a vise that has worn or broken jaw inserts, or has cracks or fractures in the body of the vise.
- 4. Do not slip a pipe over the handle of a vise to gain extra leverage.

Grinders

- 1. Do not use grinding wheels that have chips, cracks or grooves.
- 2. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
- 3. Do not try to stop the wheel with your hand, even if you are wearing gloves.
- 4. Do not use grinder if it is not firmly anchored to the workbench.
- Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
- 6. Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
- 7. Do not grind on the side of an abrasive wheel labeled "Type 1."
- 8. Do not clamp a portable grinder in a vise to use it as a bench grinder.

Knives/Sharp Instruments

- 1. When handling knife blades and other cutting tools, direct sharp points and edges away from you.
- 2. Cut in the direction away from your body when using knives.
- 3. Store knives in knife blocks or in sheaths after using them.
- 4. Use the knife that has been sharpened; do not use a knife that has a dull blade.
- 5. Do not use honing steels that do not have disc guards.
- 6. Do not attempt to catch a falling knife.
- 7. Use knives for the operation for which they are named.
- 8. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.
- 9. Do not use knives that have broken or loose handles.
- 10. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
- 11. Do not leave knives in sinks full of water.
- 12. Do not pick up knives by their blades.
- 13. Carry knives with their tips pointed toward the floor.
- 14. Do not carry knives, scissors or other sharp tools in your pockets or an apron unless they are first placed in their sheath or holder.

- 15. Follow this procedure before picking up any bags that have sharp objects protruding from them: Grab the top of the bag above the tie-off using two hands and hold the bag away from your body.
- 16. Do not submerge hot glass in cold water or submerge a cold glass in hot water.

Machete

- 1. Wear steel-toed shoes when using a machete.
- 2. Do not use a dull machete.
- 3. When carrying a machete, grasp the handle and not the blade.
- 4. When handing a machete to your co-worker, hand it to him/her handle first.

Pneumatic Tools

- 1. Do not point a compressed air hose at bystanders or use it to clean your clothing.
- 2. Do not use pneumatic tools that have handles with burrs or cracks.
- 3. Attach the pressure-reducing nozzle that is labeled "Reduces Pressure to 30 psi" to the air hose when using compressed air to clean.
- 4. Wear safety goggles when using compressed air to clean.
- 5. Do not allow air hoses to loop on the floor when using them.
- 6. Do not pass air-powered tools by the hose from one worker to another.
- 7. Disconnect the tool from the air line before making any adjustments or repairs to the tool.
- 8. Turn the tool to the "Off" position and let it come to a complete stop before leaving it unattended.
- 9. Disengage the hand piece from the air hose and coil up the air hose on the worktable or hose rack when it is not in use.
- 10. Do not use compressed air for comfort cooling.

Powder Actuated Tools

- 1. Operator must be certified by manufacturer or manuf. Representative.
- 2. Wear impact-resistant safety goggles or face shields when operating any powder-actuated tools.
- 3. When using powder-actuated tools, do not drive fasteners into structural steel without first looking to see if the steel is backed by a steel plate or barricade, and to see if all personnel are away from the direct line of fire.
- 4. Do not attempt to fasten through a pre-drilled hole unless the powder-actuated tool has a hole locator.
- 5. Keep your head and body behind the powder-actuated tool when firing it.
- 6. Do not fasten steel beams at a distance closer than ½-inch from the edge of the steel.
- 7. Before using powder-actuated tools do not alter, bypass, or remove the shield or guard at the muzzle end of the powder-actuated tool.
- 8. Do not load a powder-actuated tool until you are ready to fire it.

Shovels

- 1. Wear leather gloves and steel-toed shoes when using the shovel.
- 2. Do not jump up and down on the step of the shovel.

- 3. When handing a shovel to your co-worker, hand it to him/her handle first.
- 4. When pitching dirt, pitch it to your side. Do not pitch it over your head or shoulder.
- 5. Make sure there is no one to the side you are pitching dirt.
- 6. If the ground does not give in while shoveling, use alternate equipment such as an auger.
- 7. Do not lay the shovel on the ground with the spade facing upward.

Stairs & Ladders

Ladder Usage

- 1. Use correct ladder for the job. (Example: Do NOT use folding step ladder as an extension ladder)
- 2. Do not use ladders that have loose rungs, cracked or split rails, missing rubber pads, or are otherwise visibly damaged.
- 3. Keep ladder rungs clean and free of grease. Remove buildup of material such as dirt or oil.
- 4. Do not place ladder in a passageway or doorway without posting warning signs or cones that detour pedestrian traffic away from ladder. Lock the doorway that you are blocking and post the sign "Detour."
- 5. Allow only one person on the ladder at a time.
- 6. Face the ladder when climbing up or down.
- 7. Maintain a three-point contact by keeping both hands and one foot or both feet and one hand on the ladder at all times when climbing up or down.
- 8. Do not stand on the top two rungs of any ladder.
- 9. When performing work from a ladder, face the ladder and do not lean backward or sideways from the ladder.
- 10. Do not stand on a ladder that wobbles, or leans to the left or right.
- 11. When using an extension ladder, extend the top of the ladder at least 3 feet above the edge of the landing.
- 12. Secure the ladder in place by having another employee hold it.
- 13. Do not place ladders on boxes, concrete blocks, or other unstable bases.
- 14. Do not try to "walk" a ladder by rocking it. Climb down the ladder, and then move it.
- 15. Do not move a rolling ladder while someone is on it.

Step Stools

- 1. Allow only one person on the step stool at a time.
- 2. Face the step stool when climbing up or down.
- 3. When performing work from a step stool, face the step stool and do not lean backward or sideways from the step stool.
- 4. Do not place a step stool on boxes, books, or other unstable bases.
- 5. Do not stand on the top step of the step stool.
<u>Vehicle</u>

Policy (Enoch City Personnel Policies and Procedures Book, 8-2012):

- 1. A commercial driver's license is required for operators of commercial motor vehicles, to be obtained prior to April 1, 1992. This license is required pursuant to the Commercial Motor Vehicle Safety Act, signed into law on October 27, 1986. The license must be renewed at state required intervals. (Amended 7-18-07)
- 2. Operators and passengers in a business-use vehicle equipped with seat belts must wear them when the vehicle is in operation, and all employees operating vehicles will observe all local traffic laws.

Driving Safety

- 1. Shut all doors and fasten your seat belt before moving the vehicle.
- 2. Obey all traffic patterns and signs at all times.
- 3. Maintain a three-point contact using both hands and one foot or both feet and one hand when climbing into and out of vehicles.
- 4. Employees should never jump down from large trucks and other equipment.

Vehicle Fueling

- 1. Turn the vehicle off before refueling.
- 2. Do not smoke while refueling a vehicle.
- 3. If you spill fuel on your hands, wash with soap and water.
- 4. Clean up small spills from around fuel tanks with paper towels or, rags before climbing onto tank.
- 5. If a large fuel spill occurs, do not walk through it; follow your company's reporting and clean up procedure.
- 6. Always stay in attendance when truck is being refueled.

Vehicle Safety

- 1. Do not ride in the bed of pick-up trucks.
- 2. Turn headlights on when driving inside the shop area.
- 3. Do not drive over 5 miles per hour in the shop area.
- 4. Shut all doors and fasten your seat belt before moving the vehicle.
- 5. Obey all traffic patterns and signs at all times.
- 6. Maintain a three-point contact using both hands and one foot, or both feet and one hand when climbing into and out of the vehicle.
- 7. Drive up the slope or down the slope, not across the slope.
- 8. Before leaving the vehicle, engage the parking brakes and chock the wheels.
- 9. Do not approach any vehicle until the vehicle stops and the driver exits the vehicle.

Vehicle/Trailer Safety

- 1. Set the parking brake in the towing vehicle and use wheel blocks to chock the wheels of the trailer before removing any equipment from the trailer.
- 2. Secure equipment and fuel tanks to the vehicle with chains or straps to eliminate or minimize shifting of the load.
- 3. No one is permitted to ride in the trailer.
- 4. Use ramps to load and unload mowers and edges from the trailer.
- 5. Take slow, wide turns when towing trailers.
- 6. Do not exceed the load capacity as posted on the door of the trailer.
- 7. Do not place all the heavy equipment on one side of the trailer.

SAFETY PROCEDURES FOR NAICS # 811118 AUTOMOTIVE REPAIR

Band Saws

If the material binds or pinches on the blade, turn the power switch of the band saw to the "Off" position and allow the blade to stop before attempting to back the work away from the blade.

If the saw blade breaks, follow this procedure:

Shut off the power.

Lock the start switch in the "Off" position.

- Do not attempt to remove any part of the saw blade until the machine has completely stopped.
- Guide the work piece using a clinched fist. Do not lay your hand flat on the work piece.
- Do not use your hands to clear scraps around the cutting blade of the band saw use the pusher stick.

Circular Saws

- Disconnect the plug from the power supply when the circular saw is not being used, before changing blades, when making cutting depth or bevel adjustments, or when inspecting or cleaning the saw.
- Do not use the circular saw if the lower guard does not close briskly and completely cover the saw blade.
- Do not wedge or tie the lower guard of the circular saw "open."

When pocket cutting, raise the lower guard of the circular saw by pulling the retracting lever. Finger-tighten the depth and bevel adjustments before using the circular saw.

Do not use a washer or bolt to adjust the arbor size of the blade of the circular saw.

Grip the circular saw only by its handles when operating or transporting the saw.

Power Saws

Wear safety goggles, a dust mask and hearing protection when operating a power saw. Do not wear loose clothing or jewelry.

Clean any residue from the blade or cutting head before making a new cut with the power saw.

Do not use a power saw that has cracked, broken or loose guards, or other visible damage. Remove all nails from the stock before using the power saw to cut the stock.

Do not make measurements to the stock while the power saw is running. Make the

measurements before turning the power switch to the "On" position.

Keep your hands away from the exposed blade.

Never let your hand, finger or thumb cross the cutting line.

When using the power saw, do not hold the work piece against your body when making the cut.

Operate the saw at full cutting speed.

Do not alter the anti-kickback device or blade guard.

- Do not perform cutting operations with the power saw while standing on a wet or slippery floor.
- When using the power saw, do not reach across the cutting operation.
- Cut away from your body and below your shoulder level when using a power saw.

Use the pusher stick to guide materials through the power saw when cutting short stock.

- Turn the power switch of the saw to the "Off" position and allow the blade to stop before attempting to pull out an incomplete cut.
- Do not feed the material faster than the power saw can cut it.

Disc Sander

Turn the switch to the "Off" position before connecting the sander to the power source.

Put all guards securely in place before connecting the sander to the power source.

Do not place the sander on the material to be sanded before starting the sander.

Inspect the back-up pad and disc to ensure they are securely fastened.

- Inspect the grinding disc for defects such as cracks, breaks or grooves. Do not use if any of these conditions are present.
- Do not install a sanding disc whose labeled RPM speed is lower than the rated speed of the sander.
- When starting the sander, hold it away from your person in a protected place, such as under a workbench, until you have determined that it is operating safely.
- After use, wait until the disc has fully stopped rotating and place the sander on its back or on a rubber stand. Disconnect it from the power source.
- Do not hold a small piece of material in your hand to sand it.
- Do not overload the sander by pushing it down onto the work piece. Allow the weight of the sander to supply the pressure.

Drill Press

Replace the belt and pulley guards before starting the press and after making adjustments or repairs to the press.

Lock the press table into place and set the depth adjustment before turning on the power. Remove the chuck key before turning on the power.

Clamp small pieces of stock to be drilled in the drill vise or to the workbench.

- Do not wear rings, wristwatches, or gloves when working around the whirling auger bit.
- Turn off the power and wait until the machine has come to a full stop before grabbing the piece of stock.

Keep the drill press and the area around the drill press clear of metal cuttings or lubricants.

Hydraulic/Pneumatic Tools

Do not point a charged compressed air hose at bystanders or use it to clean your clothing. Lock and/or tag tools "Out of Service" to prevent usage of the tool.

Do not use tools that have handles with burrs or cracks.

Do not use compressors if their belt guards are missing. Replace the belt guards before using the compressor.

Turn the power switch of the tool to "Off" and let it come to a complete stop before leaving it unattended.

Disconnect the tool from the airline before making any adjustments or repairs to the tool.

Shop safety

Use the hydraulic jack when lowering a transmission from a vehicle. If you do not have a hydraulic jack, get a co-worker to help you lower the transmission.

