



The Airtex Corporation

HVAC Systems – Specialty Metals

**Commercial / Industrial
CSC1110262 / CAC1815780**

2011

SAFETY PROGRAM

**PLUMBING, HEATING, AIR-
CONDITIONING & SHEET METAL**

SIC CODE 1711

SIC CODE 3444

For further information on safety programs developed by the Division of Safety of Florida's Department of Labor and Employment Security, call 904/488-3044 or 800/367-4378 (within Florida).

Material contained in this publication is in the public domain and may be reproduced, fully or partially, without permission of the State of Florida.

PREFACE

How to Use This Manual

To The Employer:

The purpose of this safety manual is to establish standards for an industry-specific safety program for establishments covered under the following Standard Industry Classification (SIC code): 1711, Plumbing, Heating and Air-Conditioning. This safety program has been developed by the Florida Division of Safety with voluntary input from Florida employers, workers' compensation insurance carriers, labor organizations, trade associations, and other industry leaders.

This manual is intended to serve as the basis for an employer integrated safety and health management program. Implementation of this safety program satisfies the requirements of the Division of Safety. The essential elements of this program include: top management's commitment and involvement; the establishment and operation of safety committees; provisions for safety and health training; first aid procedures; accident investigations; recordkeeping of injuries; and workplace safety rules, policies, and procedures.

If this manual meets the needs of your establishment, it may be used exactly as written. If you have previously established and are maintaining a safety program, you can continue to use your program provided that the essential elements covered in this safety program are also addressed in your program. Use of all or part of this manual does not relieve employers of their responsibility to comply with other applicable local, state or federal laws. In addition, if an employer maintains the OSHA 200 Log to meet federal requirements, then that will meet the log and summary requirements of the LES SAF 200 form in Section VI of this program.

It is intended that this manual be enhanced and continuously improved by the employer. Any section of this manual may be modified by the employer to accommodate actual operations and work practices, provided that the original intent of that section is not lost. For example, if a safety committee meets weekly or quarterly instead of monthly, then Section II of the manual should be amended to accommodate this practice. If there is a safety rule, policy, or procedure appropriate for the work or work environment which has not been included, or if a rule included in Section VII is inappropriately written, then a new safety rule, policy, or procedure should be added to improve the manual. Likewise, if a specific rule in the Safety Rules, Policies, and Procedures section does not apply because the equipment or work operation described is not used, then that specific rule should be crossed out or deleted from the manual. If accidents occur, new safety rules should be developed and incorporated in Section VII of this manual to prevent their recurrence.

TABLE OF CONTENTS

Preface	iii
Table of Contents.....	iv
 Section I - Management Commitment and Involvement	
Policy Statement.....	1
 Section II - Safety Committee	
Safety Committee Organization.....	2
Responsibilities.....	2
Meetings.....	II.1
Meeting Minutes.....	II.2
 Section III - Safety and Health Training	
Safety and Health Orientation.....	1
Job-Specific Training	1
Periodic Retraining of Employees	III.1
 Section IV - First Aid Procedures	
Minor First Aid Treatment.....	1
Non-Emergency Medical Treatment	1
Emergency Medical Treatment.....	1
First Aid Training	1
First Aid Instructions	2
 Section V - Accident Investigation	
Accident Investigation Procedures	1
Investigation Report Form	2
Instructions for Report Form	4
 Section VI - Recordkeeping Procedures	
Recordkeeping Procedures.....	5
First Notice of Injury DWC-1	6
LES SAF 200 Form	6
 Section VII - Safety Rules, Policies, and Procedures	
Safety Rules, Policies, and Procedures	

Section I.

MANAGEMENT COMMITMENT AND INVOLVEMENT POLICY STATEMENT

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 our management team. Management will give top priority to and provide the financial resources for the correction of unsafe conditions. Similarly, management will take disciplinary action against an employee who willfully or repeatedly violates workplace safety rules. This action may include verbal or written reprimands and may ultimately result in termination of employment.

The primary responsibility for the coordination, implementation, and maintenance of our workplace safety program has been assigned to:

Name: Janice Brown

Title: Safety Director Telephone: 561-683-3446

Senior management will be actively involved with employees in establishing and maintaining an effective safety program. Our safety program coordinator, myself, or other members of our management team will participate with you or your department's employee representative in ongoing safety and health program activities, which include:

- Promoting safety committee participation;
- Providing safety and health education and training; and
- Reviewing and updating workplace safety rules.

This policy statement serves to express management's commitment to and involvement in providing our employees a safe and healthful workplace. This workplace safety program will be incorporated as the standard of practice for this organization. Compliance with the safety rules will be required of all employees as a condition of employment.

Keith J. Brown - President
The Airtex Corporation

Date: _____

Section II.

SAFETY COMMITTEE

Safety Committee Organization

A safety committee has been established as a management tool to recommend improvements to our workplace safety program and to identify corrective measures needed to eliminate or control recognized safety and health hazards. The safety committee employer representatives will not exceed the amount of 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 (see page 3) 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.

SAFETY COMMITTEE MINUTES

Date of Committee Meeting: _____
Prepared By: _____

Time: _____ Minutes
Location: _____

Members in Attendance

Name

Name

Name

Previous Action Items:

Review of Accidents Since Previous Meeting:

Recommendations for Prevention:

Recommendations from Anonymous Employees:

Suggestions From Employees:

Recommended Updates To Safety Program:

Recommendations from Accident Investigation Reports:

Safety Training Recommendations:

Comments:

Section III.

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 has access to a copy of this safety manual, through his or her supervisor, for review and future reference, and will be given a personal copy of the safety rules, policies, and procedures pertaining to his or her job. Supervisors will ask questions of employees and answer employees' questions to ensure knowledge and understanding of safety rules, policies, and job-specific procedures described in our workplace safety program manual. All employees will be instructed by their supervisors that compliance with the safety rules described in the workplace safety manual is required.

Job-Specific Training

- Supervisors will initially train employees on how to perform assigned job tasks safely.
- Supervisors will carefully review with each employee the specific safety rules, policies, and procedures that are applicable and that are described in the workplace safety manual.
- Supervisors will give employees verbal instructions and specific directions on how to do the work safely.
- 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 safety rules, policies and procedures, and when changes are made to the workplace safety manual.

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

Section IV.

FIRST AID PROCEDURES

EMERGENCY PHONE NUMBERS

Safety Coordinator Janice Brown 561-312-7749

Closest Hospital to Site: _____

Minor First Aid Treatment

First aid kits are kept in the office and on the jobsites. If you sustain an injury or are involved in an accident requiring minor first aid treatment:

- Inform your supervisor.
- Administer first aid treatment to the injury or wound.
- If a first aid kit is used, indicate usage on the accident investigation report.
- Access to a first aid kit is not intended to be a substitute for medical attention.
- Provide details for the completion of the accident investigation report.

Non-Emergency Medical Treatment

For non-emergency work-related injuries requiring professional medical assistance, management must first authorize treatment. If you sustain an injury requiring treatment other than first aid:

- Inform your supervisor.
- Proceed to the posted medical facility. Your supervisor will assist with transportation, if necessary.
- Provide details for the completion of the accident investigation report.

Emergency Medical Treatment

If you sustain a severe injury requiring emergency treatment:

- Call for help and seek assistance from a co-worker.
- Use the emergency telephone numbers and instructions posted next to the telephone in your work area to request assistance and transportation to the local hospital emergency room.
- Provide details for the completion of the accident investigation report.

First Aid Training

Each employee will receive training and instructions from his or her supervisor on our first aid procedures.

FIRST AID INSTRUCTIONS

In all cases requiring emergency medical treatment, immediately call, or have a co-worker call, to request emergency medical assistance.

WOUNDS:

Minor: Cuts, lacerations, abrasions, or punctures

- Wash the wound using soap and water; rinse it well.
- Cover the wound using clean dressing.

Major: Large, deep and bleeding

- Stop the bleeding by pressing directly on the wound, using a bandage or cloth.
- Keep pressure on the wound until medical help arrives.

BROKEN BONES:

- Do not move the victim unless it is absolutely necessary.
- If the victim must be moved, "splint" the injured area. Use a board, cardboard, or rolled newspaper as a splint.

BURNS:

Thermal (Heat)

- Rinse the burned area, without scrubbing it, and immerse it in cold water; do not use ice water.
- Blot dry the area and cover it using sterile gauze or a clean cloth.

Chemical

- Flush the exposed area with cool water immediately for 15 to 20 minutes.

EYE INJURY:

Small particles

- Do not rub your eyes.
- Use the corner of a soft clean cloth to draw particles out, or hold the eyelids open and flush the eyes continuously with water.

Large or stuck particles

- If a particle is stuck in the eye, do not attempt to remove it.
- Cover both eyes with bandage.

Chemical

- Immediately irrigate the eyes and under the eyelids, with water, for 30 minutes.

NECK AND SPINE INJURY:

- If the victim appears to have injured his or her neck or spine, or is unable to move his or her arm or leg, do not attempt to move the victim unless it is absolutely necessary.

HEAT EXHAUSTION:

- Loosen the victim's tight clothing.
- Give the victim "sips" of cool water.
- Make the victim lie down in a cooler place with the feet raised.

Section V.

ACCIDENT INVESTIGATION

Accident Investigation Procedures

An accident investigation will be performed by the supervisor at the location where the accident occurred. The safety coordinator is responsible for seeing that the accident investigation reports (see page 2) are being filled out completely, and that the recommendations are being addressed. Supervisors will investigate all accidents, injuries, and occupational diseases using the following investigation procedures:

- Implement temporary control measures to prevent any further injuries to employees.
- 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 accident's causes.
- Investigate causal conditions and unsafe acts; make conclusions based on existing facts.
- Complete the accident investigation report.
- Provide recommendations for corrective actions.
- Indicate the need for additional or remedial safety training.

Accident investigation reports must be submitted to the safety coordinator within 24 hours of the accident.

ACCIDENT INVESTIGATION REPORT

REPORT # _____

COMPANY: The Airtex Corporation

ADDRESS: 1450-B Skees Road CITY: West Palm Beach,

1. Name of injured: _____ S.S. #: _____
2. Sex M F Age: _____ Date of accident: _____
3. Time of accident: _____ a.m. _____ p.m. Day of accident: _____
4. Employee's job title: _____
5. Length of experience on job: _____ (years) _____ (months)
6. Address of location where the accident occurred: _____
7. Nature of injury, Injury type, and Part of the body affected: _____

8. Describe the accident and how it occurred: _____

9. Cause of the accident: _____

10. Was personal protective equipment required? yes no Was it provided? yes no
Was it being used? yes no If "no", explain.

Was it being used as trained by supervisor or designated trainer? yes no If "no", explain.

11. Witness(es): _____

12. Safety training provided to the injured? [] yes [] no If "no", explain.

13. Interim corrective actions taken to prevent recurrence:

14. Permanent corrective action recommended to prevent recurrence:

15. Date of report _____ Prepared by: _____

Supervisor (Signature) _____ Date: _____

16. Status and follow-up action taken by safety coordinator:

Safety Coordinator (Signature) _____ Date: _____

INSTRUCTIONS FOR COMPLETING THE ACCIDENT INVESTIGATION REPORT

An accident investigation is not designed to find fault or place blame but is an analysis of the accident to determine causes that can be controlled or eliminated.

(Items 1-6) Identification: This section is self-explanatory.

(Item 7) Nature of Injury: Describe the injury, e.g., strain, sprain, cut, burn, fracture. **Injury Type:** First aid -injury resulted in minor injury/treated on premises; Medical - injury treated off premises by physician; Lost time - injured missed more than one day of work; No Injury - no injury, near-miss type of incident. **Part of the Body:** Part of the body directly affected, e.g., foot, arm, hand, head.

