ServiceBoss International, Inc.

Safety Program

Environmental, Health & Safety Program

Prepared by:
ServiceBoss International, Inc.
in association with:
U.S. Compliance Systems, Inc.

ServiceBoss International, Inc.

POLICY STATEMENT

We have developed a comprehensive safety program that addresses our specific safety concerns and provides guidance for the performance of our individual job tasks within the framework of appropriate Occupational Safety & Health Administration (OSHA) standards.

Safety takes a commitment from all personnel within our organization. Training will be interactive with an opportunity for all to actively participate, ask questions, make suggestions, and refer to our written policies and procedures.

It is our policy to provide a work environment that is inherently safe. The safety and health of our employees is of primary importance as they are our most important resource.

Safety training needs will be identified by continual reassessment of our work methods, equipment and job sites as well as employee and management input. Observation of unsafe acts will be addressed immediately.

Each employee is encouraged to contact their Supervisor immediately should a safety or health risk exist so that corrective action may be taken immediately.

Safety requires not only that each person understand and perform individual tasks in a safe manner, but also that each individual is aware of his surroundings and is actively involved in the safety of others.

This Policy Statement will be conspicuously posted.

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Safety Director

ServiceBoss International, Inc.

Safety Program Overview

This comprehensive safety & health training program has been developed to address our specific safety concerns and to provide guidance for the performance of individual job tasks within the framework of appropriate Occupational Safety & Health Administration (OSHA) standards.

Safety demands a commitment from all personnel within our organization. As a contractor, we have an obligation to ensure that all our employees are afforded the protection of an appropriate safety & health program.

This program contains policies and procedures to deal with common work-place hazards, specific job related hazards, and potential hazards that may arise.

Hazard assessment, project pre-planning, and engineering controls, where feasible, will be the preferred method of providing a safe workplace. Hazards that remain will be minimized or eliminated through training which provides our employees the ability to recognize workplace hazards and understand the proper procedural and/or personal protective equipment requirements.

Each employee is encouraged to contact their supervisor immediately should a safety or health risk exist so that corrective action may be taken to eliminate the hazard entirely or deal with the hazard in a safe manner through modified work procedures, PPE, and/or other appropriate action.

On all job sites, at least one person will be designated a **"competent person"** by virtue of experience or training. This person will have the ability to identify work related hazards, know the corrective procedures, and have the responsibility, ability and authority to stop work if the workplace cannot be made safe.

The Safety Director or a designated competent person will make routine and random job site inspections to both identify new hazards and to monitor the effectiveness of our safety & health program.

In the final analysis, the success of our safety effort depends on all employees from senior management to the newest hire demonstrating a commitment to safety by working in a safe manner. Safe job performance is how our safety effort is ultimately measured.

For ease of use, this safety program has been divided into four broad categories. These are:

SECTION I

General safety policies and procedures.

SECTION II

Job Specific - Equipment Specific Safety Procedures.

SECTION III

Specific compliance programs with appropriate forms.

SECTION IV

Job Site Forms.

Additionally, there is one appendix:

APPENDIX A

Training documentation.

SECTION I

GENERAL SAFETY POLICIES AND PROCEDURES

ServiceBoss International, Inc.

SAFETY PROGRAM

SECTION I

GENERAL SAFETY POLICIES AND PROCEDURES

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Standards:

29 CFR 1926.16, ***Rules of Construction***
29 CFR 1926.20, ***General Safety and Health Provisions***
29 CFR 1926.21, ***Safety Training and Education***
29 CFR 1926.34, ***Means of Egress***
29 CFR 1926.35, ***Employee Emergency Action Plans***
PART 1904, ***Recording and Reporting Occupational Injuries and Illnesses***

GENERAL SAFETY POLICIES AND PROCEDURES

ACCIDENT/INJURY PREVENTION

Our safety program is designed so that our employees do not work in conditions that are unsanitary, hazardous, or dangerous to their health or safety.

One lax moment in terms of safety may result in a lifetime of needless pain and suffering. Disregarding safety standards may even be fatal. While an accident may happen in an instant, the consequences may last for years.

Accident prevention requires a commitment from all personnel within our company to actively participate in our safety program. All personnel should be aware of job site hazards and follow procedures to eliminate these hazards by proper work methods, use of personal protective equipment, and proper use of tools and equipment. All persons are encouraged to ask questions and make positive suggestions for safety improvement.

Competent persons will be designated to provide job site expertise as well as regular inspections of equipment, materials, and procedures. Competent persons will have the authority to stop work if a safety hazard is identified and it cannot be corrected immediately.

All machinery, tools, materials and equipment deemed unsafe will be taken out of service by physically removing, tagging, or locking controls to render them inoperable.

Only persons qualified by training or experience will be allowed to operate equipment or machinery.

All tools and items of equipment will be used for the purpose for which they were designed. For example, a wrench is not a hammer; a ladder is not a horizontal plank; a fire extinguisher is not a cooler!

Never take chances or attempt any job without being aware of the proper procedures, the potential safety hazards, and the methods to reduce or eliminate risk.

SAFETY PROGRAM ADMINISTRATOR

Our Safety Director will administer this safety program and has overall responsibility for the implementation of this program. The safety director will ensure each employee has appropriate safety training for the tasks to be performed.

Additionally, duties of this position include:

a. the actual training of personnel.

b. maintenance of training records.

c. random inspections to verify adherence to safety rules and policies.

d. completion of specific tasks identified within our OSHA compliance programs found in Section III of this safety program.

Our Safety Program Administrator is:

The duties of this position may be delegated to other personnel who are competent persons by virtue of training or experience.

The responsibilities of this position may not be further delegated.

EMPLOYEE INVOLVEMENT

All employees are encouraged to participate actively in our safety & health program. Do not hesitate to point out perceived safety deficiencies to your supervisor or the competent person -- you may prevent an injury to yourself or a fellow worker. With the goal of providing a safer worksite for all of us, employee suggestions for improving safety management are welcomed and encouraged. Never perform any task on which you are not confident in your understanding of the safety procedures. If in doubt, ask your immediate supervisor for guidance.

HOUSEKEEPING

Housekeeping? On a job site? What's that all about? It's about safety! Employees are to maintain a neat and orderly work area *as far as practical*. Housekeeping and general cleanliness have a direct effect on safety and health. Proper housekeeping can prevent slips and falls, allow easy egress in the event of an emergency, prevent falling object injuries, and enhance fire safety. Below listed are general housekeeping rules:

a. walking/working surfaces shall be kept clean and dry.

b. do not allow construction debris to accumulate.

c. stored materials will be neatly stacked at the job site.

d. containers, when not in use, will be sealed.

e. no objects will be left unattended on stairways.

f. entrances and exits will be properly marked and not blocked.

g. tools shall be properly cleaned and put away after use.

EMERGENCY ACTION PLAN

An Emergency Action Plan, if appropriate, will be posted at the job sites along with emergency telephone numbers and an escape route diagram.

After a hazard assessment of a job site, the Safety Director may determine that conditions may develop that could possibly warrant an evacuation. In this case. an emergency action plan will be developed to address the threat. Certainly, if work is being done at a hazardous chemical plant, for example, an emergency action plan is required and coordination will be made with the facility operator.

Events may occur which dictate the evacuation of a job site such as a fire, explosion, power failure, etc.. Additionally, events may occur which dictate the need for emergency medical responders. These sets of events fall under our Emergency Action Plan and a multitude of objectives must be met.

The first and foremost objective is the safety of all our personnel. To achieve this level of safety, our plan is designed to get personnel away from danger, treat injury, and provide for a thorough and accurate accounting of all employees.

There may be situations where certain employees, trained in first aid and/or fire fighting procedures, may prevent a small emergency situation from becoming a major disaster. In these types of situations, specifically identified employees will remain to perform the function for which they are trained, provided they may perform these duties in a safe manner. At no time will any employee put himself/herself at risk.

To the extent possible, job sites will have clear, direct, egress.

The actual implementation of this plan must be direct and carried out without confusion. Employees must know how to alert others, how to call for assistance, the location of fire extinguishers and first aid kits, the escape route, and the rendezvous point (being accounted for so that others do not put themselves at risk looking for a person who has already reached safety).

EMERGENCY MEDICAL RESPONSE

Should an injury occur that requires an emergency medical responder, the below listed actions will be taken in order given:

1. Call 911 or the emergency response number posted on the job site.
    a. If the absence of 911 service, the telephone numbers of physicians, hospitals, or ambulances will be conspicuously posted with our emergency phone numbers.
2. Provide any medical assistance you are trained and certified to do. **DO NOT** provide any medical assistance you are not trained to do.

3. Designate an individual to direct the emergency responders to the injured person and provide Material Safety Data Sheets if applicable.
4. Notify the competent person who, in turn, will notify the office.

FIRE PREVENTION PLAN

Fire Prevention deals not with handling a fire emergency, but rather preventing a fire in the first place.

To reduce the likelihood of a fire, personnel are to adhere to the following rules:

1. Smoking is allowed only in designated areas and smoking materials will be totally extinguished and placed in the appropriate receptacles.
2. All chemical products will be handled and stored in accordance with the procedures noted on their individual MSDS.
3. Heat producing equipment will be properly maintained and operated per the manufacturer's instructions to prevent accidental ignition of combustible materials.
4. Precautions will be taken when working with an open flame (such as welding) and those areas will be made fire safe by removing or protecting combustibles from ignition.
5. Combustible liquids must be stored in approved containers.
6. Chemical spills must be cleaned up immediately. This is particularly important for combustible and reactive liquids. Damaged chemical containers and cleanup materials must be properly disposed.

   [Note: Exercise care! Information on appropriate personal protective equipment; proper disposal; proper cleanup procedures; required ventilation, etc. is found on the product's MSDS.]
7. Combustible liquids and trash must be segregated and kept from ignition sources.
8. Keep clear access to fire hydrants as well as portable fire extinguishers.
9. Personnel will be notified by their Supervisor or the competent person of any unusual fire hazard conditions existing on a job site.
10. Good housekeeping, good housekeeping!

PORTABLE FIRE EXTINGUISHERS

All personnel will receive instruction on portable fire extinguishers to include general principles of use, the hazards involved in the incipient state of fire fighting, inspection, maintenance, and location. This training will be given prior to initial job assignment and annually thereafter.

a. Fire extinguishers will be visually inspected monthly for general condition and adequate charge. They will be serviced and certified by qualified personnel at least annually.
b. Portable fire extinguisher locations will be clearly identified and easily accessible.

Portable fire extinguishers will be distributed as indicated below:

CLASS	DISTRIBUTION	NOTES
A "A" on a green triangle	75 feet or less travel distance between the employee and the extinguisher	Use on wood, paper, trash.
B "B" on a red square	50 feet or less travel distance between hazard area and the employee	Use on flammable liquid, gas.
C "C" on a blue circle	Based on the appropriate pattern for the existing Class A or Class B hazards	Use on electrical fires.
D "D" on a yellow star	75 feet or less travel distance between the combustible metal working area and the extinguisher or other containers of Class D extinguishing agent.	Use on combustible metals.

