AUER & KOMPANY LLC
MANAGEMENT COMMITMENT, INVOLVEMENT AND POLICY PURPOSE STATEMENT

The management of Auer & Kompany is committed to providing employees with a safe and healthful workplace. It is the policy of Auer & Kompany 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 superintendents. 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.

All sections of this policy manual will attempt to comply with standards as put forth in 29CFR 1926, 29CFR 1910, ANSI publications and any and all state and local regulations.

We maintain a safety and health program conforming to the best practices of our field. To be successful, such a program must embody proper attitudes towards injury and illness prevention on the part of superintendents and employees. It requires the cooperation in all safety and health matters, not only of the employer and employee, but between the employee and all co-workers. Only through such a cooperative effort can a safety program in the best interest of all be established and preserved. Safety is no accident; think safety and the job will be safer.

The personal safety and health of each employee is of primary importance. Prevention of occupationally induced injuries and illnesses is of such consequence that it will be given precedence over operating productivity. To the greatest degree possible, management will provide all mechanical and physical protection required for personal safety and health, but our employees must bear primary responsibility for working safely. A little common sense and caution can prevent most accidents from occurring.

The objective of our organization is a safety and health program that will reduce the number of injuries and illnesses to an absolute minimum, not merely in keeping with, but surpassing the best experience of similar operations by others. Our goal is zero accidents and injuries.

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

Name: Steve Auer	Name: Derek Wight
Title: Safety Director	Title: Safety Coordinator
Phone: 407-518-7777	Phone: 407-518-7777

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 Auer & Kompany. Compliance with the safety rules will be required of all employees as a condition of employment.

Steve Auer Date 1/1/16

ASSIGNMENT OF RESPONSIBILITY

The *SAFETY DIRECTOR* of Auer & Kompany is responsible for:

- Updating and maintaining the safety policies. These policies will meet and may exceed all applicable regulations.
- Assisting in providing the necessary training
- Maintaining all proper documentation
- Assuring that a safety audit is done of every jobsite on a regular basis

The *MANAGEMENT* of Auer and Kompany is responsible for:

- Promoting safe work practices in the field
- Enforcement of these rules and policies on the jobsite
- Providing necessary safety equipment for all employees
- Providing safe tools and equipment (i.e. scaffolding, saws) for the employees
- Addressing safety concerns in a timely manner
- Refusing to allow employees to work in unsafe conditions

The *SUPERINTENDENTS* of the jobsites are responsible for:

- The enforcement of these rules and policies on the jobsite.
- Ensuring that all employees have read (or have had read to them) all applicable parts of this manual
- Providing the necessary training prior to placing them into a potentially hazardous situation.
- Completing all required documentation
- Reporting unsafe conditions that are out of the scope of responsibility of Auer & Kompany to the general contractors representative(s). If they are not addressed in a reasonable time frame, these conditions are to be reported to the safety program coordinator.

The *EMPLOYEES* are responsible for:

- Understanding the contents of this manual
- Following all of its rules and regulations.
- Reporting all unsafe conditions to their superintendent/superintendent immediately
- Reporting all injuries to their superintendent/superintendent immediately

FIRST AID / ACCIDENT REPORTING PROCEDURES

EMERGENCY PHONE NUMBERS

Main Office	407-518-7777		
Safety Coordinator	407-518-7777	Poison Control	911
First Aid	jobsite foreman	Fire Department	911
Ambulance	911	Police	911
Medical Clinic	The closest Centra-Care / Florida Hospital facility (per the foreman's manual)		
Workers Comp Insurance Carrier: Call office for this information			

Minor First Aid Treatment
First aid kits are located in the general contractor's office / trailer, in the gang box or in the superintendent's truck. If you sustain an injury or are involved in an accident requiring minor first aid treatment:

- Inform your superintendent. Find First aid kit.
- Self-administer first aid treatment to the injury or wound. (The superintendent is not to administer first aid treatment)
- 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 superintendent.
- Proceed to the posted medical facility. Your superintendent 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 in this manual or those posted next to the telephone in the GC's trailer 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 superintendent on our first aid procedures. We have several employees trained in the administering of first aid. These employees are NOT designated as first responders. They will provider medical assistance only if they feel they can safely do so and are not required by Auer & Kompany to administer such aid.

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.

INCIDENT INVESTIGATION PROCEDURES

An accident investigation will be performed by the superintendent or the Safety Director / Coordinator at the location where the accident occurred. The Safety Director / Coordinator is responsible for seeing that the accident investigation reports are being filled out completely, and that the recommendations are being addressed. Superintendents or the Safety Director / Coordinator 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 Director / Coordinator within 24 hours of the accident.

Incident Investigation and Near Miss Analysis

Employee's Name:_____

Date of Incident:_____ Date Reported:_____

Supervisor's Name:_____

Nature of Injury / Body Part :_____

What happened? (Describe in detail, task performed, tools, equipment and materials involved)

Describe any **unsafe acts** and **conditions** that may have contributed to the incident.

Was the task-performed part of the employee's regular job? (If no explain.)

Personal Protective Equipment (PPE)

Describe the PPE required for the task being investigated.(if none state "none")

Was this PPE available to the employee? (If no explain.)

Was the employee wearing all PPE required? (If no explain.)

Witnesses:

Please list all witnesses:

Training

Is there a specific rule or training for this task?

Has the employee been trained in the rules and safe work methods pertaining to the involved task? (If no /explain)

If yes how and approximately how long since last trained?

Conclusion

What Can be done to prevent this type of incident from happening again?

INSTRUCTIONS FOR COMPLETING THE INCIDENT 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.

Identification: This section is self-explanatory.

Nature of Injury: Describe the injury, e.g., strain, sprain, cut, burn, fracture.

Part of the Body: Part of the body directly affected, e.g., foot, arm, hand, head.

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

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.

Personal protective equipment: Self-explanatory

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

Safety training provided: Are there rules/ training pertaining to this task? Was any safety training provided to the injured related to the work activity being performed?

Corrective action: What can be done to keep this from happening again? (i.e. improved training, additional training, additional PPE, etc)

Follow-up: Once the investigation is complete, the Safety Director / 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.

ENFORCEMENT / DISCIPLINARY PROCEDURES

Auer & Kompany is deeply committed to keeping it's employees safe at all times. As stated elsewhere in this policy Auer & Kompany will provide all necessary safety equipment and training necessary to keep it's employees as safe as possible. It is up to the employee however to follow these rules and work in a safer manner. The superintendents and the Safety Director / Coordinator will attempt to enforce all applicable safety rules with the employees of Auer & Kompany. Disregarding or violating of the safety rules must result in some sort of disciplinary action to convey to all employees the importance of safety at the jobsite.

The following procedures are generally utilized with respect to discipline: It is the policy of the Company that any conduct in its view that interferes with or adversely affects the employees safety or the safety of others is grounds for disciplinary action ranging from oral warnings to immediate discharge. Depending on the conduct, disciplinary steps may be enforced by the following methods in the listed order:

- Verbal Warnings - 2
- Written Warnings - 3
- Suspension Without Pay or
- Termination.

Generally, suspensions and demotions are not used to discipline employees. Factors that may be considered in ascertaining the appropriate steps include:

(1) Seriousness of conduct
(2) Employment record
(3) Employee's ability to correct conduct
(4) Action taken with respect to similar conduct by other employees
(5) Effect on the jobsite
(6) Surrounding / Extenuating circumstances.

Some conduct may result in immediate dismissal (i.e. life-threatening acts to himself or others) There will be an internal investigation to ascertain what occurred and any extenuating circumstances. A disciplinary review board will conduct this investigation. The board will be comprised of five (5) members. In cases that may result in termination, the employee is entitled to choose two (2) of the panel members and the management will choose the remaining three(3) members. All employees are expected to cooperate with the investigation.

When there is reason to believe that an employee has violated Company policy, action will be taken that is consistent with this policy. An employee may terminate his employment at any time, with or without cause, and the Company retains the same right. Further, the Company continually updates and reviews its policies and, accordingly, its disciplinary procedure is subject to change.

DRUG POLICY

Auer and Kompany has implemented a "Drug Policy". All employees are absolutely prohibited from unlawfully manufacturing, distributing, possessing or using controlled or illegal substances in the workplace. It is a condition of employment to refrain from taking illegal drugs on or off the job.

Auer and Kompany has established this drug policy for the workplace, to deter use of drugs and alcohol in the workplace by establishing standards and procedures for drug testing of certain employees and job applicants. We hope this policy will result in a safe working environment for all of the employees. The full script of this policy can be found in the office and is available upon request.

Employees will be subject to the following drug tests:

Reasonable Suspicion Testing : An employee may be required to submit for testing when the employer has a reasonable suspicion, as defined in the policy, that an employee is using or has used drugs in violation of the employer's policy. The employer has a reason to suspect an employee when it has an articulable belief that the employee:

- possesses or uses drugs or alcohol at the workplace;
- is observed intoxicated or impaired by drugs or alcohol; has been reported by a reliable and credible source as using drugs; has tampered with a drug test;
- has caused or contributed to or been involved in an accident while at work; is engaged in abnormal conduct or erratic behavior while at work;
- shows significant deterioration in work performance;
- evidence that an employee has used, possessed, sold, solicited, or transferred drugs while working.

The reason to suspect shall be based on specific and particular facts and the reasonable inferences drawn from those facts in light of experience.

Routine Fitness for Duty Testing: An employee may be asked to submit to a drug test as part of a routinely scheduled fitness for duty medical examination that is either part of the employer's established policy or that is scheduled routinely for all members of an employment classification or group.

The employer initially establishes two employment classifications which require routine fitness for duty testing. Those classifications are operators of hazardous equipment or machinery and employer drivers. All employees so classified must submit to annual testing.

Drugs Tested: You may be tested for any or all of the following:

Alcohol	Amphetamines	Barbiturates	Benzodiazepines
Cannabinoids	Cocaine	Methadone	Methaqualone
Opiates	Phencyclidine	Propoxyphene	

Reporting Use of Prescription or Non-Prescription Medications: An employee or job applicant may confidentially report the use of prescription or non-prescription medications, both before or after being tested. Presence of some prescription and non-prescription medications in the body may affect the outcome of the test. A list of the most common medications which may alter or affect a drug test is attached.

Consequences of Testing Positive or Refusal to Allow Testing

An employed worker who is injured: In the event an employed worker is injured in the course and scope of their employment and who refuses to submit to a drug test or who submits and is tested pursuant to employer policy and who has a positive confirmation of a drug shall:

- Forfeit their eligibility for medical and indemnity benefits under the Workers' Compensation Act.
- Forfeit their eligibility for unemployment benefits.
- Be terminated from employment.
- Otherwise subject to the sanctions provided above for an employed worker who is not injured.

Convictions

If you are convicted of any drug related crime (sale, use or possession), you must notify the employer's human resource department within five days of your conviction. Failure to notify the employer of such conviction is grounds for termination.

Disciplinary Review Board

The disciplinary review board reserves final right in any and all disciplinary action. The actions of the review board will be final and shall be consistent with federal and state law as well as past company actions. The board will review all cases that may result in termination of the employee.

RECORDKEEPING

All applications, accident investigations, training records, jobsite safety inspections, first notice of injury (OSHA 101), disciplinary reports, etc. will be kept at the main office. The OSHA 200 log will be maintained at the office and will be posted during the month of February for all employees to see.

Upon written request of an employee, former employee, or authorized employee representative, the OSHA 200 will be provided within 15 working days from the date of receipt of the request (per 29 CFR 1904.7)

Upon request of an OSHA representative for medical records, the OSHA 200 for the current year and the 5 preceding years will be provided. Also, the supplemental forms for each recordable case will be provided. An attorney will review a request by OSHA for any other medical records before a decision is made.

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 superintendent, 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. Superintendents 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. The use of training videos may also be incorporated.

All employees will be instructed by their superintendents that compliance with the safety rules described in the workplace safety manual is required.

Job-Specific Training

There are many subjects that employees must receive training on according to OSHA guidelines. Many of these subjects correspond to the specific safety policies that are in this manual. Some topics will require classroom type training while others can be done in the field. The safety program coordinator or a designated representative will provide classroom training. A competent person will do all training.

- Superintendents will initially train employees on how to perform their assigned job tasks safely.
- Superintendents 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.
- Superintendents will give employees verbal instructions and specific directions on how to work safely.
- Superintendents will observe employees performing the work. If necessary, the superintendent 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 use.
- Superintendents 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 superintendent observes employees displaying unsafe acts, practices, or behaviors.

Tool Box Safety Talks

Tool box safety talks will be held either every week or every other week depending on the circumstances of the job. A specific, job related topic will be discussed with appropriate documentation maintained. Topics will be determined according to job site requirements and conditions, recent injuries or problems areas, seasonal requirements and by employee request. Either the safety program coordinator or the site superintendent will give these meetings. These meeting will typically be held in the morning, prior to the start of work. If the General Contractor holds weekly safety meetings, the employees of Auer & Kompany will attend those meetings. Attendance at these meeting is mandatory. We would appreciate your participation.

Documentation

All safety training will be documented with the following information:

- Date
- Jobsite
- Brief summary of the topic(s) discussed
- Signatures of those in attendance
- Name of the instructor
- Copies of any information or curriculum used and provided in the training.
- Name and producer of any video(s) shown

Certain training is provided to authorize the employee(s) to safely operate some type of equipment or become the company on-site competent person. This type of training will be recorded in the employee's personnel file. Appropriate identification cards will be issued to those employees identifying themselves as either authorized operators or competent persons. The documentation will be maintained by the safety program coordinator and also in the main office.

COMPETENT PERSON(S)

A competent person, according to OSHA, is one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous or dangerous to employees and who has authorization to take prompt corrective measures to eliminate them. Auer & King has authorized all of it's superintendents as the site competent person(s). Other site competent person(s) will be selected based on knowledge and training and will be given the appropriate authority to take corrective action. They all will carry identification cards signifying this status.

Competent Persons are needed in the following areas: scaffolding (fixed and mobile), heavy equipment operation (lulls, forklifts, etc.), powder-actuated tools, mechanical lift towers

The following is a current list of Auer & Kompany Competent Persons:

1.	2.
3.	4.
5.	6.
7.	8.
9.	10.

SAFETY RULES, POLICIES & PROCEDURES

The following sections are the company safety rules, policies and procedures for the stated activities. The company reserves the right to revise these rules provided that an equivalent degree of safety can be maintained. It is the responsibility of the superintendent to request a variation in these rules from the safety program coordinator. These rules will always meet and may exceed those as required by Federal, Sate and Local agencies.

General Worksite Safety

1. Do not approach any heavy equipment until the operator has seen you and has signaled to you that it is safe to approach.
2. Walk around or step over holes, rocks, roots, materials or equipment in your pathway.
3. Do not work outdoors during lightning storms.
4. Drink plenty of clear liquids during your breaks.
5. Take breaks in shaded areas.

Jobsite Dress Code:

All employees are to wear the following:

1. Long pants
2. Shirts with 4 inch sleeves
3. Construction grade work shoes (superintendents discretion)
4. Tennis shoes, sneakers, cowboy boots, etc. are prohibited.
5. Obscene or Offensive material (words or pictures) on shirts, hats or any other piece of clothing is expressly prohibited on the jobsite (superintendents discretion).

Fire Control

1. Fire extinguisher shall be kept by every welding unit.
2. Fire extinguishers shall be kept by all stored fuel
3. Fire extinguishers will be inspected regularly and when they are discharged, they will be replaced or recharged immediately.

Housekeeping

1. Use caution signs or cones to barricade slippery areas.
2. Do not store or leave items on stairways.
3. Do not store leave items by scaffold ladders.
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 lay cords across doors, openings or employee walkways.

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.

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.
3. Maintain a three-point contact using both hands and one foot or both feet and one hand when climbing into and out of vehicles.
4. Do not leave keys in an unattended vehicle.

Vehicle/Trailer Safety

1. Set the parking brake in the towing vehicle and use wheel blocks to chock the wheels of the trailer before removing any equipment from the trailer.
2. Secure equipment 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 containing equipment or materials.
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.

Lifting Equipment

General

1. Do not use chain slings if links are cracked, twisted, stretched or bent.
2. Do not shorten slings by using makeshift devices such as knots or bolts.
3. Do not use a kinked chain.
4. Protect slings from the sharp edges of their loads by placing pads over the sharp edges of the items that have been loaded.
5. Wear work gloves when handling rough, sharp-edged or abrasive chains, cables, ropes or slings.
5. 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.