(Item 8) Describe the accident: Describe the accident, including exactly what happened, and where and how it happened. Describe the equipment or materials involved.

(Item 9) Cause of the accident: Describe all conditions or acts which contributed to the accident, i.e.,

- a. unsafe conditions - spills, grease on the floor, poor housekeeping or other physical conditions.
- b. unsafe acts - unsafe work practices such as failure to warn, failure to use required personal protective equipment.

(Item 10) Personal protective equipment: Self-explanatory

(Item 11) Witness(es): List name(s), address(es), and phone number(s).

(Item 12) Safety training provided: Was any safety training provided to the injured related to the work activity being performed?

(Item 13) Interim corrective action: Measures taken by supervisor to prevent recurrence of incident, i.e., barricading accident area, posting warning signs, shutting down operations.

(Item 14): Self-explanatory

(Item 15): Self-explanatory

(Item 16) Follow-up: Once the investigation is complete, the safety coordinator shall review and follow-up the investigation to ensure that corrective actions recommended by the safety committee and approved by the employer are taken, and control measures have been implemented.

Section VI.

RECORDKEEPING PROCEDURES

Recordkeeping Procedures

The safety coordinator will control and maintain all employee accident and injury records. Records are maintained for a minimum of three (3) years and include:

- Accident Investigation Reports, see page 2 ;
- Workers' Compensation Notice of Injury Reports DWC 1, see page 6; and
- Log & Summary of Occupational Injuries and Illnesses LES SAF 200, see page 6.

Section VII.

SAFETY RULES, POLICIES, AND PROCEDURES

The safety rules contained on these pages have been prepared to protect you in your daily work. Employees are to follow these rules, review them often and use good common sense in carrying out assigned duties.

ALL EMPLOYEES

Housekeeping	VII.3
Lifting Procedures	VII.3
Ladders and Step Ladders	VII.3
Knives/Sharp Instruments	VII.4

OFFICE PERSONNEL

Office Safety	VII.5
---------------------	-------

SALES PERSONNEL

Driving Safety	VII.6
----------------------	-------

AIR-CONDITIONING, REFRIGERATION, and HEATING MECHANICS

General Job Site Rules	VII.6
Equipment Installation Safety	VII.6
General Personal Protective Equipment Guidelines	VII.7
Respirators	VII.7
Spray Painting Safety	VII.8
Confined Spaces	VII.8
Sheet Metal Air-Duct Fabrication.....	VII.9
Lockout/Tagout	VII.10
Electrical Powered Tools	VII.10
Grinders.....	VII.11
General Power Saws Safety	VII.12
Scaffolding	VII.12
Hazardous Materials.....	VII.12
General Hand Tool Safety.....	VII.13
Compressed Gas Cylinders	VII.15
Cranes and Hoists	VII.16
Lifting Equipment.....	VII.16
Vehicle Safety.....	VII.17

PLUMBERS (MASTERS and APPRENTICES)

General Installation Rules and Guidelines	VII.18
Work Clothing and Personal Protective Equipment	VII.18
Respirators	VII.18
Confined Space Entry	VII.19
Fabrication Operations	VII.20
Compressed Gas Cylinders	VII.21
Lockout/Tagout	VII.22
Electrical Powered Tools	VII.22
General Power Saws Safety	VII.23
Hazardous Materials	VII.23
General Hand Tool Safety	VII.24
Vehicle Safety	VII.26

WAREHOUSE PERSONNEL

General Storeroom/Stockroom Safety	VII.27
Stocking Shelves	VII.27
Hand Truck Operations	VII.27
Pallet Jacks	VII.28
General Hand Tool Safety	VII.28

ALL EMPLOYEES

Housekeeping

1. Use caution signs/cones to barricade slippery areas.
2. Do not store or leave items on stairways.
3. Return tools to their storage places after using them.
4. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
5. Do not place materials such as boxes or trash in walkways and passageways.
6. Do not use gasoline for cleaning purposes.
7. Mop up water around drinking fountains, drink dispensing machines and ice machines.

Lifting Procedures

General

1. Test the weight of the load before lifting by pushing the load along its resting surface.
2. If the load is too heavy or bulky, use lifting and carrying aids such as hand trucks, dollies, pallet jacks and carts, or get assistance from a co-worker.
3. Never lift anything if your hands are greasy or wet.
4. Wear protective gloves when lifting objects with sharp corners or jagged edges.

When lifting

1. Face the load.
2. Position your feet 6"-12" apart with one foot slightly in front of the other.
3. Bend at the knees, not at the back.
4. Keep your back straight.
5. Get a firm grip on the object using your hands and fingers. Use handles when they are present.
6. Hold the object as close to your body as possible.
7. Perform lifting movements smoothly and gradually; do not jerk the load.
8. If you must change direction while lifting or carrying the load, pivot your feet and turn your entire body. Do not twist at the waist.
9. Set down objects in the same manner as you picked them up, except in reverse.
10. Do not lift an object from the floor to a level above your waist in one motion. Set the load down on a table or bench and then adjust your grip before lifting it higher.

Ladders and Step Ladders

1. Read and follow the manufacturer's instructions label affixed to the ladder if you are unsure how to use the ladder.
2. Do not use ladders that have loose rungs, cracked or split side rails, missing rubber foot pads, or are otherwise visibly damaged.

ALL EMPLOYEES

Ladders and Step Ladders (continued)

3. Keep ladder rungs clean and free of grease. Remove buildup of material such as dirt or mud.
4. When performing work from a ladder, face the ladder and do not lean backward or sideways from the ladder.
5. Allow only one person on the ladder at a time.
6. Do not stand on the top two rungs of any ladder.
7. Do not stand on a ladder that wobbles, or that leans to the left or right of center.
8. Do not try to "walk" a ladder by rocking it. Climb down the ladder, and then move it.

Climbing a Ladder

1. Face the ladder when climbing up or down it.
2. Do not carry items in your hands while climbing up or down a ladder.
3. 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 the ladder.

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. Use the knife that has been sharpened; do not use knives that have dull blades.
4. Use knives for the operations for which they are made.
5. Do not use knives that have broken or loose handles.
6. Do not use knives as screwdrivers or pry bars.
7. Do not pick up knives by their blades.
8. Carry knives with their tips pointed towards the floor.
9. 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.
10. Do not attempt to catch a falling knife.
11. Store knives in knife blocks or in sheaths after using them.
12. When opening cartons use the safety box cutters. Do not cut with the blade extended beyond the guard.

OFFICE PERSONNEL

Office Safety

General

1. Do not place material such as boxes or trash in walkways and passageways.
2. Do not throw matches, cigarettes or other smoking materials into trash baskets.
3. Do not kick objects out of your pathway; pick them up or push them out of the way.
4. Keep floors clear of items such as paper clips, pencils, tacks or staples.
5. Straighten or remove rugs and mats that do not lie flat on the floor.
6. Mop up water around drinking fountains and drink dispensing machines.
7. Do not block your view by carrying large or bulky items; use a dolly or hand truck or get assistance from a fellow employee.
8. Store sharp objects, such as pens, pencils, letter openers or scissors in drawers or with the points down in a container.
9. Carry pencils, scissors and other sharp objects with the tips pointing down.
10. Use the ladder or step stool to retrieve or store items that are located above your head.
11. Do not run on stairs or take more than one step at a time.
12. Keep doors in hallways fully open or fully closed.
13. Use handrails when ascending or descending stairs or ramps.
14. Obey all posted safety and danger signs.

Furniture Use

1. Open only one file cabinet drawer at a time. Close the filing cabinet drawer you are working in before opening another filing drawer in the same cabinet.
2. Use the handle when closing doors, drawers and files.
3. Put heavy files in the bottom drawers of file cabinets.
4. Do not tilt the chair you are sitting in on its back two legs.
5. Do not stand on furniture to reach high places.

Equipment Use

1. Do not use fans that have excessive vibration, frayed cords or missing guards.
2. Do not place floor type fans in walkways, aisles or doorways.
3. Do not plug multiple electrical cords into a single outlet.
4. Do not use extension or power cords that have the ground prong removed or broken off.
5. Do not use frayed, cut or cracked electrical cords.
6. Use a cord cover or tape the cord down when running electrical cords across aisles, between desks or across entrances or exits.
7. Turn the power switch of the local exhaust fans to "On" when operating the blueprint machine.
8. Do not use lighting fluid to clean drafting equipment; use soap and water.

SALES PERSONNEL

Driving Safety

Fueling Vehicles

1. Turn the vehicle off before fueling.
2. Do not smoke while fueling a vehicle.
3. Wash hands with soap and water if you spill gasoline on your hands.

Driving Rules

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.

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 sun burn.
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.

AIR-CONDITIONING, REFRIGERATION, and HEATING MECHANICS (Installation and Service/Repair)

Equipment Installation Safety

General Safety (Continued)

4. Do not wear watches, rings or other metallic objects when working on or near energized lines, panels, parts or equipment.
5. Wear 100% 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 they are protected by insulated conductors.
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.

General Personal Protective Equipment Guidelines

1. Do not wear hard hats that are dented or cracked.
2. Wear your safety glasses when operating drills and when cutting or snipping copper or light gauge wire.
3. Wear your safety goggles when welding, soldering or cutting metal.
4. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear the dielectric gloves when working on electric current.
6. Do not wear jewelry or coats with metal zippers to work.
7. Wear ear plugs or ear muffs in areas posted "Hearing Protection Required."

Respirators

1. Wear 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.

AIR-CONDITIONING, REFRIGERATION, and HEATING MECHANICS (Installation and Service/Repair)

Respirators (continued)

3. Clean and disinfect your respirator with detergent solution and clean water after each use.
4. Do not wear contact lenses when wearing a respirator. Use optical inserts acquired by your supervisor.
5. Return respirators to carrying case or carton and store in your locker or storage area when the work is completed.
6. 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.
7. 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.
8. Perform a fit test prior to use:
 - 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 (ten) 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).
 - 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. (Positive pressure test)
9. Only use respirator that has been issued to you.

Spray Painting Safety

1. Do not point the spray gun toward any part of your body or at anyone else.
2. Store rags that have paint on them in closed metal containers labeled "oily rags."
3. Press the pressure relief valve on painting canisters and painting guns prior to disconnecting them.
4. Do not store food or eat where spray painting is being performed.
5. Close the lids of containers of paint and thinner tightly after each use or when not being used.
6. Return containers of thinners, mineral spirits and other liquids labeled "Flammable" to the storage cabinet labeled "Flammable Storage," when painting is finished.
7. Always wash your hands with soap and water after using paints or other toxic solvents to remove paint from your skin.

Confined Spaces

1. Do not enter any area labeled "confined space" without a confined space entry permit.
2. Do not enter any confined spaces without reading and following this "confined space entry procedure."
3. Turn "off" disconnect, or lock and tag all systems that affect or make operational the confined space prior to entry.

AIR-CONDITIONING, REFRIGERATION, and HEATING MECHANICS (Installation and Service/Repair)

Confined Spaces (Continued)

4. 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.
5. Use mechanical forced air ventilation when open flames or torches are used in a confined space.
6. Do not enter any confined space without a safety observer present; minimum of a two person team.
7. Use survey equipment such as a "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.

Sheet Metal Air-Duct Fabrication

General Machine 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 around moving machinery.
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 workpiece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.
7. Do not use metal working equipment such as grinders, sanders or beveling machines if they do not have safety guards.
8. Clamp work when using saws or cutting tools.