Appropriate portable fire extinguishers will be used, as noted above. Supervisors will ensure that at least one extinguisher is on each floor of a project near the stairway.

Using the wrong fire extinguisher on some fires can actually spread the fire. Using a Type A extinguisher on an electrical fire, for example, could cause serious injury. When a fire occurs, it is imperative to use the proper extinguisher.

FIRE PROTECTION

The phone number of the local fire department shall be posted with other emergency numbers.

If a fire should occur, all personnel and the local fire department will be notified. As in all emergency situations, per the American Trauma Society, people calling the fire department should:

a. Remain calm.

b. Speak clearly and slowly.

c. Give the exact location.

d. Describe the situation.

e. Give the phone number from where you are calling.

f. Do not hang up until told to do so.

FIRST AID & FIRST AID KITS

Should a medical emergency occur, other than minor scrapes and bruises, and it is serious enough to call for professional medical assistance, you should call the Emergency Response Number posted on the job site bulletin board. Before the first aid providers arrive, to the extent possible, clear the way so they can reach the injured employee in the most direct way possible.

If our employees are working at a location that is more than 3 or 4 minutes from medical assistance, we will utilized designated first aid providers who are trained and licensed in CPR/first aid; designated first aid provider as an additional job; and have completed training as part of our bloodborne pathogen program. Employees will not expose themselves to blood or other bodily fluids of other employees at any time.

Per OSHA, first aid is limited to:

a. Using a non-prescription medication, such as aspirin, at non-prescription strength.
b. Cleaning, flushing or soaking wounds on the surface of the skin;
c. Using wound coverings such as bandages, Band-Aids™, gauze pads, etc.; or using butterfly bandages or Steri-Strips™.
d. Using hot or cold therapy.
e. Using any **non-rigid** means of support, such as elastic bandages, wraps, non-rigid back belts, etc..
f. Using temporary immobilization devices while transporting an accident victim (e.g., splints, slings, neck collars, back boards, etc.).
g. Drilling of a fingernail or toenail to relieve pressure, or draining fluid from a blister.
h. Using eye patches.
i. Removing foreign bodies from the eye using only irrigation or a cotton swab.
j. Removing splinters or foreign material from areas other than the eye by irrigation, tweezers, cotton swabs or other simple means.
k. Using finger guards.
l. Using massages.
m. Drinking fluids for relief of heat stress.

If an employee is injured and emergency responders have been called, stay calm and reassure the injured employee that help is coming.

Below is basic first aid for various common job site injuries. Mostly, it is what **not** to do.

MINOR BURNS
(Redness or blisters over a small area)

Flush with cold water; apply a sterile dressing.

Do not use butter on any burn.

Do not break open blisters.

MAJOR BURNS
(White or charred skin; blisters and redness over a large area; burns on face, hands, or genital area)

Cover with sterile dressing and seek medical attention promptly.

Do not apply salves, ointments or anything else.

Do not break blisters.

CHEMICAL BURNS
(Spilled liquid or dry chemical on skin)

Liquid - Flush with large amounts of water immediately (keep water flow gentle).

Dry - Brush as much off as possible before flushing with water.

After flushing at least 5 minutes, cover with sterile dressing.

Seek medical attention promptly.

Do not use anything but water on burned area.

Do not break open blisters.

EYE - FOREIGN OBJECT
(Object visible; feeling of something in the eye)

Have patient pull upper eyelid over lower eyelid.

Run plain water over eye.

If object does not wash out, cover both eyes with a gauze dressing.

Seek medical attention promptly.

Do not rub the eye.

EYE - WOUNDS
(Wound on eyelid or eyeball; pain; history of blow to eye area; discoloration)

Apply loose sterile dressing over both eyes.

Seek medical help immediately.

For bruising, cold compress or ice pack may relieve pain and reduce swelling.

Do not try to remove any embedded object.

Do not apply pressure to eye.

EYE - CHEMICAL BURN
(Chemical splashed or spilled in eye)

Flush immediately with water over open eye for at least 10 minutes (20 minutes if alkali). It may be necessary to hold patient's eyelid open.

NOTE: In work situations where a possibility of eye (or body) exposure to corrosive materials exists, suitable facilities for quick-drenching or flushing will be provided in the immediately work area.

Cover both eyes with sterile dressing.

Seek medical help immediately.

Do not put anything but water in eye.

HEAT EXHAUSTION
(Fatigue; weakness; profuse sweating; normal temperature; pale clammy skin; headache; cramps; vomiting; fainting)

Remove from hot area.

Have victim lay down and raise feet.

Apply cool wet cloths.

Loosen or remove clothing.

Allow small sips of water if victim is not vomiting.

HEAT STROKE
(Dizziness; nausea; severe headache; hot dry skin; confusion; collapse; delirium; coma and death)

Call for immediate medical assistance.

Remove victim from hot area.

Remove clothing.

Have victim lay down.

Cool the body (shower, cool wet cloths)

Do not give stimulants.

When dealing with any injury, stay calm and never do anything unless you know what you are doing.

First Aid Kits:

The first aid kit containers will be weather proof. Their contents will be checked before being sent to a job site and at least weekly thereafter.

First aid kits are worthless if not readily accessible. Therefore, they will not be locked up on job sites.

First aid kits will be replenished as items are used. Sterile items will be individually wrapped and sealed and used only once. Other items such as tape or scissors can be reused and should be kept clean. In the absence of plentiful amounts of clean water, eye flush will be available.

The number of first aid kits to be found on the job site should be:

Number of Persons Assigned to Job Site	Minimum First Aid Supplies
1 - 5	10 Package Kit
6 - 15	16 Package Kit
16 - 30	24 Package Kit

Depending on the job site, first aid supplies will generally include: adhesive bandages, bandage compresses, scissors and tweezers, triangular bandages, antiseptic soap or pads, eye dressing, and other items that a consulting physician may recommend. The main purpose of a bandage, the most commonly used item in a first aid kit, is not really to stop the bleeding, but to keep the wound clean.

The three most important things dealing with first aid kits are:

1. They must be readily accessible.
2. They must be appropriate for the job site work involved.
3. Personnel must know how to use the contents of the first aid kits.

Individual items within the kit that must be sterile must be wrapped and sealed until their one-time use. Other items such as tape or scissors can be reused and should be kept clean.

The supplies consumed in first aid kits can actually be used as a safety tool. For example, if a kit constantly needs replacement of bandages which have been used for minor cuts, there is an obvious problem that the cuts are happening in the first place. Actual trends can be established and corrective procedures initiated such as protective gloves or handling practices.

Improper medical treatment can be more dangerous than no treatment at all.

SANITATION

SANITATION. - 1926.51

Potable Water:

From a safety standpoint, you must not neglect your need for potable (drinkable) fluids. Water is not only the most abundant of all compounds found on the earth, it is the most abundant part of you -- actually about 65% of you is water.

On construction sites, exertion and heat dictate the need for plenty of water.

Potable water will be available on job sites. If portable containers are used, they will be clearly marked [Potable Water]; capable of being tightly closed;

and equipped with a tap. These containers will be used for no other purpose than supplying drinking water. Non-reusable (single service) cups in a sanitary container will be provided drinking as well as a receptacle for disposing of used cups. Employees are reminded of their need for adequate amounts of water.

Non-Potable Water:

Outlets of non-potable water should be clearly identified as such, through appropriate signage, and non-potable water may never be used for drinking, washing, or cooking.

Toilets:

Toilets will be provided at construction sites according to the below table:

Number of Employees	Minimum Number of Facilities
20 or less	1
20 or more or more	1 toilet seat and 1 urinal per 40 workers
200 or more	1 toilet seat and 1 urinal per 50 workers

Toilet facilities would include, unless prohibited by local law:

a. Privies (where their use will not contaminate ground or surface water)
b. Chemical Toilets
c. Recirculating toilets
d. Combustion toilets

Washing Facilities:

Adequate washing facilities will be provided in near proximity to the worksite if employees are working with contaminants that may be harmful to their health such as paint, coatings, or other chemical products. Paper towels and cleansing agents will be provided.

Showers and change rooms will be dictated by specific standards dealing with specific toxic materials (i.e., lead; asbestos).

Eating and Drinking Areas:

No employee will be allowed to consume food or beverages in any area exposed to toxic material.

LIFTING, PUSHING & PULLING

Back injuries are often caused by the obvious -- putting excessive strain on the lower back by lifting an object that is too heavy or awkward, or by bending and/or twisting while lifting.

However, lifting injuries are also caused by less obvious reasons:

a. poor physical condition
b. poor posture
c. poor judgment (lifting, pulling, pushing an object that is obviously too heavy or awkward without seeking assistance or a mechanical lifting device.)
d. lack of exercise
e. excessive body weight

Proper lifting techniques are important for employee safety. Below are lifting techniques that will reduce the likelihood of injury:

a. lift objects comfortably, not necessarily the quickest or easiest way.
b. lift, push, and pull with your legs, not your arms or back.
c. when changing direction while moving an object, turn with your feet, not by twisting at the waist.
d. avoid lifting higher than your shoulder height.
e. when standing while working, stand straight.
f. when walking, maintain an erect posture; wear slip-resistant, supportive shoes.
g. when carrying heavy objects, carry them close to the body and avoid carrying them in one hand.
h. when heavy or bulky objects need to be moved, obtain help or use a mechanical aid such as a dolly, hand truck, forklift, etc..
i. when stepping down from a height of more than eight inches, step down backwards, not forward.
j. handle heavy objects close to the body -- avoid reaching out.
k. lift gradually and smoothly. Avoid jerky motions.
l. maintain a clear line of vision.

SLIPS, TRIPS & FALLS

Slips, trips, and falls are among the most common job site accidents and they are easily preventable. Below are some of the causes of slips, trips, and falls:

a. running on the job site.
b. engaging in horseplay.
c. working off a ladder that is not firmly positioned.
d. carrying an object that blocks line of vision.

e. work boots not laced or buckled.

f. working off a scaffold without safety rails.

g. using ladders that have oil and grease on the rungs.

h. not using a handrail on steps.

i. messy work areas with debris strewn about.

j. not paying attention to what one is doing.

This list can go on and on, but all the above are easily preventable by adherence to common safety procedures, common sense, and awareness of potential hazards on the job site.

DRUGS AND ALCOHOL

With the exception of over the counter drugs such as aspirin or drugs prescribed by a physician, there shall be no drugs or alcohol on any job site. Alcohol and drug abuse cause an unacceptable level of safety hazard not only for the offending employee, but for others in the vicinity. Those found to be under the influence of drugs and/or alcohol will be immediately removed from the job site by the competent person and further disciplinary action will be taken by the Safety Director.

Employees taking prescription medication that reduces motor skills should report this to their supervisor for appropriate work assignment.

Chemical dependency is a devastating problem for not only the employee, but also the employee's family and co-workers. For obvious safety reasons, it cannot be tolerated in the workplace. Those with such a problem should seek professional help. The Safety Director will assist any employee in finding appropriate treatment should they voluntarily come forward.

SMOKING

There shall be no smoking except in designated smoking areas. Under no circumstances will there be smoking during refueling of vehicles or within 50 feet of flammable materials.