When Lifting

1. Do not place your hands between the sling and its load when the sling is being tightened around the load.
2. Lift the load from the center of hooks, not from the point.

Cranes and Hoists

1. Do not use load hooks that are cracked, bent 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 cab of a truck crane.
4. Keep crane windows clean. Do not use a crane if its windows are broken.
5. Do not exceed the rated load capacity as specified by the manufacturer.
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 refits or modifications without the manufacturer's approval.
10. Do not leave the crane unattended with a hoisted load.
1. Do not hoist loads over people.
2. Do not Walk under hoisted loads
12. Wear high visibility vests before working as a signalman.
13. Only follow the signals of the person designated to give you signals when operating a crane.
14. Replace the belts, gears or rotating shaft guards after servicing a crane; do not use the crane if guards are missing from these areas.

Hand Tools

General

1. Keep the blade of all cutting tools sharp.
2. Do not use a tool if its handle has splinters, burrs, cracks, splits or if the head of the tool is loose.
3. Tag worn, damaged or defective tools "Out of Service" and do not use them.
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. When using knives, shears or other cutting tools, cut in a direction away from your body.
7. Carry all sharp tools in a sheath or holster.
8. Do not perform "make-shift" repairs to tools.
9. Do not use "cheaters" on load binders or "boomers."
10. Do not carry tools in your hand when climbing. Carry tools in tool belts or hoist the tools to the work area using a hand line.
11. Do not throw tools from one location to another or from one employee to another.
12. Do not carry tools in your clothing.

Hammers

1. Do not use a hammer if your hands are oily, greasy or wet.
2. Do not strike objects with the cheek of the hammer.
3. Do not strike one hammer against another hammer.

Pliers

1. Do not attempt to force pliers by using a hammer on them.
2. Do not use pliers that are cracked, broken or sprung.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use a saw that has dull saw blades.
3. Oil saw blades after each use.
4. Keep hands and fingers away from the saw blade while you are using the saw.
5. Do not carry a saw by the blade.
6. When using a hand saw, hold the workpiece firmly against the work table.

Electrical Powered Tools

General

1. Do not use power equipment or tools on which you have not been trained.
2. Keep power cords away from path of power saws.
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. Turn the tool off before plugging or unplugging it.
7. Do not leave tools that are "On" unattended.
8. Do not handle or operate electrical tools when your hands are wet or when you are standing on wet floors or wet ground.
9. Do not use extension cords or other grounded three pronged power cords that have the ground prong removed or broken off.
10. Do not use an adapter that eliminates the ground such as a cheater plug.
11. Do not drive over, drag, step on or place objects on a cord.

Power Saws

1. Wear the prescribed personal protective equipment such as goggles, gloves, dust masks and hearing protection when operating the power saw.
2. Do not use a power saw that has cracked, broken, or loose guards or other visible damage.
3. Turn off the saw before making measurements, adjustments or repairs.
4. Keep your hands away from the exposed blade.
5. Operate the saw at full cutting speed with a sharp blade to prevent kickbacks.
6. If the saw becomes jammed, turn the power switch of the saw to "OFF" before pulling out the incomplete cut.
7. Do not alter the anti-kickback device or blade guard.
8. When using the power saw, do not reach across the cutting operation.
9. When using the power saw, do not hold the workpiece against your body when making the cut.

Pneumatic Tools/Compressed Air

1. Do not point a compressed air hose at bystanders or use it to clean your clothing.
2. Do not use pneumatic tools that have handles with burrs or cracks.
3. Lock and/or tag tools "Out of Service" to prevent usage of the tool.
4. Do not use compressors if their belt guards are missing. Replace the belt guards before using the compressor.
5. Turn the power switch of the tool to "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.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
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 your earplugs or earmuffs in areas posted "Hearing Protection Required."
4. Wear heavy leather-faced work gloves when handling sharp materials
5. Wear rubber gloves when handling finishing chemicals such as acids.
6. Wear long pants and shirts at all times.
7. During mixing of concrete compound and water, wear your safety glasses and dust mask or respirator mask provided.

Flammable Storage

1. All flammable liquids will be stored in appropriate containers
2. When flammable are to be stored in the work area they will be kept in the “sandbox” to prevent spills.

Hazardous Materials

1. 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.
2. Do not use protective clothing or equipment that has split seams, pin holes, cuts, tears, or other visible signs of damage.
3. 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.
4. Do not use chemicals from unlabeled containers or unmarked cylinders.
5. Always use chemical goggles and a face shield before handling chemicals labeled "Corrosive" or "Caustic."
6. Do not store chemical containers labeled "Oxidizer" with containers labeled "Corrosive" or "Caustic."
7. Do not smoke while handling chemicals labeled "Flammable".

Ladders and Step Ladders

General

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.
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.
8. Do not try to "walk" a ladder by rocking it. Climb down the ladder, and then move it.
9. Only use a ladder in means it was intended (i.e. a straight ladder as a straight ladder, an A-Frame ladder as an A-Frame ladder.
10. Do not use a metal ladder on rooftops or within 50 feet of electrical power lines.
11. Do not place ladders in a passageway without posting warning signs or cones that detour pedestrian traffic away from the ladder.
12. Allow only one person on the ladder at a time.
13. When using a ladder, extend the top of the ladder at least 3 feet above the edge of the landing.
14. Ladders should be secure to the structure by being tied off at the landing
15. Secure the ladder in place by having another employee hold it.
16. Do not use a ladder as a horizontal platform.

Climbing a Ladder

1. Face the ladder when climbing up or down.
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.

Scaffolding

1. Follow the manufacturer's instructions when erecting the scaffold.
2. No changes can be made to the scaffold without the consent of the competent person.
3. Do not work on scaffolds outside during stormy or windy weather.
4. Do not climb on scaffolds that wobble or lean to one side.
5. Keep the scaffold within 18 in of the building.
6. Initially inspect scaffold prior to mounting. Do not use a scaffold if any piece is worn or visibly damaged.
7. Do not use any scaffold tagged "Out of Service."
8. Do not use unstable objects such as barrels, boxes, loose brick or concrete blocks to support scaffolds or planks.
9. Do not work on platforms or scaffolds unless they are fully planked.
10. Do not use a scaffold unless guardrails and all flooring are in place.
11. Level the scaffold after each move. Do not extend adjusting leg screws more than 12 inches.
12. Do not walk or work beneath a scaffold unless a wire mesh has been installed between the midrail and the toeboard or planking.
13. Use safety harnesses and lanyards when working on scaffolding at a height of 10 feet or more above ground level with no guard rails present. Attach the lanyard to the structure. If No structural member is available, then attach to a secure member of the scaffold.
14. Do not climb the cross braces for access to the scaffold. Use a ladder.
15. Do not jump from, to or between scaffolding.
16. Do not slide down cables, ropes or guys used for bracing.
17. Keep both feet on the decking. Do not sit or climb on the guardrails.
18. Do not lean out from the scaffold. Do not rock the scaffold.
19. Keep the scaffold free of scraps, loose tools, tangled lines and other obstructions.
20. Do not throw anything "overboard" unless a spotter is available. Use debris chutes or lower things by hoist or by hand.

Mobile Scaffolding (i.e. Baker, Perry Scaffolding)

1. Keep the castors locked when an employee is working on the scaffold.
2. Do not move the scaffold with the employee on it unless the following condition are met:
   A. The surface is within 3 deg of level
   B. The surface is free of pits, holes, and obstructions.
   C. The height to base width ratio is 2 to 1 or less
   D. When necessary, outrigger frames are installed on both sides of the scaffold
   E. The force is applied as close to the base as possible but not more than 5 ft above the floor.
   F. The employee on the scaffold is aware of the move.

3. When accessing the scaffold, do not climb over the guard rails
4. Use guardrails when over 6 ft.
5. A height to base width ratio of 4 to 1 must be maintained.
6. Outriggers must be used on both sides of the scaffold unless it is placed within 18". of a wall. If the scaffold is moved then the other outriggers must be used.
7. The work platform is fully planked.

Fall Protection

1. The only acceptable form of fall arrest equipment is a full body harness and a shock-absorbing lanyard.
2. Fall protection will be provided any time that an employee is working 6 ft or more from the working surface.
3. Always refer back to the site-specific fall protection plan for specific requirements.
4. Only use anchorages that are capable of holding a 5000lb load.
5. Guardrail systems shall consist of a top and a mid rail (42" and 21" respectively) and shall be capable of withstanding a load of 200lbs.
6. All fall hazards that are not properly guarded shall be reported to the superintendent immediately.
7. Employees shall not work in unprotected areas unless provided with appropriate fall arrest equipment.

Articulating Boom Lift Operation

1. Never operate around power lines
2. Never exceed the load capacity
3. Never operate on excessively uneven ground that could cause the unit to tip
4. Always inspect the lift prior to operating
5. Always wear fall protection equipment including a full body harness and shock absorbing lanyard when in the lift.

Forklift / Lull Operation

General

1. Only authorized and trained personnel are allowed to operate the forklifts.
2. Apply the foot brake and shift gears to neutral before turning the key.
3. Do not use bare forks as a man-lift platform.
4. Steer the forklift wide when making turns.
5. Sound the forklift horn when approaching blind corners, doorways or aisles to alert other operators and pedestrians.

Lifting

1. Do not exceed the lift capacity of the forklift. Read the lift capacity plate on the forklift if you are unsure.
2. Follow the manufacturer's guidelines concerning changes in the lift capacity before adding an attachment to a forklift.

3. Lift the load 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 that has a higher lift capacity.
4. Do not raise or lower a load while you are enroute. 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. Raise the forks an additional two inches to avoid hitting or scraping the ramp surface as you approach the ramp.
7. Do not drive the forklift while people are on the attached man-lift platform.
8. Drive unloaded forklifts in reverse when going up a ramp and forward when going down a ramp.
9. Drive a loaded forklift in a forward gear when going up a ramp. Upon approaching the ramp, raise the forks an additional two inches to avoid hitting or scraping the ramp surface.
10. Do not attempt to turn the forklift around on a ramp.
11. Do not use a gear for the opposite direction of travel as a means to slow down or stop the forklift.
12. Lower the mast completely, turn the engine off and set the parking brake before leaving your forklift.

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 backwards to stabilize the load.

Putting a Load Down

1. "Square up" and stop about one foot from the desired location.
2. Level the forks and drive to the loading spot.
3. Slowly lower the load to the floor.
4. Tilt the forks slightly forward so 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.

Electrical Safety

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, metal shears, power presses, grinders, and other tools or equipment that can splice or cut the power cord.
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 grinders, drills or saws near containers labeled "Flammable" or in an explosive atmosphere such as a paint spray-booth.
11. Turn off the electrical tool and unplug it from the outlet before attempting repairs or service work. Tag the tool "Out of Service."
12. Do not use extension cords or other three pronged power cords that have a missing prong.
13. Do not 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 run extension cords through doorways, through holes in ceilings, walls or floors.
16. Do not stand in water or on wet surfaces when operating power hand tools or portable electrical appliances.
17. Do not use a power hand tool to cut wet or water soaked building materials.
18. Do not use a power hand tool while wearing wet cotton gloves or wet leather gloves.
19. Never operate electrical equipment barefooted. Wear rubber-soled or insulated work boots.
20. Do not operate a power hand tool or portable appliance that has a frayed, worn, cut, improperly spliced or damaged power cord.
21. 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.
22. Do not operate a power hand tool or portable appliance that has a two-pronged adapter or a two conductor extension cord.
23. 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.

Portable Welding Equipment

1. Wear a welding helmet or welding goggles during welding operations.
2. Do not use personal or employee-owned power tools and portable appliance while at work.
3. Do not perform welding tasks while wearing wet cotton gloves or wet leather gloves.
4. Insulated work gloves are required for all welders when using welding equipment.
5. Do not use welding apparatus if power plug is cut, frayed, split or otherwise visibly damaged or modified.

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

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 use a flame to check for propane cylinder leak, use a leak or monitor detector.

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 choker slings.
9. Do not use compressed gas to clean the work area, equipment or yourself.
10. Do not remove the valve wrench from acetylene cylinders while the cylinder is in use.
11. Open compressed gas cylinder valves slowly. Open fully when in use to eliminate possible leakage around the cylinder valve stem.
12. Purge oxygen valves, regulators, and lines before use.

Torch Applications

1. "Blow Out" hoses before attaching the torch.
2. Inspect hoses and torches before use. Replace damaged, burned, worn or leaking parts.
3. Use a pressure gauge on every regulator. Do not use an adjustable regulator with a higher pressure range than the original regulator that came with the torch.
4. Never face the gauge while opening the cylinder valve.

5. Before lighting a torch, purge the hose, adjust the working pressures, then use a friction lighter to ignite the gases. Do not use matches or a cigarette lighter.
6. Do not use oil, grease or other lubricants on the regulator.
7. When shutting off the torch, close the gas cylinder valve first and let the remaining gas burn out of the hose before closing off the torch valve.
8. Never overfill a gas cylinder. It could explode.
9. Use only hoses listed for liquid petroleum (LP) gas.
10. Use soap solution to test for gas leaks before lighting.
11. Visually check and ensure that the flow of gas through the regulator is flowing in the proper direction. Directional flow is stamped on the regulator.
12. To keep 'frosting' from occurring, increase the size of the bottle or cylinder.
13. Secure propane tanks in an upright position and place them at least 10 feet from the open flame.
14. Keep non-applicators at least 10 feet from the flame.
15. Keep vent in pressure regulator clear at all times.
16. When shutting off the torch, close the propane cylinder valve first and let the remaining gas burn out of the hose.
17. Do not leave a lighted torch unattended.
18. Do not heat a cylinder to increase pressure.
19. Place a fire extinguisher near you, but away from the torch and other parts of LP gas equipment, when performing torch on operations.
20. Do not lay an operating torch over the edge of a roof.
21. Do not use a trowel as a torch stand.
22. Do not lay an operating torch to rest on a gas cylinder. If there is a gas leak in the cylinder area, there could be a fire.
23. Obey all signs posted in the welding area.
24. Do not leave oily rags, paper or other combustible materials in the welding, cutting or brazing area.
25. Use the red hose for gas fuel and the green hose for oxygen.
26. Do not use worn or cracked hoses.
27. Do not use oil, grease or other lubricants on the regulator.
28. Ignite torches with friction lighters only. Do not use a cigarette lighter.
29. Do not wear contact lenses when welding.
30. When welding, wear a welding helmet with filter plates and lenses, welding gloves, a long sleeve shirt, long pants, and an apron.
31. Do not change electrodes with bare hands; use dry rubber gloves.
32. "Bleed" oxygen and fuel lines at the end of the workshift.

AUER & KOMPANY HAZARD COMMUNICATION PROGRAM

Ref: 29 CFR 1910.1200, 1926.59

PLAN IMPLEMENTATION DATE: 01/00
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APPENDICES

I. INTRODUCTION

As part of Auer & Kompany overall safety and health program, a chemical hazard communication program has been established. The Hazard Communication Program is designed

to comply with the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard.

II. OBJECTIVE

The objective of the Hazard Communication Program is to prevent occupational injuries and illnesses related to chemical exposure by educating employees about workplace chemical hazards.

III. SCOPE

The Hazard Communication Program applies to all work areas where hazardous chemicals are known to be present both under normal conditions and in a foreseeable emergency. The Safety Program Coordinator has the responsibility for overall coordination of the Hazard Communication Program. The Safety Program Coordinator also has the responsibility to administer and implement the program.

The Hazard Communication Program has four major components:

1. Container labeling and other forms of warning;
2. Material Safety Data Sheets (MSDS);
3. Employee education and training;
4. Written program and chemical inventory

IV. HAZARDOUS CHEMICALS

The definition of "hazardous chemicals" as given by OSHA is "any chemical that is a physical hazard or health hazard".

Chemical physical hazard characteristics include substances that are:

- combustible
- compressed gases
- explosive,
- flammable,
- organic peroxides,
- oxidizers.
- pyrophoric, and
- unstable (reactive) or water reactive
- Chemical health hazard includes substances that are:
- toxic or highly toxic,
- irritants,
- sensitizors,
- carcinogens, and those with
- target organ effect

Further explanation can be found in the Hazard Communication Standard.

V. HAZARD COMMUNICATION PROGRAM

This written Hazard Communication Program outlines and describes how the following information will be organized and transmitted:

A. List of hazardous chemicals known to be present in the workplace.
B. Information on precautionary labels and other forms of warning for known hazardous chemicals in the workplace.
C. Material Safety Data Sheets (MSDS) for known hazardous chemicals in the workplace.
D. Methods used to provide employee information and training.
E. Methods used to inform employees of hazards of non-routine work.
F. Methods used to inform contractor employers of any hazardous chemicals to which contractor employees may be exposed.