Drill Table Safety

1. Insert the workpiece 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/Bolting Safety

1. Wear safety goggles while riveting or bolting.
2. Do not use your hands to guide a bit into place when riveting or bolting steel.
3. Disconnect the snap and plunger from an air hammer when it is not in use.
4. Do not pass air powered tools from one worker to another by the hose.
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, or rivets in your hands or pockets; use the carrying/storing container provided for this purpose.

AIR-CONDITIONING, REFRIGERATION, and HEATING MECHANICS (Installation and Service/Repair)

Sheet Metal Air-Duct Fabrication (Continued)

Welding Operations

1. Wear clothing made of cotton, wool, or non-synthetic fibers. Wear long sleeve shirts, long pants, and boots.
2. Before welding place the floor fan behind you to keep welding fumes away from your face.
3. Use the welding screen to shield other employees from flying slag and intense light.
4. Wear the welding helmet or welding goggles during welding operations.
5. Use the insulated work gloves when using welding sheet metal air-ducts.
6. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
7. Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.
8. Do not perform "hot work" such as welding, cutting or other spark producing operations within 50 feet of containers labeled "Flammable" or "Combustible."

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.

Lockout/Tagout

1. Do not remove a lock from any equipment unless you placed it there yourself. Each person shall place his/her own lock/tag when required to isolate an energy source.
2. Do not start any adjustment, service or repair without verifying that the tag/lock out switch or control cannot be by-passed or over-ridden.
3. Lockout verification:
 - Verify that the locked-out switch or control cannot be overridden.
 - Test the equipment to be certain that the locked-out switch is de-energized and not simply malfunctioning.
 - Press all start buttons to see if the equipment starts.
 - Ensure the system you will be working on is the same one that has been locked out.
4. Before restarting the equipment, verify the following:
 - All tools and other items have been removed.
 - All machine guards are in place.
 - All electric systems are reconnected.
 - All employees are clear of equipment.

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, and grinders.

AIR-CONDITIONING, REFRIGERATION, and HEATING MECHANICS (Installation and Service/Repair)

Electrical Powered Tools (Continued)

3. Do not use cords that have splices, exposed wires, or cracked or raveled 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 tool 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 drills, saws or grinders near containers labeled "Flammable" or in an explosive atmosphere.
11. Do not use extension cords or other three pronged power cords that have a missing prong.
12. Do not remove the ground prong from electrical cords.
13. Do not use an adapter such as a cheater plug that eliminates the ground.
14. Do not plug multiple electrical cords into a single outlet.
15. Do not stand in water or on wet surfaces when operating power hand tools or portable electrical appliances.
16. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
17. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
18. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
19. 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.
20. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two conductor extension cord.
21. 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 hand grips or other nonconductive areas designed for gripping purposes.

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 using your hand, even if you are wearing gloves. To prevent your gloves from getting caught by the grinding wheel, hold the work-piece by using vice grip pliers, clamps, or a jig.
4. Adjust the tongue guard to within 1/4 inch of the grinding wheel and the tool rest an 1/8 inch from the abrasive wheel as outlined in the grinder's operating and maintenance manual before using.

AIR-CONDITIONING, REFRIGERATION, and HEATING MECHANICS (Installation and Service/Repair)

General Power Saws Safety

1. Wear the prescribed personal protective equipment such as goggles, gloves, dust masks and hearing protection when operating the power saw.
2. Turn the power switch of the saw to "Off" before making measurements, adjustments or repairs.
3. Keep your 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 the power switch of the saw to "Off" before pulling out the incomplete cut.
6. Do not alter the anti-kickback device or blade guard.

Scaffolding

1. Follow the manufacturer's instructions when erecting the scaffold.
2. Do not work on scaffolds outside during stormy or windy weather.
3. Do not climb on scaffolds that wobble or lean to one side.
4. Initially inspect the scaffold prior to mounting it. Do not use a scaffold if any pulley, block, hook or fitting is visibly worn, cracked, rusted or otherwise damaged. Do not use a scaffold if any rope is frayed, torn or visibly damaged.
5. Do not use any scaffold tagged "Out of Service."
6. Do not use unstable objects such as barrels, boxes, loose brick or concrete blocks to support scaffolds or planks.
7. Do not work on platforms or scaffolds unless they are fully planked.
8. Do not use a scaffold unless guardrails and all flooring are in place.
9. Level the scaffold after each move. Do not extend adjusting leg screws more than 12 inches.
10. Use your safety belts and lanyards when working on scaffolding at a height of 10 feet or more above ground level. Attach the lanyard to a secure member of the scaffold.
11. Do not climb the cross braces for access to the scaffold. Use the ladder.
12. Do not jump from, to, or between scaffolding.
13. Do not slide down cables, ropes or guys used for bracing.
14. Keep both feet on the decking. Do not sit or climb on the guardrails.
15. Keep the scaffold free of scraps, loose tools, tangled lines and other obstructions.
16. Do not throw anything "overboard" unless a spotter is available. Use the debris chutes or lower things by hoist or by hand.
17. Do not move a mobile scaffold if anyone is on the scaffold.
18. Chock the wheels of the rolling scaffold, using the wheel blocks, and also lock the wheels by using your foot to depress the wheel-lock, before using the scaffold.

Hazardous Materials

1. Wear the chemical goggles when using, applying or handling chemical liquids from containers labeled "Caustic" or "Corrosive."
2. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you will be using in your workplace.

AIR-CONDITIONING, REFRIGERATION, and HEATING MECHANICS (Installation and Service/Repair)

Hazardous Materials (Continued)

3. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear, when using chemicals labeled "Flammable", "Corrosive", "Caustic" or "Poisonous."
4. Always use your chemical goggles and the face shield when handling chemicals labeled "Corrosive" or "Caustic."
5. Do not use protective clothing or equipment that has split seams, pin holes, cuts, tears, or other visible signs of damage.
6. Each time you use your gloves, wash them, before removing the gloves, using cold tap water and normal hand washing motion. Always wash your hands after removing the gloves.
7. Only dispense a liquid labeled "Flammable" from its bulk container located in areas posted "Flammable Liquid Storage."
8. Do not use chemicals from unlabeled containers or unmarked cylinders.
9. Do not drag containers labeled "Flammable."
10. Do not store chemical containers labeled "Oxidizer" with containers labeled "Corrosive" or "Caustic."

General Hand Tool Safety

1. Use tied off containers to keep tools from falling off of scaffolds and other elevated work platforms.
2. Carry all sharp tools in a sheath or holster.
3. Tag worn, damaged or defective tools "Out of Service" and do not use them.
4. Do not use a tool if its handle has splinters, burrs, cracks, splits or if the head of the tool is loose.
5. Do not use impact tools such as hammers, chisels or steel stakes that have mushroomed heads.
6. Do not perform "make-shift" repairs to tools.
7. 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.
8. Do not throw tools from one location to another or from one employee to another.
9. Transport hand tools only in tool boxes or tool belts. Do not carry tools in your clothing.

Hammers

1. Do not strike nails or other objects with the "cheek" of the hammer.
2. Do not strike a hardened steel surface, such as a cold chisel, with a claw 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 if the blade is not taut.

AIR-CONDITIONING, REFRIGERATION, and HEATING MECHANICS (Installation and Service/Repair)

General Hand Tool Safety

Saws (Continued)

3. Do not use a saw that has dull saw blades.
4. Oil saw blades after each use of the saw.
5. Keep your hands and fingers away from the saw blade while you are using the saw.
6. Do not carry a saw by the blade.
7. When using the hand saw, hold the workpiece 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 workpiece against your body while using a screwdriver.
3. Do not put your fingers near the blade of the screwdriver when tightening a screw.
4. Use a drill, nail, or an awl to make a starting hole for screws.
5. Do not force a screwdriver by using a hammer or pliers on it.
6. Do not use a screwdriver as a punch, chisel, pry bar or nail puller.
7. When you are performing electrical work, use the screwdriver that has the blue handle; this screwdriver is insulated.
8. Do not use a screwdriver if your hands are wet, oily or greasy.

Wrenches

1. Do not use wrenches that are bent, cracked or badly chipped or that have loose or broken handles.
2. Do not use a shim to make a wrench fit.
3. Use a split box wrench on flare nuts.
4. Do not use a wrench that has broken or battered points.
5. Discard any wrench that has spread, nicked or battered jaws or if the handle is bent.
6. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open end wrenches as a second choice.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not attempt to force pliers by using a hammer on them.
3. When you are performing electrical work, use the pliers that have the blue rubber sleeves covering the handle; these pliers are insulated.
4. Do not use pliers that are cracked, broken or sprung.
5. When using the diagonal cutting pliers, shield the loose pieces of cut material from flying into the air by using a cloth or your gloved hand.

Clamps

1. Do not use the C-clamp for hoisting materials.
2. Do not use the C-clamp as a permanent fastening device.

AIR-CONDITIONING, REFRIGERATION, and HEATING MECHANICS (Installation and Service/Repair)

General Hand Tool Safety (continued)

Metal Snips

1. Wear your safety glasses or safety goggles when using snips to cut materials.
2. Wear your work gloves when cutting materials with snips.
3. Do not use straight cut snips to cut curves.
4. Keep the blade aligned by tightening the nut and bolt on the snips.
5. Do not use snips as a hammer, screwdriver or pry bar.

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a tool box, chest, or cabinet.
2. Do not stand on tool boxes, chests or cabinets to gain extra height.
3. Lock the wheels on large tool boxes, chests or cabinets to prevent them from rolling.
4. Push large chests, cabinets and tool boxes; do not pull them.
5. Do not open more than one drawer of a tool box at a time.
6. Close and lock all drawers and doors before moving the tool chest to a new location.
7. Do not use a tool box or chest as a workbench.
8. Do not move a tool box, chest or cabinet if it has loose tools or parts on the top.

Compressed Gas Cylinders

Storage and Handling

1. Do not handle oxygen cylinders if your gloves are greasy or oily.
2. Store all compressed gas cylinders in the upright position.
3. Place valve protection caps on compressed gas cylinders that are in storage or are not being used.
4. Do not lift compressed gas 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. Hoist compressed gas cylinders on the cradle, slingboard, pallet or compressed gas cylinder basket.
7. Do not place compressed gas cylinders against electrical panels or live electrical cords where the cylinder can become part of the circuit.

Use of Compressed Gas Cylinders

1. Do not use dented, cracked or other visibly 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 the regulators and replacing the valve protection caps.
4. Close the cylinder valve when work is finished, when the cylinder is empty or at any time 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.

AIR-CONDITIONING, REFRIGERATION, and HEATING MECHANICS (Installation and Service/Repair)

Compressed Gas Cylinders

Use of Compressed Gas Cylinders (Continued)

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 use compressed gas to clean yourself, equipment or your work area.
9. Do not remove the valve wrench from acetylene cylinders while the cylinder is being used.
10. Open cylinder valves slowly. Open the valves fully when the compressed gas cylinder is being used, in order to eliminate possible leakage around the cylinder valve stem.

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. Do not perform any crane refits or modifications without the manufacturer's approval.
8. Do not leave the crane you are working in unattended if you have a hoisted load suspended in the air.
9. Do not hoist loads over people.
10. Do not use a hoist whose safety latch on the hook has been removed, is bent, or is otherwise visibly damaged.

Lifting Equipment

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 make-shift 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. Wear work gloves when handling rough, sharp-edged or abrasive material such as chains, cables ropes or slings.
8. Do not alter or remove the safety latch on hooks. Do not use a hook that does not have a safety latch, or the safety latch is bent.
9. Lift the load from the center of the hooks, not from the point.