ACCIDENT INVESTIGATION

The purpose of Accident Investigation is to prevent the same type of accident from reoccurring. An accident investigation will begin immediately after the medical crisis is resolved. The competent person/supervisor on the job site will complete an Accident Investigation Form as soon as feasible. The five questions that must be answered are: Who? What? When? Where? and most importantly, Why did the accident happen?

Apparently simple accidents may actually be caused by many complex reasons. Example: a worker is using a claw hammer on a working surface more than six feet above the ground. The hammer head breaks off and strikes a worker below who is not wearing a hard hat. Why did this accident happen? How can it be prevented? With just the facts presented, the fault would seem to rest with the worker who was struck by the falling object. Accident investigation may reveal other contributing factors by answering questions like:

a. Were hard hats required on the project, were they available, and was this policy enforced by the supervisors?

b. Were precautions taken to prevent objects from falling from above, such as a controlled access zone (CAZ)?

c. Did the worker inspect his hammer before use? Was he driving nails -- the job for which a claw hammer is designed -- or pounding metal beams?

After determining the cause of the accident, steps can be taken to prevent a reoccurrence. Near-miss mishaps, events which result in no injury or damage, should be investigated because even though the outcomes are different, the causes are the same.

POSTINGS

On every job site there will be a prominently displayed bulletin board or area for postings. Every employee must be aware of this policy. Certain postings are required as a matter of law in all cases and other postings are required depending on circumstances and types of work being done.

In all cases, the following must be posted to meet OSHA requirements:

a. OSHA Form 3165, *It's the law!*.

b. During the period from 1 February through to April 30, OSHA Form 300A, *Summary of Work-Related Injuries and Illnesses*, must be posted for work-related injuries and illnesses which have occurred during the previous year.

c. Emergency phone numbers and site address for emergency response.

If appropriate, the following must be posted:

a. OSHA citations.

b. Notice of informal hearing conference.

c. Names and location of assigned first aid providers.

d. Air or wipe sampling results.

e. Emergency action plan.

RECORDKEEPING: INJURIES & ILLNESSES
OSHA Forms 300; 300A & 301

As a matter of law, all employers with 11 or more employees **at any one time** in the previous year must maintain OSHA Form 300, *Log of Work-Related Injuries and Illnesses*, OSHA Form 301, *Injury and Illness Incident Report*, and OSHA Form 300A, *Summary of Work-Related Injuries and Illnesses*.

OSHA Forms 300 and 301 are used to record and classify occupational injuries and illnesses. The information on the OSHA Form 300 related to employee health and must be used in a manner that protects the confidentiality of the employees to the extent possible. Recordable injuries and illnesses must be entered on OSHA Forms 300 and 301 within seven (7) days of receiving information that a recordable injury or illness has occurred.

Retention of Forms:

Old OSHA Forms 101 and 200 as well as OSHA Forms 300 and 301 will be retained for five years following the year to which they relate.

Items to be recorded on OSHA Forms 300, 300A and 301:

Work related injuries and illnesses and fatalities are to be recorded using the criteria found in Part 1904, *Recording and Reporting Occupational Injuries and Illnesses*.

Injuries and illnesses must be recorded if they result in death, days away from work, restricted work or transfer to another job, medical treatment beyond first aid, loss of consciousness, or if the injury or illness involves a significant injury diagnosed by a physician or licensed health care professional even if it does not meet the forgoing conditions.

NOTE: First aid (which is not reportable) is defined in 1904.7(b)(5)ii.

Employee Involvement:

As a matter of policy, all work-related accidents and injuries are to be immediately reported to the competent person/supervisor on a job site who will complete an accident investigation form. This will be forwarded to the Safety Director who will extrapolate appropriate information for completion of the OSHA Form 300.

Catastrophic Reporting Requirements:

Within eight (8) hours after the death of any employee from a work-related incident or the in-patient hospitalization of three (3) or more employees as a result of a work-related incident, either in person or by telephone, the OSHA

Area Office nearest to the site of the incident will be notified. OSHA may be contracted for this purpose using a toll free telephone number: 1-800-321-6742.

Location of OSHA Forms 300 and 301:

As a general rule, the OSHA Forms 300 and 301 will be maintained in our main office. However, in the event that a project is to last more than one year, that job site will be considered a fixed establishment and maintain its own OSHA Forms 300 and 301.

INCIDENCE RATE

One indication of the success of our safety effort is our "incidence rate". When bidding a job, our incidence rate could be a determining factor in a successful bid. The incidence rate is determined by the following formula:

N/EH X 200,000 where:

N =	number of injuries and/or illnesses
EH =	total hours worked by all employees during the calendar year.
200,000 =	base for 100 full-time equivalent workers (working 40 hours per week, 50 weeks per year).

To find the "Lost Workday Injury Rate" (LWDI), the following formula is used:

LWDI Rate = (# LWDI's X 200,000)/# employee hours worked

# LWDI =	sum of LWDI's in reference years
# employee hours worked =	sum of employee hours in reference years
200,000 =	base for 100 full-time equivalent workers (working 40 hours per week, 50 weeks per year).

When accidents and injuries occur, the have an immediate detrimental impact on those employees involved. Additionally, they have a potential lingering negative impact on our company and our ability to get work.

SAFETY MEETINGS

Scheduled safety meetings provide an opportunity for reinforcing the importance of general safety as well as specific work related procedures applicable to the work at hand. Properly prepared safety meetings will focus on one or two topics and be direct and to the point. All safety questions will be addressed and interactive participation is encouraged.

ENFORCEMENT

It is expected that all employees will abide by our safety rules and guidelines not only to protect themselves, but also to protect their fellow workers from harm. Should a safety violation occur, the following steps will be taken by the employee's immediate supervisor:

a. **Minor Safety Violations**: Violations which would **not** reasonably be expected to result in serious injury.

1. The hazardous situation will be corrected.
2. The employee will be informed of the correct procedures to follow and the supervisor will ensure that these procedures are understood.
3. The supervisor will make a written report of the occurrence using our Enforcement Documentation Form and inform the employee that this documentation will be forwarded to the Safety Director for a retention period of one year.
4. A repeat occurrence of the same minor safety violation is considered substantially more serious than the first.

b. **Major Safety Violations**: Violations which would reasonably be expected to result in serious injury or death.

1. The hazardous situation will be corrected.
2. The employee will be informed of the correct procedures to follow and will impress upon the individual the severity of the violation and the likely consequences should this type of violation be repeated. The supervisor will ensure that the individual understands the correct procedures and will be cautioned that a reoccurrence could result in disciplinary action up to and including discharge.
3. The supervisor will make a written report of the occurrence using our Enforcement Documentation Form and inform the employee that this documentation will be forwarded to the Safety Director for a retention period of one year.

c. **Willful Major Safety Violations**: Intentional violation of a safety rule which would reasonably be expected to result in serious injury to the employee or a fellow worker.

1. The hazardous situation will be corrected.

2. The employee will be removed from the job site, the event will be documented and forwarded to the Safety Director, and the employee will be discharged.

Employees are to understand that the primary purpose of documenting safety violations is to ensure that the important business of employee safety is taken seriously and that the potential for injury is reduced to the lowest possible level.

Schedule of Enforcement Actions for Violations within a 1 Year Period

Minor Violation

Offense	Action	Repeat of Same Offense	Action
1st	Written Notice	1st	1 Day Off
2nd	Written Notice	2nd	3 Days Off
3rd	1 Day Off	3rd	Dismissal
4th	2 Days Off		
5th	3 Days Off		
6th	Dismissal		

Major Violation

Offense	Action	Repeat of Same Offense	Action
1st	Written Notice	1st	4 Days Off
2nd	2 Days Off	2nd	Dismissal
3rd	4 Days Off		
4th	Dismissal		

SECTION II

JOB SPECIFIC - EQUIPMENT SPECIFIC SAFETY PROCEDURES

Following are general safety procedures that apply to individuals operating the equipment or performing the tasks described.

SAFETY PROGRAM
SECTION II
JOB SPECIFIC - EQUIPMENT SPECIFIC SAFETY PROCEDURES
INDEX

JOB SPECIFIC - EQUIPMENT SPECIFIC SAFETY PROCEDURES

AERIAL LIFTS

Aerial lifts. - 1926.453

Aerial lifts include the following types of vehicle-mounted aerial devices to elevate personnel to job-sites above the ground:

a. extensible boom platforms.

b. aerial ladders.

c. articulating boom platforms.

d. vertical towers.

e. a combination of any of the above.

Only authorized persons may operate an aerial lift.

Lift controls must be tested each day prior to use to determine they are in a safe working condition.

When working from an aerial lift, you must stand firmly on the floor of the basket or cage and be attached by lanyard and safety harness to the boom or basket. You may not sit or climb on the edge; use planks, ladders, or other devices for a work position; or tie off to any adjacent pole, structure, or other equipment.

Load limits set by the manufacturer must never be exceeded.

The brakes must be set and when outriggers are used, they shall be positioned on pads or a solid surface.

Aerial lifts must not be moved with personnel in the basket unless it is designed for this type of operation. Aerial lifts designed as personnel movers must have controls that are clearly marked as to their use and the lower controls must be able to override the upper controls. Except in an emergency, the lower controls shall not be used unless permission has been granted by the persons in the lift.

Extreme care must be exercised to avoid contact with electrical energy.

COMBUSTIBLE & FLAMMABLE LIQUID HANDLING

Flammable and combustible liquids. - 1926.152

Only approved containers and portable tanks will be used for storage and handling of flammable and combustible liquids. Approved safety cans or Department of Transportation approved containers will be used for handling and use of flammable liquids in quantities of 5 gallons or less.

Note 1: The above does not apply to flammable liquid materials which are highly viscid (extremely hard to pour) which may be used and handled in their original shipping containers.

Note 2: For quantities of one gallon or less, the original container may be used for storage, use and handling.

Flammable or combustible liquids may not be stored in areas used for exits, stairways, or normally used for the safe passage of people.

Inside a facility, no more than 25 gallons of flammable or combustible liquids may be stored in a room outside of an approved storage cabinet.

GASOLINE: General Information

Because most persons use or indirectly handle gasoline on a regular basis -- from filling up automobiles to lawn mowers -- the hazards presented by this product may have become obscure. Just because you are familiar with gasoline, never lose sight of the lethal hazards that it may contain.

Gasoline is a flammable liquid which means it has a flash point of less than 100ºF. The actual flash point -- lowest temperature at which a liquid gives off enough vapor to form a flammable mixture with air -- of gasoline is -45ºF. The autoignition temperature -- the temperature at which, with sufficient oxygen, gasoline will ignite on its own and burn -- is 536ºF.

Gasoline has a specific gravity -- the weight of the gasoline compared to the weight of an equal volume of water -- of 0.73. Further, gasoline has a negligible solubility in water. Basically, what the above means is that if water is used to extinguish a gasoline fire, it will only spread it because the gasoline will float on the water and continue to give off a vapor and form a flammable mixture with air. Gasoline fires must be fought with an extinguisher that is rated for Class B Fires such as carbon dioxide, dry chemical, or foam. It should be noted that water spray may be used to cool containers that may be exposed to the heat of the fire to prevent an explosion.