Guidance for maintaining the written program is provided by the Safety Program Coordinator.

The Hazard Communication Program is available for review by all Company employees upon request to their superintendent.

VI. CHEMICAL INVENTORY LIST

The Safety Program Coordinator has the responsibility to maintain an inventory list of known chemicals in the workplace. The Safety Program Coordinator should approve any changes to the inventory list.

The chemical inventory list is available to employees during their work shift and is located in the safety manual and the MSDS Notebooks. Refer to Appendix 3 for specific location(s).

Employees who have questions about the chemical inventory list should contact their immediate superintendent.

See Appendix 1 for the inventory of chemicals.

VII. PRECAUTIONARY LABELING

A. Containers in the Workplace

The Safety Program Coordinator, superintendents and all personnel have the responsibility to ensure all known hazardous chemicals present in the plant must display, in English, a precautionary label stating:

- Identity of the hazardous chemical(s)
- Appropriate hazard warning(s)

In the event of an improperly labeled hazardous chemical container, a proper label will be requested, by telephone and letter from the chemical supplier. (Appendix 2). Failure of a supplier to correct labeling deficiencies within 60 days will result in suspension of use of the affected product.

All labels on incoming chemicals must not be defaced in any way. Observation or other detection of defaced labels must be immediately reported to supervision so that appropriate labels can be applied.

B. Portable Containers

All portable containers of hazardous chemicals require labeling. The exception to this policy is that portable containers of hazardous chemicals do not have to be labeled if they contain chemicals transferred from a labeled container, and are intended only for the immediate use by and remain the constant control of the employee who performs the transfer. All other containers and usage will require labeling. Employees who have questions about portable container labeling should contact their immediate superintendent. The employee who uses the portable container is responsible for placing the label on the container, and the Area Superintendent is responsible to see that labeling is done.

C. Product Containers Leaving the Workplace

All hazardous chemical containers that are shipped to jobsites shall be labeled and shall include the following information:

- Identity of the hazardous chemical(s);
- Appropriate hazard warning(s); and
- Name and address of the chemical manufacturer or other responsible party.

Special information on labels, tags or other markings will be consistent with the information contained on the Material Safety Data Sheet and similar information suggested in the American National Standard Institute (ANSI) Precautionary Labeling Standard (Z129.1-1982).

The shipper is responsible for coordinating the labeling program for containers leaving the workplace. The construction department is responsible for administering the program at each jobsite.

G. Update and Review

The Safety Program Coordinator is responsible for reviewing the labeling system annually and updating if necessary. Changes in the labeling system will be transmitted to affected superintendents and employees.

Employees who have questions about the precautionary labeling system should contact their immediate superintendent.

VIII. MATERIAL SAFETY DATA SHEETS (MSDS's)

A. MSDS Format

MSDS's are written or printed material concerning product hazard determination, which are prepared and distributed with chemicals by chemical manufacturers and distributors. MSDS's are written in English and contain the following information:

- Identity of the chemical as provided on the container label;
- Physical and chemical characteristics of the material;
- Physical hazards of the material;
- Health hazards of the material;
- Primary route(s) of entry;
- Exposure limits, Threshold Limit Value (TLV), OSHA Permissible Exposure Limit (PEL), or Supplier recommended limits;
- Whether or not the material or components have been found to be a potential carcinogen by the International Agency for Research on Cancer (IARC), National Toxicology Program (NTP), or by OSHA;
- Applicable precautions for safe handling and use;
- Applicable control measures;
- Emergency and first-aid procedures;
- Date of preparation or date of last change;
- Name, address and telephone number of the chemical manufacturer, importer, employer or other responsible party, who can provided additional information.

B. Obtaining MSDS's

On all Purchase Requisitions for any chemicals, the Purchasing Manager will verify: "MSDS on file," or "MSDS required," or "material exempt." The Purchasing Manager and the Safety Program Coordinator are responsible for obtaining MSDS's for the company. A MSDS should be

available for every hazardous chemical listed on the inventory list. In the event a MSDS is not available, the Safety Program Coordinator will use the following procedures to obtain MSDS's:

1. The supplier will be contacted by telephone and letter, with all correspondence and communication documented as proof of effort to comply. (See Appendix B)
2. If a supplier should not satisfy the first written request within 30 days, a second written request for a MSDS should be sent to the supplier and the Department of Labor will be contacted if MSDS is not received within 15 days.
3. All requests to suppliers and the Department of Labor including letters and telephone calls must be documented and maintained on file.

C. Review of MSDS's

The Safety Program Coordinator is responsible for reviewing all incoming data sheets for new and significant health/safety information. Any new information will be transmitted to the appropriate superintendents so appropriate measures can be taken to inform affected employees. If deficiencies exist or additional information is needed concerning MSDS's, the chemical manufacturer or supplier will be contacted to obtain necessary information.

D. MSDS Maintenance

The Safety Program Coordinator is responsible for maintaining the MSDS's.

The MSDS's for chemicals and the chemical inventory list are maintained by superintendents in a notebook titled "Hazard Communication Program". These are accessible to employees during each work shift. Notebook locations can be found in Appendix C.

If MSDS's are not available or new chemicals in use do not have MSDS's, employees should contact their immediate superintendent.

The Safety Program Coordinator and the Purchasing Manager will maintain a master copy of the MSDS's and inventory list.

E. By-Products

Where hazardous materials are generated as by-products of plant operations, such as carbon monoxide, an MSDS will be provided in the appropriate MSDS files.

F. New/Trial Chemicals

The Safety Program Coordinator and the must approve all new/trial chemicals before use by employees. A MSDS must be reviewed before the chemical is used. The Purchasing manager

will not purchase any new chemical until a copy of the MSDS has been sent to the Safety Demonstrator and approval has been given for the purchase.

IX. EMPLOYEE TRAINING AND EDUCATION

Effective employee training and education is the most critical component of the hazard communication program. A properly conducted training program will insure that employees are aware of hazards in the workplace and appropriate control measures to protect themselves. The Safety Program Coordinator coordinates the employee training and education program for the facility.

A. Program Outline

All employees who work in areas where hazardous chemicals are used and/or maintained and those who may be exposed in an emergency are involved in the employee training and educational program. The program is presented in two phases:

(1) General Information Training

- Explanation of the Hazard Communication Standard;
- Location and availability of written hazard communication program;
- Operations in the work area where hazardous chemicals are present;
- General introduction of chemical hazards, labeling and Material Safety Data Sheet (MSDS's)
- Employees will receive information describing how they can work safely with chemical hazards.

General information training is coordinated by the Safety Program Coordinator. The training will be conducted by a competent, qualified individual assigned by the Safety Program Coordinator. This training will be conducted during the initial orientation and annually there after.

(2) Specific Hazard Training

- Location of hazardous chemicals in the work area;
- Discussion of methods and means of determining/detecting the presence/ release of hazardous chemicals in the work area;
- The chemical, physical and health hazards in the work area;
- Explanation of internal labeling system;
- Review of appropriate work practices, personal protective equipment and emergency procedures;
- Access to safety and health information;
- Work area list of hazardous chemicals and Material Safety Data Sheets;
- How to obtain additional information.

The immediate superintendent or other qualified competent individual who is familiar with the specific hazards in that work area administers specific hazard training. As a training aid, the following material may be used:

- Audio-visual presentation: Orientation Program
- Written material: Chemical Safety Training Sheet

All employees training will be appropriately documented and recorded.

B. Re-Assigned/Transferred Employees

Employees Re-Assigned/Transferred to other work areas will undergo a review of specific hazard training in their new work area. The superintendent in the new area is responsible for scheduling and insuring that this retraining session is conducted, and initiated on the first day of employment in a new work area. Appropriate documentation will be kept of the training

C. New Hires

Whenever a person is hired for employment, hazard communication training and education will be provided at the time of their initial assignment. New employee training will be provided by the Safety Program Coordinator or other competent, qualified individual as part of new employee orientation at the time of initial employment and prior to handling hazardous chemicals. Appropriate documentation will be kept of the training

D. New Hazard

There are three ways in which a new hazard may be introduced:

1. A new hazardous chemical may be brought into the workplace
2. A current hazardous chemical in use may expose additional employees in the same work area
3. A former non-hazardous chemical may begin to be used in a manner that is hazardous.

Whenever a new hazard is introduced, the immediate superintendent is responsible for assuring specific hazard training if given to all affected employees prior to the introduction of the hazard. The Safety Program Coordinator can provide assistance and guidance with new hazard training. Appropriate documentation will be kept of the training

X. NON-ROUTINE WORK

Occasionally employees will be asked to perform non-routine work, which can be defined as work not normally performed by an employee during the normal course of job duties. Example of non-routine work could be, but not limited to:

- Confined space entry work;
- Floor stripping/coating;
- Building and structural repair;
- Welding and cutting operations;
- Intensive maintenance activities during plant shutdowns;
- Breaking and opening piping systems;
- Using internal combustion engines in enclosed areas.

The following procedures will be used when employees perform non-routine work:

1. The Area Supervision will determine the need for non-routine work and the hazards associated with the work. The Safety Program Coordinator can provide assistance to determine the hazards involved.
2. The immediate superintendent or other qualified, competent individual will train the employees performing the non-routine work of the hazards associated with the work and of procedures/permits to follow. The training should be given each time prior to employees performing non-routine work.

Employees share in the responsibility by ensuring their immediate superintendent knows that non-routine work will be performed. Auer & King may require that special work permits be required for some non-routine work such as confined space entry, welding, cutting, and breaking and opening piping systems. Employees should contact their immediate superintendent with questions concerning non-routine work.

XI. CONTRACTORS

It is Auer & King policy that when contractors are working for the company, they must comply with all OSHA standards and requirements, where applicable. The Hazard Communication Standard requires all contractors working for the company to be informed by the Safety Program Coordinator concerning applicable workplace hazardous chemicals which the contractor's employees may be exposed to while performing their work and of appropriate protective measures. This information is provided so contractor employers can properly train their employees. In addition, the contractor will inform the Safety Program Coordinator about hazardous chemicals that the contractor brings onto the job so that precautions can be taken.

The following procedure is utilized with contractors, prior to the contractor's employees beginning work on the job.

A. Individual Area Superintendents

Responsibilities:

1. Include with the request for a quote for projects requiring on-site work by contractor employees, a general letter of notification that contractor employees may be exposed to hazardous materials.
2. Obtain along with the vendor's quotation and forward to the Safety Program Coordinator a signed acknowledgment of contractor hazard notification.
3. Forward all requests for further hazard information to the Safety Program Coordinator
4. Minimize exposure of contractor employees to hazardous materials.

B. Chemical Inventory

The Safety Program Coordinator will determine and list what hazardous chemicals the contractor's employees may be exposed to while performing their work.

C. Material Safety Data Sheets

The contractor employer will be provided with the list of hazardous chemicals that the contractor's employees may be exposed to while performing their work and the availability of Material Safety Data Sheets, which list appropriate protective measures. The Safety Program Coordinator will maintain a copy of the form signed by the contractor employer

D. Contractor Supplied Chemical Inventory

The contractor employer will provide, in writing, a list of chemicals with Material Safety Data Sheets the contractor will bring onto the job. The Safety Program Coordinator will review the chemical list and MSDS's provided by the contractor and will notify the superintendent of the area where the contractor is working of the potential exposure and appropriate protective measures.

E. Documentation

All contacts with contractors concerning hazardous communication shall be documented and filed.

XII. AUDIT

A. Hazard Communication Program Annual Review

The Hazard Communication Program will be audited at least annually by the Safety Program Coordinator. A report will be generated from the review audit all appropriate personnel will be notified.

B. Health Hazard Audits

The Chemical Inventory List will be used for auditing specific chemical hazards. The Safety Program Coordinator is responsible for following up to see that superintendents take corrective action concerning recommendations resulting from the audit.

Appendix 1

Chemical Inventory

Note: Several of the products used have various manufacturers. MSDS's were obtained for only one manufacturer due to the fact that these products are chemically identical. The only reason multiple manufacturers are used is pricing

MSDS #	PRODUCT NAME	MANUFACTURER	TELEPHONE

Appendix 2: Sample Letter Requesting an MSDS

ABC Manufacturing Company
123 Oak Drive
Tallahassee, Florida 32310

Dear Sir:

The Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200) requires employers be provided MSDS's for all hazardous substances used in their facility, and to make these MSDS's available to employees potentially exposed to these hazardous substances.

We, therefore, request a copy of the MSDS for your product listed as Stock Number 00000. We did not receive an MSDS with the initial shipment of the ABC Solvent we received from you on October 1st. We also request any additional information, supplemental MSDS's or any other relevant data that your company or supplier has concerning the safety and health concerns of this product.

Please consider this letter as a standing request to your company for any information concerning the safety and health aspects of using this product that may become known in the future.

Please send the requested information to :

Safety Program Coordinator
Auer & Kompany
P.O. Box 607754
Orlando, Fl. 32860-7754

It is our intent to comply with all provisions of the Hazard Communication Standard (1910.1200) and the MSDS's are integral to this effort.

Your cooperation is greatly appreciated. Thank you for your timely response to this request. If you have any questions concerning this matter, please contact the Safety Program Coordinator at (407)293-4000

Sincerely,

Safety Program Coordinator
Auer & Kompany

Appendix 3

MSDS BOOK LOCATIONS

Main Office

Safety Program Coordinator's truck

General Contractor's trailer

Gang Boxes

RESPIRATORY PROTECTION PROGRAM

REF 29 CFR PART 1910.134, 1926.103

PLAN IMPLAMENTATION DATE: 01/00
PLAN REVISION DATE: 11/00

TABLE OF CONTENTS

I PURPOSE

Auer & Kompany recognizes its responsibility to protect the health of its employees and realizes that the employees may encounter hazardous concentrations of airborne vapors, gases, fumes, sprays, mists, fogs, smokes, harmful dusts and/or fibers while performing job responsibilities.

It is the policy of Auer & Kompany to provide the best practical respiratory protection for use by its employees when entry, in the performance of their duties, is required into areas where the concentrations of harmful vapors, fumes, dusts, etc. may exceed the permissible exposure limits (PELs) or the threshold limit values (TLVs). Auer and King will not work with or around Asbestos. If Asbestos is found to be present all employees will be removed from the area immediately and will only be allowed to return upon receipt of a documented certification that the asbestos abatement is complete.

This respiratory protection program complies with the OSHA requirements of 29 CFR 1910.134, Subpart Z (29 CFR 1910.1000 - .1450), and is consistent with ANSI Z88.2-1992 - Practices for Respiratory Protection.

II DEFINITIONS

1. **Approved:** Tested and listed as satisfactory by the National Institute for Occupational Safety and Health (NIOSH), or the Mine Safety and Health Administration (MSHA).
2. **Contaminant:** A harmful, irritating, or nuisance material in concentrations exceeding those normally found in ambient air.
3. **Disinfection:** The destruction of pathogenic organisms, especially by means of chemical substances.
4. **Dusts:** Solid particles, mechanically produced, with a size ranging from sub-microscopic to macroscopic.
5. **Emergency:** An unplanned event when a hazardous atmosphere of unknown chemical or particulate concentration suddenly occurs, requiring immediate use of a respirator for escape from or entry into the hazardous atmosphere to carry out maintenance or some other task. **Note:** This may or may not include cleanup, maintenance, or repair in unknown contaminant concentrations or oxygen deficiency.
6. **Evacuation or escape.:** An unplanned event when a hazardous atmosphere of unknown chemical or particulate concentration suddenly occurs, requiring immediate use of a respirator for exiting the area only.
7. **Fumes:** Solid particles generated by condensation from the gaseous state, generally after volatilization from molten metals, with a size usually less than 1 micrometer in diameter.
8. **Gases:** Substances which are gaseous at ordinary temperatures and pressures.
9. **Immediately dangerous to life or health (IDLH):** A condition posing an immediate threat to life or health, or an immediate threat of severe exposure to contaminants likely to have adverse delayed effects on health. This condition includes atmospheres where oxygen content by volume is less than 16 percent.