AIR-CONDITIONING, REFRIGERATION, and HEATING MECHANICS (Installation and Service/Repair)

Vehicle Safety

General

1. Turn the vehicle off before fueling it.
2. Do not smoke while fueling a vehicle.
3. Wash hands with soap and water if you spill gasoline on your hands.
4. Shut your door and fasten your seat belt before moving the vehicle.
5. Obey all traffic laws and signals 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 vehicles.
7. Only service vehicle personnel are permitted to operate a service vehicle.
8. Do not ride in the bed of a pick-up truck.
9. Turn headlights on when driving inside the shop area or on parking decks.
10. Do not drive over 5 mph in the shop area.
11. Walk behind the vehicle and remove any equipment, tools, or other pathway instructions before getting into the vehicle. Sound the horn to alert nearby coworkers before backing the vehicle.
12. Tie down, lash, or secure all materials and equipment hauled in the bed of vehicles.
13. Do not mount or dismount a moving vehicle.

Lift Gates

1. Do not place items such as air-conditioning units or heating units anywhere on the lift gate where it cannot be moved by a dolly.
2. Secure equipment on the truck by using latches or ropes.
3. Keep hands, fingers and arms away from the edge of the lift gate platform.
4. Do not lower the lift gate until everyone is clear of its landing area.

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. Take slow, wide turns when towing trailers.
5. Do not exceed the load capacity as posted on the trailer door of the trailer.
6. Do not place all the heavy equipment on one side of the trailer.

PLUMBERS (MASTERS and APPRENTICES)

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 sun burn.
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 valve 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 ear plugs or ear muffs 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. Wear 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. Clean and disinfect your respirator with detergent solution and clean water after each use.
4. Do not wear contact lenses when wearing a respirator. Use optical inserts acquired by your supervisor.

PLUMBERS (MASTERS and APPRENTICES)

Respirators (continued)

5. Return respirators to carrying case or carton and store in your locker or storage area when the work is completed.
6. 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.
7. 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.
8. Perform a fit test prior to use.
- 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 (ten) 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).
- 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. (Positive pressure test)
9. Only use respirator that has been issued to you.

Confined Space Entry (sewers, etc.)

1. Do not enter the sewers or other confined spaces without reading and following this "confined space entry procedure."
2. Obtain a confined space entry permit from your supervisor before entering the confined space.
3. Do not enter the confined space unless an assigned observer or lookout person posted at the entrance. If you are assigned as the outside observer, do not go inside the confined space under any circumstances and keep the entrant in your view at all times.
4. Place furnaces and space heaters in a level position on the downhill lower side of the manhole.
5. 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.
6. Do not leave tools and/or materials on the ground around a manhole opening.
7. Use survey equipment such as a "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.
8. Turn "off" disconnect, or lock and tag all systems that affect or make operational the confined space prior to entry.
9. 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.
10. Use mechanical forced air ventilation when open flames or torches are used in a confined space.

PLUMBERS (MASTERS and APPRENTICES)

Fabrication Operations

General Machine 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 around moving machinery.
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 workpiece as it goes through any machine. If the machine becomes jammed, unplug it before clearing the jam.
7. Do not use metal working equipment such as grinders, sanders or beveling machines if they do not have safety guards.
8. Clamp work when using saws or cutting tools.

Welding Operations

1. Obey all signs posted in the welding area.
2. Wear clothing made of cotton, wool, or non-synthetic fibers. Wear long sleeve shirts, long pants, and boots.
3. Before welding place the floor fan behind you to keep welding fumes away from your face.
4. Use the welding screen to shield other employees from flying slag and intense light.
5. Wear the welding helmet or welding goggles during welding operations.
6. Use the insulated work gloves when using welding sheet metal air-ducts.
7. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
8. Do not use the welding apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.
9. Do not perform "hot work" such as welding, cutting or other spark producing operations within 50 feet of containers labeled "Flammable" or "Combustible."
10. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
11. Use the red hose for gas fuel and the green hose for oxygen.
12. Do not use worn or cracked hoses.
13. Do not use oil, grease or other lubricants on the regulator.
14. "Blow Out" hoses before attaching the torch.
15. "Blow Out" the cylinder valve before attaching or reattaching a hose to the cylinder.
16. Do not use a cigarette lighter to ignite torches; use friction lighters only.
17. Do not wear contact lenses when you are welding.
18. Do not change electrodes using your bare hands; use the dry rubber gloves.
19. "Bleed" oxygen and fuel lines at the end of the work shift.
20. Use the welding cart that has a safety chain or cable when transporting cylinders used for welding.

PLUMBERS (MASTERS and APPRENTICES)

Fabrication Operations (continued)

Portable Welding/Soldering Operations

1. Do not perform welding or soldering tasks while wearing wet cotton gloves or wet leather gloves.
2. Use the insulated work gloves when using welding or soldering equipment.
3. Do not use the welding or soldering apparatus if the power cord is cut, frayed, split or otherwise visibly damaged or modified.
4. Do not perform "hot work" such as welding, soldering or other spark producing operations within 50 feet of containers labeled "Flammable" or "Combustible."

Compressed Gas Cylinders

Storage and Handling

1. Do not handle oxygen cylinders if your gloves are greasy or oily.
2. Store all compressed gas cylinders in the upright position.
3. Place valve protection caps on compressed gas cylinders that are in storage or are not being used.
4. Do not lift compressed gas 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. Hoist compressed gas cylinders on the cradle, sling board, pallet or compressed gas cylinder basket.
7. Do not place compressed gas cylinders against electrical panels or live electrical cords where the cylinder can become part of the circuit.

Use of Compressed Gas Cylinders

1. Do not use dented, cracked or other visibly 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 the regulators and replacing the valve protection caps.
4. Close the cylinder valve when work is finished, when the cylinder is empty or at any time 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 use compressed gas to clean yourself, equipment or your work area.
9. Do not remove the valve wrench from acetylene cylinders while the cylinder is being used.
10. Open cylinder valves slowly. Open the valves fully when the compressed gas cylinder is being used, in order to eliminate possible leakage around the cylinder valve stem.

PLUMBERS (MASTERS and APPRENTICES)

Lockout/Tagout

1. Do not remove a lock from any equipment unless you placed it there yourself. Each person shall place his/her own lock/tag when required to isolate an energy source.
2. Do not start any adjustment, service or repair without verifying that the tag/lock out switch or control cannot be by-passed or over-ridden.
3. Lockout verification:
 - Verify that the locked-out switch or control cannot be overridden.
 - Test the equipment to be certain that the locked-out switch is de-energized and not simply malfunctioning.
 - Press all start buttons to see if the equipment starts.
 - Ensure the system you will be working on is the same one that has been locked out.
4. Before restarting the equipment, verify the following:
 - All tools and other items have been removed.
 - All machine guards are in place.
 - All electric systems are reconnected.
 - All employees are clear of equipment.

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, and grinders.
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 tool 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 drills, saws or grinders near containers labeled "Flammable" or in an explosive atmosphere.
11. Do not use extension cords or other three pronged power cords that have a missing prong.
12. Do not remove the ground prong from electrical cords.
13. Do not use an adapter such as a cheater plug that eliminates the ground.
14. Do not plug multiple electrical cords into a single outlet.
15. Do not stand in water or on wet surfaces when operating power hand tools or portable electrical appliances.
16. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
17. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
18. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
19. 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.

PLUMBERS (MASTERS and APPRENTICES)

Electrical Powered Tools (continued)

20. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two conductor extension cord.
21. 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 hand grips or other nonconductive areas designed for gripping purposes.

General Power Saws Safety

1. Wear the prescribed personal protective equipment such as goggles, gloves, dust masks and hearing protection when operating the power saw.
2. Turn the power switch of the saw to "Off" before making measurements, adjustments or repairs.
3. Keep your 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 the power switch of the saw to "Off" before pulling out the incomplete cut.
6. Do not alter the anti-kickback device or blade guard.

Hazardous Materials

1. Wear the chemical goggles when using, applying or handling chemical liquids from containers labeled "Caustic" or "Corrosive."
2. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you will be using in your workplace.
3. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear, when using chemicals labeled "Flammable", "Corrosive", "Caustic" or "Poisonous."
4. Always use your chemical goggles and the face shield when handling chemicals labeled "Corrosive" or "Caustic."
5. Do not use protective clothing or equipment that has split seams, pin holes, cuts, tears, or other visible signs of damage.
6. Each time you use your gloves, wash them, before removing the gloves, using cold tap water and normal hand washing motion. Always wash your hands after removing the gloves.
7. Only dispense a liquid labeled "Flammable" from its bulk container located in areas posted "Flammable Liquid Storage."
8. Do not use chemicals from unlabeled containers or unmarked cylinders.
9. Do not drag containers labeled "Flammable."
10. Do not store chemical containers labeled "Oxidizer" with containers labeled "Corrosive" or "Caustic."

PLUMBERS (MASTERS and APPRENTICES)

General Hand Tool Safety

1. Use tied off containers to keep tools from falling off of scaffolds and other elevated work platforms.
2. Carry all sharp tools in a sheath or holster.
3. Tag worn, damaged or defective tools "Out of Service" and do not use them.
4. Do not use a tool if its handle has splinters, burrs, cracks, splits or if the head of the tool is loose.
5. Do not use impact tools such as hammers, chisels or steel stakes that have mushroomed heads.
6. Do not perform "make-shift" repairs to tools.
7. 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.
8. Do not throw tools from one location to another or from one employee to another.
9. Transport hand tools only in tool boxes or tool belts. Do not carry tools in your clothing.

Hammers

1. Do not strike nails or other objects with the "cheek" of the hammer.
2. Do not strike a hardened steel surface, such as a cold chisel, with a claw 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 if the blade is not taut.
3. Do not use a saw that has dull saw blades.
4. Oil saw blades after each use of the saw.
5. Keep your hands and fingers away from the saw blade while you are using the saw.
6. Do not carry a saw by the blade.
7. When using the hand saw, hold the workpiece 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 workpiece against your body while using a screwdriver.
3. Do not put your fingers near the blade of the screwdriver when tightening a screw.
4. Use a drill, nail, or an awl to make a starting hole for screws.
5. Do not force a screwdriver by using a hammer or pliers on it.
6. Do not use a screwdriver as a punch, chisel, pry bar or nail puller.
7. When you are performing electrical work, use the screwdriver that has the blue handle; this screwdriver is insulated.
8. Do not use a screwdriver if your hands are wet, oily or greasy.

PLUMBERS (MASTERS and APPRENTICES)

General Hand Tool Safety (continued)

Wrenches

1. Do not use wrenches that are bent, cracked or badly chipped or that have loose or broken handles.
2. Do not use a shim to make a wrench fit.
3. Use a split box wrench on flare nuts.
4. Do not use a wrench that has broken or battered points.
5. Discard any wrench that has spread, nicked or battered jaws or if the handle is bent.
6. Use box or socket wrenches on hexagon nuts and bolts as a first choice, and open end wrenches as a second choice.

Pliers

1. Do not use pliers as a wrench or a hammer.
2. Do not attempt to force pliers by using a hammer on them.
3. When you are performing electrical work, use the pliers that have the blue rubber sleeves covering the handle; these pliers are insulated.
4. Do not use pliers that are cracked, broken or sprung.
5. When using the diagonal cutting pliers, shield the loose pieces of cut material from flying into the air by using a cloth or your gloved hand.