The following procedures will be used for vehicles that have the full frame and transmission removed:

Do not work alone.

Place hydraulic jacks under both sides of the frame.

Place a hydraulic jack under the transmission

Once the hydraulic jacks are in place, lower the frame slowly.

Once the frame is lowered, lower the transmission.

Do not stand under the transmission or frame while they are being lowered.

Pick up hot automotive parts using protective gloves, heat resistant pads or dry rags.

Place the hot automotive parts in a metal container that is labeled "Hot Metal Parts Only."

Engage the parking brake and use the wheel blocks to chock the vehicle before starting the engine of the vehicle.

Wear a protective apron, gloves and safety goggles when charging a battery.

Wear your leather gloves and respiratory protective device when removing clutches from vehicles.

Do not use compressed air to clean a transmission. Wash all disassembled transmission parts in a parts washer.

Use a flexible exhaust hose to vent engine exhaust to the outside when the shop bay doors are closed.

When grinding on a drive shaft, place the shaft in a vice grip to hold the shaft in place. If a vice grip is not available, get a co-worker to help you keep the shaft in place.

Do not point a compressed air hose at bystanders or use it to clean your clothing.

Respiratory Protection

Do not perform operations requiring respirators, unless you have been approved, fitted, and trained for the use of respirators in your company's respiratory protection program.

Inspect respirators for cracked or worn parts before and after each use and after cleaning.

Do not work in an area that requires the use of respiratory equipment if you fail to obtain a tight seal between the respirator and your face.

Do not wear a respirator if facial hair prevents a tight seal between the respirator and your face.

Clean and sanitize respiratory equipment according to manufacturer recommendations after each use.

Store respiratory equipment in a clean and sanitary location.

Steel Drums

Roll a drum by pushing against the middle of the drum using both hands. Use the cradle-type drum tilter when tilting drums.

Do not try to up-end a full drum by yourself.

Do not roll a full drum up a skid by yourself.

Chock both sides of a drum when storing the drum in a horizontal position.

Machine Guarding

- Replace the guards before starting machines, or after making adjustments or repairs to the machine.
- Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.

Do not wear loose clothing or jewelry in the machine shop.

Long hair must be contained under a hat or hair net, regardless of gender.

Read and obey safety warnings posted on or near any machinery.

Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Rigging Ropes, Cables and Chains

Ropes

Visually inspect ropes for broken strands, cuts, worn spots or any other damage. Do not use damaged ropes.

Wire Ropes and Cables

Follow your employer's rigging inspection procedures. Remove wire rope from service when any of the following conditions exist:

Twelve broken wires in 1 lay of the hoist cable.

Four broken wires in a strand in 1 lay of the hoist cable.

Ten broken wires in a strand in 1 lay of a cable sling.

When "bird caging" is present.

When excess corrosion is present on the cable.

Wear leather work-gloves when handling wire ropes or cables.

Do not use wire ropes that are kinked.

Keep your hands away from the cable that is "feeding" a drum, pulley or sheave.

Cranes and Hoists

Do not use load hooks that are cracked, bent or broken.

Passengers are not permitted to ride inside the operator's cab of a truck crane.

Keep crane windows clean. Do not use a crane if its windows are broken.

Do not exceed the rated load capacity of the crane as specified by the manufacturer.

Use the cribbing mats when operating the crane on "soft" ground.

Fully extend the outriggers of the crane before attempting a lift.

Stay outside the barricades of the posted swing radius of the crane.

Do not perform any crane refits or modifications without the manufacturer's approval.

Do not leave the crane you are working on unattended if you have a hoisted load suspended in the air.

Do not hoist loads over people.

Do not stand under a suspended load.

Do not drive the crane on the road shoulders.

Signalmen must wear the high-visibility, fluorescent orange vest.

When operating a crane, follow only signals of the person designated to give you signals.

- Replace the belts, gears or rotating shaft guards after servicing a crane; do not use the crane if guards are missing from these areas.
- "Trial Lift" the load by lifting the load approximately 2 feet to ensure the load is balanced. Adjust load if load is not balanced.

Radiator Boil Out Vat or Pressure Check Bath

Use personal protective clothing or equipment such as goggles, safety glasses, face shield, neoprene gloves, rubber boots and rubber aprons when placing material or parts into or removing them from the vat or bath.

On a daily basis, inspect the emergency eye-wash station to ensure it is working.

Prior to placing any material or parts in the pressure-check bath, make sure sufficient amounts of neutralizing solution is in the bath.

Freon Charging Unit

Only use hose connections that are rated "zero" discharge capabilities when charging the air conditioning unit.

Spin Balancer

Stay behind the spin balancer when it is rotating a tire.

Before turning on spin balancer, make sure the weights are firmly fixed to the wheel to be balanced.

Wear eye protection when operating the machine.

Tire Truer

Stay behind the tire truer when it is in operation, and keep others away. Wear eye protection when operating the machine. Clean shavings from around the machine regularly.

Automotive Lifts

Remove all tools, cords, hoses, trash and any other debris from the lift area and wipe up all grease and oil spills before driving a car or truck into your service bay.

- Position the lift arms, adapters and supports to the center of the lift out of the way of the car's tires before driving the vehicle into the service bay.
- Do not stand in front of a vehicle being driven into the service bay.
- Do not use any lift that has cracked contact pads, cracked lift arms or any other visible damage.
- Do not use wood or concrete blocks as a substitute for an extender.
- Use wheel blocks to chock the wheels of any vehicle on a runway lift while the vehicle is on the lift.
- Do not leave the controls unattended while the lift is in motion.
- Do not block or "tie open" the lift's control while the lift is in motion.

Do not use the engine or transmission supports or stands as a substitute for jack stands.

If the vehicle begins to slip off of the lift, run in the opposite direction of the fall, but not toward a wall or workbench that might trap you between the object and the vehicle.

- Before you lower the vehicle, remove tool trays, jack, engine and transmission stands, and any other obstruction from under the vehicle.
- Before removing the vehicle from your service bay, position lift arms and supports to the center of the lift away from the wheels of the vehicles.
- Do not "tie down" or override the air or control valves of the lift.

Do not raise vehicle with anyone inside it.

When raising a vehicle, use the following procedure:

- Use the lift to raise the vehicle about 1 foot off the ground and moderately push the rear or front bumper of the vehicle to ensure the vehicle frame is stably mounted on the support's contact pads of the lift.
- If the frame of the vehicle is not firmly touching a support contact pad or slipping, immediately lower the vehicle and start over.
- Once the vehicle is secure on the lift, lift the vehicle to the desired work height and visually check those contact points for misalignment before going under the vehicle.
- As you raise the vehicle, you will hear a "clicking" noise that indicates the lift's locking device is engaging. If you do not hear the "clicking" noise, stop the lift, fully lower the vehicle and use another lift. Place an "Out of Service" tag on the control switch of the damaged lift and do not use it.
- If you will be working under a lift that will be positioned at a point below where the lift's locking device engages, place four jack stands under the vehicle's frame or suspension for additional support before working under the vehicle.

Wear safety goggles when working underneath vehicles.

U Bolt Bender

Stay clear of the sides of the machine and keep others away when bending a bar. Use only your foot to operate the foot pedal.

Spring Eye Former

Do not touch the hot metal. Use gloves or some type of grabbing implement to pick up the hot area.

When forming the spring eye, stand clear of the machine and keep others away.

Spring Tension Release Table

Firmly secure spring on table in vise.

Slowly remove bolts holding spring together.

Slowly release the tension on the table vise and separate the spring.

Wear eye protection when releasing tension from springs.

Vehicle Racks and Work Bays

When driving a vehicle in the work bay, use a spotter to make sure the vehicle is positioned well on the rack.

Check to make sure the rack is stable and capable of holding the vehicle load.

Slowly drive forward onto the rack. Do not make sudden starts or stops.

- When positioned well onto the rack, place the vehicle transmission into park or first gear and set the parking brake.
- When exiting a vehicle on the rack, do not jump from the driver's seat. Exit the vehicle, stand on the rack, face the vehicle, and side step until you are off of the rack.
- When entering a vehicle on the rack, side step on the rack, facing the vehicle, to the door. Open the door and use the handles and armrest to help you position yourself into the driver's seat.

Parts Washer

Turn on local exhaust ventilation before starting any procedure.

Plug control center cord into ground.

Use personal protective goggles or face shield when using chemicals labeled "FLAMMABLE," "CORROSIVE," "CAUSTIC," OR "POISONOUS."

SAFETY PROCEDURES FOR NAICS # 811113 AUTO TRANSMISSION REPAIR

AUTO REPAIR TECHNICIAN

Shop Safety

- 1. Use the hydraulic jack when lowering a transmission from a vehicle. If you do not have a hydraulic jack, get a co-worker to help you lower the transmission.
- 2. The following procedures will be used for vehicles that have the full frame and transmission removed:
 - a. Do not work alone.
 - b. Place hydraulic jacks under both sides of the frame.
 - c. Place a hydraulic jack under the transmission
 - d. Once the hydraulic jacks are in place, lower the frame slowly.
 - e. Once the frame is lowered, lower the transmission.
 - f. Do not stand under the transmission or frame while they are being lowered.
- 3. Pick up hot automotive parts using protective gloves, heat resistant pads or dry rags.
- 4. Place the hot automotive parts in a metal container that is labeled "Hot Metal Parts Only."
- 5. Engage the parking brake and use the wheel blocks to chock the vehicle before starting the engine of the vehicle.
- 6. Wear a protective apron, gloves and safety goggles when charging a battery.
- 7. Wear leather gloves and respiratory protective device when removing clutches from vehicles.
- 8. Do not use compressed air to clean a transmission. Wash all disassembled transmission parts in a parts washer.
- 9. Use a flexible exhaust hose to vent engine exhaust to the outside when the shop bay doors are closed.
- 10. When grinding on a drive shaft, place the shaft in a vise grip to hold the shaft in place. If a vise grip is not available, get a co-worker to help you keep the shaft in place.
- 11. Do not point a compressed air hose at bystanders or use it to clean your clothing.

Welding/Cutting/Brazing

- 1. Obey all signs posted in the welding area.
- 2. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
- 3. Use the red hose for gas fuel and the green hose for oxygen.
- 4. Do not use worn or cracked hoses.
- 5. Do not use oil, grease or other lubricants on the regulator.
- 6. "Blow out" hoses before attaching the torch.
- 7. Do not use a cigarette lighter to ignite torches; use friction lighters only.
- 8. Do not wear contact lenses when you are welding.
- 9. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.

- 10. Do not change electrodes using your bare hands; use the dry rubber gloves.
- 11. "Bleed" oxygen and fuel lines at the end of the work shift.
- 12. "Blow out" the cylinder valve before attaching or re-attaching a hose to the cylinder.
- 13. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

Automotive Lifts

- 1. Remove all tools, cords, hoses, trash and any other debris from the lift area and wipe up all grease and oil spills before driving a car or truck into your service bay.
- 2. Position the lift arms, adapters and supports to the center of the lift out of the way of the car's tires before driving the vehicle into the service bay.
- 3. Do not stand in front of a vehicle being driven into the service bay.
- 4. Do not use any lift that has cracked contact pads, cracked lift arms or any other visible damage.
- 5. Do not use wood or concrete blocks as a substitute for an extender.
- 6. Use wheel blocks to chock the wheels of any vehicle on a runway lift while the vehicle is on the lift.
- 7. Do not leave the controls unattended while the lift is in motion.
- 8. Do not block or "tie open" the lift's control while the lift is in motion.
- 9. Do not use the engine or transmission supports or stands as a substitute for jack stands.
- 10. If the vehicle begins to slip off of the lift, run in the opposite direction of the fall, but not toward a wall or workbench that might trap you between the object and the vehicle.
- 11. Before you lower the vehicle, remove tool trays, jack, engine and transmission stands, and any other obstruction from under the vehicle.
- 12. Before removing the vehicle from your service bay, position lift arms and supports to the center of the lift away from the wheels of the vehicles.
- 13. Do not "tie down" or override the air or control valves of the lift.
- 14. Do not raise vehicle with anyone inside it.
- 15. When raising a vehicle, use the following procedure:
 - a. Use the lift to raise the vehicle about 1 foot off the ground and moderately push the rear or front bumper of the vehicle to ensure the vehicle frame is stably mounted on the support's contact pads of the lift.
 - b. If the frame of the vehicle is not firmly touching a support contact pad or slipping, immediately lower the vehicle and start over.
 - c. Once the vehicle is secure on the lift, lift the vehicle to the desired work height and visually check those contact points for misalignment before going under the vehicle.
 - d. As you raise the vehicle, you will hear a "clicking" noise that indicates the lift's locking device is engaging. If you do not hear the "clicking" noise, stop the lift, fully lower the vehicle and use another lift. Place an "Out of Service" tag on the control switch of the damaged lift and do not use it.
 - e. If you will be working under a lift that will be positioned at a point below where the lift's locking device engages, place four jack stands under the vehicle's frame or suspension for additional support before working under the vehicle.
- 16. Wear safety goggles when working underneath vehicles.