Conditions to avoid: heat, flame, & sources of ignition. Materials to avoid: strong oxidizers.

Health hazard information: routes of entry: inhalation, skin, ingestion.

Signs & symptoms of overexposure: headache, nausea, drowsiness, breathlessness, fatigue, convulsions, loss of conscience, dermatitis.

If there is a spill, notify emergency response personnel, evacuate area, remove ignition sources, build a dike to contain flow, do not flush to sewer or open water. Pick up with inert absorbent and place in closed container for disposal.

Gasoline is a carcinogen -- a cancer causing agent.

General rules: Post “No Smoking” signs around gasoline storage and ensure that it is enforced. Use only approved plastic or metal containers for portable gasoline carriers. They must not contain more than 5 gallons.

Double check with local ordinances for storage requirements.

DISPOSABLE RESPIRATORS

OSHA requires that employees who voluntarily use disposable respirators in situations where respiratory protection is not specifically required by OSHA standard (in atmospheres where exposures are below the permissible exposure limit) essentially for personal comfort or additional, though not required, respiratory protection be informed of 29 CFR 1910.134 Appendix D, printed below.
By insisting that these employees sign the tear-off employee handbook acknowledgement form, you can protect your company from OSHA citation for violating this requirement.

All disposable respirators, such as Moldex, 3M, Willlson, North Safety, etc. must be marked with the manufacturer’s name, the part number, the protection provided by the filter, and “NIOSH”.

Disposable filters are particulate respirators. They are also known as “air-purifying respirators” because they protect by filtering particles out of the air you breathe.

The below outlines the types of approved disposable respirators and their description.

N95	Filters at least 95% of airborne particles.	Not resistant to oil.
N99	Filters at least 99% of airborne particles.	Not resistant to oil.
N100	Filters at least 99.7% of airborne particles.	Not resistant to oil.
R95	Filters at least 95% of airborne particles.	Somewhat resistant to oil.
P95	Filters at least 95% of airborne particles.	Strongly resistant to oil.
P100	Filters at least 99.7% of airborne particles.	Strongly resistant to oil.

Though disposable filters cannot be fit-tested in the traditional sense, they must be fit-tested in accordance with the manufacturer’s instructions.

Under no circumstances may any respirator other than the above disposable respirators be used without compliance with a respiratory protection program.

> **Standard Number: 1910.134 App D**
>
> **Standard Title: (Mandatory) Information for Employees Using Respirators When not Required Under 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]

EXTENSION CORDS

Wiring methods, components, and equipment for general use. - 1926.405
General requirements. - 1926.416

Extension cords shall not replace permanent wiring and the following safety precautions will be adhered to:

a. Inspect the cord for cracks and cuts.

b. Cord must have a three prong plug for grounding.

c. Use the shortest continuous length of cord possible. Cords may not be spliced together.

d. Make certain the cord does not lay in water.

e. Ensure cord is properly rated for the job.

f. Secure and route cords out of the traffic flow to prevent tripping.

g. Defective cords will be tagged and removed from service.

h. Most importantly, an extension cord used on a job site MUST be used with a ground fault circuit interrupter (GFCI).

GROUND FAULT CIRCUIT INTERRUPTERS

Wiring design and protection. - 1926.404

A ground fault circuit interrupter (GFCI) provides protection for all 120-volt, 15-, 20-, and 30-ampere receptacle outlets that are not a part of the permanent wiring by detecting lost current resulting from a short, overheating, and/or ground fault. It should be noted that an extension cord into which electrical devices are plugged are not part of the permanent wiring; therefore, GFCI's are required.

A GFCI will "trip" when the amount of current amperes going to an electrical device in the hot conductor and the amount of current returning from an electrical device differs by approximately 5 milliamps. The GFCI can interrupt the current within as little as 1/40th of a second.

The current that is missing is being lost through a ground fault, whether it is in the actual grounding, a short in the equipment or electricity going through the employee to the ground.

A GFCI will not protect an employee who comes in contact with two hot wires or a hot wire and a neutral wire. A GFCI will provide protection against fires, overheating, damage to insulation, and, the most common form of electrical shock hazard -- the ground fault. GFCI's must be tested before use.

LIGHTING

Illumination. - 1926.56

A competent person will ensure that all work areas have adequate lighting. Adequate lighting serves a two-fold purpose -- allowing tasks to be more readily performed as well as providing the additional safety factor of being seen by persons not involved with the work -- especially vehicular traffic.

If generators are used for auxiliary lighting, they will be operated and maintained by authorized persons who are competent by training or experience.

LP-GAS STORAGE

Liquefied petroleum gas (LP-Gas). - 1926.153

Liquefied petroleum gas (LP-Gas) is sometimes used on job sites to provide fuel for temporary heating devices.

LP-Gas systems must have containers, valves, connectors, manifold valve assemblies, and regulators of an approved type. All cylinders must be DOT approved.

Rules for inside storage (under construction standards) are simple -- **it is not allowed!**

NOTE: Under industry standards, up to 300 pounds of LP-Gas may be stored, with adherence to specific safety procedures, is allowed

Rules for outside storage require that containers be in a suitable ventilated enclosure or otherwise protected against tampering. At least one approved portable fire extinguisher having a rating of not less than 20-B:C must be readily available.

The distance from buildings or groups of buildings that containers must be stored are as follows:

Quantity of LP-Gas Stored	Distance in Feet
500 lbs or less	0
501 to 6,000 lbs	10
6,001 to 10,000 lbs	20
over 10,000 lbs	25

Storage must not be near building openings or vehicular traffic.

MACHINE GUARDING

Mechanical power-transmission apparatus. - 1926.307

Most injuries that occur when operating a machine happen at the point of operation -- the point on a machine where the actual work (cutting, bending, spinning) occurs. This is also the point where guards can protect fingers and hands exposed to that danger. Machine guarding also protects employees from other dangers such as flying pieces of metal, sparks, gears, belts, and rotating parts.

The most common types of machines on job sites are power tools which often have guards to prevent injury.

Accident prevention in this area is a function of machine design -- engineering controls -- and operator training. Types of machine guarding are almost as numerous as types of machines -- the most common being a physical barrier to prevent accidental insertion of body parts. Guards are vital for safety reasons and machine guards designed into a machine should never be altered or removed. The speed and tremendous forces involved in modern machines are such that severe injury or even death could occur without warning and without even slowing the machine down.

Training and proper work methods go a long way toward reducing machine accidents. Like all safeguards, there is generally a way to bypass safety features that are engineered into machines. This is sometimes done to increase speed or just to make one's job easier. This could result in a

tragic, avoidable accident. The few seconds saved could cause a lifetime of grief. Do not bypass safety systems.

Operate all machines according to the instructor's manual and follow all safety procedures.

MACHINERY

Spinning, pounding, moving -- gears, pulleys, levers -- electricity, fuel, hydraulics -- action, reaction, force: danger! Machinery takes energy and performs a task or a multitude of tasks. Machinery, from a safety standpoint, is a collection of individual simple machines (pulleys, gears, etc.) combined to work in harmony to accomplish a specific job.

The danger is obvious: the power, speed, movement, and momentum of machinery is not going to be altered by something as insignificant as an employee's finger, hand, or even body.

How does one deal with the dangers of machinery? First, **never** operate any machinery until you have received proper training and you thoroughly understand safety procedures as well as procedures to follow for adjustments, power interruption, jamming, lubrication, and inspection.

Secondly, ensure the guarding systems are in place, functioning properly, and have not been altered or removed.

Thirdly, if a hazard assessment of the machinery operation dictates specific personal protective equipment (PPE), wear it!

Lastly, again from purely a safety standpoint, think of any power operated item with moving parts as machinery. This would include items as diverse as a small electric drill to an 80,000 pound tractor-trailer.

SCISSOR-LIFT FALL PROTECTION

What type of fall protection is required for scissor-lifts? This apparently simple question has a relatively simple answer. However, how it is derived is somewhat complicated because OSHA does not have a standard to deal with this issue.

Clearly, there is a hazard -- falling from height -- however, fall protection while using a scissor-lift is not covered in the fall protection, scaffold and ladder fall protection, nor aerial lift fall protection standards.

Section 5(a)(1) of the Occupational Safety and Health Act, commonly referred to as the General Duty Clause is a "catch all clause" which states: "Each employer shall furnish to each of its employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees."

In the absence of a specific standard relating to a safety or health risk, the above is the reference OSHA will cite.

When assessing compliance efforts, OSHA considers the requirements of pertinent national consensus standards. In the case of scissor-lifts, ANSI/SIA A92.6-1990, *Self-propelled Elevated Work Platforms*, and ANSI/SIA A92.3, *Manually Propelled Elevating Aerial Platforms*, are used.

Fall protection is provided by employees maintaining firm footing on the lift and using guardrails. Under no circumstances are employees to place ladders or other items on the lift to extend their reach. Per ANSI/SIA standards, with which OSHA concurs, "Use of planks, ladders, or any other device on the aerial platform for achieving additional height or reach shall be prohibited." Use of these items negates the value of the guardrail system and may possibly exceed the scissor-lift's design limits for stability.

Further, personnel are not to tie off to items adjacent to the lift -- the most obvious reasons are: the anchorage point may not be sufficient and movement of the lift would pull the employee out of and off of the lift.

If, for some reason, guardrails are not being provided for a specific operational reason, then a personal fall protection system may be used which would include an anchorage point, lanyard and safety harness. However, this option is severely limited because its design would have to be approved by a registered engineer or the scissor-lift manufacturer would have to approve the use of the lift as an anchorage.

Under ideal conditions, rarely found on a construction site, scissor-lifts may be moved with the lift extended. However, should obstacles, debris, drop-offs, holes, depressions, ramps or other hazards be present, the lift must be lowered prior to movement.

Finally, if the employee leaves the safety of the scissor-lift platform while working at height, some sort of approved fall protection system must be employed.

SIGNS & TAGS

Accident prevention signs and tags. - 1926.200

When appropriate, signs and tags will be used to warn of specific hazards. Types of signs are classified according to their use, and their design is regulated by OSHA standard. All personnel will be instructed in the meaning of the various types of signs. Sign usage includes:

a. Danger Signs (Red, Black & White): indicates immediate danger and denotes that special precautions are necessary.
b. Caution Signs (Yellow Background): warns of a potential hazard or cautions against an unsafe practice.

c. Safety Instruction Signs (White Background): used to provide general instructions and suggestions relative to safety measures.

The wording on signs must be positive, clear, concise, and easy to understand or the sign loses its value.

Accident prevention tags are to warn of hazardous or potentially hazardous conditions that are out of the ordinary, unexpected, or not readily apparent. They are not used where signs, guarding or other positive means of protection are used.

All tags must have:

a. a signal word: Danger"; "Caution"; "Warning"; BIOHAZARD (or its symbol) and a major message, and

b. a major message such as: "High Voltage" or "Do not start". [Major messages indicate the specific hazardous condition.]