Clamps

1. Do not use the C-clamp for hoisting materials.
2. Do not use the C-clamp as a permanent fastening device.

Metal Snips

1. Wear your safety glasses or safety goggles when using snips to cut materials.
2. Wear your work gloves when cutting materials with snips.
3. Do not use straight cut snips to cut curves.
4. Keep the blade aligned by tightening the nut and bolt on the snips.
5. Do not use snips as a hammer, screwdriver or pry bar.

Tool Boxes/Chests/Cabinets

1. Use the handle when opening and closing a drawer or door of a tool box, chest, or cabinet.
2. Do not stand on tool boxes, chests or cabinets to gain extra height.
3. Lock the wheels on large tool boxes, chests or cabinets to prevent them from rolling.
4. Push large chests, cabinets and tool boxes; do not pull them.
5. Do not open more than one drawer of a tool box at a time.
6. Close and lock all drawers and doors before moving the tool chest to a new location.
7. Do not use a tool box or chest as a workbench.
8. Do not move a tool box, chest or cabinet if it has loose tools or parts on the top.

PLUMBERS (MASTERS and APPRENTICES)

Vehicle Safety

General

1. Turn the vehicle off before fueling it.
2. Do not smoke while fueling a vehicle.
3. Wash hands with soap and water if you spill gasoline on your hands.
4. Shut your door and fasten your seat belt before moving the vehicle.
5. Obey all traffic laws and signals 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 vehicles.
7. Only service vehicle personnel are permitted to operate a service vehicle.
8. Do not ride in the bed of a pick-up truck.
9. Turn headlights on when driving inside the shop area or on parking decks.
10. Do not drive over 5 mph in the shop area.
11. Walk behind the vehicle and remove any equipment, tools, or other pathway instructions before getting into the vehicle. Sound the horn to alert nearby co-workers before backing the vehicle.
12. Tie down, lash, or secure all materials and equipment hauled in the bed of vehicles.
13. Do not mount or dismount a moving vehicle.

Lift gates

1. Do not place items such as a air-conditioning units or heating units anywhere on the lift gate where it cannot be moved by a dolly.
2. Secure equipment on the truck by using latches or rope.
3. Keep hands, fingers and arms away from the edge of the lift gate platform.
4. Do not lower the lift gate until everyone is clear of its landing area.

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. Take slow, wide turns when towing trailers.
5. Do not exceed the load capacity as posted on the trailer door of the trailer.
6. Do not place all the heavy equipment on one side of the trailer.

WAREHOUSE PERSONNEL

General Storeroom/Stockroom Safety

1. Wear leather gloves when handling materials such as copper or aluminum wire.
2. Do not attempt to catch falling materials.
3. Do not try to kick objects out of pathways. Push or carry them out of the way.
4. Move slowly when approaching blind corners.
5. Do not run on stairs or take more than one step at a time.
6. Do not jump from elevated places such as truck beds, platforms or ladders.
7. Do not lift slippery or wet objects; use a hand truck.
8. Visually inspect for sharp objects or other hazards before reaching into containers such as garbage cans, boxes, bags or sinks.
9. Remove or bend nails and staples from crates before unpacking the crates.
10. When cutting shrink wrap with a blade, always cut away from you and your co-workers.
11. Straighten or remove rugs and mats that do not lie flat on the floor.
12. Use caution signs or cones to barricade slippery areas such as freshly mopped floors.
13. Obey all safety and danger signs posted in the workplace.

Stocking Shelves

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. Place items on shelves so that they lie flat and do not wobble.
3. Place heavier loads on the lower or middle shelves.
4. Do not stack bulky merchandise on crushed boxes.
5. Do not let items overhang from shelves into walkways.
6. Remove one object at a time from shelves.
7. Do not climb the racking to stock or retrieve merchandise; use a ladder.

Hand Truck Operations

1. When loading hand trucks, keep your feet clear of the wheels.
2. Do not exceed the manufacturer's load rated capacity. Read the capacity plate on the hand truck if you are unsure.
3. Place the load so that it will not slip, shift or fall. Use the straps, if they are provided, to secure the load.
4. For extremely bulky items, such as air-conditioning units or heating units, strap or chain the items to the hand truck.
5. Tip the load slightly forward so that the tongue of the hand truck goes under the load.
6. Push the tongue of the hand truck all the way under the load that is to be moved.
7. Keep the center of gravity of the load as low as possible by placing heavier objects below the lighter objects.
8. Push the load so that the weight will be carried by the axle and not the handles.
9. If your view is obstructed, ask a spotter to assist in guiding the load.
10. Do not walk backward with the hand truck, unless going up stairs or ramps.
11. When going down an incline, keep the hand truck in front of you so that it can be controlled at all times.
12. Move hand trucks at a walking pace.

WAREHOUSE PERSONNEL

Hand Truck Operations (Continued)

13. Store hand trucks with the tongue under a pallet, shelf, or table.

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 ride on pallet jacks.
4. Start and stop the pallet jack gradually to prevent the load from slipping.
5. Pull manual pallet jacks; push them when going down an incline or passing close to walls or obstacles.
6. If your view is obstructed, ask a spotter to assist in guiding the load.
7. Stop the pallet jack if anyone gets in your way.
8. Never place your feet under the pallet jack.

General Hand Tool Safety

1. Tag worn, damaged or defective tools "Out of Service" and do not use them.
2. Do not use a tool if its handle has splinters, burrs, cracks, splits or if the head of the tool is loose.
3. Do not use impact tools such as hammers, chisels, punches or steel stakes that have mushroomed heads.
4. When handing a tool to another person, direct sharp points and cutting edges away from yourself and the other person.
5. Do not carry sharp or pointed hand tools such as screwdrivers, scribes, snips, scrapers, chisels or files in your pocket unless the tool or your pocket is sheathed.
6. Do not perform "make-shift" repairs to tools.
7. Do not throw tools from one location to another or from one employee to another.
8. Transport hand tools only in tool boxes or tool belts. Do not carry tools in your clothing.

Sic Code 3444 – Sheet Metal Work

Section VII

Safety Rules, Policies, and Procedures

The safety rules contained on these pages have been prepared to protect you in your daily work. Employees are to follow these rules, review them often and use good common sense in carrying out assigned duties.

ALL EMPLOYEES

Housekeeping.....	VII.3
Lifting Procedures.....	VII.3
Ladders and Step ladders.....	VII.4
Hazardous Materials.....	VII.4
Personal Protective Equipment.....	VII.4

OFFICE PERSONNEL

Office Safety.....	VII.5
--------------------	-------

FORKLIFT and HOIST OPERATORS

General Machine Shop Safety.....	VII.6
General Hand Tool Safety.....	VII.6
Forklifts.....	VII.6
Cranes and Hoists.....	VII.9
Lifting Equipment.....	VII.9

MACHINE OPERATORS/ASSEMBLY CREW

Housekeeping.....	VII.11
Machine/Equipment Safety.....	VII.11
Hydraulic/Pneumatic Tools.....	VII.11
General Hand Tool Safety.....	VII.12
Powder Actuated Tools.....	VII.12
Riveting and Bolting.....	VII.13
Lifting Equipment.....	VII.13
Personal Protective Equipment.....	VII.13
Hazardous Materials.....	VII.14

WELDING PERSONNEL

Welding/Cutting/Brazing.....	VII.15
Compressed Gas Cylinders.....	VII.15
Portable Welding Equipment.....	VII.16
General Hand Tool Safety.....	VII.16
Personal Protective Equipment.....	VII.17
Hazardous Materials.....	VII.17

SAFETY RULES, POLICIES, AND PROCEDURES

GRINDING, BUFFING, and SURFACE FINISHING PROCEDURES

Housekeeping.....	VII.18
Machine/Equipment Safety.....	VII.18
Lockout/Tagout.....	VII.18
Electrical Powered Tools.....	VII.19
Hydraulic/Pneumatic Tools.....	VII.19
Compressed Gas Cylinders.....	VII.20
Knives/Sharp Instruments.....	VII.21
General Hand Tool Safety.....	VII.21
Painting Safety.....	VII.22
Hazardous Materials.....	VII.22
Personal Protective Equipment.....	VII.23

MAINTENANCE PERSONNEL

Housekeeping.....	VII.24
Ladders and Step Ladders.....	VII.24
Machine/Equipment Servicing.....	VII.24
Hand Tool Safety.....	VII.25
Electrical Powered Tools.....	VII.25
Welding/Cutting/Brazing.....	VII.28
Compressed Gas Cylinder.....	VII.28
Hazardous Materials.....	VII.29
Dip Tank Operation.....	VII.29

WAREHOUSE PERSONNEL

General Rules.....	VII.30
Hand Truck Operations.....	VII.30
Pallet Jack Use.....	VII.31
Order Picker.....	VII.31
Conveyor Operations.....	VII.31
Handling Drums.....	VII.31
Handling Chemicals.....	VII.32
Compressed Gas Cylinders.....	VII.32
Knives/Sharp Instruments.....	VII.32
Packaging/Unpacking.....	VII.33
Pneumatic Stapler.....	VII.33
Driving Safety.....	VII.33

ALL EMPLOYEES

Housekeeping

1. Do not place material such as boxes or trash in walkways and passageways.
2. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.
3. Do not store or leave items on stairways.
4. Straighten or remove rugs and mats that do not lie flat on the floor.
5. Keep floors clear of items such as paper clips, pencils, tacks or staples.
6. Clean up spills immediately by using a paper towel, rag, or mop and bucket.
7. Clean up any broken glass using a dust pan and broom. Do not pick up broken glass with your bare hands.
8. Use caution signs/cones to barricade slippery areas such as freshly mopped floors.
9. Mop up standing water upon discovery.

Lifting Procedures

General

1. Test the weight of the load before lifting by pushing the load along its resting surface.
2. If the load is too heavy or bulky, use lifting and carrying aids such as hand trucks, dollies, pallet jacks and carts, or get assistance from a co-worker.
3. Never lift anything if your hands are greasy or wet.
4. Wear protective gloves when lifting objects with sharp corners or jagged edges.

When Lifting:

1. Face the load.
2. Position your feet 6” -12” apart with one foot slightly in front of the other.
3. Bend at the knees, not at the back.
4. Keep your back straight.
5. Get a firm grip on the object with your hands and fingers. Use handles when present.
6. Hold objects as close to your body as possible.
7. Perform lifting movements smoothly and gradually; do not jerk the load.
8. If you must change direction while lifting or carrying the load, pivot your feet and turn your entire body. Do not twist at the waist.
9. Set down objects in the same manner as you picked them up, except in reverse.
10. Do not lift an object from the floor to a level above your waist in one motion. Set the load down on a table or bench and then adjust your grip before lifting it higher.

ALL EMPLOYEES

Ladders and Step Ladders

General

1. Do not use ladders that have loose rungs, cracked or split side rails, missing rubber foot pads, or are otherwise visibly damaged.
2. Keep ladder rungs clean of grease, Remove buildup of material such as dirt or mud.
3. When performing work from a ladder, face the ladder and do not lean backward or sideways from the ladder.
5. Do not stand on the top two rungs of any ladder.
6. Do not try to “walk” a ladder by rocking it. Climb down the ladder, and then move it.

Climbing a ladder

1. Face the ladder when climbing up or down.
2. Allow only one person on the ladder at a time.
3. Do not carry items in your hands while climbing up or down a ladder.
4. 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.

Hazardous Materials

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet. (MSDS) for each chemical product used in your workplace.
2. Do not use chemicals from unlabeled containers and unmarked cylinders.

Personal Protective Equipment

1. Wear ear plugs or ear muffs in areas posted “Hearing Protection Required.”
2. Wear safety glasses or face shields in areas posted “Eyewear Protection Required.”
3. Wear hard hats or approved head protection in areas posted “Hard hat Protection Required.”