SAFETY PROCEDURES FOR NAICS # 811310 COMMERCIAL & INDUSTRIAL EQUIPMENT REPAIR/MAINTENANCE

TRUCK AND OTHER VEHICLE DRIVERS (TOW TRUCKS, LOW BOYS, FLAT BEDS, ETC.) Vehicle/Driving Safety

Only employer-authorized personnel may operate any company vehicle. Do not operate a vehicle if you are ill or fatigued. Do not operate a vehicle if you are taking medication whose container label indicates that the medication may cause drowsiness or other side effects. Shut all doors and fasten seat belt before moving the vehicle. Obey all traffic patterns and signs at all times. Do not drive on the road shoulder. Use side and rearview mirrors before making lane changes, turns and sudden stops.

Turn the vehicle off before fueling.

Do not smoke while fueling a vehicle.

Wash hands with soap and water if you spill gasoline on your hands.

Driving Rules

Shut all doors and fasten your seat belt before moving the vehicle. Obey all traffic patterns and signs at all times.

Maintain a three-point contact using both hands and one foot or both feet and one hand when climbing into and out of delivery trucks.

Heavy Equipment Safety

Wear hard hats, hearing protection and safety goggles while operating heavy equipment.

Wear seat belts when operating scrapers, loaders, dozers, tractors and graders.

No passengers are permitted on heavy equipment.

Keep windows and windshield clean.

Do not use heavy equipment if its horn and backup alarm do not sound.

Do not crawl under the raised dump body during inspection of a dump truck.

Turn off the engine before leaving heavy equipment unattended.

Do not jump "Off" or "On" any heavy equipment.

- Do not stay in the cab of haulage vehicles while the payload is being loaded or unloaded by cranes or loaders.
- When finished using bulldozers or loaders, land the blade on the ground, set the brakes, turn off the power and shift the gear lever into neutral.

Keep heavy equipment in gear when going down grade. Do not use neutral.

Do not enter the bucket swing radius while the equipment is in operation.

Display the "Slow Moving Vehicle" sign when operating heavy equipment on roads.

Trucks

Drive on the graded roadways that have been leveled for this purpose. Turn on headlights when driving on the site.

Drive up the slope or down the slope not across the slope.

Hold onto vehicle when stepping out of it onto loose ground, holes, or rocks.

Only service-vehicle personnel are permitted to operate a service vehicle.

Do not ride in the bed of a pickup truck.

Turn headlights on when driving inside the shop area or on parking decks. Do not drive over 5 mph in the shop area.

Tanks and Other Confined Spaces (Tank Trucks, Sewers, Boilers, etc.)

Do not enter confined spaces without reading and following this "confined space entry procedure."

Obtain a confined space entry permit from your supervisor before entering a confined space. Valve off and disconnect all hoses, lines and self-cleaning devices on the tank.

Get locking devices and labels from your supervisor to lock out and tag "Out of Service" all impellers, agitators, pumps or any other equipment in the tank before entering the tank.

Open all manholes of the tank for ventilation.

Purge the interior of a tank by introducing fresh air at the bottom of the tank by turning the fans or the ventilation system to "On." Discharge the air from the manholes at the top of the tank.

Use a Combustible Gas Analyzer to test the tank for an oxygen deficiency or accumulated combustible gases. Do not enter the tank if the reading for the Combustible Gas Analyzer is above 10% LFL and the oxygen level is below 19.5% or greater than 23.5%.

Do not enter any area labeled "confined space" without a confined space entry permit. Use survey equipment such as an "organic vapor meter" to test and monitor the confined

- space for oxygen deficiency and explosive or hazardous gases/fumes. If the organic vapor meter reading for the explosive gases is above 10% of the LEL and if the oxygen reading is below 19.5% or greater that 23.5%, do not enter the confined space.
- Turn "off" disconnect, or lock and tag all systems that affect or make operational the confined space prior to entry.
- Do not perform hot work such as electric or gas welding or cutting in or on a confined space until the atmosphere has been determined to be safe.
- Use mechanical forced air ventilation when open flames or torches are used in a confined space.
- Do not leave tools and/or materials around the confined space opening.
- Do not throw materials into or out of manholes. Place materials in a receptacle and hoist them in and out by means of a rope.

Use a ladder when entering or leaving an underground vault.

Do not enter any confined space without a safety observer present; minimum of a two-person team.

DIAGNOSTICS AND DISASSEMBLE PERSONNEL

General Rules

Do not manually lift equipment or parts use: hoist, fork trucks or other lifting aids.

Follow the manufactures specification for lifting and securing equipment with hoist, fork truck, or other lifting aids.

Attach your own pin or block when you are work on equipment or parts that may move or shift.

Do not remove a pin or block from equipment or parts unless you placed it there.

Select the tools that will eliminate or minimize the following stressors:

Chronic muscle contraction or steady force.

Extreme or awkward finger, hand, and/or arm positions.

Repetitive forceful motions.

Excessive gripping, pinching, pressing, with the hand and fingers. Vibration

Pause to relieve fatigued muscle-tendon groups. The length of time needed depends on the task's overall effort and total cycle time.

Solvents and Cutting Fluids

Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product used in your workplace

- When using chemicals labeled *flammable*, *corrosive*, *caustic*, or *poisonous*, use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear.
- Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other signs of visible damage.
- Always wash your hands with soap and water after using cutting fluids or solvents.
- Each time you use your gloves, wash your gloves before removing them using cold tap water and normal hand-washing motion. Always wash your hands after removing your gloves.
- Only dispense liquid labeled "flammable" from its bulk container located in areas posted "flammable liquid storage."

Do not use chemicals from unlabeled containers

Do not perform "hot work," such as metal cutting or other spark-producing operations, within 50 feet of containers labeled "flammable" or "combustible."

Dip Tank Operations

Slowly pour liquid solvents into the dip tank to avoid splashing.

Slowly dip pieces into the dip tank to prevent splashing.

Wear Neoprene gloves, aprons and goggles when dipping work pieces into the dip tank.

REPAIR PERSONNEL (REASSEMBLY)

General Rules

Do not manually lift equipment or parts; use a hoist, fork truck or other lifting aid.

Follow the manufacturer's specification for lifting and securing equipment with hoist, fork truck, or other lifting aids.

Select the tools that will eliminate or minimize the following stressors:

chronic muscle contraction or steady force;

extreme or awkward finger, hand, and/or arm positions;

repetitive forceful motions;

excessive gripping, pinching, pressing, with the hand and fingers;

vibration.

Pause to relieve fatigued muscle-tendon groups. The length of time needed depends on the task's overall effort and total cycle time.

WELDING PERSONNEL

Portable Welding Equipment

Do not use personal or employee-owned power tools and portable appliances at work. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.

Use the insulated work gloves when using welding equipment.

- Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.
- When replacing power plugs and cords of the welding apparatus, always check to ensure the ground wire is connected and the notches on the power plug prongs are not worn off, allowing the plug to be inserted backward.

Compressed Gas Cylinders

Storage and Handling

Do not handle oxygen cylinders if your gloves are greasy or oily.

Store all cylinders in the upright position.

Place valve-protection caps on gas cylinders that are in storage or not in use.

Do not lift cylinders by the valve protection cap.

- Do not store compressed gas cylinders in areas where they can come in contact with chemicals labeled "Corrosive."
- Place cylinders on a cradle, sling board, pallet or cylinder basket to hoist them.
- Do not place cylinders against electrical panels or live electrical cords where the cylinder can become part of the circuit.

Use of Cylinders

Do not use dented, cracked or other visually damaged cylinders.

- Use only an open-ended or adjustable wrench when connecting or disconnecting regulators and fittings.
- Do not transport cylinders without first removing regulators and replacing the valveprotection caps.
- Close the cylinder valve when work is finished, when the cylinder is empty or whenever the cylinder is moved.
- Do not store oxygen cylinders near fuel-gas cylinders such as propane or acetylene, or near combustible material such as oil or grease.

Stand to the side of the regulator when opening the valve.

- If a cylinder is leaking around a valve or a fuse plug, move it to an outside area away from where work is performed and tag it to indicate the defect.
- Do not hoist or transport cylinders by means of magnets or choker slings.

Do not use compressed gas to clean the work area, equipment or yourself.

Do not remove the valve wrench from acetylene cylinders while the cylinder is in use. Open compressed gas cylinder valves slowly. Open fully when in use to eliminate possible

leakage around the cylinder valve stem.

Purge oxygen valves, regulators and lines before use.

Welding/Cutting/Brazing

Obey all signs posted in the welding area.

Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.

Use the red hose for gas fuel and the green hose for oxygen.

Do not use worn or cracked hoses.

Do not use oil, grease or other lubricants on the regulator.

"Blow out" hoses before attaching the torch.

Do not use a cigarette lighter to ignite torches; use friction lighters only.

Do not wear contact lenses when you are welding.

When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.

Do not change electrodes using your bare hands; use the dry rubber gloves.

"Bleed" oxygen and fuel lines at the end of the work shift.

"Blow out" the cylinder valve before attaching or re-attaching a hose to the cylinder.

Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

Oxyacetylene Welding

- Do not use oxygen cylinders in areas where oils or any combustible liquids such as diesel fuel or motor fuel are present.
- Turn the valve on the torch clockwise to turn "Off" the gas before putting down the welding or cutting torch.

Never allow pressure to remain in the hoses overnight:

Turn the valve knobs located at the base of the torch handle, clockwise, to close the valves.

- Turn the valve knobs on the oxygen and acetylene cylinders, clockwise, to close the valves on these cylinders.
- Reduce the pressure on the regulator diaphragms by pulling back on the T-handles, out from the regulator, until the T-handles turn easily; do not completely back the T-handles out from the regulator.
- Turn the valve knobs at the base of the torch, counter clockwise, to open the valves; leave the valves open for only 2 seconds, then turn the valve knobs clockwise to close the valves again.
- If the cylinder has been transported in a horizontal position, do not use it until it has been stored upright for two hours.

SAFETY PROCEDURES FOR NAICS # 238210 ELECTRICAL WORK

ELECTRICIANS/JOURNEYMEN/MECHANICS

General Rules

- 1. Do not use a metal ladder on rooftops or within 50 feet of electrical power lines.
- 2. Do not block the walking surfaces of elevated working platforms, such as scaffolds, with tools or materials that are not being used.
- 3. Do not work outdoors during lightning storms.
- 4. Do not stand on sinks, toilets or cabinets; use a stepladder.
- 5. Do not work on open sided floors, elevated walkways or elevated platforms if there are no guardrails in place.
- 6. Stand clear of floor openings if guardrails or covers are removed or displaced.

Heat Exhaustion/Sun Exposure

- 1. Keep your shirt on to avoid dehydration and sunburn.
- 2. Drink plenty of clear liquids during your breaks.
- 3. Take breaks in shaded areas.

Work Area Protection

- 1. Place signs (lights) well before the work area to permit oncoming motorists time to react.
- 2. Erect protective barriers or guards and warning signs prior to removing manhole covers or making excavations where accessible by vehicular or pedestrian traffic.
- 3. Position the work vehicle to guard the work area while work is in progress.

Machine and Equipment Safety

- 1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
- 2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
- 3. Do not wear loose clothing or jewelry in the machine shop.
- 4. Long hair must be contained under a hat or hair net, regardless of gender.
- 5. Read and obey safety warnings posted on or near any machinery.
- 6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Portable Welding/Soldering Operations

- 1. Do not use personal or employee-owned power tools and portable appliances at work.
- 2. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
- 3. Use the insulated work gloves when using welding equipment.
- 4. Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.

5. When replacing power plugs and cords of the welding apparatus, always check to ensure the ground wire is connected and the notches on the power plug prongs are not worn off, allowing the plug to be inserted backward.