10. **Mists:** Suspended liquid droplets generated by condensation or by breaking up of liquid with a size ranging from sub-microscopic to macroscopic.
11. **Oxygen deficient atmosphere:** An atmosphere containing 19.5 percent or less oxygen by volume.
12. **Particulate matter:** A suspension of fine solid or liquid particles or fibers in air, such as dust, fog, fume, mist, smoke or sprays.
13. **Pneumoconiosis-producing dust:** Dust which, when inhaled, deposited, and retained in the lungs, may produce signs, symptoms, and findings of pulmonary disease.
14. **Radon daughters:** Particulate decay products of radon.
15. **Respirator:** An approved safety device designed to provide the wearer with respiratory protection against inhalation of airborne contaminants and for some devices, protection against oxygen-deficient atmospheres.
16. **Respiratory minute volume:** The amount of air inspired per minute.
17. **Shall:** Indicates a requirement that is essential to meet the currently accepted standards of protection or Federal rules and regulations.
18. **Should:** Indicates an advisory recommendation that is to be applied when practicable.
19. **Vapor:** The gaseous state of a substance that is solid or liquid at ordinary temperature and pressure.

III RESPONSIBILITIES

The Safety Program Coordinator has been designated as the Program Manager.

A. PROGRAM MANAGER SHALL:

1. Issue guidelines and directives that initiate and update the program.
2. Assist all employees and management in complying with the program.
3. Recommend appropriate respiratory protective equipment.
4. Audit and review the effectiveness of the program.
5. Ensure the purchase of the proper type of equipment in adequate quantities.
6. Attend a respiratory protection course.
7. Develop standard operating procedures.
8. Be responsible for coordinating the cleaning, maintenance and storage of all respirators not routinely used, or not individually assigned.

9. Maintain respirator supplies, including spare parts; obtain new equipment and maintain non-individually assigned equipment ready for reissue.

10. Ensure that sufficient quantities of filters and chemical cartridges and canisters for specific contaminants are available on-site.

11. Aid in respirator fit testing. Each employee in this respirator program shall receive respirator-fitting instructions and undergo at least annual quantitative fit testing to select the best fitting facepiece. Fit testing shall be performed more frequently to meet the requirements prescribed in specific standards such as asbestos or acrylonitrile.

12. Provide additional training and information in the correct use, maintenance, cleaning and care of respirators. Respirators shall be repaired under the direction of the Program Coordinator.

13. Determine whether other types of engineering controls can be instituted that would eliminate the respirator use requirement.

14. Evaluate periodically the effectiveness of the respirator program. A Program Evaluation Checklist is provided in Appendix E. The following elements should be considered when evaluating the program's effectiveness:

    a) The proper types of respirators are selected.

    b) The wearers are properly trained.

    c) The correct respirators are issued.

    d) The respirators are worn properly.

    e) The respirators are properly maintained and cleaned.

    f) The respirators are properly stored.

    g) Fit testing is conducted properly.

    h) All pertinent records are kept.

B. SUPERINTENDENTS SHALL

1. Ensure that their employees whose job(s) require a respirator have been properly trained and given necessary fit testing and medical evaluations.

2. Ensure that employees who require a respirator have been given the type of respiratory protection appropriate for the tasks

3. Enforce the use of the respirators and properly discipline any employee found not to be following company policy.

4. Ensure that the respirators are being used properly according to company and manufacturer guidelines.

1. EMPLOYEES SHALL:

1. Individuals assigned tasks which require respiratory protective equipment will use the appropriate equipment in accordance with this instruction.

2. Each individual shall clean, disinfect and properly store as necessary, the respirator assigned for personal use.

3. Each individual shall inspect the respirator before each use and after cleaning and disinfecting. If a respirator is found defective, it shall be returned to the Program Coordinator for repair.

4. Each individual shall comply with fit test requirements and all other provisions of this program.

5. Each respirator wearer shall be trained in respiratory protection.

IV Respirator Selection, Issue, and Use

1. The guidelines outlined in this section provide assistance in the selection of appropriate respiratory protection by company personnel. The company shall provide appropriate approved respiratory protective devices and the employees shall use these devices whenever necessary to protect their health due to the nature of the work environment. The respiratory protective devices selected in each situation will depend upon the information from a qualitative and/or quantitative determination of the hazard.

2. The company will continuously analyze the situations that require respirator usage to determine if engineering controls can be instituted that reduce the exposure and thus eliminate the need for respiratory protection.

3. Auer & Kompany performs the majority of it's tasks outside. This allows for excellent ventilation when using potentially hazardous substances. Auer and Kompany recognizes that if the potentially hazardous substances are used inside where there is limited

ventilation, the rules and regulation of this policy will be adhered to. When these substances are used outside however the exposure to the employee is limited if the employee follows these basic safety precautions:

- The employee(s) stands upwind when mixing or applying the substance.
- Maintain appropriate distance from face when mixing or applying the substance

Auer & Kompany maintains that the exposure to the employee will be below the PEL or TLV when following these precautions. If for any reason it is believed that the PEL or TLV is being approached then appropriate personal monitoring will be done to determine specific exposure levels. If it is found that the exposure levels require additions protection, then appropriate respiratory protection will be provided and the reminder of this policy will be adhered to.

4. Respirators and accessories shall be available for company associates. Respirators shall be worn in areas that have been assessed as exceeding the PEL or TLV.

5. A list of tasks that may require respirator usage or exposure level testing is contained in Appendix D.

6. There may be a time(s) that an employee prefers to wear a respirator when it is not required by the standard(s). If / When this is the case, the employee will be initially issued a paper respirator. If the employee does not find this sufficient, then the employee will be offered a half face cartridge type respirator. Since this type of respirator requires additional training and medical surveillance the use of such respirators will be discouraged unless the employee has a valid reason to request such protection (per 1910.134.c.2.ii). In cases of suck voluntary usage, the employee will be given a copy of OSHA Appendix D (Appendix F)

7. The nature of respiratory hazard, as it refers to the selection and classification of respirators, depends upon the atmospheric oxygen concentration; a contaminant's physical state, toxicity, and concentration; the presence of other contaminants or stress factors in the working environment; and worker exposure time and susceptibility. Respiratory hazards may be classified as gas and vapor contaminants (immediately or not immediately dangerous to life or health), particulate contaminants (immediately or not immediately dangerous to life or health), and oxygen deficiencies. Each classification requires a different type of respiratory protection.

8. Respirators shall be selected on the basis of hazards to which the person is exposed with consideration given to both safety and health factors as well as probable risk. These health and safety factors include the nature of the hazard, intended uses and limitations of respiratory protective devices, movement and work rate limitations, and training requirements.

9. Among additional general considerations in determining the appropriate respirator are absorbent efficiencies, odor warning properties, eye irritation potential, protection factors (PF), lower flammability limit (LFL), and conditions which are immediately dangerous to life or health (IDLH -- as defined in 29 CFR 1910.120).

10. The company, at no cost, shall provide respirators to its employees. Acceptable respirators must be approved by NIOSH (42 CFR Part 84)

11. Some gaseous contaminants will migrate across the adsorbent or absorbent bed while the respirator is not in use, such as overnight. This migration subjects the user to an initial dose of the contaminant when the respirator is again placed in service. Therefore, as a minimum, gas/vapor cartridges shall be disposed of after each day's activities no matter how short those activities were. A day's activities would begin when the plastic seal or bag is removed from the cartridges allowing those cartridges to be exposed to moisture. These cartridges, even if they are not exposed to a contaminated atmosphere, must be discarded. A label must be attached to the cartridge indicating the installation date.

12. Air-purifying respirators may not be used in oxygen deficient or IDLH atmospheres. They must be outfitted with the proper chemical cartridges for protection against vapors and gases and the proper filters for protection against particulates.

13. The following table relates the respirator type with the maximum allowable concentration based upon PEL for the full range of respiratory protection.

Airborne Concentration	Required Respirator (Minimum)
Not in excess of 10 x PEL*	Half-mask air-purifying respirator or appropriate paper respirator
Not in excess of 50 x PEL*	Full facepiece air-purifying respirator
Not in excess of 100 x PEL*	A powered air-purifying respirator (or a supplied air respirator in the continuous flow mode)
Not in excess of 1,000 x PEL*	Full facepiece supplied air respirator in pressure demand mode

Over 1,000 X PEL* or unknown	Full facepiece supplied air respirator in pressure demand mode with auxiliary positive pressure self-containing breathing apparatus

* The OSHA PELs are considered minimal standards.

Breathing air quality is described in Appendix A.

V Fit Testing

1. Prior to fit testing, each employee shall receive instruction in donning, positioning on the face, adjusting strap tension, and in the conventional negative and positive pressure sealing checks which will be conducted each time the respirator is worn.

    a. Negative Pressure Sealing Check: The inlet openings of the cartridges are covered with the hands. Then the wearer inhales gently and holds his breath for at least 10 seconds. If the facepiece collapses slightly and no inward leakage of air into the facepiece is detected, it is reasonable to assume that the fit may be satisfactory. If the cartridges are too large for the wearer's hands, it may be necessary to substitute rubber surgical gloves or replace the cartridge inlet seals.

    b. Positive Pressure Sealing Check: For this test the exhalation valve is covered and the wearer exhales gently. If the wearer can feel a slight positive pressure build up inside the facepiece without detecting outward leakage of air between the facepiece seal and his face, the fit may be satisfactory. For respirators with exhalation valve covers, the cover must be removed before the test and replaced immediately thereafter. This is sometimes difficult to accomplish without disturbing the fit.

2. Fit testing of positive pressure respirators is currently required by federal or state regulations. To assure proper fit, these facepieces can be fit tested quantitatively or qualitatively using the negative pressure test facepiece and the same protocol use for the negative pressure respirators.

3. Fit tests are for the make, model, and size of the facepiece not the particular individual respirator.

4. Respirators shall not be worn when conditions prevent a good face seal and fit testing will not be conducted when such conditions are present. Clean shaven skin must be in

contact with all respirator sealing surfaces. Even a mild growth of whiskers may interfere with this seal. In addition, respirators shall not we worn when conditions such as sideburns, a skull cap that projects under the facepiece, temple pieces on corrective spectacles or goggles, or the absence of one or both dentures prevent a good facepiece-to-face seal. Therefore, while on duty, all company personnel within the scope of this policy must be clean shaven in the areas of the respirator face sealing surface and the face. If hair growth, other than in the clean shaven area of facepiece-to-face seal, interferes with the proper function of the respirator such as the exhalation valve, then it shall be altered or removed so as to eliminate interference. It shall be the responsibility of the wearer to assure that nothing protrudes into and disturbs the face seal area or the form or function of the respirator or its valves.

5. Corrective lenses which interfere with the facepiece-to-face sealing area shall not be used with a full facepiece. Contact lenses may be worn with a full facepiece with the approval of the Program Coordinator.

6. Fit Testing shall be conducted on an annual basis. Individuals will need to refitted prior for:

    1. Weight gain/loss of 20lbs or more
    2. Facial Scarring
    3. Dental or cosmetic surgery
    4. Change in the required respirator
    5. Change in the standard

7. Fit testing will be done on all effected employees annually.

8. Certain OSHA Standards require specific exercises. Examples of these are:

Substance	Regulation	Exercise
Asbestos	*CFR* 1910.1001	Jog in place
Benzene	*CFR* 1910.1028	Grimace, bend over or jag in place
Formaldehyde	CFR 1910.1048	Grimace, bend over or jog in place

    Individual standards should be referenced for other specific exercises required.

All employees will recite the following passage while wearing the respirator to assure proper seal.

The Rainbow Passage

When the sunlight strikes raindrops in the air, they act like a prism and form a rainbow. The rainbow is a division of white light into many beautiful colors. These take the shape of a long round arch, with its path high above, and its two ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look but no one ever finds it. When a man looks for something beyond his reach, his friends say he is looking for the pot of gold at the end of the rainbow.

9. Fit test procedures are detailed in Appendix B.

VI - Respirator Maintenance and Care

The purpose of this element of a respirator program is to assure that all respirators are properly maintained. If they are modified in any way, their protection may be reduced. The Program Coordinators shall be trained to inspect, clean, repair, and store respirators. Each employee assigned a respirator shall be responsible for the proper cleaning, inspection, and storage of his/her assigned respirator following each use. The goal is to maintain the respirator in a "like new" condition.

Before initial use, all new respirators shall be washed, cleaned, sanitized and inspected per respirator manufacturer's instruction. Respirators shall be cleaned and disinfected by the wearer after use. Those used by more than one individual shall be thoroughly cleaned and disinfected after each use.

A. Routine Cleaning

1. Following routine use, the respirator should be washed using warm (not over 120 F water) water and soap, rinsed in clear water, and allowed to dry. If the respirator will be used by others, it must also be sanitized. To preserve the life of cartridges and filters, they must be removed prior to cleaning.

2. Read the manufacturer's specific instructions. For a powered air-purifying respirator, the battery pack should not be wetted, but should be wiped with a damp cloth and then cloth dried.

B. Periodic Cleaning

The respirator shall be thoroughly cleaned periodically, at least monthly. For thorough cleaning first remove all detachable parts from the facepiece [filter canisters, valves, straps, speaking diaphragms, as appropriate]. Then wash the facepiece and accessories in warm [max. 120 F] soapy water using a gentle scrub brush. Rinse thoroughly in clean

water and either air dry in a clean place or wipe dry with a lintless cloth. Water must not be allowed to enter the body of a powered air-purifying respirator motor/airflow unit. The respirator should be carefully inspected during cleaning and re-assembly.

C. Battery Charging

A powered air-purifying respirator battery should be charged for 16 hours if completely discharged. Disconnect the battery pack from the motor/airflow unit and connect it to the charger. Then plug the charger into a standard 115v receptacle.

D. Disinfection

1. If the respirator is to be used by more than one person it must be disinfected between uses. Disinfection may accompany cleaning as a step between the soapy water wash and the rinse as above described if using either NIOSH recommended or other dip solution procedures. The two NIOSH recommended procedures are as follows:

   a. Immerse the respirator body (including straps, valves, valve covers) for two minutes in a 50 ppm chlorine solution [about 2 ml household bleach, such as Clorox, to 1 liter water], then rinse thoroughly in clean water, and dry.

   b. Immerse the respirator body for two minutes in an aqueous solution of iodine [0.8 ml tincture of iodine in 1 liter of water], then rinse thoroughly in clean water, and dry. The iodine is about 7% ammonium and potassium iodide, 45% alcohol, and 47% water.

2. Unfortunately, bleach will eventually destroy the facepiece. 70% alcohol (the type commonly used as a sanitizing agent) should never be used to clean, sanitize, or disinfect a respirator as it destroys the facepiece's elastomer components which allow the seal to remain pliable. Quaternary ammonium products are safe and acceptable.

E. Inspection

1. The respirator should be inspected prior to reassembly, prior to each use, and when not in regular use, at least monthly. A copy of the respirator inspection form in given in Appendix C. The following items shall be inspected on an air purifying respirator:

   a. Check the facepiece and its sealing periphery for dirt, pliability, distortion, deterioration, cracks, tears, and/or holes.

b. Check the straps or head harness for breaks, tears, loss of elasticity, broken attachment snaps or buckles, and proper tightness.

c. Check the valves (exhalation and inhalation) for holes, warpage, cracks, and dirt.

d. Make sure the exhalation valve cover is still present and in good condition. As it provides engineered dead space, the valve cover is an important part of the assembly and must be replaced after the positive pressure check as well as upon reassembly.

e. Check the filter cartridges for cracks, dents, corrosion, or water damage and check the condition of the threads. Most air purifying respirator cartridges use gaskets. Check their condition for cracks, nicks, or cuts as well as pliability. Also check the threads on the filter cartridge holder.

f. For full facepiece respirators, check the faceshield for cracks, breaks, abrasions, or distortions that could interfere with vision or the facepiece integrity. Make sure the lenses are installed securely.

g. On a powered air-purifying respirator also check the pump motor, batteries and charging unit, power cord, belt, and test gauge. Defective or deteriorated parts must be replaced prior to reassembly and further use of the respirator. Where presence of dirt indicates incomplete cleaning, those parts can be recleaned or replaced depending upon the severity of the dirt.

2. Refer to and follow the manufacturers recommended procedures for inspection as well as the above general procedures.

3. For air supplying respirators, inspect the following:

a. Check the appropriate parts from the above list.

b. Check the air supply hose for breaks, kinks, or deterioration.

c. Check the coupling attachments and tightness of connectors or hose clamps.

d. Check the HEPA back-up filter or portable air supply bottle.

e. Check the pressure regulator and low air warning device, if present.

f. Check the manufacturer's recommended inspection procedures for that particular make and model of respirator and comply with those recommendations as well.