OFFICE PERSONNEL

Office Safety

General

1. Clean up spills or leaks immediately by using paper towel, rag, or a mop and bucket.
2. Do not kick objects out of your pathway; pick them up or push them out of the way.
3. Do not throw matches, cigarettes or other smoking materials into trash baskets.
4. Keep floors clear of items such as paper clips, pencils, tacks or staples.
5. Do not block your view by carrying large or bulky items; use a dolly or hand truck or get assistance from a fellow employee.
6. Store sharp objects, such as pens, pencils, letter openers or scissors in drawers or with the points down in a container.
7. Carry pencils, scissors and other sharp objects with the points down.
8. Use a ladder or step stool to retrieve or store items that are located above your head.
9. Do not store or leave items on stairways or walkways.
10. Do not run on stairs or take more than one step at a time.
11. Do not jump from ramps, platforms, ladders or step stools.
12. Keep doors in hallways fully open or fully closed.
13. Use handrails when ascending or descending stairs or ramps.
14. Obey all posted safety and danger signs.

Furniture Use

1. Open one file cabinet drawer at a time.
2. Close drawers and doors immediately after use.
3. Use the handle when closing doors, drawers and files.
4. Put heavy files in the bottom drawers of file cabinets.
5. Do not tilt the chair you are sitting in on its back two legs.
6. Do not stand on furniture to reach high places.

Equipment Use

1. Keep the paper cutter handle in the close/locked position when it is not in use.
2. Do not use paper cutting devices if the finger guard is missing.
3. Use a stapler remover, not your fingers, for removing staples.
4. Do not use extension or power cords that have the ground prong removed or broken off.
5. Do not use frayed, cut or cracked electrical cords.
6. Use a cord cover or tape the cord down when running electrical or other cords across aisles, between desks or across entrances/exits.
7. Do not connect multiple electrical devices into a single outlet.
8. Turn off and unplug office machines before adjusting, lubricating or cleaning them.
9. Do not use fans that have excessive vibration, frayed cords or missing guards.
10. Do not place floor type fans in walkways, aisles or doorways.

FORK LIFT and HOIST OPERATORS

General Machine Shop Safety

1. Read and obey safety warnings posted on or near any machinery.
2. Long hair must be contained under a hat or hair net, regardless of gender.

General Hand Tool Safety

1. Use tied off containers to keep tools from falling off of cranes and other elevated work areas.
2. Do not use a tool if its handle has splinters, burrs, cracks, splits or if the head of the tool is loose.
3. Do not use impact tools, such as hammers, that have mushroomed heads.
4. When handling a tool to another person, direct sharp points and cutting edges away from yourself and the other person.
5. When using knives, shears or other cutting tools, cut in a direction away from your body.
6. Do not carry sharp or pointed hand tools, such as screwdrivers, in your pocket unless the
Tool or pocket is sheathed.
7. Do not perform “make shift” repair to tools.
8. Do not use “cheaters” on load binders or “boomers.”
9. Do not carry tools in your hand when climbing. Carry tools in tool belts or hoist the tools to the work area with a hand line.
10. Do not throw tools from one location to another, from one employee to another, from Scaffolds or other elevated platforms.

Forklifts

Pre-Use Inspection

Do not use forklift if any of the following conditions exist:

1. The mast has broken or cracked weld-points.
2. The roller tracks are not greased or the chains are not free to travel.
3. Forks are unequally spaced or cracks exist along the blade or at the heels.
4. Hydraulic fluid levels are low.
5. Hydraulic line and fitting have excessive wear or are crimped.
6. Fluid is leaking from the lift or the tilt cylinders.
7. The hardware on the cylinders is loose.
8. Tires are excessively worn, split or having missing tire material.
9. Air filled tires are not filled to the operating pressure indicated on the tire.
10. Batteries have cracks or holes, uncapped cells, frayed cables, broken cable insulation, loose connections or clogged vent caps.

FORK LIFT and HOIST OPERATIONS

Forklifts (Continued)

Starting the Forklift

Apply the foot brake and shift 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 one foot, then slowly and evenly tilt the mast backward to stabilize the load.

Putting a Load Down

1. Square up and stop about one foot from 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 that 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.

Stacking One Load on Top of Another

1. Stop about one foot away from the loading area and lift the mast high enough to clear the top of the stack.
2. Slowly move forward until the load is squarely over the top of the stack.
3. Level the forks and lower the mast until the load is no longer supported by the forks.
4. Look over both shoulders for obstructions and back straight out if the path is clear.

Forklift Safety Rules

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 an inch or two 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 higher lift capacity.
4. Do not raise or lower a load while you are in route. Wait until you are in the loading area and have stopped before raising or lowering the load.
5. After picking up a load, adjust the forks so that the load is tilted slightly backward for added stability.
6. Drive with the load at a ground clearance height of 4-6 inches at the tips and 2 inches at the heels in order to clear most uneven surfaces and debris.

FORK LIFT and HOIST OPERATIONS

Forklifts (Continued)

7. Drive at a walking pace and apply brakes slowly to stop when driving on slippery surfaces such as icy or wet floors.
8. Do not drive over objects in your pathway.
9. Do not drive into an area with a ceiling height that is lower than the height of the mast or overhead guard.
10. Steer wide when making turns.
11. Do not drive up to anyone standing or working in front of a fixed object such as a wall.
12. Do not drive along the edge of an unguarded elevated surface such as a loading dock or staging platform.
13. Obey all traffic rules and signs.
14. Sound horn when approaching blind corners, doorways or aisles to alert other operators and pedestrians.
15. Stay a minimum distance of three truck lengths from other operating mobile equipment.
16. Drive in reverse and use a signal person when your vision is blocked by the load.
17. Look in the direction that you are driving; proceed when you have a clear path.
18. Do not use bare forks as a man-lift platform.
19. Do not drive the forklift while people are on the attached man-lift platform.
20. Drive loaded forklifts forward up ramps.
21. Raise the forks an additional two inches to avoid hitting or scraping the ramp surface as you approach the ramp.
22. Drive loaded forklifts in reverse when driving down a ramp.
23. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
24. Do not attempt to turn around on a ramp.
25. Do not use “Reverse” to brake.
26. Lower the mast completely, turn off the engine and set the parking brake before leaving your forklift.

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 has been turned off, the dock lock has been engaged and the wheels have been 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.

FORK LIFT and HOIST OPERATIONS

Cranes and Hoists

1. Do not use load hooks or chains that are cracked, bent, elongated or broken.
2. Do not use cranes that do not have their rated load capacity indicated on each side of the crane or on its load block.
3. Passengers are not permitted to ride inside the operator's cap of a truck crane.
4. Keep crane windows clean. Do not use a crane if its windows are broken.
5. Do not exceed posted weight limits on hoists.
6. Do not operate a crane on soft ground without cribbing and mats.
7. Fully extend outriggers before attempting a lift.
8. Stay outside the barricades of the posted swing radius.
9. Do not perform any crane retrofits or modifications without the manufacturer's approval.
10. Do not leave the crane unattended with a hoisted load.
11. Do not hoist loads over people.
12. Do not drive on the road shoulders.
13. Wear high visibility vest.
14. Wear the prescribed personal protective equipment such as hard hats, goggles, gloves, dust masks and hearing protection when operating a hoist.

Signalman

1. Wear high visibility vests before working as a signalman.
2. Only follow the signals of the person designated to give you signals when operating a crane.
3. Replace the belts, gears or rotating shaft guards after servicing a crane; do not use the crane if guards are missing from these areas.
4. Wear the prescribed personal protective equipment such as hard hats, goggles, dust masks and hearing protection when operating a hoist.

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 make-shift 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. Wear work gloves when handling rough, sharp-edged or abrasive material such as chains, cables, ropes or slings.
8. 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.
9. Lift the load from the center of hooks, not from the point.

MACHINE OPERATORS/ASSEMBLY PERSONNEL

Housekeeping

1. Do not use gasoline for cleaning purposes.
2. Do not throw matches, cigarettes or other smoking material into trash baskets.
3. Keep floors clear of items such as metal chips, bolts, oily rags, metal shavings or metal dust.
4. Store rags that have been oil cutting fluids on them in closed metal containers labeled “oily rags.”
5. Close the lids of containers of cutting fluids and solvents tightly after each use or when not being used.
6. Use brushes or vacuum machinery to remove metal clips, shavings and other debris from the drill table. Do not use bare hands.
7. Sweep up shavings from around equipment such as drill presses, lathes or planers by using a broom and a dust pan.

Machine/Equipment Safety

1. Replace the guards before starting machines, after making adjustments or repairs.
2. Do not remove, alter or bypass any safety guards or devices when operating mechanical equipment such as mechanical power presses, metal working lathes, cutting, notching, riveting or bending and forming 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 machines. If the machine becomes jammed, disconnect the power before clearing the jam.

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. Adjust the tongue guard so that it is no more than ¼ inch from the grinding wheel.
4. Do not try to stop the wheel with your hand, even if you are wearing gloves.

Drills

1. Do not use dull, cracked or bent drill bits.

Hydraulic/Pneumatic Tools

1. Do not point a compressed air hose at bystanders or use it to clean your clothing.
2. Tag defective or damaged tools “Out of Service” to prevent usage of the tool.
3. Do not use tools that have handles with burrs or cracks.
4. Do not use compressors if their belt guards are missing. Replace belt guards before use.
5. Turn the tool “off” and let it come to a complete stop before leaving it unattended.
6. Disconnect the tool from the air line before making any adjustments or repairs to the tool.

MACHINE OPERATORS/ASSEMBLY PERSONNEL

General hand Tool Safety

1. Tag worn, damaged or defective tools “Out of Service” and do not use them.
2. Do not use a tool if its handle has splinters, burrs, cracks, splits or if the head of the tool is loose.
3. Do not use impact tools such as hammers, chisels, punches or steel stakes that have mushroomed heads.
4. When handing a tool to another person, direct sharp points and cutting edges away from yourself and the other person.
5. When using knives, shears or other cutting tools, cut in a direction away from your body.
6. Do not carry sharp or pointed hand tools such as screwdrivers, scribes, snips, scrapers, chisels or files in your pocket unless the tool or pocket is sheathed.
7. Do not perform “make shift” repairs to tools.
8. Do not throw tools from one location to another or from one employee to another.
9. Transport hand tools only in tool boxes or tool belts. Do not carry tools in your clothing.

Powder Actuated Tools

1. Wear impact resistant safety goggles or face shields when operating any powder actuated tools.
2. 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.
3. Do not attempt to fasten through a pre-drilled hole unless the powder actuated tool has a hole locator.
4. Keep your head and body behind the powder actuated tool when firing it.
5. Do not fasten steel beams at a distance closer than ½ inch from the edge of the steel.
6. Before using powder actuated tools do not alter, bypass, or remove the shield or guard at the muzzle end of the powder actuated tool.
7. Do not load a powder actuated tool until you are ready to fire it.

MACHINE OPERATORS/ASSEMBLY PERSONNEL

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 riveting and bolting 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.

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 make-shift 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. Wear work gloves when handling rough, sharp-edged or abrasive material such as chains, cables ropes or slings.
8. 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.
9. Lift the load from the center of hooks, not from the point.