Hot Line Safety

- 1. Clean all protective line equipment after each use, prior to storage.
- 2. Wear rubber gloves or use hot sticks when removing tree branches, limbs, or similar objects from contact with high voltage lines, panels or equipment.
- 3. Do not wear rubber protective gloves while climbing or descending a pole.
- 4. Wear 100 percent cotton or flame-resistant shirts or jumpers (with sleeves rolled down) and protective hats when working on or near live parts, lines, and panels or when climbing poles.
- 5. Wear body belts with straps or lanyards when working at an elevated position (poles, towers, etc.).
- 6. Before use, visually inspect body belts and straps for defects, wear, and damage.
- 7. When working with lines of 600 volts or more:
 - a. Wear rubber gloves or use hot sticks when placing protective equipment on/around energized voltage conductors.
 - b. Do not work on the line that is removed from service until the line is cleared, tagged, tested and grounded.
 - c. Treat bare-wire communication conductors on structures as energized lines unless they are protected by insulated conductors.
 - d. Treat bare-wire communication conductors on power poles and structures as energized lines (with voltages in excess of 600 volts) unless the conductors are protected by insulating materials.
- 8. Do not remove any ground until all employees are clear of the temporary grounded lines or equipment.
- 9. After a capacitor has been disconnected from its source of supply, wait 5 minutes before shortcircuiting and grounding it.
- 10. Do not contact the terminals, jumpers or line wires connected directly to capacitors until the capacitors have been short-circuited and/or grounded.
- 11. Visually inspect and wipe down all hot line tools each day before use.
- 12. Do not wear rubber gloves with protectors while using hot line tools.
- 13. Do not use defective hot line tools. Mark them as defective and turn them in for repair or replacement.

General Electrical Device/Fixture Installation Safety

- 1. Assume all electrical wires as live wires.
- 2. Turn the main switch to "Off" before removing and replacing power fuses.
- 3. Do not wear watches, rings or other metallic objects that could act as conductors of electricity around electrical circuits.
- 4. Before leaving the job, test insulators and equipment to ensure they are free from defects.
- 5. Do not work near any circuit that is in service without first installing barricades approved by your supervisor.
- 6. Do not touch field brushes or a synchronous motor until the motor is up to synchronous speed and the field switch is closed.

Lifting Equipment

(Chains, cables, ropes, slings, etc.)

- 1. Do not use chain slings if links are cracked, twisted, stretched or bent.
- 2. Fabricate all wire in wire rope slings by using thimbles; do not form eyes by using wire clips or knots.
- 3. Do not shorten slings by using makeshift devices such as knots or bolts.
- 4. Do not use a kinked chain.
- 5. Protect slings from the sharp edges of their loads by placing pads over the sharp edges of the items that have been loaded.
- 6. Do not place your hands between the sling and its load when the sling is being tightened around the load.
- 7. Do not alter or remove the safety latch on hooks. Do not use a hook that does not have a safety latch, or if the safety latch is bent.
- 8. Lift the load from the center of hooks, not from the point.

SAFETY PROCEDURES FOR NAICS # 238910 EXCAVATION/SITE PREPARATION

JOB SITE PERSONNEL

- 1. Do not start work until barricades, barrier logs, fill or other protection have been installed to isolate the work area from local traffic.
- 2. Reflective warning vests must be worn by traffic flag workers who are assigned to controlling traffic.
- 3. Do not walk under platforms that bridge a trench.
- 4. Do not enter a trench unless you have been given permission by the "competent person." Seek out and identify the designated "competent person" for the excavation site.

Access and Egress Safety

- 1. Use ladders, structural ramps, or stairways as a means of access or egress from excavations.
- 2. Do not use scrap lumber, excavation machinery, or other improvised devices for climbing.
- 3. Do not climb a ladder unless it extends at least 3 feet or three rungs beyond the edge of the trench.

Cranes and Hoists

- 1. Do not use load hooks that are cracked, bent or broken.
- 2. Passengers are not permitted to ride inside the operator's cab of a truck crane.
- 3. Keep crane windows clean. Do not use a crane if its windows are broken.
- 4. Do not exceed the rated load capacity of the crane as specified by the manufacturer.
- 5. Use the cribbing mats when operating the crane on "soft" ground.
- 6. Fully extend the outriggers of the crane before attempting a lift.
- 7. Stay outside the barricades of the posted swing radius of the crane.
- 8. Do not perform any crane refits or modifications without the manufacturer's approval.
- 9. Do not leave the crane you are working on unattended if you have a hoisted load suspended in the air.
- 10. Do not hoist loads over people.
- 11. Do not stand under a suspended load.
- 12. Do not drive the crane on the road shoulders.
- 13. Signalmen must wear the high-visibility, fluorescent orange vest.
- 14. When operating a crane, follow only signals of the person designated to give you signals.
- 15. Replace the belts, gears or rotating shaft guards after servicing a crane; do not use the crane if guards are missing from these areas.
- 16. "Trial Lift" the load by lifting the load approximately 2 feet to ensure the load is balanced. Adjust load if load is not balanced.

Backhoe/Power Shovel Operations

- 1. Do not operate backhoes, power shovels and other heavy equipment within 2 feet from the edge of the excavation.
- 2. Do not use a bucket or other attachments for a staging or temporary platform for workers.
- 3. Stay in the compartment during operation of the backhoe or power shovel. Do not reach in or attempt to operate controls from outside the backhoe or power shovel.

Trench Box Safety

- 1. Do not enter a trench box during its installation or removal.
- 2. Do not enter a trench box that is being moved.

SAFETY PROCEDURES FOR NAICS # 333995 FLUID POWER CYLINDERS AND ACTUATORS AND FLUID POWER PUMPS AND MOTORS

Testing/Repairing Cylinders

Do not use air pressure to disassemble cylinders; use oil pressure. Bleed all air before pressuring with oil. Do not use compressed air to clean equipment, parts or yourself. Do not smoke while in the test, repair or service areas.

Hydraulic Test Stand Safety

Read and obey safety warnings posted on or near the test stand.

If you experience a problem with the test stand, follow posted instructions to disconnect the power and tag the equipment "Out of Service."

Wear hearing protection when using the test stand.

Lifting Equipment (Chains, Cables, Ropes, Slings)

Do not use chain slings if links are cracked, twisted, stretched or bent.

- Fabricate all wire in wire rope slings by using thimbles; do not form eyes by using wire clips or knots.
- Do not shorten slings by using makeshift devices such as knots or bolts.

Do not use a kinked chain.

- Protect slings from the sharp edges of their loads by placing pads over the sharp edges of the items that have been loaded.
- Do not place your hands between the sling and its load when the sling is being tightened around the load.
- Wear work gloves when handling rough, sharp-edged or abrasive material such as chains, cables ropes or slings.
- Do not alter or remove the safety latch on hooks. Do not use a hook that does not have a safety latch, or if the safety latch is bent.

Lift the load from the center of hooks, not from the point.

HOSE ASSEMBLY PERSONNEL

Hose Cutting Safety

Do not use a chop saw that has cracked, broken, or loose guards or other visible damage. Do not use chop saws that have dull blades.

Do not make measurements to the hose while the chop saw is running. Make the measurements before turning the power switch to the "On" position.

Keep your hands away from the exposed blade.

Do not perform cutting operations with the chop saw while standing on a wet or slippery floor.

Do not use the chop saw if the blade starts getting hot; stop it until the blade cools off.

Turn the power switch of the saw to "Off" and allow the blade to stop before attempting to pull out an incomplete cut.

Do not alter the anti-kickback devices or blade guards.

When using the chop saw, do not reach across the cutting operation.

Safety Procedures for NAICS # 541320 Landscape Architectural Services

LANDSCAPE INSTALLERS – TREE INSTALLATION, SHRUB INSTALLATION, SOD INSTALLATION

General Rules

- 1. Make eye contact with all drivers of equipment and vehicle traffic to make sure they see you before driving or walking in front of or near them.
- 2. Keep your shirt on when working and use sunblock on any exposed skin.
- 3. Drink plenty of clear liquids during your breaks.
- 4. Do not work outdoors during lightning storms.
- 5. Use a long-distance insecticide to destroy wasp nests.
- 6. Do not operate powered equipment on which you have not been trained and/or have required certifications.
- 7. Use daily pre-operation inspections for equipment. If problems are found, tag-out the equipment until it can be fixed. Don't operate defective equipment.
- 8. Call the "Blue Stakes of Utah" one-call center at 811 to have underground facilities marked 48 hours before digging.
- 9. Do not dig where the underground lines have been marked.

Backpack Blowers

- 1. Always use proper eye and ear protection.
- 2. Read and follow the manufacturer's routine and preventive maintenance schedule posted on the storage closet wall.
- 3. Only use grip locations as specified by the manufacturer as a handhold when operating the blower.
- 4. Before refueling, remove the blower from your harness, place the blower on the ground and allow the engine to cool.
- 5. Do not pour fuel into the tank of a running engine.
- 6. Allow the engine to cool before performing maintenance or refueling.
- 7. Do not smoke while servicing, using or refueling the blower.
- 8. Restrict use when debris that could be caused by the equipment blows towards others. Can cause lacerations and eye injury.
- 9. Do not direct the blower toward bystanders.
- 10. Do not run a gasoline engine inside the storage shed.
- 11. Wash your hands with soap and water if you spill gasoline on your hands.

TREE INSTALLATION

Boom Truck Safety

- 1. Only trained employees are to use equipment. Manufacturer's training is preferred.
- 2. Do not operate within 10' of any power lines, and use spotter at all times.
- 3. Do not operate during inclement weather (wind, thunderstorm)
- 4. Warning cones should be placed around the truck whenever it is being used in public spaces, to prevent unauthorized people from approaching. It is a good idea to operate these vehicles with two people, one on the ground to control the area and assist the one in the bucket, if needed.
- 5. Always wear a fall protection harness/positioning device when in the bucket.
- 6. Set the truck parking brake before starting the crane.
- 7. Set the truck on as firm and level ground as possible.
- 8. Only one person is allowed to operate the boom truck. Stop operations once someone enters the loader's operating radius.
- 9. Do not let anyone get under the boom or the load.
- 10. When loading is complete, place the boom in the cradle or place it on the ground and shut off the crane before exiting.
- 11. Do not leave the boom raised when it is not in operation.

Skid Steer Loaders

- 1. Operators must possess 3 year certification.
- 2. Wear seat belts when provided on skid steer loaders with roll over protection.
- 3. Carry the load low for stability.
- 4. Back up on slopes. Do not drive forward up slopes.
- 5. No passengers are permitted on skid steer loaders.
- 6. Do not travel or turn with the lift arms up.
- 7. Do not leave the skid steer loader unattended while the engine is running or while the lift arms are up.
- 8. Do not modify equipment or add attachments not approved by the manufacturer.

Front End Loaders

- 1. Operators must possess 3 year certification.
- 2. Do not use a bucket or attachment for a working platform or personnel carrier.
- 3. Operate the loader from the seat. Do not operate the loader from outside the cab.
- 4. No passengers are permitted on front-end loaders.

AUGERS

General Rules

- 1. Always call Blue Stakes of Utah and have location marked before operating.
- 2. Do not wear loose clothing or jewelry while operating the auger. Wear earplugs, long pants, gloves, and sturdy boots with non-slip soles.
- 3. Clear all personnel from the digging area before starting the auger.
- 4. Replace the guards before starting the auger and after making adjustments or repairs.
- 5. Do not remove, alter or bypass any safety guards or devices when operating the auger.
- 6. Do not make any adjustments or repairs to the auger while it is in operation.
- 7. Do not poke anything near the rotating auger.

Tractor P.T.O. Driven Augers

- 1. Only the operator is allowed on the tractor when the auger is in operation.
- 2. Apply the tractor brakes firmly and put the tractor in park before starting to dig a hole.
- 3. Shut off the tractor, engage the parking brake, remove keys, and wait until the drivelines have stopped rotating before clearing obstructions, grass, build-up or dirt from the auger.
- 4. Disengage the power take-off and auxiliary hydraulics and shift the tractor into neutral or park before attempting to start the tractor.
- 5. Do not operate the auger if anyone is within 10 feet of the auger.
- 6. Lower the auger to the ground before leaving the tractor.
- 7. Do not leave the auger unattended with the tractor running.
- 8. Keep the tractor platform free of dirt, trash, grease and oil.
- 9. Operate the auger only while seated in the tractor and never from the ground unless the auger is equipped with remote hydraulic controls.
- 10. Do not use the auger on quick, couple-type, three-point hitches.
- 11. Do not crawl under the auger for any reason.
- 12. Transport the tractor/auger slowly over rough terrain.
- 13. Do not allow anyone on the auger while the tractor is in motion.
- 14. Before disconnecting lines to the auger's hydraulic cylinders, relieve all hydraulic pressure by:
 - a. Shutting off the tractor.
 - b. Moving the auger control lever up and down a several times to relieve the residual hydraulic pressure.
 - c. Using a piece of cardboard or wood to check for hydraulic fluid leaks. Do not use your bare hands.