4. Additional items to check at the site prior to use of a supplied air system include:

   a. air quality

   b. lubrication of the compressor. Oil should be of synthetic origin to reduce carbon monoxide production

   c. the supply hoses from the compressor and from the regulator and/or pressure gauge for breaks or kinks,

   d. coupling compatibility, and

   e. if compressing the air on site, the purifying elements (if present), the carbon monoxide and high temperature alarms.

   f. There should be records of the breathing air tests and the daily carbon monoxide monitor calibration. These records should be checked to assure at least Grade D breathing air is being supplied before using the supplied air system.

F. Storage

Respirators shall be stored in a convenient, clean, and sanitary location in clean, dry hermetically or otherwise sealed plastic bags. Alternatively, plastic containers, such as freezer containers, or cans with tight fitting lids could be used. Respirators shall be packed and stored so that there is no stress on the respirator and the facepiece, straps, and exhalation valves are in their normal positions. Respirators should not be stored by hanging by the straps or with the straps pulled around in front of the face shield as these procedures distort the facepiece seal. Respirators shall be stored in locations where they will be protected against dust, direct sunlight, extreme heat or cold, excessive moisture, and exposure to damaging or toxic chemicals. The original box in which the respirator was packed makes a good outer container. Respirators shall only be stored at the workplace.

VII. Repair

Minor repair, such as strap or valve replacement shall be performed as needed by the individual. No attempt shall be made to replace components or to make adjustments or repairs beyond the manufacturer's recommendations. When repairs beyond his/her training are required, the Program Coordinator shall provide a replacement respirator of the proper make, model, and size and make arrangements for the repair, if repair is warranted.

VIII Training and Education

1. Selecting the respirator appropriate to a given hazard is important, but equally important is using the selected device properly. Proper use can be ensured by carefully training both superintendents and associates in selection, use, fit testing, and maintenance of respirators. Unless the reasons for the use of respiratory protective devices and instructions on proper use and maintenance are thoroughly understood and ongoing training provided, the devices will not be used or may not work properly.

2. Company employees who may reasonably be expected to wear a respirator shall be instructed and trained in the selection, use, care and maintenance of respiratory protective devices. Training shall provide each user the following information:

    a. Nature of the respiratory hazard and what may happen if the respirator is not used properly
    b. Engineering and administrative controls being used and the need for the respirator as added protection
    c. Reason(s) for the selection of a particular type of respirator
    d. Limitations of the selected respirator
    e. Methods of donning the respirator and checking its fit and operation
    f. Proper wear of the respirator
    g. Respirator maintenance and storage
    h. Proper method for handling emergency situations

3. Retraining will be performed as needed to ensure an effective program. A copy of the training record log is provided in Appendix E.

IX - Medical

1. 29 CFR 1910.134 advises that persons should not be assigned to tasks requiring respirator use unless they are physically able to perform the work and use the equipment. The Medical Evaluation and Respirator Use Questionnaire (in Appendix D) shall be completed for each employee required to wear a respirator annually.

2. All employees required to wear respirators will undergo an annual fitness for duty evaluation from the local consulting physician. The physician's opinion should be reviewed and a written report prepared. Specification of the pertinent health and physical conditions is delegated to the local consulting physician. This will be done annually.

3. Medical testing for all employees shall include a pulmonary capacity test performed by the consulting physician. This will be done annually.

4. 29 CFR 1910 Subpart Z contains medical surveillance requirements for persons with exposure to these selected materials.

   - CFR 1910.1001 - Asbestos
   - CFR 1910.1018 - Inorganic arsenic
   - CFR 1910.1025 - Lead
   - CFR 1910.1045 - Acrylonitrile

   The medical surveillance program required for the above listed substances requires examination prior to any exposure and annual follow-up. To assure compliance with these requirements, all employees who, in the course of their work, may enter workplaces where exposure might occur shall be included in a medical surveillance program.

5. Additional testing will be done should the medical status of the employee change.

6. To comply with record keeping requirement, the annual/periodic medical the same physician or clinic should perform examination where possible. The medical surveillance program shall be provided to covered personnel without cost to them.

X - Recordkeeping

The following records, pertinent to the respiratory protection program, shall be maintained on each respirator user. Recordkeeping forms are found in Appendix D.

1. The respirator fitting and training record. This record shall be maintained for one year beyond the last date of employment.

2. The record of medical surveillance. This record must be maintained for the duration of employment plus thirty years.

3. Exposure record. This record shall be maintained and compiled annually by each respirator user for inspection by the Program Coordinator at the time of the annual medical surveillance. Thereafter, the record will be maintained in the program coordinator office for seven years.

4. Respirator inspection records with results, including parts replacement, as appropriate. These records shall be maintained for one year following the last inspection.

5. Respirator issuance records. These records shall contain information on the personnel assignments for each respirator.

Following termination of employment, records maintained by the individual shall be transferred to the Program Coordinator for further retention as required by federal regulations.

APPENDIX A

AIR QUALITY

Whether provided from cylinders or an on-site breathing air compressor, supplied air must equal or exceed ACGIH Grade D quality. The air should be tested periodically to assure that it meets this minimal standard.

Grade D breathing air must meet the following minimum standards:

	19.5 - 23.5%	oxygen
No more than:	5 mg/m^3	condensed hydrocarbon
	10 ppm	carbon monoxide (CO)
	1000 ppm	carbon dioxide (CO2)

No pronounced or objectionable odor

[Note: Normal air may have a slight odor.]

Compressed atmospheric air from a clean air source using a "breathing air type compressor" may be suitable and require no "purification." Most such compressors produce Grade E breathing air, the higher quality air required for underwater [SCUBA] breathing devices. However, periodic air testing is required to document the air quality. The air sample should be taken from the point of connection. 29 CFR 1910.134 requires use of a carbon monoxide monitor or high temperature alarm. Carbon monoxide is a good indicator of air quality. Most systems, therefore, use an in-line carbon monoxide monitor-alarm. The alarm should be set well below the maximum allowable 10 ppm. A setting of 2 or 5 ppm would be appropriate and is commonly used. The high temperature alarm also mentioned in 29 CFR 1910.134 is there to protect the compressor (a not insignificant investment). Excess temperature may lead to compressor failure and possibly breakdown of lubricants into different hydrocarbon fractions, carbon dioxide, carbon monoxide, and/or molecular water, but does not commonly affect the quality of the air.

Where the breathing air source is compressed air cylinders provided from an off-site source, each lot should have been tested and the supplier(s) should provide a record of the test results with the cylinders. This is particularly important if the bottled air was produced cryogenically as the procedure is more prone to error, at times providing as little as 4% oxygen.

APPENDIX B

FIT TESTING PROTOCOLS

1. IRRITANT SMOKE TEST PROTOCOL

The respirator must be fitted with high-efficiency (HEPA) filters. This test must be conducted in an area with sufficient general exhaust ventilation so that the test area does not become contaminated with the challenge agent. The test conductor shall review the test with the subject while he is wearing the test respirator and prior to administration of this test such that the total wearing time has been at least 10 minutes before testing. Although the subject will be instructed to inform the tester if he detects the smoke, most subjects will respond to it involuntarily. It causes coughing in proportion to the quantity of smoke inhaled. The subject should be advised to keep his eyes closed during the test as the smoke may irritate the eyes.

A ventilation smoke tube containing stannic oxychloride, such as MSA part #5645 (or equivalent), is used. [Not all ventilation smokes are irritating.] There is no need to familiarize the subject with the smell as it has no odor. Sensitivity is nearly 100% and is better checked at the conclusion of the test. Both ends of the ventilation tube will be broken. A short length of Tygon ("rubber") tubing is attached to one end to protect the test subject from the broken glass end. The other end can be fitted into a rubber bulb for smoke delivery. The tester should deliver the irritant smoke over the respirator from about 2 feet away while watching the subject. If smoke is detected, the subject may need to readjust the respirator before continuing. If he does not detect smoke penetration, the process is repeated at 12 and 6 inches and finally directed around the perimeter of the facepiece from about 1 inch away, primarily aimed at potential leakage points. While the test is under way, the subject should be instructed in the following exercises, each to be performed for about 1 minute: normal breathing, deep breathing, turning the head from side to side (about one turn per second, without bumping the respirator against the shoulders), nodding the head up and down (about one second per each up or down, without bumping the respirator against the chest), talking out loud, and jogging in place. The jogging can be abbreviated or eliminated if causes a balance problem with the eyes shut. If the subject does not detect the smoke he or she will be given a sensitivity smoke check test at the conclusion. He should break the facepiece seal slightly while in the smoky atmosphere. If he does not react to the smoke, it may be possible to fit test a half-mask using the IAA protocol. Quantitative testing must be used for fit testing full facepieces to use the higher assigned fit factor and is a better procedure for the half-mask also if the subject does not respond to the irritant smoke.

2. ISOAMYL ACETATE [IAA] PROTOCOL

This procedure is very dependent upon the wearer's subjective response. Because isoamyl acetate (also known as isopentyl acetate) has a pleasant banana oil odor, it is very easy for the test subject to pretend an ill-fitting respirator fits well, if for some reason he feels that he must fit a particular respirator. Additionally it is a substance for which olfactory fatigue sets in fairly rapidly so that the odor may not be detected even when it is present. Nonetheless, for qualitative fit testing of those very few subjects who do not respond to the irritant smoke, it is a valid technique when used carefully.

As IAA is an organic vapor, not a particulate, it is necessary to use organic vapor cartridges on the respirator during this test. IAA is a irritant at high concentrations with an OSHA PEL of 150 ppm and a current TLV of 100 ppm [STEL 125 ppm]. The hazard, however, is extremely low for the 1 ppm concentration used in the fit test procedure.

The following are the steps involved in using the IAA procedure:

a. Employee orientation. This is critical with this procedure because of the extreme subjectiveness of the test.

b. Data collection. The same with any test procedure - a record of the type of fit test, make/model of respirator, name of subject tested, name of test operator, date of fit test, results of fit test.

c. Prepare and administer the sensitivity test. The sensitivity test requires use of three jars. Into the first jar place 800 ml odor free water [Spring water is more reliable than either distilled or tap water.], add 1 ml of pure isoamyl acetate, and shake well to mix. This is the STOCK solution; it will last a week. Put 500 ml odor free water into each of the other two jars. Add 0.5 ml of the stock solution to one of them. This is the SENSITIVITY TEST solution. In use the test subject will shake the jar just prior to the test; this will generate a 1 pm vapor over the solution. The sensitivity test solution will last up to 10 hours. The third jar is the BLANK. The test and blank jars must be coded in a manner such that the test administrator will know which jar the subject is sniffing, but will not provide any clue to the test subject as to which jar is which. Sometimes, it is useful to add an entirely different odor to the BLANK (such as a weak concentration of wintergreen) to vary the test. The test subject shall be presented with both test and blank jars. He will shake, uncap, and sniff each in turn (any order), and report any odor he detects. Jars must be recapped immediately after sniffing. The sensitivity testing must be conducted at a location away from the respirator fit testing so as not to saturate the air with IAA vapors.

d. Select respirator. From an array of respirators the subject next selects the most comfortable one and performs the positive and negative pressure checks.

e. The test chamber. This test requires use of a test chamber.* To construct the chamber one needs a 24" diameter disc of 1/4" plywood with an eyebolt in the top center and a threaded screw hook or clip fastened to the bottom center. A 55-gal. plastic drum liner is placed over the plywood disc to form the chamber. A length of rope tied to the eyebolt and passed over a hook or pulley in the ceiling (or any similar arrangement) will allow positioning the chamber up or down according to the height of the test subject. Suitable test chambers are available commercially and may be used instead.

f. The test atmosphere. 0.5 ml full strength isoamyl acetate is dispensed onto a folded piece of paper toweling (4"x5"; such as 1/4 Bounty towel) and the towel handed to the test subject who will put the towel on the hook inside the chamber as he enters. It is important to have the test subject handle the towel in and out of the test chamber. The test atmosphere (150 ppm; 3% accuracy) will be generated within two minutes. This test can be conducted throughout the temperature range of 60-90 F.

g. Test exercises. Once the subject has affixed the towel, the tester should raise the chamber so that the towel is 6" above the subject's head, then instruct the subject in the test items as described with the IS test. The subject should be asked periodically during the test if he detects the banana oil (IAA) odor; any detection would indicate failure of that respirator to provide adequate protection. The subject, in that case, would return to the selection array and choose another respirator. At the conclusion of the test the subject should be asked to break his facepiece seal briefly and asked if he can detect the odor. At this point he should be able to do so. If he cannot, he should be retested later (preferably on another day to allow complete olfactory recovery), starting with the sensitivity check. The subject should be asked to bring the towel with him as he leaves the chamber. All used towel pieces should be sealed into Ziplock bags immediately to avoid saturating the area with IAA vapors.

A subject who cannot be fit tested with either the IS or IAA testing protocol may have to be fit tested quantitatively.

*Alternatively a piece of fabric or sponge may be saturated with liquid IAA and then passed close to the potential leakage points while the subject carries out the test exercises.

3. BITREX PROTOCOL

PREPARATION

1. Connect snaps at the top of the hood, so that the connections help to support the hood.

2. Pour a small amount - approximately 1 teaspoon full - of the screening solution into the nebulizer labeled
   No. 1 - Threshold Screening Test Solution:

3. Pour the same amount of Fit Test Solution into the second nebulizer labeled 'No. 2 -Fit Test Solution:

SENSITIVITY TEST

This test is conducted to assure that the person being fit tested can detect the taste of the Bitrex solution at very low levels. The sensitivity test solution is a 200 to I dilution of the fit test solution.

The test subject should not eat drink, smoke or chew gum for at least 15 minutes before the test.

1 . Explain the fit test procedures to the subject.

2. Have the subject don the hood without a respirator.

3. Position the hood forward so there is about six inches between the subject's face and the window. This is especially important for the fit test - it helps to ensure even dispersion of the aerosol and allows free movement of the subjects head while wearing a respirator.

4. Instruct the subject to breathe through his/her mouth.

5. Using the Threshold Screening test solution nebulizer #1, inject the aerosol into the hood through the hole in the window. Inject ten squeezes of the bulb, fully collapsing and allowing the bulb to expand fully on each squeeze.

6. Ask the subject if he/she can detect the bitter taste of the solution. If tasted, note the number of *squeezes and* proceed to the fit test.

7. It the subject does not taste the screening solution, inject an additional 10 full squeezes of the aerosol into the hood. Repeat with 10 more squeezes of the aerosol into the hood H still not tasted.

8. It 30 squeezes were inadequate to *produce a* response from the subject, the test should be ended and another type of fit test Protocol must be used.

9. Remove the hood and give the subject a few minutes to clear the taste from his/her moutth.

FIT TEST

1. Have the test subject don and fit check the respirator per the instructions provided with the respirator. NOTE: The fit test is to be performed with the test subject using a particulate filter or respirator.

2. Have the test subject don and position the hood as before, and to breathe through his/her mouth.

3. Using the fit test nebulizer #2. inject the fit test aerosol through the hole in the hood using the same number of full bulb squeezes as required in the sensitivity test i.e., 10, 20, or 30 squeezes.

4. To maintain an adequate concentration of aerosol during this test, inject one-half of the number of squeezes used in step #3 above, every 30 seconds.

5. Instruct the subject to indicate if they detect the bitter taste of Bitrex at any time during the test.

6. After the initial aerosol is injected, instruct the test subject to perform the following exercises for 60 seconds each:
   a) Normal breathing
   b) Deep breathing - breaths should be deep and regular
   c) Turning head from side to side - movement should be complete with one turn every second
   d) Nodding head up and down - movement should be complete and made about once per second
   e) Talking: reciting the alphabet or reading aloud a prepared text. The "Rainbow Passage" (see below) is suggested.
   f) Normal breathing

7. If the entire test is completed without the subject detecting the bitter taste of the Bitrex aerosol, the test is successful and the respirator 2 is deemed adequate. This test verifies an assigned protection factor of 10.

8. It the test subject does detect the bitter taste of the Bitrex aerosol, terminate the test (this indicated an inadequate fit). Wait 15 minutes and perform the tests over, starting with the sensitivity test.

CLEANING

Immediately after completing the test, pour the unused solutions back into the respective battles. Rinse the nebulizers with warm water to prevent clogging. Wipe out the inside of the hood with a damp cloth or paper towel to remove any deposited Test Solution.