Personal Protective Equipment

1. Wear safety glasses such as burning goggles or grinding goggles or face shields when operating grinders, forges, lathes or sanders.
2. Wear face shields over goggles or safety glasses during open furnace, hot dipping, metal plating or gas cutting operations.
3. Wear chemical goggles when using, applying or handling chemical liquids or powders from containers labeled “CAUSTIC” or “CORROSIVE.”
4. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. When welding, wear a welding helmet with filter plates and lenses, welding gloves, a long sleeve shirt, long pants, and an apron.
6. Insulated work gloves are required for all welders when using welding equipment.
7. Wear ear plugs or ear muffs in areas posted “Hearing Protection Required.”
8. Do not wear contact lenses when welding.

3444 – Sheet Metal Work

Hazardous Materials

1. Do not store chemical containers labeled “Oxidizer” with containers labeled “Corrosive” or “Caustic.”
2. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear, when using chemicals.
3. Do not use protective clothing or equipment that has split seams, pin holes, cuts, tears or other signs of visible damage.
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.

3444 – Sheet Metal Work
WELDING PERSONNEL

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, paper, such as blueprints, or other combustible materials in the welding, cutting or brazing area.
3. Do not perform “hot work”, such as welding, metal grinding or other spark producing operations, within 50 feet of containers labeled “Flammable” or Combustible.”
4. Use the red hose for gas fuel and the green hose for oxygen.
5. Do not use worn, burned or cracked hoses.
6. Do not use oil, grease or other lubricants on the regulator.
7. “Blow Out” hoses before attaching the torch.
8. Ignite torches with friction lighters only. Do not use a cigarette lighter.
9. Do not change electrodes with bare hands; use dry rubber gloves.
10. Bleed oxygen and fuel lines at the end of the work shift.
11. Do not wear contact lenses when welding.
12. When welding, wear a welding helmet with fiber plates and lenses, welding gloves, a long sleeve shirt, long pants, and an apron.

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. Do not lift cylinders by the valve protective cap.
4. Place valve protective caps on gas cylinders that are in storage or not in use.
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, slingboard, pallet or cylinder basket to hoist them.
7. Do not hoist or transport cylinders by means of magnets or choker slings.
8. Do not transport cylinders without first removing regulators and replacing the valve protective caps.
9. Do not place cylinders against electrical panels or live electrical cords where the cylinder can become part of the circuit.
10. Do not store oxygen cylinders near fuel gas cylinders such as propane or acetylene, or near combustible material such as oil or grease.

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. Close the cylinder valve when work is finished, when the cylinder is empty or at any time the cylinder is moved.

WELDING PERSONNEL

Compressed Gas Cylinders (Continued)

4. Stand to the side of the regulator when opening the valve.
5. 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.
6. Do not use compressed gas to clean the work area, equipment or yourself.
7. Do not remove the valve wrench from acetylene cylinders while the cylinder is in use.
8. Open compressed gas cylinder valves slowly. Open fully when in use to eliminate
9. Purge oxygen valves, regulators and lines before use.

Portable Welding Equipment

1. Do not use personal or employee-owned power tools and portable appliance while at work.
2. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
3. Do not use welding apparatus if power plug is cut, frayed, split or otherwise visibly damaged or modified.
4. When replacing power plugs and cords of welding apparatus, always check to ensure that the ground wire is connected and the notches on the power plug prongs are not worn off, allowing the plug to be inserted backward.

General Hand Tool Safety

1. Use tied off containers to keep tools from falling off of elevated work platforms.
2. Tag worn, damaged or defective tools “Out of Service” and do not use them.
3. Do not use a tool if its handle has splinters, burrs, cracks, splits or if the head of the tool is loose.
4. Do not use impact tools such as hammers or chisels that have mushroomed heads.
5. When handling a tool to another person, direct sharp points and cutting edges away from yourself and the other person.
6. 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 pocket is sheathed.
7. Do not perform “make-shift” repairs to tools.
8. Do not carry tools in your hand when climbing. Carry tools in tool belts or hoist the tools to the work area with a hand line.
9. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
10. Transport hand tools only in tool boxes or tool belts. Do not carry tools in your clothing.

WELDING PERSONNEL

General Hand Tool Safety (Continued)

Vises

1. Position the workpiece in the vise so that the entire face of the jaw supports the work piece.
2. Do not use a vise that has worn or broken jaw inserts, or has cracks or fractures in the body of the vise.
3. Do not slip a pipe over the handle of a vise to gain extra leverage.

Personal Protective Equipment

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. When welding, wear a welding helmet with filter plates and lenses, welding gloves, a long sleeve shirt, long pants, and an apron.
3. Insulated work gloves are required for all welders when using welding equipment.
4. Wear ear plugs or ear muffs in areas posted “Hearing Protection Required.”
5. Do not wear contact lenses when welding.

Hazardous Materials

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for polishes and finishes used in your workplace.
2. Do not drag gas cylinders or containers labeled “Flammable”
3. Do not use chemicals from unlabeled containers and unmarked cylinders.

GRINDING, BUFFING and SURFACE FINISHING PERSONNEL

Housekeeping

1. Do not place material such as paint containers or trash in walkways and passageways.
2. Do not use gasoline for cleaning purposes.
3. Do not throw matches, cigarettes or other smoking material into trash baskets.
4. Store rags that have oil or paint on them in closed metal containers labeled “oily rags.”
5. Close the lids of containers of paint and thinner tightly after each use or when not being used.
6. Sweep up shavings from around equipment such as grinders, buffers or sanders by using a broom and a dust pan.

Machine/Equipment Safety

General

1. Read and obey safety warnings posted on or near any machine or piece of equipment.
2. Do not remove, alter or bypass any safety guards or devices when operating any piece of equipment or machinery.
3. Replace the guards before starting machines such as polishers, buffers or grinders or after making adjustments or repairs.
4. Long hair must be contained under a hat or hair net, regardless of gender.

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. Adjust the tongue guard so that it is no more than ¼ inch from the grinding wheel.
4. Do not try to stop the wheel with your hand, even if you are wearing gloves.
5. Do not perform metal grinding within 50 feet of containers labeled “Flammable” or “Combustible.”

Buffers

1. Wear your face shield or safety goggles when operating the buffer. Do not wear gloves.
2. Before changing the buffing pad, turn the power switch of the buffer to “Off” and unplug it from the power source.
3. Keep your hands away from the rotating buffing pads.

Lock/Tagout

1. Do not remove a lock from equipment unless you placed it there.
2. Attach your own lock or tag when you need to isolate an energy source.

GRINDING, BUFFING and SURFACE FINISHING PERSONNEL

Electrical Powered Tools

1. Do not use power equipment or tools on which you have not been trained.
2. Keep power cords away from path of grinders and buffers.
3. Do not use cords that have splices, exposed wires or cracked or grayed ends.
4. Do not carry plugged in equipment or tools with your fingers on the switch.
5. Turn the tool off before plugging or unplugging it.
6. Do not leave tools that are “On” unattended.
7. Do not handle or operate electrical tools when your hands are wet or when you are standing on wet floors.
8. Do not operate spark inducing tools such as grinders near containers labeled “Flammable” or in an explosive atmosphere such as a paint spray booth.
9. Do not use extension cords or other grounded three pronged power cords that have the Ground plug removed or broken off.
10. Do not use an adapter that eliminates the ground such as a cheater plug.
11. Do not connect multiple electrical tools into a single outlet.
12. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
13. Do not operate power hand tools or portable appliances that have a frayed, worn, cut, improperly spliced or damaged power cord.
14. Do not operate power hand tools or portable appliances if the ground pin from the three pronged power plug is missing or has been removed.
15. Do not operate power hand tools or portable appliances with a two-pronged adapter or a two conductor extension cord.
16. Do not operate power hand tools or portable appliances while holding a part of the metal casing or holding the extension cord in your hand. Hold all portable power tools by the plastic hand grip or other nonconductive areas designed for gripping purposes.

Hydraulic/Pneumatic Tools

General

1. Do not use tools that have handles with burrs or cracks
2. Do not use compressors if their belt guards are missing. Replace belt guards before use.
3. Turn the tool “off” and let it come to a complete stop before leaving it unattended.
4. Disconnect the tool from the air line before making any adjustments or repairs to the tool.
5. Do not point a compressed air hose at bystanders or use it to clean your clothing.

Pneumatic Sanding Equipment

1. Wear gloves, aprons, dust masks, goggles and hearing protection.
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 or fixtures.

GRINDING, BUFFING and SURFACE FINISHING PERSONNEL

Hydraulic/Pneumatic Tools (Continued)

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.

Blasting Equipment

1. Only blasters may use blasting equipment.
2. 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.
3. Do not use compressed air to clean equipment or yourself.

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. Do not lift cylinders by the valve protection cap.
4. Place valve protection cap on gas cylinders that are in storage or not in use.
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 or 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 valve protection caps.
4. Close the cylinder valve when work is finished, when the cylinder is empty or at any time 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 chocker clings.
9. Do not remove the valve wrench from acetylene cylinders while the cylinders is in use.

GRINDING, BUFFING and SURFACE FINISHING PERSONNEL

Compressed Gas Cylinders (Continued)

10. Open compressed gas cylinder valves slowly. Open fully when in use to eliminate possible leakage around the cylinder valve stem.
11. Purge oxygen valves, regulators and lines before use.

Knives/Sharp Instruments

1. When handling snips, 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 use.
4. Do not use knives with dull blades.
5. Do not use knives with broken or loose handles.
6. Do not use knives as screwdrivers or pry bars.
7. Do not carry knives, scissors or other sharp tools in pockets or aprons unless they are first placed in their sheath or holder.

General Hand Tool Safety

1. Use tied off containers to keep tools from falling off of elevated work platforms.
2. Tag worn, damaged or defective tools “Out of Service” and do not use them.
3. Do not use a tool if its handle has splinters, burrs, cracks, splits or if the head of the tool is loose.
4. Do not use impact tools such as hammers or chisels that have mushroomed heads.
5. When handing a tool to another person, direct sharp points and cutting edges away from yourself and the other person.
6. 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 pocket is sheathed.
7. Do not perform “make-shift” repairs to tools.
8. Do not carry tools in your hand when climbing. Carry tools in tool belts or hoist the tools to the work area with a hand line.
9. Do not throw tools from one location to another, from one employee to another, from scaffolds or other elevated platforms.
10. Transport hand tools only in tool boxes or tool belts. Do not carry tools in your clothing.

Files/Rasps

1. When using a file or a rasp, grasp the handle in one hand and the toe of the file in the other.
2. Clean the grooves of a file with a wire brush.
3. Do not hammer on a file.

3444 – Sheet Metal Work
GRINDING, BUFFING and SURFACE FINISHING PERSONNEL

General Hand Tool Safety (Continued)

Chisels

1. Keep the cutting edge of the chisel sharp.
2. Hold chisel with a tool holder if possible.
3. Clamp a small work piece in a vise and chip towards the stationary jaw when working with a chisel.

Hammers

1. Do not strike nails or other objects with the cheek of the hammer.
2. Do not strike a hardened steel surface, such as a cold chisel, with a claw hammer.
3. Do not use a hammer if your hands are oily, greasy or wet.

Painting Safety

1. Spray paint operations must use respirators provided by their supervisor for their assigned duties.
2. Wear goggles, gloves, face shields, long sleeve shirts, and long pants when spray painting is being performed.
3. Press the pressure relief valve on painting canisters and painting guns prior to disconnecting them.
4. Do not store or eat where spray painting is being performed.
5. Close the lids of containers of paint and thinner tightly after each use or when not being used.

Hazardous Materials

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for polishes and finishes used in your workplace.
2. Use personal Protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear, when using chemicals labeled “Flammable,” “Corrosive,” “Caustic” or “Poisonous.”
3. Do not use chemicals from unlabeled containers and unmarked cylinders.
4. Do not store chemical containers labeled “Oxidizer” with containers labeled “Corrosive” or “Caustic.”
5. Only dispense a liquid labeled “Flammable” from its bulk container located in areas Posted “Flammable Liquid Storage.”
6. 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.