Hand-Powered Augers

- 1. Operate a two-person auger with two people.
- 2. Do not operate a one-person auger with more than one person.
- 3. Do not use the auger as an anchoring device.
- 4. Do not over-speed the engine by altering the governor setting or by disconnecting the engine governor.
- 5. Stop the engine and disconnect the spark-plug wire before cleaning, inspecting, adjusting or repairing the auger.

Pruning and Cutting

- 1. Wear leather gloves when handling tree branches.
- 2. Do not use cutting shears, utility knives or wire cutters with broken or loose handles.
- 3. Cut in the direction away from your body when using cutting shears, utility knives, wire cutters or other cutting tools.
- 4. Use the locking clip on the cutting shears after use.
- 5. Do not attempt to catch a falling tool.
- 6. Do not pick up cutting tools by their blades.
- 7. When handling cutting shears or other cutting tools, direct sharp points and edges away from you.
- 8. Do not perform "make-shift" repairs to tools.

- 9. Keep the blade of all cutting tools sharp.
- 10. Do not throw tools from one location to another, from one employee to another, or from ladders.
- 11. Follow this procedure before picking up any bags that have sharp wire or tree branches protruding from them: With two hands, grab the top of the bag above the tie-off and hold the bag away from your body.

Tree Spades

- 1. Operator must have 3 year certification.
- 2. Wear hard hats, hearing protection and safety goggles while operating the tree spade.
- 3. Keep the tree spade's operating radius at least 10 feet away from energized power lines.
- 4. Clear all personnel from the area before beginning operation.
- 5. Operate the tree spade only while positioned at the loader control.
- 6. Keep body parts and clothing away from the power driven parts.
- 7. When digging on a slope, face the loader up or down the slope. Do not dig with the loader facing across the slope.
- 8. Only the operator is permitted to operate the tree spade.
- 9. Before disconnecting or loosening any part of the spade's drive system, lower the spade to the ground.
- 10. Use a piece of cardboard or wood to check for hydraulic fluid leaks. Do not use your bare hands.
- 11. Do not work under a raised tree spade.
- 12. Replace the guards before starting the tree spade and after making adjustments or repairs.
- 13. Do not remove, alter or bypass any safety guards or devices when operating the tree spade.
- 14. Apply the parking brakes firmly and put the tractor or truck in park before starting to dig a hole.

SHRUB INSTALLATION

Post Hole Diggers

- 1. Wear leather gloves and steel-toed shoes when using the post-hole digger.
- 2. When handing a post-hole digger to your co-worker, hand it to him/her handle first.
- 3. Use two hands to control a post-hole digger.

Pruning and Cutting

- 1. Wear leather gloves when handling tree branches.
- 2. Do not use cutting shears, utility knives or wire cutters with broken or loose handles.
- 3. Cut in the direction away from your body when using cutting shears, utility knives, wire cutters or other cutting tools.
- 4. Use the locking clip on the cutting shears after use.
- 5. Do not attempt to catch a falling tool.
- 6. Do not pick up cutting tools by their blades.
- 7. When handling cutting shears or other cutting tools, direct sharp points and edges away from you.
- 8. Do not perform "make-shift" repairs to tools.
- 9. Keep the blade of all cutting tools sharp.
- 10. Do not throw tools from one location to another, from one employee to another, or from ladders.

11. Follow this procedure before picking up any bags that have sharp wire or tree branches protruding from them: With two hands, grab the top of the bag above the tie-off and hold the bag away from your body.

Wheelbarrow

- 1. Wear leather gloves when using a wheelbarrow.
- 2. Do not use a wheelbarrow with a wobbly or loose wheel.
- 3. Do not stand on a wheelbarrow or use it as a work platform.
- 4. Do not transport anyone in a wheelbarrow.
- 5. Do not push wheelbarrow with handles in an upright position.

SOD INSTALLATION

Sod Cutters

- 1. Stop the engine and disconnect the spark-plug wire before cleaning, inspecting, adjusting or repairing cutting blades or other rotating parts.
- 2. Keep body parts and clothing away from the running engine and the cutting blade.
- 3. Do not alter or bypass any safety device provided by the manufacturer.
- 4. Shift the gear of the sod cutter into neutral before starting or shutting it off.
- 5. Do not allow anyone to stand in front of the sod cutter when it is in operation.
- 6. When cutting along roads, stay as close to the curb as possible.
- 7. Allow the sod cutter to cool before covering or storing it in the storage shed.

Steel Rakes

- 5. Wear leather gloves and steel-toed shoes when using a steel rake.
- 6. Do not lay steel rakes on the ground with the prongs facing upward.
- 7. When handing a steel rake to your coworker, hand it to him/her handle first.

Safety Procedures for NAICS #561730 Landscaping Services

LAWN MAINTENANCE PERSONNEL

General Rules

- 1. When working outdoors during the day, wear sun block, a long sleeve shirt, a hat and long pants.
- 2. Stop lawn maintenance operations during an electrical storm and when lightning is visible or thunder is heard.
- 3. Use work gloves when handling tree stumps and branches.
- 4. Remove your gloves and wash your hands with soap and water after handling tree stumps and branches.

Gasoline-powered Lawn Maintenance Tools

- 1. Wear safety glasses and closed-toe shoes when operating any mower, edger, chain saw, line trimmer, or any other gasoline powered lawn maintenance tool.
- 2. Do not use a chain saw, lawn mower, or any other gasoline-powered lawn tool if you are taking medication from a container labeled "May cause drowsiness."
- 3. Do not use tools with parts that are loose, worn, cracked or otherwise visibly damaged.
- 4. Tag damaged tools "Out of Service" to prevent accidental start up or use.
- 5. Do not alter or bypass any safety device provided by the manufacturer.
- 6. Use only the grip locations, as specified by the manufacturer, as handholds when operating the unit.
- 7. Do not pour fuel into the tank of a running engine.
- 8. Do not smoke while servicing, using or refueling a gasoline-powered tool.
- 9. Keep body parts and clothing away from the running engine and the cutting blade.
- 10. Do not run a gasoline engine inside the storage shed.
- 11. Turn off the engine when you are not cutting or trimming.
- 12. Allow the engine to cool before performing maintenance or refueling.
- 13. Stop the engine and disconnect the spark-plug wire before cleaning, inspecting, adjusting or repairing cutting blades or other rotating parts.
- 14. Allow the engine to cool before covering or storing it in the storage shed.

Mowing

- 1. Visually inspect the area to be mowed. Remove or mow around hazards such as tree stumps, roots, rocks, branches, sprinklers, hoses, electrical cords, light fixtures, pipes, clotheslines and toys.
- 2. Never bypass the kill switches on the mower handle.
- 3. Only the operator is permitted to ride on a riding mower.
- 4. Put the mower into neutral before starting or shutting off a riding power mower.
- 5. Do not place hands or feet under the mower deck.
- 6. Do not direct the grass discharge toward bystanders.
- 7. Empty the grass catcher to avoid clogging the mower.

- 8. Turn off the mower before dumping grass catcher or removing clogged grass from chute.
- 9. When using a riding mower, mow up and down the slope. Do not mow across a slope.
- 10. To mow across a slope, use an upright mower.
- 11. Keep the mower in gear when going down slopes.

Edging

- 1. Do not start an edger with the blade touching the ground.
- 2. Do not allow anyone to stand in front of, or on the unguarded side of the blade while the edger is in operation.
- 3. Operate the edger at full blade speed.
- 4. When edging along roads, driveways or parking lots, stay as close to the curb as possible.

Line Trimming/Weed Eater/Brush cutters

- 1. Do not start the brush cutter if anyone is within 30 feet of it.
- 2. Place the brush cutter on firm ground or other solid surface in open area before starting it.
- 3. Before refueling, remove the trimmer from your harness, place the trimmer on the ground and allow the engine to cool.
- 4. Stop the brush cutter before putting it down.
- 5. Keep the tool clear of you when you are cutting.
- 6. Do not wrap the starter rope around your hand.
- 7. Do not allow the grip to snap back; guide the starter rope as it rewinds.
- 8. Hold the brush cutter with two hands and wear the harness.
- 9. Do not cut above waist level; use the tool at ground level.

Hedge and Tree Trimming

- 1. Wear long sleeves, long pants and gardening gloves when trimming hedges or when picking up cuttings from thorny shrubs.
- 2. If you discover or find a wasp nest or beehive while hedging or trimming, use the long-distance aerosol insecticide labeled "Wasp and Bee Insecticide" to spray the nest. Test with a stick or pole once again to ensure all bees/wasps are gone before continuing work.
- 3. Seek first aid immediately if bitten or stung by wasps or bees.
- 4. Do not handle caterpillars or other insects with your bare hands.
- 5. Do not wear dangling jewelry while using hedge clippers.
- 6. Position yourself so your hedge and tree-cutting movements are performed below your shoulder level.
- 7. Do not break branches, sticks or twigs over your legs or knees or under your feet. Use clippers, shears or a saw to cut them.

Lawn Mower Blade Removal and Sharpening

- 1. Turn off the mower and remove the spark-plug wire before removing the blade.
- Use an extension ratchet, or an offset wrench, to remove cutting blades. If the equipment is fitted with a blade lockdown device, engage the lockdown before beginning the blade removal/installation process. If no lockdown device is available, keep the blade from turning or slipping by holding it with a gloved hand.
- 3. Do not use grinding wheels that have chips, cracks or grooves.

- 4. Do not use the grinding wheel if it wobbles. Tag it "Out of Service."
- 5. Adjust the tongue guard so that it is no more than ¼-inch from the grinding wheel.
- 6. Do not try to stop the grinding wheel with your hand, even if you are wearing gloves.
- 7. Allow blade to cool for 5 minutes after sharpening before reinstalling it on the mower.

PESTICIDE AND FERTILIZER SPRAYING OPERATORS

Pesticide and Fertilizer Spraying

- 1. These chemicals should be stored in a dedicated location, away from personnel and any other chemicals they may react with.
- 2. Do not handle or spray pesticides if you have open cuts or scratches on exposed skin surfaces on your arms or hands.
- 3. Visually inspect the area to be sprayed for trip hazards, low branches, and clotheslines before beginning the job. Avoid these hazards as you spray.
- 4. Keep containers labeled "Pesticides" tightly closed when you have finished using them.
- 5. Do not transfer pesticides or fertilizers into an unmarked or unlabeled container.
- 6. Do not transport a pesticide container in the cab of a service vehicle.
- 7. Always spray downwind; do not stand downwind when others are spraying.
- 8. Do not smoke or carry smoking materials while handling or spraying from containers labeled "Pesticide" or "Fertilizer."
- 9. No food or drink or applications of cosmetics (including sun block) while spraying.
- 10. Wash pesticide-contaminated clothes separately from other clothing.
- 11. Carry fresh water and soap in the service vehicle when you are going to a pesticide or fertilizerspraying job.
- 12. Remove work clothes immediately whenever clothing becomes soaked or wet with liquids from containers labeled "pesticide."
- 13. Do not use empty or washed containers labeled "Pesticide" as eating or drinking containers.
- 14. At the end of the workday, spray operators must remove their work clothes and take a shower in the employee locker room before going home.

Refill the containers labeled "Hand wash," "Soap Cleanser" and "Drinking Water" that are on the service vehicles before going to a pesticide or fertilizer-spraying job. Do not drink from the "Hand wash" container; do not wash hands from the "Drinking Water" container.

GROUND CREW PERSONNEL -

CHIPPER OPERATORS, TRAFFIC CONTROL PERSONNEL, REMOTE BUCKET OPERATORS

Traffic Control

- 1. Wear the international orange reflective vest when directing traffic around trimming work.
- 2. Place orange warning cones and "detour" signs at the roadside under the work area before beginning tree trimming over streets.
- 3. Do not walk into traffic lanes outside of the "coned off" work area.

Chippers

- 1. Use wheel blocks to chock the wheels of chippers before beginning any processing.
- 2. Stand to the side of the hopper opening when feeding the hopper.
- 3. Use your chain saw to cut long limbs to 6 feet or smaller lengths before putting them in the chipper.
- 4. Stop the chipper if you hear any uncommon sounds such as clanks or rattles that may indicate loose blades, nuts or other parts.