The color scheme is basically the same as for signs:

red = danger
yellow = caution
orange = warning
fluorescent orange = biological hazard.

a. Danger Tags: indicate an immediate hazard that presents a threat of death or serious injury.

b. Caution Tags: indicate a non-immediate hazard or unsafe practice that presents a lesser threat of injury.

c. Warning Tags: indicate a hazard between "Danger" and "Caution".

d. BIOHAZARD Tags: indicate the actual or potential presence of a biological hazard and identify equipment, rooms, containers, etc., that may be contaminated.

Pay attention to signs and tags and realize that they are in place for only one reason -- your safety.

STAIRS

Stairways. - 1926.1052

Stairways that are not a permanent part of the structure on which construction work is being performed must have landings of at least 30 inches in the direction of travel and extend at least 22 inches in width at every 12 feet or less of vertical rise. Additionally,

a. riser height and tread depth must be uniform within each flight of stairs.

b. where doors or gates open directly on a stairway, a platform will be provided, and the swing of the door must not reduce the effective width of the platform to less than 20 inches.

c. metal pan landings and metal pan treads, when used, must be secured in place before filling with concrete or other material.

d. all parts of stairways will be free of hazardous projections, such as protruding nails.

e. slippery conditions on stairways will be eliminated before use.

f. except during stairway construction:

   1. foot traffic is prohibited on stairways with pan stairs where the treads and/or landings are to be filled at a later date, unless the stairs are temporarily fitted with solid material at least to the top edge of each pan. Temporary treads and landings will be replaced when worn below the level of the top edge of the pan.

   2. foot traffic is prohibited on skeleton metal stairs where permanent treads and/or landings are to be installed at a later date unless the stairs are fitted with secured temporary treads and landings long enough to cover the entire tread and/or landing area.

Treads for temporary service will be made of wood or other solid material and installed the full width and depth of the stair.

Stairways having four or more risers or rising more than 30 inches will be equipped with:

a. at least one handrail; and

b. one stair rail system along each unprotected side or edge.

TOOLS: HAND

General requirements. - 1926.300
Hand tools. - 1926.301

Hand tools shall be used only for the purpose for which they are designed.

Hand tools will be kept clean and, where appropriate, oiled.

Hand tools which are damaged will not be used.

Hand held cutting tools will be kept sharp and will be sheathed or retracted when not in use.

When using a striking tool such as a hammer or chisel, safety glasses or safety goggles will be used.
Do not force tools.

If you are unfamiliar with the proper procedure for using a tool, ask your Supervisor for instruction.
Power tools may be operated only by those persons who are qualified by training or experience.

Do not alter guards on power tools; wear appropriate PPE.

Electrical tools must be grounded and, in the absence of permanent wiring, a Ground Fault Circuit Interrupter must be used.

Electric tools will not be lifted by their cords and pneumatic tools will not be lifted by their hoses.

VEHICLES

Only authorized persons may operate a company vehicle. This authorization will not be granted until operating knowledge and ability has been successfully demonstrated to the Safety Director.

Before operation, a safety check will be made ensuring fluid levels are correct, obvious bolts are tight, lights and horn are functioning, tire pressures are correct, fire extinguisher is present and charged, and damage is noted.

Seat belts will be worn and all traffic laws, including speed limits, will be observed. During fueling, vehicles must be turned off and all fluid levels checked.

Before backing up any vehicle, check behind and blow horn for the safety of others.

When hauling a load, the cargo should be strapped or blocked to prevent shift.

VENTILATION

Ventilation. - 1926.57

There may be times in the course of our work such as grinding, cutting, sawing, sanding, etc. that hazardous dusts are released into the atmosphere that exceed the concentrations specified in the *"Threshold Limit Values of Airborne Contaminants for 1970"* of the American Conference of Governmental Industrial Hygienists, listed below:

MINERAL DUSTS	
Substance	[a]**mppcf**
SILICA Crystalline Quarts Threshold Limited calculated from the formula	[b](250) ÷ (%SiO_2+5)
Cristobalite. Amorphous, including natural diatomaceous earth	20

SILICATES (Less than 1% crystalline silica) Mica Portland Cement Soapstone Talc (non-abestiform) Talc (fibrous), use asbestos limit	 20 20 20 20
GRAPHITE (Natural)	15
INERT OR NUISANCE PARTICULATES Note 1 Covers all organic and inorganic particulates not otherwise regulated. Same as Particulates Not Otherwise Regulated. Note 2 Inert or Nuisance Dusts includes all mineral, inorganic, and organic dusts as indicated by examples in TLV's Appendix D.	50 (or 15 mg/m³ which-ever is the smaller) of total dust <1% SiO Note 1 See Table above

a. Millions of particles per cubic foot or air, based on impinger samples counted by lightfield techniques.

b. The percentage of crystalline silica in the formula is the amount determined from airborne samples, except in those instances in which other methods have been shown to be applicable.

Below the above threshold limits, no action is required, however, employees may wear dust masks for personal comfort.

As always, engineering controls are preferred to personal protective equipment to deal with job site hazards. Therefore, local exhaust ventilation is a preferred method of maintaining atmospheres that have dust levels below the concentrations noted in the Dust Table, above.

Local exhaust ventilation must be designed so that they prevent dispersions of dust in concentrations causing harmful exposure and that dusts are not drawn through the work area of employees.

The dust collected by an exhaust or ventilating system will be discharged to the outside atmosphere.

If concentrations are so great that a dust separator is used, the dust and refuse will be disposed of in such a manner as to not harm employees. The exhaust will still be discharged to the outside atmosphere.

Of course, if the above ventilation procedures do not reduce the dust levels to acceptable limits, respirators will be used.

ServiceBoss International, Inc.

Safety Program

SECTION III

SPECIFIC COMPLIANCE PROGRAMS

Exposure Control Plan for Bloodborne Pathogens & Other Infectious Materials
Fall Protection
Hazard Communication
Personal Protective Equipment: General
Scaffold & Ladder

ServiceBoss International, Inc.

EXPOSURE CONTROL PLAN
for
BLOODBORNE PATHOGENS & OTHER INFECTIOUS MATERIALS

ServiceBoss International, Inc.

NOTE

Per CPL 2-2.69, *Enforcement Procedures for the Occupational Exposure to Bloodborne Pathogens*, the bloodborne pathogens standard does not apply to the construction industry. OSHA has not, however, stated that the construction industry is free from the hazards of bloodborne pathogens. Exposure to bloodborne pathogens would fall under Section 5(a)(1) of the OSH Act which states that "each employer shall furnish to each of his employees employment and a place of employment which is free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees."

The primary job assignment of our designated first aid providers is not the rendering of first aid or other medical assistance. Any first aid rendered by them is rendered only as a collateral duty, responding solely to injuries resulting from workplace incidents and only at the location where the incident occurred.

Recordkeeping: all work-related injuries from needlesticks and cuts, lacerations, punctures and scratches from sharp objects contaminated with another person's blood or other potentially infectious materials (OPIM) are to be recorded on the OSHA 300 as an injury.

Note: Our first aid kits do not contain sharps or needles. However, a contaminated sharp, such as a broken pair of glasses, may trigger the above.

a. To protect the employee's privacy, the employees name may not be entered on the OSHA 300.

b. If the employee develops a bloodborne disease, the entry must be updated and recorded as an illness.

ServiceBoss International, Inc.

Safety Program

SECTION III

EXPOSURE CONTROL PLAN
for
BLOODBORNE PATHOGENS & OTHER INFECTIOUS MATERIALS

INDEX

OSHA Standards:

29 CFR 1910.1030, Bloodborne Pathogens

Forms:

[Found immediately following this program]

Exposure Determination: Lists I, II, & III
Housekeeping Schedule & Checklist
Hepatitis B Vaccination Declination
Sharps Injury Log
Annual Exposure Control Plan Review
Exposure Incident Report

POLICY STATEMENT

This Exposure Control Plan has been developed to eliminate or minimize the risk of exposure to bloodborne pathogens and other potentially infectious materials. This Plan presents methods and procedures to eliminate and/or minimize the hazards associated with occupational exposure to bloodborne pathogens or other infectious materials.

As a matter of policy, universal precautions will be used.

Additional components of this Plan include exposure determinations by job classification, standard operating procedures to eliminate or reduce the likelihood of disease transmission, the methods of disease transmission, definitions of terms, post exposure procedures and follow-up, training documentation, and recordkeeping.

Compliance with this Plan not only fulfills the requirements of the Occupational Safety and Health Administration, more importantly, it fulfills our desire to maintain a safe working environment and safeguard the health of our employees.

All affected employees should feel free to review this Plan at any time and are encouraged to consult with our Exposure Control Plan Administrator to resolve any issues affecting its implementation. Immediately following our Exposure Control Plan is a copy of 29 CFR 1910.1030, *Bloodborne Pathogens*. Our Plan is to be made available to the Assistant Secretary of Labor for Occupational Safety and Health or designated representative.

DEFINITIONS

All employees should know the "language" of this plan. Because some of the words and/or terms are not used in everyday life, each person must be aware of the definitions so that we are all "reading off the same page". Below are OSHA definitions:

Assistant Secretary: the Assistant Secretary of Labor for Occupational Safety and Health, or designated representative.

Blood: human blood, human blood components, and products made from human blood.

Bloodborne Pathogens: pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

Clinical Laboratory: a workplace where diagnostic or other screening procedures are performed on blood or other potentially infectious materials.

Contaminated: the presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.

Contaminated Laundry: laundry which has been soiled with blood or other potentially infectious materials or may contain sharps.

Contaminated Sharps: any contaminated object that can penetrate the skin including, but not limited to, needles, scalpels, broken glass, broken capillary tubes, and exposed ends of dental wires.

Decontamination: the use of physical or chemical: to remove, inactivate, or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.

Director: the Director of the National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, or designated representative.

Engineering Controls: controls (e.g., sharps disposal containers, self-sheathing needles, safer medical devices, such as sharps with engineered sharps injury protections and needleless systems) that isolate or remove the bloodborne pathogens hazard from the workplace.

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

Handwashing Facilities: a facility providing an adequate supply of running potable water, soap and single use towels or hot air drying machines.

Licensed Healthcare Professional: a person whose legally permitted scope of practice allows him or her to independently perform the activities required by paragraph 29 CFR 1910.1030(f), *Hepatitis B Vaccination and Post-exposure Evaluation and Follow-up*, a copy of which follows this section.

> Note: The above activities include actually providing Hepatitis B vaccine, ordering appropriate laboratory test, determining contraindications to vaccination, providing post-exposure prophylaxis and counseling. The legal scope of practice for this professional must allow the independent performance of all the procedures described in paragraph (f), *Hepatitis B Vaccination and Post-exposure Evaluation and Follow-up*.

HBV: hepatitis B virus.

HIV: human immunodeficiency virus.

Needleless systems: a device that does not use needles for:

a. The collection of bodily fluids or withdrawal of body fluids after initial venous or arterial access is established;
b. The administration of medication or fluids; or
c. Any other procedure involving the potential for occupational exposure to bloodborne pathogens due to percutaneous injuries from contaminated sharps.

Occupational Exposure: reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.

Other Potentially Infectious Materials:

a. The following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids;
b. Any unfixed tissue or organ (other than intact skin) from a human (living or dead); and
c. HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV-containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV.