4. QUANTITATIVE FIT TESTING

Quantitative fit testing is most easily conducted using TSI's Portacount. The Portacount measures respirator fit by comparing the concentration of particles outside and inside the respirator. The procedure results in a numerical value called the "respirator fit factor." Although quantitative fit testing is not a pass/fail procedure, as is the qualitative fit test, the Portacount can provide a pass/fail indication for selected fit factors up to 10,000. A properly fitting half-mask respirator should produce a minimum value of 2,000 and a full face piece should produce a minimum value of 5,000. These values should provide adequate workplace protection. They should not be confused with the published respirator protection factors.

The Portacount is designed to operate using the particles and concentrations present in ambient air; generated aerosols [such as DOP, DOS, corn oil, etc.] are not required and are counter-indicted as they interfere with the instrument's optics. The Portacount can measure concentrations between 1,500 and 500,000 particles per cubic centimeter and is sensitive to particles as small as 0.02u, but does not differentiate particles by shape.

A respirator with a sampling port (available from the manufacturer) is required. HEPA filter cartridges are used. The test subject must not smoke for at least 30 minutes before the fit test as smokers exhale smoke (particles) for up to 30 minutes after smoking. The presence of these particles within the respirator would result in a low measured fit factor. A test cycle includes 30 second each of the following sequence of exercises: normal breathing, deep breathing, moving the head side to side, moving the head up and down, running in place, and concluding with a repeat of normal breathing.

Portacount operation

The Portacount must be operated in the upright position. It is turned on by simultaneously pressing the "enable" and "on" buttons. The "A" tube is attached to the ambient sampling port and the "S" tube to the sample port. The free end of the sample tube is attached to the respirator's sample port. Then press "enable" and "test" simultaneously. When the first test is completed, the fit factor will be displayed. The Portacount will continue testing and updating the displayed fit factor every 30 seconds. The test is concluded by simultaneously pressing "enable" and "test" at which time the Portacount will provide the overall fit factor and give a "pass/fail" indication. The Portacount is turned off by simultaneously pressing "enable" and "off."

Current regulations do not require fit testing of positive pressure respirators; however, this may change in the future.

APPENDIX C

PROGRAM FORMS

The following forms are attached:

1. Respirator Fitting
2. Respirator Inspection Log
3. Exposure Log
4. Training Log
5. Assignment Record
6. Medical Evaluation and Respirator Use Questionnaire

Each respirator user is expected to maintain an inspection log for each assigned respirator.

For the exposure record, record the measured quantity or the company's historic data record for each gas, vapor, particulate, etc. at each site you visit. [This is the environmental level, not the level to which you hope to have reduced it through use of appropriate respiratory protection.]

RESPIRATOR FIT TEST RECORD

Employer: _____

Location: _____

Employee Name _____
Date _____

Department _____

Job title /
description: _____

Respirator Training Date _____

Respirator Selected (type and
manufacturer): _____

_____

Conditions that could affect respirator fit. (circle Yes or No)

Mustache	Y	N	Glasses	Y	N
Facial Scar	Y	N	Dentures absent	Y	N

Other conditions / Comments

_____

_____

Size of Respirator Required: S M L XL

Comments: _____

Quantitative Fit Test Given: IS IAA BITREX Other _____

Qualitative Fit Test Given: Portacount Other _____ Fit Factor _____

Test readings (for calculation of quantitative fit factor, if Portacount not used):

Normal breathing	Pass	Fail	Not Given
Talking	Pass	Fail	Not Given
Deep breathing	Pass	Fail	Not Given
Jogging	Pass	Fail	Not Given
Head side to side	Pass	Fail	Not Given
Bending	Pass	Fail	Not Given
Head up and down	Pass	Fail	Not Given

Other _____

Comments:_____

_____

Employee Acknowledgment of Results

Employee Signature_____ Date_____

Test Conducted By:_____ Date_____

RESPIRATOR INSPECTION LOG

Name:_____

Respirator : _____

_____

Date S L I E H C G F P Repairs
Comments/Notes

S = facepiece seal L = lens
P = Pump motor, charging unit, batteries, power cord, belt holder, and test gauge for PAPR.
I = inhalation valve E = exhalation valve
H = headbands C = cartridge holder
G = gaskets F = filter cartridge

EXPOSURE LOG

Employee

_____

Date	***Location***	***Substance***	***Qty ****	***Time in Area***	***Comments***

* List appropriate units: f/cc, ppm, mg/m3, etc.
Include date if monitoring data is from a different date.

TRAINING RECORD

Name	Date	Type / Use of Respirator
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

RESPIRATOR ASSIGNMENT RECORD

Employee Name:_____ Date_____

Job Duties / Title_____

Department:_____

RESPIRATOR ISSUE

7. Type of Respirator (s) to be issued

_____

8. To be used under the conditions specified here _____

_____

9. Estimated frequency of cartridge/filter replacement or respirator replacement (disposable) -- air purifying respirators only

Hourly_____ Twice/shift_____ Daily_____ Weekly_____ Monthly_____

Other/specify_____

	MEDICAL QUESTIONNAIRE FOR RESPIRATOR USE		Date	
Associate Name	Social Security Number	Date of Birth	Age	Sex

Do you have now or have you ever had... ?		**CheckOne**	
NO.	**DESCRIPTION**	**Y**	**N**
1.	A heart attack		
2.	Fast or irregular heart beat		
3.	Heart trouble of any kind		
4.	Chest pain with exertion		
5.	Angina		
6.	High blood pressure		
7.	Swelling of the ankles		
8.	Stroke		
9.	Anemia		
10.	Emphysema or Chronic bronchitis		
11.	Asthma or Attacks of wheezing		
12.	Shortness of breath during usual activities		
13.	Persistent cough (most days for 3 or more months per year)		
14.	Persistent phlegm (most days for 3 or more months per year)		
15.	Collapsed lung		
16.	Reduced lung function on a breathing test		
17.	Abnormal chest x-ray		
18.	An operation or serious injury to your chest		
19.	Epilepsy or a seizure disorder		
20.	Fainting		
21.	Dizziness		

22.	A nervous or emotional disorder		
23.	Excessive use of alcohol or drug dependence		
24.	Claustrophobia (fear of confined spaces)		
25.	Hyperventilation (over-breathing)		
26.	Sensation of choking or smothering		
27.	Heatstroke or heat exhaustion		
28.	Diabetes		
29.	Impaired Vision		
30.	Do you wear glasses or contact lenses?		
31.	Impaired Hearing		
32.	Do you use a hearing aid?		
33.	Perforated eardrum		
34.	Facial injury, surgery or deformity		
35.	Do you wear dentures?		
36.	Arthritis of hands or wrists		
37.	Loss of fingers or difficulty in using hands or fingers		
38.	Back disorder		
39.	Skin disorders or contact allergies		
Are you currently under a doctor's care? If yes, what is the nature of the problem?			
Do you take any medications? If so, list...			
Do you or did you ever smoke cigarettes? If yes, number of years smoked _____ Usual number of cigarettes smoked per day _____			
Did you ever have any difficulty when using a respirator?			
Do you feel you have now or have had any medical problems that could interfere with proper and safe respirator use?			

Associate Signature	Medical Evaluator	Date

APPENDIX D

POTENTIALLY HAZARDOUS TASKS

TASK	EXPOSURE	PRECAUTIONS	RESP PROT(when req)
Mixing stucco	Silica dust	Stand upwind, keep head away from mixer	Dust mask
Applying coating	Respirable mists and fumes	Stand upwind, keep head away from spray,	Respirator w/ appropriate cartridge
Rasping of Foam	Airborne foam particles	Stand upwind, do not rasp directly overhead	Dust mask
Cutting of Drywall	Airborne dust	Use fan to blow particles away from face	Dust mask

APPENDIX E

RESPIRATOR PROGRAM EVALUATION CHECKLIST

In general, the respirator program should be evaluated for each job or at least annually, with program adjustments, as appropriate, made to reflect the evaluation results. Program function can be separated into administration and operation.

A. Program Administration

____ (1) Is there a written policy which acknowledges employer responsibility for providing a safe and healthful workplace, and assigns program responsibility, accountability, and authority?

____ (2) Is program responsibility vested in one individual who is knowledgeable and who can coordinate all aspects of the program at the jobsite?

____ (3) Can feasible engineering controls or work practices eliminate the need for respirators?

____ (4) Are there written procedures/statements covering the various aspects of the respirator program, including:

____ designation of an administrator;
____ respirator selection;
____ purchase of MSHA/NIOSH certified equipment;
____ medical aspects of respirator usage;
____ issuance of equipment;
____ fitting;
____ training;
____ maintenance, storage, and repair;
____ inspection;
____ use under special condition; and
____ work area surveillance?

B. Program Operation

(1) Respiratory protective equipment selection

____ Are work area conditions and workers exposures properly surveyed?

____ Are respirators selected on the basis of hazards to which the worker is exposed?

____ Are selections made by those knowledgeable of proper procedures?

____ (2) Are only certified respirators purchased /used; do they provide adequate protection for the specific hazard and concentration of the contaminant?

____ (3) Has a medical evaluation of the prospective user been made to determine physical and psychological ability to wear the selected respiratory protective equipment?

____ (4) Where practical, have respirators been issued to the users for their exclusive use, and are there records covering issuance?

(5) Respiratory protective equipment fitting

____ Are the users given the opportunity to try several respirators to determine whether the respirator they will be wearing is the best fitting one?

____ Is the employee fit tested at appropriate intervals?

____ Are those users who require corrective lenses properly fitted?

____ Are users prohibited from wearing contact lenses when using respirators?

____ Is the facepiece-to-face seal tested in a test atmosphere?

____ Are workers prohibited from wearing respirators in contaminated work areas when they have facial hair or other characteristics may cause faceseal leakage?

(6) Respirator use in the work area

____ Are respirators being worn correctly (i.e., head covering over respirator straps)?

____ Are workers keeping respirators on all the time while in the work area?

(7) Maintenance of respiratory protective equipment

Cleaning and Disinfecting

____ Are respirators cleaned and disinfected after each use when different people use the same device, or as frequently as necessary for devices issued to individual users?

____ Are proper methods of cleaning and disinfecting utilized?

Storage

____ Are respirators stored in a manner so as to protect them from dust, sunlight, heat, excessive cold or moisture, or damaging chemicals?

____ Are respirators stored properly so as to prevent them from deforming?

____ Is storage in lockers and tool boxes permitted only if the respirator is in a carrying case or carton?

Inspection

____ Are respirators inspected before and after each use and during cleaning?

____ Are qualified individuals/users instructed in inspection techniques?

____ Is respiratory protective equipment designated as "emergency use" inspected at least monthly (in addition to after each use)?

____ Are SCBA incorporating breathing gas containers inspected weekly for breathing gas pressure?

____ Is a record kept of the inspection of "emergency use" respirators?

Repair

____ Are replacement parts used in repair those of the manufacturer of the respirator?

____ Are repairs made by manufacturers or manufacturer-trained individuals?

(8) Special use conditions

____ Is there a procedure for respiratory protective equipment usage in atmosphere immediately dangerous to life or health?

____ Is there a procedure for equipment usage for entry into confined spaces?

(9) Training

____ Are users trained in proper respirator use, cleaning, and inspection?

____ Are users trained in the basis for selection of respirators?

____ Are users evaluated, using competency-based evaluation, before and after?

APPENIX F

Appendix D to Sec. 1910.134 (Mandatory) Information for Employees Using Respirators When Not Required Under the Standard

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by OSHA standards. If your employer provides respirators for your voluntary use, of if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard.

You should do the following:

1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.

2. Choose respirators certified for use to protect against the contaminant of concern. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you.

3. Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.

4. Keep track of your respirator so that you do not mistakenly use someone else's respirator.

[63 FR 1152, Jan. 8, 1998; 63 FR 20098, April 23, 1998]

PERSONNAL PROTECTIVE EQUIPMENT POLICY

REF 29 CFR PART 1926.95-102 (Subpart E)

PLAN IMPLAMENTATION DATE: 01/00

PLAN REVISION DATE: 02/03

TABLE OF CONTENTS

I. Purpose / Objective:

To establish guidelines for employee use of Personal Protective Equipment (PPE)

Auer & Kompany will provide suitable equipment to protect employees from hazards in the workplace. The Safety Program Coordinator will advise on what protective equipment is required for the task, but the superintendent of the operation must obtain this equipment and see that it is used. Protective clothing and equipment is not a substitute for adequate engineering controls.

PPE will only be utilized if all other measures have been exhausted. These include:

- Hazard elimination
- Utilizing Engineering controls to reduce the hazard

The types of PPE that this policy specifically addresses are:

- Head protection (i.e hard hat)
- Hand Protection (i.e. gloves)
- Eye Protection (i.e. safety glasses)
- Foot Protection (i.e. safety shoes, work boots)
- Hearing protection (i.e.. ear plugs, muffs)

Respiratory protection required is covered under a separate policy.

II. Head Protection

On jobsites, hard-hats are to be worn per OSHA and General Contractor / Jobsite requirements. Sometimes a person fails to wear a hard-hat, either through forgetfulness or through underestimating the risk of head injury, which can be prevented by wearing one. Remember that all it takes is a carelessly dropped tool or piece of material coming down on your head to cause severe injury or even death. There are a number of workers disabled with various type of head injuries and vision problems because they didn't wear a hard-hat. There may be time when inside and working in an area with minimal overhead hazards that the employees may remove their

hardhats when working. These employees must remember however that when they leave these areas the hard hat is to be placed back on.

Hard hats are to be worn with the brim facing forward except in certain welding situation. This is the only permissible time to turn a hard hat. These times the harness is also to be turned.

Auer & Kompany provides appropriate head protection devices for employees to protect them from head or other injuries that could result from their working environment. Some head protection devices are available from stock. The superintendent must also maintain sufficient supply of head protection devices for visitors in the area.

Hard hats are not to be painted or altered in any was. They are not to be drilled or cut. If a hard hat in cracked, it is to be replaced immediately. If a hard hat has been subjected to a load, then it is to be replaced immediately.

No other cap shall be worn under the hard hat. The harness must be adjusted to keep the shell a minimum of 1 ¼ in from the employees head. Hard hats must meet ANSI standards for impact resistance and electrical resistance.

III. Hand Protection

Auer & Kompany provides proper hand protection to employees exposed to known hand hazards. The superintendent/superintendent must obtain the suitable hand protection and ensure that it is used. The office will maintain a supply of special or infrequently used hand protection. Assistance in selecting the proper hand protection may be obtained by consulting the Safety Director / Coordinator.

IV. Foot Protection

Auer & Kompany requires the wearing of construction grade work boots. All boots should be of heavy-duty leather or canvas construction. Tennis shoes, sneakers and cowboy boots are not acceptable. The employee will provide these boots. Failure to report to work wearing appropriate footwear could mean that the employee is sent off site to obtain the right footwear.

V. Eye Protection

Auer & Kompany provides appropriate eye protection devices for employees assigned to tasks in which an eye-injury hazard exists. The superintendent of the operation is responsible for determining the need for suitable eye-protection devices and for ensuring that the employees use them. Where there is a danger of flying particles or corrosive materials, employees must wear protective goggles and/or face shields provided [or approved] by Auer & Kompany. In many instances it is necessary to wear a face shield and safety glasses. Employees are required to wear safety glasses at all times in areas where there is a risk of eye injuries such as punctures,

contusions or burns. Employees who need corrective lenses are required to wear only approved safety glasses, protective goggles, or other medically approved precautionary procedures when working in areas with harmful exposures, or risk of eye injury. All eye protection devices must meet ANSI standards for impact resistance and be equipped with appropriate side shields.

VI. Hearing Protection

Many of the tasks Auer & Kompany employees are required to do expose them to impact and / or continuos noises. Fortunately the exposures to the employees are not such that a formal hearing conservation program is required. If it is found that exposures are above the requirement listed in 1926.52 Table D-2 Permissible Noise Exposures then a formal program will be instituted. For the noise levels that are currently present, Auer & Kompany will provide various types of hearing protection devices that should be worn at the employee's discretion.

If the employee chooses to wear hearing protection, proper wearing and hygiene will be discussed with the employee. This will be done verbally and not documented. If problems do arise out of this practice, then formal documented training will be conducted.

FALL PROTECTION PROGRAM

Ref: 29 CFR 1926.104, 1926.500 (Subpart M)

PLAN IMPLEMENTATION DATE: 01/00

LAST REVISION: 02/03

TABLE OF CONTENTS

I. PURPOSE

The purpose of this program is to establish the minimum criteria for employees when working on elevated work surfaces. This program is intended to comply with OSHA's fall protection standards.

II. RESPONSIBILITIES

This program has been designated specifically for Auer & Kompany by the Safety Program Coordinator. The Program Coordinator and the Competent Person(s) are able to answer questions and provide additional information.