Bucket Truck Operations

- 1. Do not touch the truck when the bucket is in operation.
- 2. If you are the remote bucket control operator, do not leave your controls while someone is in the bucket.
- 3. Do not drive the truck while someone is in the bucket.
- 4. Engage the parking brake and use the wheel blocks to chock the wheels before lifting anyone in the bucket.

TREE TRIMMERS

Climbing Techniques

- 1. No "free-style" climbing is permitted.
- 2. Once you are off the ground, tie your lanyard and climbing rope to the tree.
- 3. Do not use any ropes or saddles that are frayed or cut, have bent or broken clamps or are otherwise visibly damaged.
- 4. Do not tie your lanyard or climbing rope to broken or weak branches.
- 5. Store ropes, lanyards and saddles in dry, clean areas.
- 6. Do not use ropes that are less than ½-inch in diameter.
- 7. "Double crotch" (tie in to a second lanyard) before operating the chain saw to prevent falls due to the kick of the saw.
- 8. "Crotch" around the main trunk of the tree.
- 9. Do not use a climbing rope as a lowering rope.

Bucket Truck Operations

- 1. Only bucket truck operators are to operate the bucket lift.
- 2. Keep the bucket at least 10 feet away from energized power lines.
- 3. Keep both feet on the floor of the bucket while working from the bucket. Do not climb on the bucket's edge.
- 4. Do not lean out of the bucket.
- 5. Do not operate the bucket during electrical storms or when lightning is seen or thunder is heard.
- 6. Do not operate the bucket in windy weather.
- 7. Use the safety belt and lanyard when working from the bucket.

Proper Felling Technique

- 1. Using the chain saw, cut a triangular notch one-quarter the diameter of the tree facing the direction you wish the tree to fall.
- 2. Make the back cut by boring a recess in the trunk approximately 2 inches above the bottom of the triangular notch by sawing forward to the holding hinge wood, and then sawing backward until the saw is clear of the trunk.
- 3. If the tree is thick or if you are felling against the lean, place wedges in the back cut as you continue the back cut.
- 4. Establish an escape route free from obstructions at a 45-degree angle in the opposite direction of the planned tree fall before felling the tree.
- 5. After completing the back cut, engage the chain brake, shut the saw off, and retreat using the escape route. Do not turn your back on the falling tree.

SAFETY PROCEDURES FOR NAICS # 238140 MASONRY, STONE WORK

HEAVY EQUIPMENT OPERATORS – (CRANE, POWERSHOVEL, BACKHOE, AND DUMP TRUCK OPERATORS)

Job Site Safety

- 1. Do not begin working until barricades, warning signs or other protective devices have been installed to isolate the work area from local traffic.
- 2. Flag workers must wear reflective warning vests when controlling vehicle traffic.
- 3. Do not walk under partially demolished walls or floors.
- 4. Stop working outdoors and seek shelter during lightning storms.

Housekeeping

- 1. Do not store or leave items on heavy equipment.
- 2. Return tools to their storage places after use.
- 3. Do not use gasoline for cleaning purposes.

MASONRY PERSONNEL (BRICK, BLOCK LAYERS, STONE SETTERS)

Job Site Safety

- 1. Do not begin working until barricades, warning signs or other protective devices have been installed to isolate the work area from local traffic.
- 2. Flag workers must wear reflective warning vests when controlling vehicle traffic.
- 3. Do not walk under partially demolished walls or floors.
- 4. Stop working outdoors and seek shelter during lightning storms.

Masonry Saw Safety

- 1. Wear the prescribed personal protective equipment such as goggles, gloves, dust masks and hearing protection when operating masonry saws to cut brick, block or stone.
- 2. Turn off the saw before making measurements, adjustments or repairs.
- 3. Keep hands away from the exposed blade.
- 4. Operate the saw at full cutting speed with a sharp blade to prevent kickbacks.
- 5. If the saw becomes jammed, turn off the power before pulling out the incomplete cut.
- 6. Do not alter the blade guard.

SAFETY PROCEDURES FOR NAICS # 238220 PLUMBING, HEATING, AIR CONDITIONING

AIR-CONDITIONING, REFRIGERATION, AND HEATING MECHANICS (INSTALLATION AND SERVICE/REPAIR)

General Job Site Rules

- 1. Do not begin working until barricades, warning signs or other protective devices have been installed to isolate the work area from local traffic.
- 2. Do not walk under partially demolished walls or floors.
- 3. Stop working outdoors and seek shelter during lightning storms.
- 4. When working outside, keep shirts on to avoid dehydration and sunburn.
- 5. Drink plenty of clear liquids during your breaks.
- 6. Erect protective barriers or guards and warning signs prior to removing manhole covers where accessible by vehicular or pedestrian traffic.
- 7. Do not use a metal ladder within 50 feet of electrical power lines.
- 8. Do not block the walking surfaces of elevated working platforms, such as scaffolds, with tools or materials that are not being used.
- 9. Do not stand on sinks, toilets or cabinets; use a step ladder.
- 10. Stand clear of floor openings if guardrails or covers are removed or displaced.
- 11. If you discover a wasp nest or bee hive while installing or servicing equipment, use the long distance aerosol insecticide labeled "Wasp and Bee Insecticide" to spray the nest. Test with the stick or pole once again to ensure that all bees/wasps are gone before continuing work.
- 12. Seek first aid immediately if bitten or stung by wasps or bees.
- 13. Do not handle caterpillars or other insects with your bare hands.

Equipment Installation Safety – General Safety

- 1. Assume all electrical wires as live wires.
- 2. Turn the main switch to "Off" before removing and replacing power fuses.
- 3. Do not wear jewelry or coats with metal zippers when working on or near energized lines, panels, parts or equipment.
- 4. Do not wear watches, rings or other metallic objects when working on or near energized lines, panels, parts or equipment.
- 5. Wear 100 percent cotton or flame resistant shirts or jumpers (with sleeves rolled down) and protective hats when working on or near live parts, lines, and panels.
- 6. Do not work near any circuit that is in service without first installing barricades approved by your supervisor.
General Wiring Safety

- 1. Do not fish conduits or ducts until you visually determine that the fish tape or wires will not contact energized lines or equipment.
- 2. Do not use conductive measuring ropes or tapes when working on or near energized lines or sources.
- 3. Do not fasten or hang electrical extension or power cords from non-insulated staples or nails and do not suspend them by wire.
- 4. Wear rubber gloves or use hot sticks when placing protective equipment on/around energized voltage conductors.
- 5. Treat bare wire-communication conductors on structures as energized lines unless insulated conductors protect them.
- 6. Visually inspect and wipe down all hot line tools each day before use.
- 7. Do not use defective hot line tools. Mark them as defective and turn them in for repair or replacement.
- 8. Keep conductors that are being strung in or removed under positive control to prevent accidental contact with energized circuits.
- 9. If an existing line that crosses over a conductor is to be de-energized, ground the line on both sides of the crossing or treat the conductor being crossed as energized.

Respirators

- 1. Use the respirator provided by your supervisor for your assigned duties.
- 2. Shave daily to prevent facial hair from interfering with the face seal of the respirator.
- 3. Return respirators to their carrying cases or cartons and store them in your locker or in the storage area when your work is completed.
- 4. Only use the respirator that has been issued to you.
- 5. Clean and disinfect your respirator with detergent solution and clean water after each use.
- 6. Do not wear contact lenses when wearing a respirator. Use optical inserts acquired by your supervisor.
- 7. Return respirators to carrying case or carton and store in your locker or storage area when the work is completed.
- 8. Prior to each use, inspect the respirators for missing or distorted inhalation and exhalation valves, or cracked face pieces. Do not use if any of these conditions are found.
- 9. Do not use respirator that has cracks, excessive dirt on the face piece, loss of elasticity in the straps, missing gaskets, and kinks in air supply hoses.
- 10. Perform a fit test prior to use:
 - a. First, position face piece comfortably over face and pull all straps tight. Do not wear face piece if it does not allow you to talk, if it does not fit snug over Nose Bridge or if it slips. Close off the inlet of the canister, cartridges or filters with the palm of your hands or replace the seals and inhale slightly and hold for 10 seconds. If face piece remains slightly collapsed and no inward leaking is detected, the respirator is tight enough. Use your other hand to detect air leaks around face seal. (Negative pressure test).
 - b. Second, close off the exhalation valve and blow into face piece gently. Use hands to feel any air leaking out of the seal between face piece and face. If no outward leaking is detected, the respirator is tight enough.

Spray Painting Safety

- 1. Store rags that have oil or paint on them in closed metal containers labeled "Oily Rags."
- 2. Press the pressure-relief valve on painting canisters and painting guns before disconnecting them.
- 3. Do not eat, drink, smoke or apply cosmetics where spray painting is being performed.
- 4. Do not operate spark-inducing tools such as grinders, drills or saws near containers labeled "Flammable" or in an explosive atmosphere such as paint spray booths or rooms.
- 5. Perform all spray-painting operations in the spray booth or room.
- 6. Return containers of thinners, mineral spirits and other liquids labeled "Flammable "to the storage cabinet labeled "Flammable Storage", when painting is finished.
- 7. Do not point the spray gun toward any part of your body or at anyone else.
- 8. Turn the control switch to the "On" position to operate the mechanical ventilation system before and during all spraying operations.

Sheet Metal Air-Duct Fabrication – Machine and Equipment Safety

- 1. Replace the guards before starting machines, or after making adjustments or repairs to the machine.
- 2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
- 3. Do not wear loose clothing or jewelry in the machine shop.
- 4. Long hair must be contained under a hat or hair net, regardless of gender.
- 5. Read and obey safety warnings posted on or near any machinery.
- 6. Do not try to stop a work piece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.

Drill Table Safety

- 1. Insert the work piece into the table grooves before starting the drilling process.
- 2. Use brushes or vacuum machinery to remove metal chips, shavings and other debris from the drill table. Do not use your bare hands.
- 3. Do not use dull, cracked or bent drill bits.

Riveting and Bolting

- 1. Do not use your hands to guide a bit into place when riveting or bolting steel.
- 2. Disconnect the snap and plunger from an air hammer when it is not in use.
- 3. Do not pass air-powered tools by the hose from one worker to another.
- 4. Do not throw material from one person to another. Use tag lines and a basket to hoist bolts, washers, drift pins, and tools.
- 5. Use a receptacle or a net to catch rivets or bolts that are knocked off or backed out from your work area.
- 6. Do not carry nuts, bolts, rivets, or drift pins in your hands or pockets; use the carrying/storing container provided for this purpose.

Sanding Operations

- 1. Wear gloves, aprons, dust masks, goggles and hearing protection when operating the sander.
- 2. When using a disk sander, sand on the downward side of the disk.
- 3. Do not use your hands to hold the part to be sanded. Use clamps and fixtures.
- 4. Do not eat, drink, or use tobacco products while using sanders.
- 5. After leaving the sanding area wash hands and exposed skin surfaces of arms.

Liftgates

- 1. Keep your hands, fingers and arms away from edges of liftgate platform while it is moving.
- 2. Do not lower the liftgate until everyone is clear of its landing area.
- 3. Secure equipment on the truck by using latches or rope.

PLUMBING

General Installation Rules & Guidelines

- 1. Do not begin working until barricades, warning signs or other protective devices have been installed to isolate the work area from local traffic.
- 2. Do not walk under partially demolished walls or floors.
- 3. Stop working outdoors and seek shelter during lightning storms.
- 4. When working outside, keep shirts on to avoid dehydration and sunburn.
- 5. Drink plenty of clear liquids during your breaks.
- 6. If you discover a wasp nest or bee hive while installing or servicing equipment, use the long distance aerosol insecticide labeled "Wasp and Bee Insecticide" to spray the nest. Test with the stick or pole once again to ensure that all bees/wasps are gone before continuing work.
- 7. Seek first aid immediately if bitten or stung by wasps or bees. See page IV.1, "First Aid Procedures."
- 8. Do not handle caterpillars or other insects with your bare hands.
- 9. Do not use a metal ladder within 50 feet of electrical power lines.
- 10. Do not block the walking surfaces of elevated working platforms, such as scaffolds, with tools or materials that are not being used.
- 11. Do not stand on sinks, toilets or cabinets; use a step ladder.
- 12. Do not work on open sided floors, elevated walkways or elevated platforms if there are no guardrails in place.
- 13. Do not handle hot items such as hot water heaters or water/steam lines with your bare hands; use cloth gloves.
- 14. Open the gate value to release the pressure from the steam lines and turn off the boiler before servicing piping equipment.