GRINDING, BUFFING and SURFACE FINISHING PERSONNEL

Personal Protective Equipment

1. Wear safety glasses such as burning goggles or grinding or face shield when operating grinders or sanders.
2. Wear face shields over goggles or safety glasses during spray painting and metal plating operations.
3. Wear chemical goggles when using, applying or handling chemical liquids or powders from containers labeled “CAUSTIC” or “CORROSIVE.”
4. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
5. Wear ear plugs or ear muffs in areas posted “Hearing Protection Required.”

Respirators

1. Shave daily to prevent facial hair from interfering with the face seal of the respirator.
2. Return respirators to their carrying cases or cartons and store them in your locker or in the storage area when the work is completed.
3. Only use the respirator that has been issued to you.

MAINTENANCE PERSONNEL

Housekeeping

1. Do not use gasoline for cleaning purposes.
2. Do not throw matches, cigarettes or other smoking materials into trash baskets.
3. Keep floors clear of items such as service tools, metal chips, oily rags, metal shavings or metal dust.
4. Store rags that have oil or grease on them in closed metal containers labeled “oily rags.”
5. Do not store food or eat where repair work is being performed.
6. Close the lids of containers of paint and thinner tightly after each use or when not being used.
7. Use brushes or vacuum machinery to remove metal chips, shavings and other debris from the equipment being serviced. Do not use your bare hands.

Ladders and Step Ladders

1. When using a ladder, extend the top of the ladder at least 3 feet above the edge of the landing.
2. Do not use a ladder as a horizontal platform.
3. Do not place ladders on barrels, boxes, loose bricks, pails, concrete blocks or other unstable bases.
4. Do not carry items in your hands while climbing up or down a ladder.
5. Do not try to “walk” a ladder by rocking it. Climb down the ladder, and then move it.
6. Do not place ladders in a passageway or doorway without posting warning signs or cones that detour pedestrian traffic away from the ladder. Lock the doorway which you are blocking and post the sign “Detour”

Machine/Equipment

General

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

3444 – Sheet Metal Work
MAINTENANCE PERSONNEL

Hand Tool Safety

1. Wear safety glasses or safety goggles when using snips to cut materials.
2. Wear work gloves when cutting materials with snips.

Tool Boxes/Chest/Cabinet

1. Tape over or file off sharp edges on tool boxes, chests or cabinets.
2. Do not stand on tool boxes, chest or cabinets to gain extra height.
3. Lock the wheels on large tool boxes, chests or cabinets to prevent them from rolling.
4. Push large chests, cabinets and tool boxes; do not pull
5. Do not use a tool box or chest as a workbench.
6. Do not move a tool box, chest or cabinet if it has loose tools or parts on the top.

Electrical Powered Tools

1. Do not use power equipment or tools on which you have not been trained.
2. Keep power cords away from path of drills, saws, grinders, ovens and mills.
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. Turn the tool off before plugged or unplugged it.
6. Do not leave tools that are “On” unattended.
7. Do not handle or operate electrical tools when your hands are wet or when you are standing on wet floors.
8. Do not operate spark inducing tools such as grinders, drills or saws near containers Labeled “Flammable” or in an explosive atmosphere such as a paint spray booth.
9. Turn off electrical tools and disconnect the power source from the outlet before attempting repairs or service work. Tag the tool “Out of Service.”
10. Do not use extension cords or other grounded three pronged power cords that have the ground prong removed or broken off.
11. Do not use an adapter that eliminates the ground such as a cheater plug.
12. Do not connect multiple electrical tools into a single outlet.
13. Do not use a power hand tool to cut wet or water soaked building materials or to repair pipe leaks.
14. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
15. Do not operate power hand tools or portable appliances that have a frayed, worn, cut, improperly spliced or damaged power cord.
16. Do not operate power hand tools or portable appliances if the ground pin from the three pronged power plug is missing or has been removed.
17. Do not operate power hand tools or portable appliances with a two-pronged adapter or a two conductor extension cord.
18. Do not operate power hand tools or portable appliances while holding a part of the metal casing or holding the extension cord in your hand. Hold all portable power tools by the plastic hand grip or other nonconductive areas designed for gripping purposes.

3444 – Sheet Metal Work
MAINTENANCE PERSONNEL

Welding/Cutting/Brazing

1. Obey all signs posted in the welding area.
2. Do not leave oily rags, such as blueprints or other combustible materials in the welding, cutting or brazing area.
3. Do not perform “hot work” such as welding, metal grinding or other spark producing operations, within 50 feet of containers labeled “Flammable” or “Combustible.”
4. Use the red hose for gas fuel and the green hose for oxygen.
5. Do not use worn, burned or cracked hoses.
6. Do not use oil, grease or other lubricants on the regulator.
7. “Blow Out” hoses before attaching the torch.
8. Ignite torches with friction lighters only. Do not use a cigarette lighter.
9. Do not change electrodes with bare hands; use dry rubber gloves.
10. Bleed oxygen and fuel lines at the end of the work shift.
11. Do not wear contact lenses when welding.
12. When welding, wear a welding helmet with filter plates and lenses, welding gloves, a long sleeve shirt, long pants, and an apron.
13. Wear clothing made of cotton, wool, or non-synthetic fibers. Wear long sleeve shirt long pants, boots, and gloves.
14. Use the welding screen to shield other employees from flying slag and intense light.
15. Before welding place the floor fan behind you to keep welding fumes away from your face.
16. Do not use a torch on any container that is labeled “Flammable” or “Combustible.”

Compressed Gas Cylinders

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. Do not place cylinders against electrical panels or live electrical cords where the cylinder can become part of the circuit.
7. Do not store oxygen cylinders near fuel gas cylinders such as propane or acetylene, or near combustible material such as oil or grease.
8. 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.

MAINTENANCE PERSONNEL

Hazardous Materials

1. Use personal protective clothing or equipment such as neoprene gloves, rubber boots, shoe covers, rubber aprons, and protective eyewear, when using chemicals labeled “Flammable,” “Corrosive,” “Caustic” or “Poisonous.”
2. Always wash your hands with soap and water after using solvents or other chemicals.
3. 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.
4. Only dispense a liquid labeled “Flammable” from its bulk container located in areas posted “Flammable Liquid Storage.”
5. Do not use Chemicals from unlabeled containers and unmarked cylinders.
6. Do not store chemical containers labeled “Oxidizer” with containers labeled “Corrosive” or “Caustic.”
7. Always use chemical goggles and a face shield before handling chemicals labeled “Corrosive” or “Caustic.”

Dip Tank Operation

1. Slowly pour liquid solvents into the dip tank to avoid splashing.
2. Slowly dip pieces into the dip tank to prevent splashing.
3. Wear Neoprene gloves, aprons and goggles when dipping work pieces into the dip tank.

WAREHOUSE PERSONNEL (Storeroom/Stockroom, Shipping and Receiving)

General Rules

1. Obey all safety and danger signs posted in the workplace.
2. When annually 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.
3. Visually inspect for sharp objects or other hazards before putting hands, legs or other body parts into containers such as garbage cans, boxes, bags or sinks.
4. Do not lift slippery or wet objects; use a hand truck.
5. Do not let items overhang from shelves into walkways.
6. Move slowly when approaching blind corners.
7. Place heavier loads on the lower or middle shelves.
8. Remove one object at a time from shelves.
9. Place items on shelves so that they lie flat and do not lean against each other.

Hand Truck Operations

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

Carts

1. Do not exceed the rated load capacity noted on the manufacturer's label on the cart.
2. Use 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.

WAREHOUSE PERSONNEL (Storeroom/Stockroom, Shipping and Receiving)

Pallet Jack Use

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 pallet jack unattended with the load suspended.
4. Do not ride on pallet jack.
5. Start and stop gradually to prevent the load suspended.
6. Pull manual pallet jacks; push when going down an incline or passing close to walls or obstacles.
7. If your view is obstructed, use a spotter to assist in guiding the load.
8. Stop the pallet jack if anyone gets in your way.
9. Do not place your feet under the pallet jack when it is moving.
10. Keep your feet and other body parts clear of pallet before releasing the load.
11. Do not use pallets that are cracked or split or have other visible damage.

Order Picker

1. Only employer authorized personnel may operate order pickers.
2. Do not operate an order picker without the operator's safety belt or lanyard in place.
3. Do not remove the safety belt or lanyard when the order picker is in the raised position.
4. Do not allow personnel to stand under the order picker while it is in the raised position.
5. Drive the order picker at a walking pace.
6. Do not drive with the order picker in the raised position.

Conveyor Operations

1. Do not climb over floor conveyor equipment.
2. Do not ride on any conveyors.

Handling Drums

1. Roll drums by pushing against the middle of the drum with both hands.
2. Use a cradle-type drum tilter when tilting drums.
3. Do not try to up-end a full drum by yourself.
4. Do not roll a full drum up a skid by yourself.
5. Chock both sides of a drum when storing the drum in a horizontal position.

WAREHOUSE PERSONNEL (Storeroom/Stockroom, Shipping and Receiving)

Handling Chemicals

1. Follow the safe handling instructions on the container or listed on the corresponding Material Safety Data Sheet when handling each chemical stored in the stockroom.
2. Do not smoke while handling chemicals labeled “Flammable”
3. Do not store chemicals labeled “Flammable” near sources of ignition such as space heaters and sparking tools.
4. Do not handle or load nay containers of chemicals if their containers are cracked or leaking.
5. Always use chemical goggles and face shield before handling chemicals labeled.
6. Do not drag containers labeled “Flammable.”
7. Do not store chemical containers labeled “Oxidizer” with containers labeled “Corrosive” or “Caustic.”
8. Only dispense a liquid labeled “Flammable” from its bulk container located in areas Posted “Flammable Liquid Storage.”

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, slingboard, 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.
8. Do not store oxygen cylinders near fuel gas cylinders such as propane or acetylene, or near combustible material such as oil or grease.
9. 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.

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 use.
4. Do not use knives with dull blades.

3444 – Sheet Metal Work

WAREHOUSE PERSONNEL (Storeroom/Stockroom, Shipping and Receiving)

Knives/Sharp Instruments (Continued)

5. Carry knives with their tips pointed towards the floor.
6. Do not attempt to catch a falling knife.
7. When opening cartons use safety box cutters. Do not cut the blade extended beyond the guard.
8. Do not use knives with broken or loose handles.
9. Do not use knives as screwdrivers, pry bars, or can openers.
10. Do not leave knives in sinks full of water.
11. Do not pick up knives by the blades.
12. Do not carry knives, scissors or other sharp tools in pockets or aprons unless they are first placed in their sheath or holder.
13. 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 with two hands and hold the bag away from your body.

Packing/Unpacking

1. Wear protective gloves when building boxes for packaging.
2. When using tape dispenser, direct the cutting edge away from your body.
3. Slide all containerized packages or use hand trucks, pallet jack or other lifting aids.

Pneumatic Stapler

1. Do not discharge stapler unless it is touching the cardboard of the box being built.
2. Keep your hand from behind the box flap being stapled.
3. If something or someone distracts you from your work, discontinue the stapling operation until it is safe to resume.

Driving/Vehicle Safety

Fueling Vehicles

1. Turn the vehicle off before fueling.
2. Do not smoke while fueling a vehicle.
3. Wash hands with soap and water if you spill gasoline on your hands.

Driving Rules

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