Parenteral: piercing mucous membranes or the skin barrier through such events as needlesticks, human bites, cuts, and abrasions.

Personal Protective Equipment is specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (e.g., uniforms, pants, shirts or blouses) not intended to function as protection against a hazard are not considered to be personal protective equipment.

Production Facility: a facility engaged in industrial-scale, large-volume or high concentration production of HIV or HBV.

Regulated Waste: liquid or semi-liquid blood or other potentially infectious materials; contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed; items that are caked with dried blood or other potentially infectious materials and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or other potentially infectious materials.

Research Laboratory: a laboratory producing or using research-laboratory-scale amounts of HIV or HBV. Research laboratories may produce high concentrations of HIV or HBV but not in the volume found in production facilities.

Sharps with engineered sharps injury protections: a non-needle sharp or a needle device used for withdrawing body fluids, accessing a vein or artery, or administering medications or other fluids, with a built-in safety feature or mechanism that effectively reduces the risk of an exposure incident.

Source Individual: any individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to the employee. Examples include, but are not limited to, hospital and clinic patients; clients in institutions for the developmentally disabled; trauma victims; clients of drug and alcohol treatment facilities; residents of hospices and nursing homes; human remains; and individuals who donate or sell blood or blood components.

Sterilize: the use of a physical or chemical procedure to destroy all microbial life including highly resistant bacterial endospores.

Universal Precautions is an approach to infection control. According to the concept of Universal Precautions, all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens.

Work Practice Controls: controls that reduce the likelihood of exposure by altering the manner in which a task is performed (e.g., prohibiting recapping of needles by a two-handed technique).

EXPOSURE CONTROL PLAN
[29 CFR 1910.1030(c)]

This Exposure Control Plan is provided for all personnel who, as a result of the performance of their duties, would have reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials.

This Plan will be reviewed and updated annually and whenever necessary as new or modified tasks and procedures are introduced which affect occupational exposure to bloodborne pathogens or other potentially infectious materials. The review and update of this plan will:

a. reflect changes in technology that eliminate or reduce exposure to bloodborne pathogens.
b. document, annually, consideration and implementation of appropriate commercially available and effective safer medical devices designed to eliminate or minimize occupational exposure.

First aid providers employees responsible for direct trauma victim care who are potentially exposed to injuries for contaminated sharps will be asked for input in the identification, evaluation, and selection of effective engineering and work practice controls.

This Exposure Control Plan, with a copy of 29 CFR 1910.1030, Bloodborne Pathogens, will be made accessible to all employees as well as the Assistant Secretary and the Director (see definitions) who may examine and copy this plan.

EXPOSURE DETERMINATION

Three (3) lists will be prepared and they will be maintained in Section II of this plan.

List I: A list of all job classifications in which all employees have occupational exposure.

List II: A list of job classifications in which some employees have occupational exposure.

List III: A list of all tasks and procedures or groups of closely related tasks and procedures in which occupation exposure occurs and are performed by employees in job classifications noted in List II.

Note: The above exposure determinations are to be made without regard to the use of personal protective equipment.

METHODS OF COMPLIANCE

Universal precautions will be used. We will treat all trauma victims' blood, bodily fluids, and other potentially infectious materials as if they are known to be infectious. Unfortunately, there is no immediate, practical way to determine if HIV, HBV, and other bloodborne pathogens are present so, to be safe, we will assume they are. Traditionally, isolation of infectious materials has been diagnosis-driven. This meant that if a person were diagnosed to have HIV or HBV infection, for example, then isolation precautions would be taken. Because the infection status of each trauma victim cannot be immediately known, it makes sense to treat all trauma victims and their body fluids as if they were infected. The precautions to take depend on the procedures being performed. For example, if one's hands will be in contact with body substances, disposable gloves will be worn. If there is risk of one's eyes being splashed with body fluids, eye protection will be worn. An impermeable barrier must be placed between yourself and the potentially infectious bodily fluids. Overkill is not necessary. Cleaning up a minor spill on a counter top does not require a

mask, eye protection, and plastic apron. It does, however, require disposable gloves.

All employees will strictly adhere to the below engineering and work practice controls to eliminate or reduce the possibility of occupational exposure to bloodborne pathogens or other potentially infectious materials. Specific controls and procedures, noted below, will be used to eliminate or minimize employee exposure. If occupational exposure is:

HANDWASHING EQUIPMENT AND PROCEDURES: Handwashing facilities are provided which are readily accessible to all employees.

Employees will wash their hands and any other skin area exposed to blood or other potentially infectious materials with soap and water immediately or as soon as feasible:

a. after removal of gloves or other personal protective equipment.
b. following contact with blood or other potentially infectious materials.

Particular attention will be given to fingernails and between fingers and rings under which infectious material may lodge. Furthermore, one should be aware that rings and jewelry are a good hiding place for bloodborne pathogens and other potentially infectious materials.

Examples of situations where handwashing is appropriate:

a. before and after examining any trauma victim.
b. after handling any soiled waste or other materials.
c. after handling any chemicals or used equipment.

If for some reason handwashing facilities are not functioning, appropriate antiseptic hand cleaner and clean cloth/paper towels (antiseptic towelettes) will be provided and used. If antiseptic hand cleaner and clean cloth/paper towels are used, hands will be washed with soap and water as soon as feasible.

EATING, DRINKING, SMOKING:

There shall be no eating, drinking, smoking, applying cosmetics or lip balm, or handling contact lenses in areas where there is a likelihood of occupational exposure to bloodborne pathogens or other potentially infectious materials.

Furthermore, food and drink shall not be kept in refrigerators, freezers, shelves, cabinets, or on countertops or benches where blood or other potentially infectious materials are present.

CONTAMINATED NEEDLES & OTHER CONTAMINATED SHARPS:

Contaminated needles will not be sheared, or broken.

Furthermore, all contaminated needles and other contaminated sharps shall not be bent, recapped, or removed unless:

a. it can be demonstrated that no alternative is feasible or that it is required by a specific medical procedure.
b. recapping or needle removal may be accomplished through the use of a mechanical device or a one-handed method.

Contaminated **reusable** sharps will be placed in appropriate containers immediately or as soon as possible after use until properly reprocessed. These containers will:

a. be puncture resistant.
b. have warning labels affixed to containers potentially infectious material and contain the following legend:

Note: The above label will be fluorescent orange or orange-red or predominantly so, with lettering and symbols in a contrasting color.

Labels shall be affixed as close as feasible to the container by string, wire, adhesive, or other method that prevents their loss or unintentional removal.

Red bags or red containers may be substituted for labels.

c. be leakproof on the sides and bottom.

Reusable sharps that are contaminated with blood or other potentially infectious materials will not be stored or processed in a manner that requires employees to reach by hand into the containers where these sharps have been placed.

Contaminated **non-reusable** sharps will be discarded immediately or as soon as feasible and placed in containers that:

a. are closable
b. are puncture resistant.
c. are leakproof on sides and bottom.
b. have warning labels affixed that contain the following legend:

Note: The above label will be fluorescent orange or orange-red or predominantly so, with lettering and symbols in a contrasting color.

Labels shall be affixed as close as feasible to the container by string, wire, adhesive, or other method that prevents their loss or unintentional removal.

Red bags or red containers may be substituted for labels.

Contaminated **reusable** sharps shall not be stored or processed in such a manner that requires employees to reach by hand into the containers where these sharps have been placed.

During use, containers for contaminated sharps must be:

a. easily accessible to our employees.
b. located as close as feasible to the immediate area where sharps are used or can be reasonably anticipated to be found.
c. maintained upright throughout use.
d. replaced routinely and not be allowed to overfill.

If leakage is possible when removing a container of contaminated sharps, it shall be placed in a second container with the following container requirements:

a. it will be closable.
b. it will be constructed to contain all contents and prevent leakage during handling, storage, transport or shipping, and;
c. colored coded red or labeled as noted above.

Reusable containers shall not be opened, emptied, or cleaned manually or in any other manner which would expose employees to the risk of percutaneous (introduced through the skin such as a cut) injury.

OTHER REGULATED WASTE - CONTAINMENT:

The provisions that apply to contaminated sharps, above, apply to other regulated waste.

DISPOSAL OF CONTAMINATED SHARPS & OTHER REGULATED WASTE:

The actual disposal of all regulated waste shall be in compliance with applicable state laws.

SPECIMENS OF POTENTIALLY INFECTIOUS MATERIALS:

Specimens of blood and potentially infectious materials shall be placed in a container which prevents leakage during collection, handling, processing, storage, transport, or shipping.

SPLASHING, SPRAYING OF POTENTIALLY INFECTIOUS MATERIALS:

All procedures involving blood or other potentially infectious materials shall be performed in such a manner as to minimize splashing, spraying, spattering, and the generation of droplets of these substances.

MOUTH PIPETTING:

Mouth pipetting and mouth suction of blood or other potentially infectious materials is prohibited.

DESIGNATED EXPOSURE CONTROL PLAN ADMINISTRATOR

Our designated the Exposure Control Plan Administrator will be knowledgeable in all aspects of this Plan as it relates to our operations and be available to answer questions raised by our first aid providers. The Exposure Control Plan Administrator may call upon professionals in the Medical Arts to field questions that are of technical nature outside of the Administrator's area of expertise.

The Exposure Control Plan Administrator will:

a. ensure this Plan is kept current.
b. ensure training is provided as required.
c. maintain all records associated with this plan.

DESIGNATED FIRST AID PROVIDERS

Before one may be designated as a first aid provider, he/she must have a valid certificate in first aid training from the U.S. Bureau of Mines, the Red Cross, or equivalent training that can be verified by documentary evidence. No person is to administer any medical assistance for which they are not appropriately trained. It is noted that the rendering of first aid is not the primary job of the our designated first aid providers.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

In spite of work practice and engineering controls, there is a requirement for appropriate personal protective equipment to provide an impermeable barrier between potentially infectious materials and the employees work clothes, street clothes, undergarments, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time which the protective equipment will be used.

Employees will use appropriate personal protective equipment when there is a possibility of occupational exposure to bloodborne pathogens or other potential infectious materials.

Personal protective equipment will be provided in appropriate sizes and at no cost to the employees. Further, maintenance and replacement of personal protective equipment will be provided at no cost to the employee.

Personal protective equipment will be discarded immediately if its ability to function as a barrier is compromised.

Most importantly, employees must understand that personal protective equipment is useless unless it provides an impermeable barrier between bloodborne pathogens and other potentially infectious materials and the employee's clothes, skin, eyes, mouth, or other mucous membranes.

Personal Protective Equipment is considered appropriate if it prevents potentially infectious materials from reaching work/street clothing or body surface when used under normal conditions.

<u>DISPOSABLE GLOVES</u>:

Disposable, single use gloves, such as surgical or examination gloves will be worn when it can be reasonably anticipated that the employee may have hand contact with blood or other potentially infectious materials and when handling or touching contaminated items or surfaces. Disposable gloves will always be used when there is a possibility of contact with bloodborne pathogens or other potentially infectious materials.

Disposable gloves shall never be washed, decontaminated, or reused.