Specific responsibilities include

1. Safety Program Coordinator

    A. Ability to assign competent person.
    B. Coordinate purchase of all necessary fall protection equipment.
    C. Maintain inventory of equipment and spare parts.
    D. Designate when fall protection is necessary and what type(s) will be used.
    E. Ensure that all fall protection equipment is being inspected prior to each use.
    F. Train all employees on when fall protection is necessary and what types of fall protection are best for specific situations. Training records should be maintained.
    G. Review the Fall Protection plan annually to address any changes in either the company or governmental regulations.

2. Superintendents will be responsible for:

    A. Assuring that the proper fall protection methods are being used
    B. Maintaining proper fall protection equipment at the job.
    C. Assuring that only trained employees are put into situations that require fall protection.

3. Employees will be responsible for:

    A. Wearing appropriate fall protection equipment
    B. Maintaining all fall protection equipment.

4. Competent Person: On the jobsite there will ***always*** be a designated competent person. This person has the final say as to all matters concerning Fall Protection. The competent person must approve any delineation from the fall protection policy.

III. FALL PROTECTION REQUIREMENTS

Employees will be provided with adequate fall protection whenever they are more than six (6) feet above the adjacent ground, floor or other work surfaces. This does not include work on portable ladders or scaffolding.

IV. FALL PROTECTION SYSTEMS

1. **Guardrail:** Standard guardrails will be provided along the exposed sides of platforms where the fall potential is six (6) feet or more or where the employee could fall into moving equipment, corrosive chemicals or an impalement hazard. A standard guardrail is 42 inches high with a 21-inch midrail. Posts should not be more than 8 ft. apart on center. All Guardrail systems should be able to withstand at least 200 lbs in force outward or downward. Guardrails shall not have significant slack or deflect significantly when subjected to a 200lb force.

    A. Wood rails
        i. Posts and top rails will be not be less than 2in X 4 in dimension
        ii. Mid rails will not be less than 1in X 6in in dimension

    B. Pipe Rails
        i. All rails and posts shall be at least ½ in. in diameter

    C. Structural Steel Rail
        i. All rails and posts shall be at least 2 in. X 2 in. X 3/8 in. angles

    D. Wire rope rails
        i. Diameter shall be at least ¼ in.
        ii. Should be flagged at least every 6 ft.

2. **Stair Railing:** A standard stair railing will be provided on the open sides of any steps that have four (4) or more risers. A standard stair railing is between 34 and 30 inches measured from the leading edge of the tread.

3. **Floor Opening:** Every floor opening measuring twelve (12) inches or more in its least dimension will be provided with a cover or a guardrail. The cover or guardrail will be designed to prevent persons from accidentally walking into the opening and shall also be so designed as not to create an additional hazard.

4. **Fixed Ladders:** Employees will be protected from falling from fixed ladders when the fall potential is 20' or more by cages or ladder safety devices.

5. **All Other Situations:** Whenever a guardrail, stair railing or floor opening/hole cover will not provide the protection necessary to prevent a fall, one (or more) of the following devices will be provided:

   A. **Personal fall arrest systems** - including harnesses, shock absorbing lanyards, life lines and double locking snap hooks.
      i. The lanyards should not exceed 6 ft in length or allow employee to contact lower level, whichever is shorter.
      ii. The lanyard must be secured to an anchorage that can support 5000 lbs. per employee weighing less than 310 lbs. Including tools. If heavier then support will be stronger by relative amount.

   B. **Safety Nets**
      i. Should be now lower than 30 ft below work platform
      ii. Should extend out from structure
         a. at 5 ft in height - 8 ft.
         b. at 5 to 10 ft - 10 ft.
         c. over 10 ft. in ht - 13 ft.
      iii. Should be able to with stand drop test of 400 lbs at highest point.

   C. **Climbing protection systems** - such as climbing safety devices used on fixed ladders when a cage cannot be used.

   D. **Controlled Access Zones and Warning Line Systems** will only be considered if all other possibilities have exhausted and are deemed to be not feasible. If these means are utilized then the Safety Program Coordinator will develop a Site Specific Fall Protection Plan. If necessary this will be included in Appendix A.
      i. All lines will be erected at least 6 ft. from leading edge.
      ii. All line will be flagged at least every 6 ft.
      iii. When needed, safety monitors will be assigned.

V. FALL PROTECTION EQUIPMENT / RESCUE

1. All fall protection equipment will be maintained in safe operating condition at all times.
2. All fall protection equipment will be inspected daily prior to use.
3. All fall protection devices will be removed from services and examined when subjected to actual fall conditions.
4. All fall protection devices will be tested using the frequency and load requirements specified in the OSHA Fall Protection standard.
5. If systems are used that require rescue of the fallen employee, then appropriate measure will be taken to assure that the equipment is available.

VI. FALL PROTECTION WHEN ERECTING OR DISMANTLING SCAFFOLDING

For the scaffold erectors there are several types of fall protection that can be considered. These include nets, guard rails and personal fall arrest systems. The only systems that can seriously be considered is the personal fall arrest system. For the systems to function there must be a proper anchorage point that is capable of withstanding 5000lbs as per 1926.502.d.15. The only two possible structures are the scaffold itself or the structure the scaffold is built around (i.e. utilizing lifelines or direct connection). (1926.451.g.3).For our purposes we will not be considering the scaffold frames as an anchorage point capable of withstanding the necessary force. The Scaffolding, Shoring and Forming Institute has stated that " The scaffold components which the members manufacture have not been designed to accept the forces imposed on an anchorage point in an arrested fall …such forces can cause the individual components to fail .. the entire scaffolding to overturn .. resulting in serious injury or death" (Appendix A) We will concur with their statement until other documentation is made available stating otherwise.

The other option is tying off to the structure. For the times this is possible a body harness and lanyard will be utilized by the erector along with some means of attaching the lanyard to the structure. The method may be an approved basket strap. The erectors will wear all necessary fall arrest hardware in the event the situation arises that this may be possible. All additional hardware will be available in close proximity to the erection crew.

There are many times when the scaffold is not situated such that the structure is directly overhead and direct attachment cannot be made. In these cases it may be possible to utilize a system of static lines, lifelines and rope grabs to provide active fall protection for the employees.

Each employee would be issued a lifeline that is to be attached to static line on the roof. Employees would utilize a body harness and lanyard equipped with a rope grab to secure themselves to the lifeline. The lifelines would be attached to the static line by means of a double locking clip and would be able to slide along the static line between the eyebolts that secure the lifeline to structure. The actual distance of slide cannot be determined until the structural steel contractor (and a professional structural engineer) has determined where the eyebolts can and must be attached. It is estimated that the maximum slide distance would be 8-10 ft.

At this time, no other means of known active or passive protection systems exists that would possibly allow the employee to complete their work. If another system is either developed or brought to the attention of the Safety Program Coordinator of Auer & Kompany then the plan will be revised to allow for it's inclusion.

Prior to dismantling, the static line on the roof may have to be removed to allow for the roof and parapet to be constructed. Without this static line, there are no satisfactory tie off

points for the employees. As a result during dismantling there are no feasible means to utilize conventional fall protection measures.

The utilization of any system of fall protection by the erection / dismantling crew is the responsibility of the competent person. The competent person will determine the feasibility and safety of all types of fall protection (such as those discussed here and others that may be presented) and the possibility of utilizing them during the erection and dismantling process. If it is feasible and does not create an additional hazard then fall protection will be utilized. This is per 1926.451.g.2. In situations where the competent person deems it impossible to utilize fall protection, the arguments on the unfeasibility of such systems will be documented.

VII. TRAINING

When an employee is hired, whenever there is a change in assignment and annually thereafter they will receive the following training:

1. When fall protection is required.
2. What fall protection devices are available
3. Proper anchoring and tie -off techniques.
4. Proper estimation of total fall distance to prevent striking lower level.
5. Maintenance and inspection requirements for fall protection devices.
6. Rescue considerations

A competent person will do all training. Appropriate documentation will be kept of all training.

Appendix A

Scaffolding, Shoring & Forming Institute
1300 Sumner Avenue
Cleveland, Ohio 44115
(216) 241-7333

AN **OPEN LETTER**

To: All users, owners, and distributors of ground based scaffolding

Re: The use of scaffolding as an anchorage for personal fall arrest systems

The Scaffolding, Shoring and Forming Institute (SSFI) is an industry association comprised of designers and manufacturers of scaffolding, shoring and forming products. For many years, members of the SSFI have been familiar with, and have been very active in, engineering and standards development work associated with fall arrest equipment.

The undersigned manufacturers of ground based scaffolds wish to make you aware that the scaffold components which they manufacture have NOT been designed to accept the forces imposed on an anchorage point in an arrested fall. In our experience, we have found that such forces can cause individual components to fail, the entire scaffold to overturn, or both, resulting in serious injury or death.

While we continue to search for acceptable alternatives, we want to emphasize that in the interests of the safety of those who work on or around scaffolding, we recommend fall arrest anchorage points confined to locations designed for that purpose by qualified persons. If you are already doing so, we are advising you to immediately discontinue the practice of using any scaffold components as an anchorage for fall arrest purposes.

A- I PLANK & SCAFFOLDING MFG., INC.

BIL-JAX, INC.

SAFWAY STEEL PRODUCTS

THIEL MANUFACTURING CORP.

VANGUARD MANUFACTURING EQUIPMENT

WERNER CO.

PATENT CONSTRUCTION SYSTEMS

SGB CONSTRUCTION SERVICES

UNIVERSAL MANUFACTURING

WACO SCAFFOLDING &

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SCAFFOLD SAFETY PROGRAM

Ref: 29 CFR 450-454 (Subpart L)

PLAN IMPLEMENTATION DATE: 01/00

LAST REVISION: 02/03

TABLE OF CONTENTS

I. PURPOSE

The purpose of this program is to establish the safety requirements for employees when working on scaffolding. This program is intended to comply with OSHA's scaffolding standards.

II. RESPONSIBILITIES

This program has been designated specifically for Auer & Kompany by the Safety Program Coordinator. The Program Coordinator and the Competent Person(s) are able to answer questions and provide additional information.

Specific responsibilities include

1. Safety Program Coordinator

    A. Ability to assign competent person.
    B. Recommending scaffold components for use.
    C. Assist in design with safety considerations
    D. Ensure that scaffold equipment is being inspected prior to each use.
    E. Train all employees on identification of scaffold hazards and proper erection and dismantling procedures. Training records should be maintained.
    F. Review the Scaffolding Program annually to address any changes in either the company or governmental regulations.

2. Superintendents will be responsible for:

    A. Assuring that the scaffolding is safe to use.
    B. Maintaining the scaffold in a safer condition.
    C. Assuring that only trained employees are allowed to work on scaffold

3. Employees will be responsible for:

    A. Working safety
    B. Maintaining the scaffold in a safe condition

5. Competent Person: On the jobsite there will ***always*** be a designated competent person. This person has the final say as to all matters concerning the safety of the scaffolding. No changes are to be made to the scaffold without the say of the competent person. No employees will use the scaffold until the competent person has declared the scaffold safe to use.

III. FRAME SCAFFOLD ERECTION AND DISMANTLING

Scaffolds will be erected, moved, dismantled or altered under the supervision of a competent person who has the training and experience to ensure that the task has been correctly completed and the scaffold is safe to use. Auer & Kompany will use a scaffold erection and dismantling contractor for the majority of this type of work however there may be time that Auer & Kompany employees are involved in the erection of dismantling of scaffold.

Prior to the erection process much preplanning is done to assure the scaffold can be erected safely and in such a manner so as to allow all employees access to all work areas. It is in this stage the specific type of scaffold that would work best is chosen. The different access means considered will include aerial platforms, welded frame scaffold, tube and clamp scaffold and systems scaffold. In some instances, there may be other types of scaffold systems that may work better however due to availability difficulties another systems must be utilized. Every attempt will be made to secure the best scaffold components and system for the job however Auer & King reserves the right to substitute based on availability.

For areas that require scaffold to be erected in such a manner that the scaffold erection crew competent person, the president of Auer and Kompany, the Safety Program Coordinator or the Superintendent do not feel comfortable that the scaffold to be erected will be able to withstand necessary loads, a Professional Engineer will be utilized to assure the design meets all necessary load requirements. This will be automatically done any time the scaffold exceeds 30 ft in height.

Upon completion of the first level of scaffold, boards will be placed on the frames to provide a surface from which the erectors can work from. According to OSHA guidelines 1926.451.b.1.1(exception) "decking that is used soles by employees performing erection and dismantling, only the planking necessary to provide safe working condition is necessary". The recommended width is 18" or 2 boards. The space availability will assure that there is enough room for the employee(s) and materials to pass up through the interior of the scaffold frames.

All access of employees will take place through the interior of the scaffold frames. The exception to this is if there is a situation that is deemed as unsafe by the competent person to utilize the interior of the frames. At this time, and this time only, the employees will utilize the exterior of the frames. All material will be hoisted up through the interior of the frames unless the competent person deems such and action as unsafe or would create a greater hazard than utilizing other means. If this is the case, other means would be utilized (i.e. such as hoisting from the exterior of the frames).

The initial scaffold frames that are erected will be used for climbing purposes as long as they meet the criteria set forth in 1926.451.e.9.3 which are "the horizontal members are parallel, level and are not more than 22" apart vertically provided that they are erected in a manner that creates a usable ladder and provides good handhold and foot space." The installation of hook on access

ladders will be done "as soon as scaffold erection has progressed to a point that permits safe installation and use" according to 1926.451.e.9.2 however is has been determined that the scaffold erection will not continue without the installation of access ladders once the scaffold has been tied in to the structure as per 1926.451.c.1.2. This dictates that the maximum dimensions of the scaffold prior to the attachment of access will be 20ft high by 30 ft wide or the scaffold exceeds the 4 to 1 height to width ratio.

Maintaining the 4 to 1 ratio for the scaffold being erected prior to connection to the structure is a critical safety factor. This will be maintained at all costs. The use of additional frames as outriggers will be utilized when necessary. This is equivalent to erection of a scaffold tower, and all appropriate safe practices will be utilized. If however the scaffold reaches its maximum allowed height at the same or nearly the same point as the scaffold can be safely connected to the structure, then connection to the structure is the preferred means of assure stability.

IV. FRAME SCAFFOLD SAFETY REQUIREMENTS

For additional rules please refer to the safety rules section of the safety policy
For specific fall protection requirements refer back to the fall protection policy

1. The footing or anchorage for scaffolds will be sound, rigid, and capable of carrying the maximum intended load without settling or displacement. Unstable objects such as barrels, boxes, loose brick, or concrete blocks will not be used to support scaffolds or planks. Board will not be stacked more than two high. If stacked the will be joined together (i.e. nailed).

2. When a scaffold is tagged yellow (Potential Danger), additional fall protection / arrest systems will be utilized in those area where the hazards exist.

3. Guardrails and toe boards will be installed on all open sides and ends of platforms more than 10 feet above the ground or floor.

4. Scaffolds 4-10 feet in height will be fully planked and provided with guardrails where work is carried out above hazardous conditions such as rebarring work.

5. Where persons are required to work or pass under the scaffold, scaffolds will be provide with a screen between the toe board and the guardrail, extending along the entire opening.

6. Overhead protection will be provided for workers on a scaffold exposed to overhead hazards.

7. If no guardrails are present then a personal fall arrest system must be utilized per the requirements of the fall protection policy.

8. Slippery conditions will not be permitted, and walking surfaces on scaffolds will be maintained in a manner that allows for safe passage.

9. No welding, burning, riveting, or open flame work will be permitted on any staging suspended by means of fiber or synthetic rope. Only treated or protected fiber or synthetic ropes will be used for or near any work involving the use of corrosive substances or chemicals.

10. Wire, synthetic, or fiber rope used for scaffold suspension must be capable of supporting at least 6 times the rated load.

11. Scaffolds and their components must be capable of supporting at least 4 times the maximum intended load.

12. Any scaffolding part that is damaged or weakened will be immediately repaired or replaced.

13. All planking or platforms will be overlapped (minimum 12 inches), or secured from movement.

14. Platform planks will be laid with their edges close together so the platform will be tight.

15. An access ladder, or equivalent safe access, will be provided. Do not climb on the frames or other scaffold members to access the scaffold.

16. Scaffold planks will be extended over their end supports not less than 6 inches nor more than 12 inches.

17. Scaffolds will be securely guyed or tied to the building or structure. Where the height or length exceeds 25 feet, the scaffold will be secured at intervals not greater than 25 feet vertically and horizontally.