Work Clothing and Personal Protective Equipment

- 1. Wear the face shield over your goggles or safety glasses during open furnace, welding, soldering or gas cutting operations.
- 2. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
- 3. Wear the welding helmet or welding goggles during welding operations.
- 4. Wear the dielectric gloves when working on electric current.

- 5. Wear your earplugs or earmuffs in areas posted "Hearing Protection Required."
- 6. Safety goggles must be worn while welding or cutting metal.
- 7. Do not wear long sleeve shirts that do not have button-down cuffs.
- 8. Do not wear jewelry or coats with metal zippers to work.

Respirators

- 1. Use the respirator provided by your supervisor for your assigned duties.
- 2. Shave daily to prevent facial hair from interfering with the face seal of the respirator.
- 3. Return respirators to their carrying cases or cartons and store them in your locker or in the storage area when your work is completed.
- 4. Only use the respirator that has been issued to you.
- 5. Clean and disinfect your respirator with detergent solution and clean water after each use.
- 6. Do not wear contact lenses when wearing a respirator. Use optical inserts acquired by your supervisor.
- 7. Return respirators to carrying case or carton and store in your locker or storage area when the work is completed.
- 8. Prior to each use, inspect the respirators for missing or distorted inhalation and exhalation valves, or cracked face pieces. Do not use if any of these conditions are found.
- 9. Do not use respirator that has cracks, excessive dirt on the face piece, loss of elasticity in the straps, missing gaskets, and kinks in air supply hoses.
- 10. Perform a fit test prior to use:
 - a. First, position face piece comfortably over face and pull all straps tight. Do not wear face piece if it does not allow you to talk, if it does not fit snug over Nose Bridge or if it slips. Close off the inlet of the canister, cartridges or filters with the palm of your hands or replace the seals and inhale slightly and hold for 10 seconds. If face piece remains slightly collapsed and no inward leaking is detected, the respirator is tight enough. Use your other hand to detect air leaks around face seal. (Negative pressure test).
 - b. Second, close off the exhalation valve and blow into face piece gently. Use hands to feel any air leaking out of the seal between face piece and face. If no outward leaking is detected, the respirator is tight enough.

SAFETY PROCEDURES FOR NAICS # 238160 ROOFING

Hazardous Materials

When Using Chemicals to Seal Metals

- 1. Wear protective gloves when handling chemicals from containers labeled "Flammable," "Toxic," "Caustic" or "Poisonous" and wash your hands after removing the gloves.
- 2. Follow the instructions on the label and in the corresponding Material Safety Data Sheet
- 3. (MSDS) for each chemical product used in your workplace.
- 4. Each time you use your gloves, wash your gloves before removing them using cold tap water and normal hand washing motion. Always wash your hands after removing the gloves.
- 5. Do not use chemicals from unlabeled containers and unmarked cylinders.
- 6. Do not perform "hot work" such as welding, metal grinding or other spark producing operations within 50 feet of containers labeled "Flammable" or "Combustible."
- 7. Do not drag containers labeled "Flammable."
- 8. Do not store chemical containers labeled "Oxidizer" with containers labeled "Corrosive" or "Caustic."
- 9. Always use chemical goggles and a face shield before handling chemicals labeled "Corrosive" or "Caustic."

Power Hoist Safety

- 1. Use manufacturer approved counter weights to secure the hoist. Do not use roofing materials such as rolls of felt or bundles of shingles,
- 2. Do not exceed the manufacturer's recommended load capacity limits.
- 3. Only trained personnel, approved by the employer, are allowed to operate a power hoist.
- 4. Use the power hoist in an area that permits the operator to stand clear of the load at all times.
- 5. Use safety hooks or shackles to attach the load whenever possible.
- 6. Use 'tag lines' to control the load when necessary.
- 7. Keep your fingers and clothing clear of hoist machinery.
- 8. Do not attempt adjustments while the hoist is running.

Coal Tar/Asphalt Applications

- 1. Do not smoke or eat while performing tar-roofing work.
- 2. Stand clear of hot asphalt when it is being dumped out of the kettle.
- 3. Do not stand, work or operate equipment such as felt laying machines or mechanical moppers within 3 feet of any unprotected roof opening or within 5 feet of any unprotected roof edge.

Single-Ply Roofing

1. Wear respirators when hot air welding PVC or when performing adhesive welding procedures.

SAFETY PROCEDURES FOR NAICS # 238120 STEEL ERECTION

Work Clothing

- 1. Do not wear long-sleeve shirts that do not have button-down cuffs.
- 2. Wear close-fitting pants with the cuffs tucked into your boots or tied off.

Job Site Traffic Control

1. Do not work outside of the barricaded work area.

Cranes and Hoists

- 1. Do not use load hooks that are cracked, bent or broken.
- 2. Passengers are not permitted to ride inside the operator's cab of a truck crane.
- 3. Keep crane windows clean. Do not use a crane if its windows are broken.
- 4. Do not exceed the rated load capacity of the crane as specified by the manufacturer.
- 5. Use the cribbing mats when operating the crane on "soft" ground.
- 6. Fully extend the outriggers of the crane before attempting a lift.
- 7. Stay outside the barricades of the posted swing radius of the crane.
- 8. Do not perform any crane refits or modifications without the manufacturer's approval.
- 9. Do not leave the crane you are working on unattended if you have a hoisted load suspended in the air.
- 10. Do not hoist loads over people.
- 11. Do not stand under a suspended load.
- 12. Do not drive the crane on the road shoulders.
- 13. Signalmen must wear the high-visibility, fluorescent orange vest.
- 14. When operating a crane, follow only signals of the person designated to give you signals.
- 15. Replace the belts, gears or rotating shaft guards after servicing a crane; do not use the crane if guards are missing from these areas.
- 16. "Trial Lift" the load by lifting the load approximately 2 feet to ensure the load is balanced. Adjust load if load is not balanced.

Materials Handling

- 1. Do not attempt to catch falling materials.
- 2. Do not try to kick objects out your pathway; push or carry them out of the way.
- 3. Do not jump from elevated places such as truck beds, platforms or ladders.
- 4. Wear protective gloves when building boxes for packaging.
- 5. When manually stocking shelves, position the materials to be shelved slightly in front of you so you do not have to twist when lifting and stacking materials.
- 6. Place items on shelves so they lie flat and do not lean against each other.
- 7. Place heavier loads on lower or middle shelves.
- 8. Do not let items overhang from shelves into walkways.
- 9. Remove one object at a time from a shelf.

Flooring

- 1. Do not start to work on tiered buildings until the floor has been planked or decked over its entire surface, except for access openings.
- 2. Do not erect temporary flooring above protruding re-bar needles.

Steel Assembly and Connecting

- 1. Do not guy columns, trusses or beams unless they have been tied.
- 2. Do not work over an exposed vertical-reinforcing rod unless the end has been bent out.
- 3. Do not touch a wire rope when it is being pulled, extended or withdrawn.
- 4. Do not place fingers next to blocks or sheaves.

Riveting and Bolting

- 1. Do not use your hands to guide a bit into place when riveting or bolting steel.
- 2. Disconnect the snap and plunger from an air hammer when it is not in use.
- 3. Do not pass air-powered tools by the hose from one worker to another.
- 4. Do not throw material from one person to another. Use tag lines and a basket to hoist bolts, washers, drift pins, and tools.
- 5. Use a receptacle or a net to catch rivets or bolts that are knocked off or backed out from your work area.
- 6. Do not carry nuts, bolts, rivets, or drift pins in your hands or pockets; use the carrying/storing container provided for this purpose.

SAFETY PROCEDURES FOR NAICS # 332322 SHEET METAL WORK

ASSEMBLY PERSONNEL

Riveting and Bolting

Do not use your hands to guide a bit into place when riveting or bolting steel.

Disconnect the snap and plunger from an air hammer when it is not in use.

Do not pass air-powered tools by the hose from one worker to another.

- Do not throw material from one person to another. Use tag lines and a basket to hoist bolts, washers, drift pins, and tools.
- Use a receptacle or a net to catch rivets or bolts that are knocked off or backed out from your work area.
- Do not carry nuts, bolts, rivets, or drift pins in your hands or pockets; use the carrying/storing container provided for this purpose.

Lifting Equipment (Chains, Cables, Ropes, Slings)

Do not use chain slings if links are cracked, twisted, stretched or bent. Do not use a kinked chain.

- Protect slings from the sharp edges of their loads by placing pads over the sharp edges of the items that have been loaded.
- Do not place your hands between the sling and its load when the sling is being tightened around the load.
- Lift the load from the center of hooks, not from the point.

GRINDING, BUFFING, AND SURFACE FINISHING PERSONNEL Grinders

Do not use grinding wheels that have chips, cracks or grooves.

Do not use the grinding wheel if it wobbles. Tag it "Out of Service."

Do not try to stop the wheel with your hand, even if you are wearing gloves.

Do not use grinder if it is not firmly anchored to the workbench.

- Prior to installing a new grinding wheel, inspect the wheel for cracks or other visible damage. Tap the wheel gently with a plastic screwdriver handle to detect cracks that are not visible. If the wheel has a dead sound rather than a ringing sound, do not use the wheel.
- Do not install a grinding wheel whose labeled RPM speed is lower than the rated speed of the grinder.
- Do not grind on the side of an abrasive wheel labeled "Type 1."
- Do not clamp a portable grinder in a vise to use it as a bench grinder.

Buffing

Wear your face shield or safety goggles when operating the buffer. Do not wear gloves.

Before changing the rasp blade, turn the power switch of the buffer to "Off" and unplug it from the power source.

- Read and follow the manufacturer's routine and preventive maintenance schedule posted on the workshop wall.
- After buffing the tire, turn the power switch of the rasp and the hub to "Off" before removing the tire.

Keep your hands away from the rasp and the rotating buffing pads.

Turn the power switch of the rasp to "Off" before positioning the tire to be buffed. Do not use a chipped, dull or worn rasp blades.

Pneumatic Sanding Equipment

Wear gloves, aprons, dust masks, goggles and hearing protection.

When using a disk sander, sand on the downward side of the disk.

Do not use your hands to hold the part to be sanded. Use clamps and fixtures.

Do not eat, drink, or use tobacco products while using sanders.

After leaving the sanding area wash hands and exposed skin surfaces of arms.

Blasting Safety

Only blasters may use blasting equipment.

Visually inspect hoses or fittings on blasting equipment for wear and tear prior to use. Do not use if the hose or fitting is cracked or otherwise damaged.

Do not use compressed air to clean equipment or yourself.

SAFETY PROCEDURES FOR NAICS # 811113 AUTO TRANSMISSION REPAIR

AUTO REPAIR TECHNICIAN

Shop Safety

- 12. Use the hydraulic jack when lowering a transmission from a vehicle. If you do not have a hydraulic jack, get a co-worker to help you lower the transmission.
- 13. The following procedures will be used for vehicles that have the full frame and transmission removed:
 - a. Do not work alone.
 - b. Place hydraulic jacks under both sides of the frame.
 - c. Place a hydraulic jack under the transmission
 - d. Once the hydraulic jacks are in place, lower the frame slowly.
 - e. Once the frame is lowered, lower the transmission.
 - f. Do not stand under the transmission or frame while they are being lowered.
- 14. Pick up hot automotive parts using protective gloves, heat resistant pads or dry rags.
- 15. Place the hot automotive parts in a metal container that is labeled "Hot Metal Parts Only."
- 16. Engage the parking brake and use the wheel blocks to chock the vehicle before starting the engine of the vehicle.
- 17. Wear a protective apron, gloves and safety goggles when charging a battery.
- 18. Wear leather gloves and respiratory protective device when removing clutches from vehicles.
- 19. Do not use compressed air to clean a transmission. Wash all disassembled transmission parts in a parts washer.
- 20. Use a flexible exhaust hose to vent engine exhaust to the outside when the shop bay doors are closed.
- 21. When grinding on a drive shaft, place the shaft in a vise grip to hold the shaft in place. If a vise grip is not available, get a co-worker to help you keep the shaft in place.
- 22. Do not point a compressed air hose at bystanders or use it to clean your clothing.

Welding/Cutting/Brazing

- 14. Obey all signs posted in the welding area.
- 15. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
- 16. Use the red hose for gas fuel and the green hose for oxygen.
- 17. Do not use worn or cracked hoses.
- 18. Do not use oil, grease or other lubricants on the regulator.
- 19. "Blow out" hoses before attaching the torch.
- 20. Do not use a cigarette lighter to ignite torches; use friction lighters only.
- 21. Do not wear contact lenses when you are welding.
- 22. When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.
- 23. Do not change electrodes using your bare hands; use the dry rubber gloves.