Disposable gloves shall be replaced as soon as practical when contaminated or as soon as feasible if they are torn, punctured, or their ability to function as a barrier is compromised.

Should any employee be allergic to the normal gloves provided, an appropriate alternative (such as hypoallergenic and/or powderless gloves) will be provided in the proper size at no cost to the employee.

UTILITY GLOVES:

Utility gloves may be used for general cleanup (not for any trauma victim procedure) when there is anticipated exposure to bloodborne pathogens or other potentially infectious materials. Utility gloves may be decontaminated for re-use if the integrity of the gloves is not compromised. They will be discarded if they are cracked, peeling, torn, punctured, or exhibit signs of deterioration or when their ability to function as a barrier is compromised.

EYE AND RESPIRATORY PROTECTION:

Eye (goggles, glasses, face shield, etc.) and respiratory (mask, etc.) protection will be used when it can reasonably be expected that bloodborne pathogens or other potentially infectious materials may splash or spray in or around the eyes, nose, mouth, and general head area of the employee.

PROTECTIVE BODY CLOTHING:

Protective body clothing such as gowns, aprons, lab coats, etc. will be worn as determined by the professional judgment of the employee in relation to task. The protective body clothing will certainly be worn where there can reasonably be expected exposure to bloodborne pathogens or other potentially infectious materials to the body area.

LAUNDRY:

Personal protective equipment will be cleaned, laundered, and disposed of at no cost to the employee.

[Note: In rare and extraordinary circumstances, an employee, in her/his professional judgment, may decline to temporarily and briefly wear personal protective equipment if he/she deems that the equipment would prevent the delivery of health care or would have increased the hazard of occupational exposure to the employee or his/her co-workers. Should this event occur, it will be documented, investigated, and procedures will be developed to prevent a reoccurrence.]

HOUSEKEEPING

Housekeeping is an ongoing, never ending procedure which not only enhances our work environment but also eliminates health risk to our personnel. In the area of bloodborne pathogens and other hazardous materials, to ensure proper cleaning, decontamination, sterilization, and disinfecting of surfaces within our facility, cleaning will be accomplished only by employees who have received training in universal precautions and the provisions of this plan. The written Housekeeping Schedule & Checklist is found in Section II and this Schedule will be adhered to following an incident that results in the potential exposure to bloodborne pathogens or other potentially infectious materials.

Broken, potentially infected glassware, should be picked up and disposed of using mechanical means such as a brush and dust pan or forceps.

All sharps will be stored in a manner that allows easy access and safe handling.

Infectious waste will be placed in containers that are color coded red. These containers will be decontaminated as soon as practical.

Subsequent to rendering any procedures, employees will ensure that all surfaces on which blood, body fluids, bloodborne pathogens, or other infectious materials may be present are cleaned with an appropriate disinfectant.

HEPATITIS B EPIDEMIOLOGY

Hepatitis B (serum hepatitis) routes of infection include parenteral, oral, or direct contact. The virus can also spread by contact with the respiratory tract. Its sources include contaminated needles and surgical instruments as well as contaminated blood products. The virus of hepatitis B has been found in urine. Further, the virus of hepatitis B can live for up to seven (7) days on a dry surface and can be easily be transmitted by a single needle stick. Its incubation period is quite lengthy generally between 45 and 180 days. It affects all age groups. Recovery from hepatitis B does provide immunity. Generally, one can expect a complete recovery from viral hepatitis, however, it is potentially fatal depending on many factors including the virulence (aggressiveness) of the virus, prior hepatic damage, and natural barriers to damage and disease of the liver. It is possible for viral hepatitis to lead to fulminating viral hepatitis and subacute fatal viral hepatitis both of which are fatal. Onset symptoms may include headache, elevated temperature, chills, nausea, dyspepsia, anorexia, general malaise, and tenderness over the liver. These types of symptoms will last

about one (1) week, then subside, and jaundice will occur. Jaundice is caused by damaged liver cells. The convalescent stage begins with the disappearance of the jaundice and may last several months. Recovery is expected in six (6) months.

RISK OF EXPOSURE

Per the Department of Human Services of the Center for Disease Control, below is the risk of infection after occupational exposure:

HBV:

First aid providers who have received hepatitis B vaccine and have developed immunity to the virus are at virtually no risk for infection. For an unvaccinated person, the risk from a single needlestick or cut exposure to HBV-infected blood ranges from 6-30% and depends on the hepatitis B e antigen (HBeAg) status of the source individual. In individuals who are both hepatitis B surface antigen (HBsAG) positive and HBeAg positive have more virus in their blood and are more likely to transmit HBV.

HCV:

Based on limited studies, the risk for infection after a needlestick or cut exposure to HCV-infected blood is approximately 1.8%. The risk following a blood splash is unknown, but is believed to be very small; however, HCV infection from such an exposure has been reported.

HIV:

The average risk of HIV infection after a needle stick or cut exposure to HIV-infected blood is 0.3% (i.e., three-tenths of one percent, or about 1 in 300). Stated another way, 99.7% of needlestick/cut exposures do not lead to infection.

The risk after exposure of the eye, nose, or mouth to HIV-infected blood is estimated to be, on average, 0.1% (1 in 1,000).

The risk after exposure of the skin to HIV-infected blood is estimated to be less than 0.1%. A small amount of blood on intact skin probably poses no risk at all. There have been no documented cases of HIV transmission due to an exposure involving a small amount of blood on intact skin (a few drops of blood on skin for a short period of time). The risk may be higher if the skin is damaged (for example, by a recent cut) or the contact involves a large area of skin or is prolonged (for example, being covered in blood for hours).

All employees with occupation exposure are encouraged to accept the hepatitis B vaccination.

HEPATITIS B VACCINATION

The hepatitis B vaccination series will be provided, at no cost, to all unvaccinated first aid providers as soon as possible (within 24 hours of initial exposure). All exposed first aid providers employees are encouraged to take this vaccination series unless they have previously received the complete hepatitis B vaccination series; antibody testing has revealed that the employee is immune; or the vaccine is contraindicated (not recommended) for medical reasons. Post-exposure evaluation, prophylaxis (prevention of or protection from disease), and follow-up will be provided at no cost to the employee.

The Hepatitis B vaccination will be performed under the supervision of a licensed physician or other licensed healthcare professional.

All laboratory tests will be conducted by an accredited laboratory at no cost to the employee.

Should routine booster dose(s) of hepatitis B vaccine (as recommended by the U.S. Public Health Service at a future date) be required, they will be provided at no cost as long as the employee remains a first aid provider.

An employee may decline the Hepatitis B vaccination and this declination shall not shall not reflect unfavorably upon him/her, however this declination must be in writing. See Section II.

It is important to note that if a first aid provider initially declines the hepatitis B vaccination series, he/she may at a later date decide to accept the vaccination series and it will be provided at no cost assuming he/she is still occupationally exposed to bloodborne pathogens or other potentially infectious materials.

SHARPS INJURY LOG

A Sharps injury log will be maintained for the recording of percutaneous injuries from contaminated sharps.

The information on the log will be recorded and maintained in such manner as to protect the confidentiality of the injured employee.

The sharps injury log will contain:

a. the type and brand of device involved in the incident.
b. the department or work area where the exposure incident occurred.
c. an explanation of how the incident occurred.

The sharps injury log shall be maintained for the period of five years.

FIRST AID PROVIDER INPUT

As a matter of policy, all first aid providers who are responsible for first aid delivery as an additional job are encouraged to suggest methods to improve our engineering and workplace controls. This input may be made verbally to the Plan Administrator at any time. Additionally, during the annual refresher training, suggestions will be solicited.

PLAN REVIEW

This plan will be reviewed, and if necessary, updated annually to reflect new or modified tasks and procedures which affect occupational exposure and to reflect new or revised employee positions with occupational exposure. As new medical devices are developed which reduce employee exposure, they will be introduced into our practice. A review of the "Sharps Log" will help identify problem areas and/or ineffective devices which may need replacement.

POST-EXPOSURE EVALUATION AND FOLLOW-UP

The information that has preceded this Section has dealt with the methods to restrict occupational exposure to bloodborne pathogens and other infectious materials. Post-exposure evaluation and follow-up deals with the steps to take immediately following a potential exposure incident and the steps that will be taken over time to protect our employees from further health risk.

All incidents involving exposure to blood or other potentially infectious materials will be reported to the Exposure Control Plan Administrator, in writing, before the end of the shift in which the incident occurred using the Exposure Incident Report (Section II). This Report will be prepared regardless of whether or nor there has been an "Exposure Incident" as defined in this Plan and in 29 CFR 1910.1030. A separate Exposure Incident Report will be completed for each employee who was occupationally exposed.

Information in this Report will include:

a. the date and time the incident occurred.
b. a brief description of the events leading up to the exposure (what happened.)
c. the name of the individual exposed.
d. the route of exposure.
e. "source individual" and "exposed individual" information including the acceptance or rejection of hepatitis B vaccination series.

d. a determination of whether or not an actual "exposure incident" occurred. Refer to Definitions in this Plan or 29 CFR 1910.1030.

The Exposure Control Plan Administrator or his authorized representative will review the Exposure Incident Report and determine if methods or procedures may be altered to prevent a reoccurrence of the incident.

Further, an occupational bloodborne pathogens exposure incident which results in the recommendation for hepatitis B vaccination would be recorded on OSHA Form 300 as an injury. See Recordkeeping.

All unvaccinated employees who have assisted in any situation involving blood will be afforded the opportunity to receive the hepatitis B vaccination series as soon as possible but not later than twenty-four (24) hours after the situation.

A confidential medical evaluation and follow-up will be provided immediately, at not cost, to the employee. The healthcare professional evaluating an employee after an exposure incident will be provided a copy of 29 CFR 1910.1030 (Section II).

Further, the healthcare professional will be provided a description of the exposed employee's duties as they relate to the exposure incident; documentation of the route(s) of exposure; the circumstances under which the exposure occurred; the results of the source individual's blood testing, if available; and all medical records relevant to the appropriate treatment of the employee including vaccination status which is maintained by our office. See Recordkeeping.

The confidential medical evaluation and follow-up will include:

a. documentation of the route(s) of exposure.

b. the circumstances under which the exposure incident occurred.

c. the identification and documentation of the source individual, unless it can be established that the identification is not feasible or prohibited by state or local law.

d. the exposed employee's blood shall be collected as soon as feasible and tested after consent is obtained.

Note: If the employee consents to baseline blood collection, but does not consent at that time for HIV serologic testing, the sample shall be preserved for at least 90 days. If, within 90 days of the exposure incident, the employee elects to have the baseline sample tested, such testing shall be done as soon as feasible.]

e. the source individual's blood shall be tested as soon as feasible to determine HBV and HIV infectivity unless it is already known in which case this procedure is not necessary.

If consent to test the source individual's blood cannot be obtained the following will occur:

a. it will be established and documented that legally required consent cannot be obtained.
b. when the source individual's consent is not required by law, the source individual's blood shall be tested and the results documented.

The results of the source individual's testing shall be made available to the exposed employee and the employee shall be informed of applicable laws and the identity and infectious status of the source individual.