18. Scaffolds will be properly braced by cross bracing and horizontal bracing.

19. Platforms will be properly braced by cross bracing and horizontal bracing

20. Platforms will be tightly planked for the full width of the scaffold except for necessary entrance openings. Platforms will be secured in place.

21. A ladder or stairway will be provided for proper access and exit and must be affixed or built into the scaffold and so located that when in use it will not have a tendency to tip the scaffold. A landing platform will be provided at intervals not to exceed 35 feet.

22. Scaffolds in use by any person shall rest upon a suitable footing and stand plumb. The caster or wheels will be locked to prevent movement.

23. Guardrails made of lumber, not less than 2x4 inches (or other material providing equivalent protection), approximately 42 inches high, with a midrail of I x 6 inch lumber or equivalent, and toe boards, must be installed at all open sides and ends on scaffolds more than 10 feet above the ground or floor. Toe boards will be a least 4 inches in height.

V. MOBILE SCAFFOLD (MANUALLY PROPELLED) ERECTION AND DISMANTLING

The erection of mobile scaffold is basically the same as for stationary scaffold. The major difference is to keep the castors locked during the entire erection and dismantling process. Please refer to the above section on erection and dismantling for all additional information.

VI. MOBILE SCAFFOLD (MANUALLY PROPELLED) SAFETY REQUIREMENTS

For additional rules please refer to the safety rules section of the safety policy

1. Keep the castors locked when an employee is working on the scaffold.
2. Do not move the scaffold with the employee on it unless the following condition are met:
   - A The surface is within 3 deg of level
   - B The surface is free of pits, holes, and obstructions.
   - C The height to base width ratio is 2 to 1 or less
   - D When necessary, outrigger frames are installed on both sides of the scaffold
   - E The force is applied as close to the base as possible but not more than 5 ft above the floor.
   - F The employee on the scaffold is aware of the move.
3. When accessing the scaffold, do not climb over the guard rails
4. Use guard rails when over 6 ft.
5. A height to base width ratio of 4 to 1 must be maintained.
6. Outriggers must be used on both sides of the scaffold unless it is placed within 18". of a wall. If the scaffold is moved then the other outriggers must be used.
7. The work platform is fully planked.

VII. ALL OTHER TYPES OF SCAFFOLDING

The safety requirements of all other scaffold that would be used by Auer & Kompany are basically the safe as those discussed above. For any mechanical tower scaffold the same requirement for safety fall protection systems applies. The supplier of such equipment will provide training to Auer & Kompany employees and will make the final determination as to the safety of the equipment.

VIII. SCAFFOLD INSPECTIONS

It is the policy of Auer & Kompany to inspect its scaffold regularly. Only competent people will perform the inspections. The competent person will have been trained by a qualified individual and will have the authority by the company to take whatever action is necessary to assure the safety of our employees.

The inspections will be done at the following times:

1. Prior to initial use: After the erection crew, whether an outside contractor or internally, is finished with the erection of the scaffold, the competent person in char of that section of scaffold will inspect the scaffold to assure it meets all applicable OSHA, jobsite and company standards and that it is structurally sound. We will not rely on the erection crew to tag our scaffold as "safe" for use.

2. Daily, prior to use: Each morning, prior to allowing employees to work on the scaffolding, the competent person for that area will inspect the scaffold to assure that no changes have been made that will compromise the structural integrity of the scaffold, reduce the safety of the scaffold for our employees and to assure that the scaffold still meets all applicable OSHA, jobsite and company standards. Following this initial inspection an in depth inspection will be done of all scaffold components.

3. Following any usage or incident that may have altered the scaffold in any way: If an incident (i.e. struck by a forklift, high wind / rain storm, etc.) or usage (i.e. Used by masonry contractor, etc.) may cause the scaffold to be altered or reduce the structural integrity of scaffold, the competent person will inspect the scaffold to assure that it meets all applicable OSHA, jobsite and company standards.

The initial inspection process will be a visual inspection done from the ground or the structure the scaffold surrounds. The scaffold will not be walked until the ground based inspection is completed.

A tagging system will be used to indicate to all employees whether or the scaffold is safe to work from. The tags will be attached to the scaffold at each access point. The tags will utilize the following color indication system:

- Red: unsafe to use
- Yellow: under construction, employee should consult with his foreman or supervisor before using, may require the use of personal fall arrest system.
- Green: safe to use

The tags will be signed and dated on a daily basis. The tags will not be signed until the in-depth inspection has been completed however no scaffold is to be used until the initial walk around inspection has been completed.

The competent person is authorized to pull the green tag when his inspection indicates safety hazards or the scaffold does not meet all applicable OSHA, jobsite and company standards.

IX. TRAINING

Training for all employees working on scaffold will be done on the following issues when an employee is hired, whenever there is a change in assignment or types of scaffold being used and or when the employee has shown inadequacies in his performance:

1. Recognition of scaffold hazards.
2. The procedures necessary to control or minimize these hazards
3. The nature of any electrical, fall or falling object hazards in the area and proper handling of these hazards.
4. Proper use of scaffold.
5. Maintenance and inspection requirements for scaffold
6. Proper handling of material on the scaffold
7. Load capacities of the scaffold.

For employees erecting and dismantling scaffold training will be expanded to include:

1. Correct erection, dismantling moving, operating, repairing, inspecting, and maintaining procedures for the scaffold being used.
2. Design criteria, maximum load and intended use of the scaffold

A competent person will do all training. Appropriate documentation will be kept of all training

AUER & KOMPANY
VEHICLE FLEET SAFETY POLICY

Policy:

The purpose of this Policy is to ensure the safety of those individuals who drive Auer & Kompany vehicles. Vehicle accidents are costly to our company, but more importantly, they may result in injury to you or others. It is the driver's responsibility to operate the vehicle in a safe manner and to drive defensively to prevent injuries and property damage. As such, the Company endorses all applicable state motor vehicle regulations relating to driver responsibility. The Company expects each driver to operate their vehicle in a safe and courteous manner pursuant to the following safety rules. The attitude you take when behind the wheel is the single most important factor in driving safely.

Steve Auer

Driver Eligibility

- Company vehicles are to be driven by authorized AUER & KOMPANY employees only, except in emergencies, or in case of repair, testing by a mechanic. Spouses and other family members are not authorized to drive the Company vehicle.
- Any employee who has a driver's license revoked or suspended shall immediately notify the office immediately, and discontinue operation of the company vehicle. Failure to do so may result in disciplinary action, including dismissal.
- All accidents, regardless of severity, must be reported to the police and to the office. Failing to stop after an accident and/or failure to report an accident may result in disciplinary action, including dismissal.
- Drivers must immediately report all summonses received for moving violations during the operation of a company vehicle to the office.
- **All** CDL drivers must comply with all applicable D.O.T. regulations, including successful completion on medical, drug, and alcohol evaluations.

Motor Vehicle Records will be ordered semi annually to assess employees' driving records. An unfavorable record will result in a loss of the privilege of driving a Company vehicle. The following system will be used to determine eligibility to operate a Company vehicle:

- ALL TYPE'A'VIOLATIONS (as defined below) WILL RESULT IN TERMINATION OF DRIVING PRIVILEGES FOR EMPLOYEES AND WILL DISQUALIFY ANY POTENTIAL DRIVER EMPLOYEES.

- ANY DRIVERS (EMPLOYEES OR APPLICANTS) EXCEEDING ANY OF THE FOLLOWING LIMITS WILL BE RESTRICTED FROM DRIVING COMPANY VEHICLES:

    - One (1) or more type 'A' Violations in the last 3 years
    - Nine (9) or more points accumulated in the past three years
    - Four (4) or more points accumulated over the past year

The company Accident Review Board will review all violations. The Board reserves the right to revise the severity of the violation to whatever is deemed appropriate. All extenuating circumstances will be taken into account during this process. The Board reserves the final say in all matters of driver eligibility.

Type 'A' Violations:

Driving While Intoxicated
Driving While Under the Influence of Drugs
Negligent Homicide Arising out of the use of a Motor Vehicle (gross negligence)
Operating During a period of Suspension or Revocation
Using a Motor Vehicle for the commission of a Felony
Aggravated Assault with a Motor Vehicle
Operating a Motor Vehicle Without the Owners Authority (grand theft)
Permitting an Unlicensed Person to Drive
Reckless Driving
Speed Contest (racing)
Hit and Run (Bodily Injury or Property Damage)

Type 'B' Violations

All Moving Violations not listed as type 'A' Violations

Vehicle Operation Rules

- The use of a company vehicle while under the influence of intoxicants and other drugs is forbidden and is sufficient cause for discipline, including dismissal.
- No driver shall operate a company vehicle when illness, fatigue, injury, or prescription medication has impaired his/her ability to do so safely.
- All drivers and passengers operating or riding in company vehicles must wear seat belts, even if air bags are available.
- The company vehicle is not to be used for personal use unless previously authorized by the company or under emergency circumstances. All emergency usage's are to reported to the company immediately.
- No unauthorized personnel are allowed to ride in company vehicles. This includes, but is not limited to, the following; hitchhikers, spouse, children, friends. The driver may use the vehicle to transport unauthorized passengers only in emergency circumstances (i.e. life threatening, to the hospital). All emergency transports must be reported to the office as soon as possible. The transporting of children to and from school is ***not*** considered emergency transportation and is strictly prohibited.
- Drivers are responsible for the security of Company vehicles assigned to them. The vehicle engine must be shut off, ignition keys removed, and vehicle doors locked whenever the vehicle is left unattended. If the vehicle is left with a parking attendant, only the ignition key is to be left.
- Drivers are responsible for the cleanliness (inside and out) or their vehicles. The company reserves the right to make the final determination of appropriate cleanliness.

- Drivers are responsible for assuring that all vehicle safety systems are in proper working order. Drivers are responsible for reporting all problems to the office .If a vehicle is considered unsafe the driver will not operate the vehicle.
- Drivers will attempt to utilize designated refueling stations.
- Drivers are responsible for assuring that there is a charged fire extinguisher and a stocked first aid kit in the vehicle at all times.
- Drivers will use extreme caution when driving or backing with trailers.
- Drivers are responsible for the proper hitching and setup of trailers attached to their vehicles. This includes all safety chains and lights. Only company authorized trailers are to be towed.
- Headlights shall be used 1/2 hour after sunset and 1/2 hour before sunrise, during inclement weather or at any time when a distance of 500 feet ahead of the vehicle cannot be seen clearly.
- All other state laws, local laws, or D.O.T. Motor Carrier Safety Regulations must be obeyed.

Defensive Driving Rules

- Drivers are required to maintain a safe following distance at all times. To estimate your following distance, pick a stationary object ahead of you. As the vehicle in front of you passes the object, begin counting 1001, 1002, 1003, etc. until you reach the same object. This counts the number of seconds between you and the vehicle ahead of you.
- Drivers of passenger vehicles should keep a two-second interval between their vehicle and the vehicle immediately ahead. During slippery road conditions, the following distance should be increased to at least four-seconds.
- Drivers of vehicles with trailers should keep a minimum of a three-second interval when not carrying cargo; and at least four-seconds when fully loaded. Following distance should also be increased when adverse conditions exist.
- Drivers must yield the right of way at all traffic control signals and signs requiring them to do so. Drivers should also be prepared to yield for safety's sake at any time. Pedestrians and bicycles in the roadway always have the right of way.
- Avoid driving in other driver's blind spots; attempt to maintain eye contact with the other driver, either directly or through mirrors.
- Drivers must honor posted speed limits. In adverse driving conditions, reduce speed to a safe operating speed that is consistent with the conditions of the road, weather, lighting, and volume of traffic. Tires can hydroplane on wet pavement at speeds as low as 40 MPH.
- Turn signals must be used to show where you are heading; while going into traffic and before every turn or lane change.
- When passing or changing lanes, view the entire vehicle in your rear view mirror before pulling back into that lane.
- Be alert of other vehicles, pedestrians, and bicyclists when approaching intersections. Never speed through an intersection on a caution light. Approach a stale green light with your foot poised over the brake to reduce your reaction time should it be necessary to stop. When the traffic light turns green, look both ways for oncoming traffic before proceeding.

- When waiting to make left turns, keep your wheels facing straight ahead. If rear-ended, you will not be pushed into the lane of oncoming traffic.
- When stopping behind another vehicle, leave enough space so you can see the rear wheels of the car in front. This allows room to go around the vehicle if necessary, and may prevent you from being pushed into the car in front of you if you are rear-ended.
- Avoid backing where possible, but when necessary, keep the distance traveled to a minimum and be particularly careful.
- Check behind your vehicle. Operators with trailers should walk around their vehicle before backing and/or have someone guide you.
- Back to the driver's side. Do not back around a corner or into an area of no visibility.

What To Do In Case of An Accident

In an attempt to minimize the results of an accident, the driver must prevent further damages or injuries and obtain all pertinent information and report it accurately.

- Call for medical aid if necessary.
- Secure accident scene -- pull onto shoulder or side of road, redirect traffic, set up road flares/reflectors, etc.
- Call the police. All accidents, regardless of fault. severity, must be reported to the police. If the driver cannot get to phone, he should write a note giving location to a reliable appearing motorist and ask him to notify the police.
- Record names and addresses of driver, witnesses, and occupants of the other vehicles and any medical personnel who may arrive at the scene.
- Complete the form located in the Vehicle Accident Packet. Pertinent information to obtain includes:
  - license number of other drivers
  - insurance company names and policy numbers of other vehicles
  - make, year, model of other vehicles
  - date and time of accident
  - overall road and weather conditions
- Draw a diagram of the accident scene and note the street names and locations of traffic signs, signals, etc.
- **DON'T** discuss the accident with anyone at the scene except the police. **DON'T** accept any responsibility for the accident. **DON'T** argue with anyone.
- Provide the other party with your name, address, phone number, drivers license number, and insurance information.
- Immediately report the accident to the office. Provide a copy of the accident record and/or your written description of the accident to the office ASAP.
- Cooperate fully with any follow-up from the Insurance Company Claims personnel.

Vehicle Maintenance

Proper vehicle maintenance is a basic element of any fleet safety program, not only to ensure a safe, road worthy vehicle, but also to avoid costly repair expenses and unexpected breakdowns.

- Regular inspection of the vehicle is the responsibility of the assigned driver. A daily inspection should include but is not limited to such critical items as:
  - brakes
  - lights
  - tires
  - wipers
- The comprehensive vehicle inspection checklist should be completed once a month and be turned in to the office. Failure to perform, document and turn in the inspection checklist could result in disciplinary action, up to and including suspension of driving privileges.
- Drivers should check all necessary fluids during refueling.
- The vehicle should be cleaned (interior & exterior) regularly to help maintain its good appearance for you and the Company. A clean vehicle makes a good impression on customers.
- It is the driver's responsibility to assure that the vehicle manufacturer's maintenance schedule is maintained. The driver should bring the vehicle to one of the designated shops to have them perform all necessary service. The vehicle should be brought to one of the company authorized shops at least every 3000 miles for an oil change and proper lubrication.
- It is the employee's responsibility to read and understand the operator's manual for the vehicle that has been assigned to them. The maintenance schedule for "harsh" operating conditions is the one that is expected to be used. It is the responsibility of the driver to assure that this maintenance schedule is followed.
- Any operational problem with the vehicle must be reported to the office as soon as possible after it is noticed by the driver. Drivers will not operate any vehicle if it is unsafe.

Vehicle Expenses

- Company gas cards and gas tickets are to be used whenever possible. This will eliminate the necessity of you keeping and turning in receipts.
- When it is not possible to utilize the cards or the tickets, the driver must maintain the receipt(s) and turn them in to the accounting department. Please be sure that all necessary paperwork required for reimbursement is completed at the time the receipt is turned in.

AUER & KOMPANY VEHICLE FLEET SAFETY PROGRAM
EMPLOYEE ACKNOWLEDGEMENT

I acknowledge that the information contained in the Company's Vehicle Fleet Safety Policy has been reviewed with me and a copy of the policy and driver rules have been furnished to me. As a driver of a company vehicle, I understand that it is my responsibility to operate the vehicle in a safe manner and to drive defensively to prevent injuries and property damage. It is also my responsibility to maintain the vehicle according to company standards and that I will not drive the vehicle if it is considered to be unsafe.

PRINT - EMPLOYEE'S NAME _____

EMPLOYEE'S SIGNATURE _____

DATE _____

REVIEWER'S SIGNATURE _____

DATE _____

(Reviewer: Please retain the original copy in the employee's file)