- 24. "Bleed" oxygen and fuel lines at the end of the work shift.
- 25. "Blow out" the cylinder valve before attaching or re-attaching a hose to the cylinder.
- 26. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

Automotive Lifts

- 17. Remove all tools, cords, hoses, trash and any other debris from the lift area and wipe up all grease and oil spills before driving a car or truck into your service bay.
- 18. Position the lift arms, adapters and supports to the center of the lift out of the way of the car's tires before driving the vehicle into the service bay.
- 19. Do not stand in front of a vehicle being driven into the service bay.
- 20. Do not use any lift that has cracked contact pads, cracked lift arms or any other visible damage.
- 21. Do not use wood or concrete blocks as a substitute for an extender.
- 22. Use wheel blocks to chock the wheels of any vehicle on a runway lift while the vehicle is on the lift.
- 23. Do not leave the controls unattended while the lift is in motion.
- 24. Do not block or "tie open" the lift's control while the lift is in motion.
- 25. Do not use the engine or transmission supports or stands as a substitute for jack stands.
- 26. If the vehicle begins to slip off of the lift, run in the opposite direction of the fall, but not toward a wall or workbench that might trap you between the object and the vehicle.
- 27. Before you lower the vehicle, remove tool trays, jack, engine and transmission stands, and any other obstruction from under the vehicle.
- 28. Before removing the vehicle from your service bay, position lift arms and supports to the center of the lift away from the wheels of the vehicles.
- 29. Do not "tie down" or override the air or control valves of the lift.
- 30. Do not raise vehicle with anyone inside it.
- 31. When raising a vehicle, use the following procedure:
 - a. Use the lift to raise the vehicle about 1 foot off the ground and moderately push the rear or front bumper of the vehicle to ensure the vehicle frame is stably mounted on the support's contact pads of the lift.
 - b. If the frame of the vehicle is not firmly touching a support contact pad or slipping, immediately lower the vehicle and start over.
 - c. Once the vehicle is secure on the lift, lift the vehicle to the desired work height and visually check those contact points for misalignment before going under the vehicle.
 - d. As you raise the vehicle, you will hear a "clicking" noise that indicates the lift's locking device is engaging. If you do not hear the "clicking" noise, stop the lift, fully lower the vehicle and use another lift. Place an "Out of Service" tag on the control switch of the damaged lift and do not use it.
 - e. If you will be working under a lift that will be positioned at a point below where the lift's locking device engages, place four jack stands under the vehicle's frame or suspension for additional support before working under the vehicle.
- 32. Wear safety goggles when working underneath vehicles.

SAFETY PROCEDURES FOR SIC #7692/7699 WELDING REPAIR

TRUCK AND OTHER VEHICLE DRIVERS (TOW TRUCKS, LOW BOYS, FLAT BEDS, ETC.)

Vehicle/Driving Safety

Only employer-authorized personnel may operate any company vehicle. Do not operate a vehicle if you are ill or fatigued.

Do not operate a vehicle if you are taking medication whose container label indicates that the medication may cause drowsiness or other side effects.

Shut all doors and fasten seat belt before moving the vehicle.

Obey all traffic patterns and signs at all times.

Do not drive on the road shoulder.

Use side and rearview mirrors before making lane changes, turns and sudden stops.

Turn the vehicle off before fueling.

Do not smoke while fueling a vehicle.

Wash hands with soap and water if you spill gasoline on your hands.

Driving Rules

Shut all doors and fasten your seat belt before moving the vehicle.

Obey all traffic patterns and signs at all times.

Maintain a three-point contact using both hands and one foot or both feet and one hand when climbing into and out of delivery trucks.

Heavy Equipment Safety

Wear hard hats, hearing protection and safety goggles while operating heavy equipment. Wear seat belts when operating scrapers, loaders, dozers, tractors and graders.

No passengers are permitted on heavy equipment.

Keep windows and windshield clean.

Do not use heavy equipment if its horn and backup alarm do not sound.

Do not crawl under the raised dump body during inspection of a dump truck.

Turn off the engine before leaving heavy equipment unattended.

Do not jump "Off" or "On" any heavy equipment.

Do not stay in the cab of haulage vehicles while the payload is being loaded or unloaded by cranes or loaders.

When finished using bulldozers or loaders, land the blade on the ground, set the brakes, Turn off the power and shift the gear lever into neutral.

Keep heavy equipment in gear when going down grade. Do not use neutral.

Do not enter the bucket swing radius while the equipment is in operation.

Display the "Slow Moving Vehicle" sign when operating heavy equipment on roads.

Trucks

Drive on the graded roadways that have been leveled for this purpose.

Turn on headlights when driving on the site.

Drive up the slope or down the slope not across the slope.

Hold onto vehicle when stepping out of it onto loose ground, holes, or rocks.

Only service-vehicle personnel are permitted to operate a service vehicle.

Do not ride in the bed of a pickup truck.

Turn headlights on when driving inside the shop area or on parking decks. Do not drive over 5 mph in the shop area.

Tanks and Other Confined Spaces (Tank Trucks, Sewers, Boilers, etc.)

Do not enter confined spaces without reading and following this "confined space entry procedure."

Obtain a confined space entry permit from your supervisor before entering a confined space.

Valve off and disconnect all hoses, lines and self-cleaning devices on the tank. Get locking devices and labels from your supervisor to lock out and tag "Out of Service" all impellers, agitators, pumps or any other equipment in the tank before entering the tank.

Open all manholes of the tank for ventilation.

Purge the interior of a tank by introducing fresh air at the bottom of the tank by turning the fans or the ventilation system to "On." Discharge the air from the manholes at the top of the tank.

Use a Combustible Gas Analyzer to test the tank for an oxygen deficiency or accumulated combustible gases. Do not enter the tank if the reading for the Combustible Gas Analyzer is above 10% LFL and the oxygen level is below 19.5% or greater than 23.5%.

Do not enter any area labeled "confined space" without a confined space entry permit. Use survey equipment such as an "organic vapor meter" to test and monitor the confined space for oxygen deficiency and explosive or hazardous gases/fumes. If the organic vapor meter reading for the explosive gases is above 10% of the LEL and if the oxygen reading is below 19.5% or greater than 23.5%, do not enter the confined space.

Turn "off" disconnect, or lock and tag all systems that affect or make operational the confined space prior to entry.

Do not perform hot work such as electric or gas welding or cutting in or on a confined space until the atmosphere has been determined to be safe.

Use mechanical forced air ventilation when open flames or torches are used in a confined space.

Do not leave tools and/or materials around the confined space opening.

Do not throw materials into or out of manholes. Place materials in a receptacle and hoist them in and out by means of a rope.

Use a ladder when entering or leaving an underground vault.

Do not enter any confined space without a safety observer present; minimum of a twoperson team.

DIAGNOSTICS AND DISASSEMBLE PERSONNEL

General Rules

Do not manually lift equipment or parts used: hoist, fork trucks or other lifting aids. Attach your own pin or block when you are working on equipment or parts that may move or shift.

Do not remove a pin or block from equipment or parts unless you placed it there. Select the tools that will eliminate or minimize the following stressors:

Chronic muscle contraction or steady force;

Extreme or awkward finger, hand, and/or arm positions;

Repetitive forceful motions;

Excessive gripping, pinching, pressing with the hand and fingers;

Vibration.

Pause to relieve fatigued muscle-tendon groups. The length of time needed depends on the task's overall effort and total cycle time.

Solvents and Cutting Fluids

Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product used in your workplace.

When using chemicals labeled *flammable, corrosive, caustic, or poisonous*, use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear.

Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other signs of visible damage.

Always wash your hands with soap and water after using cutting fluids or solvents. Each time you use your gloves, wash your gloves before removing them using cold tap water and normal hand-washing motion. Always wash your hands after removing your gloves. Only dispense liquid labeled "flammable" from its bulk container located in areas posted "flammable liquid storage."

Do not use chemicals from unlabeled containers.

Do not perform "hot work," such as metal cutting or other spark-producing operations, within 50 feet of containers labeled "flammable" or "combustible."

Dip Tank Operations

Slowly pour liquid solvents into the dip tank to avoid splashing.

Slowly dip pieces into the dip tank to prevent splashing.

Wear Neoprene gloves, aprons and goggles when dipping work pieces into the dip tank.

REPAIR PERSONNEL (REASSEMBLY)

General Rules

Do not manually lift equipment or parts; use a hoist, fork truck or other lifting aid. Follow the manufacturer's specification for lifting and securing equipment with hoist, fork truck, or other lifting aids.

Select the tools that will eliminate or minimize the following stressors:

Chronic muscle contraction or steady force;

Extreme or awkward finger, hand, and/or arm positions;

Repetitive forceful motions;

Excessive gripping, pinching, pressing with the hand and fingers;

Vibration.

Pause to relieve fatigued muscle-tendon groups. The length of time needed depends on the task's overall effort and total cycle time.

WELDING PERSONNEL

Portable Welding Equipment

Do not use personal or employee-owned power tools and portable appliances at work. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.

Use the insulated work gloves when using welding equipment.

Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.

When replacing power plugs and cords of the welding apparatus, always check to ensure the ground wire is connected and the notches on the power plug prongs are not worn off, allowing the plug to be inserted backward.

Compressed Gas Cylinders

Storage and Handling

Do not handle oxygen cylinders if your gloves are greasy or oily.

Store all cylinders in the upright position.

Place valve-protection caps on gas cylinders that are in storage or not in use.

Do not lift cylinders by the valve protection cap.

Do not store compressed gas cylinders in areas where they can come in contact with chemicals labeled "Corrosive."

Place cylinders on a cradle, sling board, pallet or cylinder basket to hoist them.

Do not place cylinders against electrical panels or live electrical cords where the cylinder can become part of the circuit.

Use of Cylinders

Do not use dented, cracked or other visually damaged cylinders.

Use only an open-ended or adjustable wrench when connecting or disconnecting regulators and fittings.

Do not transport cylinders without first removing regulators and replacing the valve protection caps.

Close the cylinder valve when work is finished, when the cylinder is empty or whenever the cylinder is moved.

Do not store oxygen cylinders near fuel-gas cylinders such as propane or acetylene, or near combustible material such as oil or grease.

Stand to the side of the regulator when opening the valve.

If a cylinder is leaking around a valve or a fuse plug, move it to an outside area away from where work is performed and tag it to indicate the defect.

Do not hoist or transport cylinders by means of magnets or choker slings.

Do not use compressed gas to clean the work area, equipment or yourself.

Do not remove the valve wrench from acetylene cylinders while the cylinder is in use. Open compressed gas cylinder valves slowly. Open fully when in use to eliminate possible leakage around the cylinder valve stem.

Purge oxygen valves, regulators and lines before use.

Welding/Cutting/Brazing

Obey all signs posted in the welding area.

Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.

Use the red hose for gas fuel and the green hose for oxygen.

Do not use worn or cracked hoses.

Do not use oil, grease or other lubricants on the regulator.

"Blow out" hoses before attaching the torch.

Do not use a cigarette lighter to ignite torches; use friction lighters only.

Do not wear contact lenses when you are welding.

When welding, wear the welding helmet that has filter plates and lenses, welding gloves, a long-sleeve shirt, long pants, and a welding apron.

Do not change electrodes using your bare hands; use the dry rubber gloves.

"Bleed" oxygen and fuel lines at the end of the work shift.

"Blow out" the cylinder valve before attaching or re-attaching a hose to the cylinder. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

Oxyacetylene Welding

Do not use oxygen cylinders in areas where oils or any combustible liquids such as diesel fuel or motor fuel are present.

Turn the valve on the torch clockwise to turn "Off" the gas before putting down the welding or cutting torch.

Never allow pressure to remain in the hoses overnight:

Turn the valve knobs located at the base of the torch handle, clockwise, to close the valves. Turn the valve knobs on the oxygen and acetylene cylinders, clockwise, to close the valves on these cylinders.

Reduce the pressure on the regulator diaphragms by pulling back on the T-handles, out from the regulator, until the T-handles turn easily; do not completely back the T-handles out from the regulator.

Turn the valve knobs at the base of the torch, counter clockwise, to open the valves; leave the valves open for only 2 seconds, then turn the valve knobs clockwise to close the valves again. If the cylinder has been transported in a horizontal position, do not use it until it has been stored upright for two hours.