The employee shall be provided post-exposure prophylaxis, when medically indicated, and counseling.

The employee will be provided with a copy of the healthcare professional's written opinion within 15 days of the completion of the evaluation. The written opinion shall be limited to:

a. whether Hepatitis B vaccination is indicated and if the employee has received such vaccination.
b. an indication that the employee has been informed of the results of the evaluation.
c. an indication that the employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation or treatment.

All other findings or diagnoses will remain confidential and will not be included in the written report.

RECORDKEEPING

Complete and accurate medical records will be maintained for each employee with occupational exposure. These records shall remain confidential and will not be disclosed or reported without the employee's express written consent to any person within or outside the workplace except as required by law.

Medical records will be maintained for at least the duration of employment plus 30 years.

Included in the employee's medical record will be:

a. the employee's name and social security number.
b. a copy of the employee's hepatitis B vaccination status including the date of all the hepatitis B vaccinations and any medical records relative to the employee's ability to receive vaccination.
    1. if the employee has declined to receive the hepatitis B vaccination series when appropriate, this declination will be included in the person's medical records.
c. a copy of all results of examinations, medical testing, and follow-up procedures as required following an exposure incident.
d. the employer's copy of the healthcare professional's written opinion following an exposure incident.
e. a copy of all information provided to the healthcare professional following an exposure incident.

All work-related injuries from needlesticks and cuts, lacerations, punctures and scratches from sharp objects contaminated with another person's blood or other potentially infectious materials are to be recorded on the OSHA 300 as an injury.

a. To protect the employee's privacy, the employees name may not be entered on the OSHA 300.
b. If the employee develops a bloodborne disease, the entry must be updated and recorded as an illness.

TRAINING

All of our first aid providers must have current certificates of first aid and CPR training on file. These records will be maintained by the Plan Administrator.

Initial training, training at the introduction of a new or altered task affecting exposure to bloodborne pathogens or other potentially hazardous materials, and annual training will be provided by a person knowledgeable in the subject matter contained in this Plan.

Training will be interactive between the instructor and employee. An opportunity to ask questions will be provided. Further, this Plan as well as 29 CFR 1910.1030, *Bloodborne Pathogens*, will be readily available for review.

All training will be documented using the forms found in Appendix A. Training documentation will be maintained for a period of three (3) years from the date on which the training occurred.

Training will include, but not be limited to, the following topics and materials:

a. a complete review of our Exposure Control Plan and its accessibility.
b. an accessible copy of 29 CFR 1910.1030 and an explanation of its contents.
c. a general explanation of the epidemiology and symptoms of bloodborne diseases.
d. an explanation of the modes of transmission of bloodborne pathogens.
e. an explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials.
f. an explanation of the use and limitations of methods that will prevent or reduce exposure including appropriate engineering controls, work practices, and personal protective equipment.
g. information on the types, proper use, location, removal, handling, decontamination and disposal of personal protective equipment.
h. an explanation of the basis for selections of personal protective equipment.
i. information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, benefits of being vaccinated, and that the vaccine and vaccination will be offered free of charge.
j. information on the appropriate actions to take and persons to contact in an emergency involving blood other potentially infectious materials.
k. an explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available.
l. information on the post-exposure evaluation and follow-up that is provided after an exposure incident.
m. an explanation of the color coding required by paragraph (g)(1), 29 CFR 1910.1030.
n. a request for input from employees in the identification, evaluation, and selection of effective engineering and work practice controls.

WASTE MANAGEMENT

Waste ,management, if necessary, will comply with State EPA standards regarding handling, storage, and shipping of medical wastes.

SUMMARY

The whole thrust of the Program is to provide an awareness of the dangers of bloodborne pathogens, provide a means of reducing the possibility of occupational exposure, and, should occupational exposure occur, provide a means of reducing health risk.

ServiceBoss International, Inc.

EXPOSURE DETERMINATION

LIST I

All job classifications in which all employees have occupational exposure.

Note: The above exposure determinations are to be made without regard to the use of personal protective equipment.

1. First Aid Providers_____

2. _____

3. _____

4. _____

5. _____

6. _____

Note: The primary job assignment of our designated first aid providers is not the rendering of first aid or other medical assistance. Any first aid rendered by them is rendered only as a collateral duty, responding solely to injuries resulting from workplace incidents and only at the location where the incident occurred.

ServiceBoss International, Inc.

EXPOSURE DETERMINATION

LIST II

Job classifications in which some employees have occupational exposure.

1. None_____

2. _____

3. _____

4. _____

5. _____

6. _____

Note: The above exposure determinations are to be made without regard to the use of personal protective equipment.

Note: The primary job assignment of our designated first aid providers is not the rendering of first aid or other medical assistance. Any first aid rendered by them is rendered only as a collateral duty, responding solely to injuries resulting from workplace incidents and only at the location where the incident occurred.

ServiceBoss International, Inc.

EXPOSURE DETERMINATION

LIST III

All tasks and procedures or groups of closely related tasks and procedures in which occupation exposure occurs and are performed by employees in job classifications noted in List II.

	Job Classification	Tasks
1.	None	
2.		
3.		
4.		

Note: The primary job assignment of our designated first aid providers is not the rendering of first aid or other medical assistance. Any first aid rendered by them is rendered only as a collateral duty, responding solely to injuries resulting from workplace incidents and only at the location where the incident occurred.

Note: The above exposure determinations are to be made without regard to the use of personal protective equipment.

HOUSEKEEPING SCHEDULE & CHECKLIST

SCHEDULE

Following every incident where there is a possibility of the presence of residual bloodborne pathogens or other potentially infectious materials.

CHECKLIST

Only personnel who have had training in our Exposure Control will ensure that all surfaces are decontaminated and that cleaning materials are properly disposed of. Areas to consider include, but are not limited to:

	YES	NA
FLOORS	☐	☐
WALLS	☐	☐
EQUIPMENT	☐	☐
PRODUCT	☐	☐
WASTE CONTAINERS	☐	☐
TOOLS	☐	☐

Broken, potentially infected glassware, should be picked up and disposed of using mechanical means such as a brush and dust pan or forceps.

All sharps will be stored in a manner that allows easy access and safe handling.

Infectious waste will be placed in containers that are color coded red. These containers will be decontaminated as soon as practical.

Subsequent to rendering any procedures, employees will ensure that all surfaces on which blood, body fluids, bloodborne pathogens, or other infectious materials may be present are cleaned with an appropriate disinfectant.

ServiceBoss International, Inc.

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

_____
(WITNESS)

_____
(EMPLOYEES SIGNATURE)

_____
(PRINTED NAME)

_____
(DATE)

ServiceBoss International, Inc.
Environmental, Health & Safety Program

SHARPS INJURY LOG

Note: A sharps injury log will be maintained for the recording of percutaneous injuries from contaminated sharps.

The information on the log will be recorded and maintained in such manner as to protect the confidentiality of the injured employee.

This sharps injury log shall be maintained for the period of five years.

_____ _____
(Incident Date) (Employee SSN)

Type and brand of device involved in the incident:

_____

Work area where the exposure incident occurred:

_____

Explanation of how the incident occurred:

_____
_____
_____
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_____

Safety Program Administrator

ServiceBoss International, Inc.

ANNUAL EXPOSURE CONTROL PLAN REVIEW

This Exposure Control Plan was prepared:

At least annually, this program will be reviewed and, if necessary, updated, to reflect innovations in procedure and technological developments that eliminate or reduce exposure to bloodborne pathogens.

As part of the annual review, the below will be considered:

a. Employee Input
b. Sharps Injury Log
c. Exposure Incident Reports
d. Professional Journals

Date Reviewed:	Signature	Title
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

ServiceBoss International, Inc.
Environmental, Health & Safety Program

EXPOSURE INCIDENT REPORT

ALL INFORMATION ON THIS FORM IS TO REMAIN CONFIDENTIAL

THIS FORM SHALL BE COMPLETED AS SOON AS FEASIBLE AFTER AN EXPOSURE INCIDENT BUT, UNDER NO CIRCUMSTANCES, AFTER THE SHIFT ON WHICH THE INCIDENT OCCURRED.

DATE: _____ TIME: _____

NAME OF EMPLOYEE: _____

ROUTE OF EXPOSURE: _____

SOURCE INDIVIDUAL'S NAME: _____

a. Above individual did / did not consent to be tested for HBV or HIV.

b. Testing was done by: _____

1. Results: _____

EMPLOYEE WAS OFFERED AND ACCEPTED:	**NO**	**YES**	
a. Hepatitis Vaccination Series. [Date(s)]	☐	☐	_____
1. If "NO", written declination was signed.	☐	☐	
b. Post Exposure Evaluation and follow-up.	☐	☐	
c. Employee consents to baseline blood collection.	☐	☐	_____ (Signature)

Description of events leading to this exposure incident:

_____
_____
_____
_____

Corrective Measures to Prevent a Reoccurrence:

_____
_____
_____
_____

_____ (Exposure Control Plan Administrator Signature)

_____ (Employee Signature)

ServiceBoss International, Inc.

FALL PROTECTION

ServiceBoss International, Inc.

Safety Program

SECTION III

FALL PROTECTION

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OVERVIEW

One of the most serious hazards faced by our employees is falls from heights. Our Fall Protection Program has been developed to prevent injury from falls of six (6) feet or more from a walking/working surface to a lower level, to prevent objects falling from above and striking persons below, and to prevent job site persons from falling into holes.

Within the context of this program, the term “fall hazard” does not refer to tripping and falling which is addressed in our general safety & health program, nor does it apply to falling off a ladder or scaffold. Scaffold and ladder safety is addressed within its own program.

A copy of our Fall Protection **Program** can be found readily accessible to our employees on appropriate job sites.

A copy of our Fall Protection **Plan** will be found on every applicable job site.

On all job sites where fall hazards exist, there will be at least one competent person who has the training and ability to identify fall hazards and the authority to ensure that proper fall protection systems are properly implemented.

The following areas of concern are addressed by this Program:

a. the need to know where fall protection is required.

b. selection of fall protection systems which are appropriate for given situations.

c. construction and installation of safety systems.

d. supervision of employees.

e. implementation of safe work procedures.

f. training in selection, use, and maintenance of fall protection systems.

Our Fall Protection Program may be reviewed at any time by our employees. Should a question arise concerning this Program, personnel are encouraged to consult with their supervisor or our Fall Protection Program Administrator.

DUTIES OF THE PROGRAM ADMINISTRATOR

The Fall Protection Program Administrator's duties include:

a. training of personnel.

b. maintenance of training records.

c. random, unannounced job site inspections to assure compliance with both OSHA standards and company safety policies.

d. resolution of specific problems that may present themselves regarding a particular job site situation.

e. designating a competent (by training or experience) person at each applicable job site who will ensure:

   1. a copy of our fall protection program/plan is readily accessible on appropriate job sites.
   2. subcontractors with whom we work are appropriately trained in fall protection.
   3. a written certification record has been prepared documenting that employees who have potential exposure to fall hazards at the job site have received the required training in protection.
   4. the fall protection system(s) utilized at the job site are appropriate for the hazard(s) present.
   5. that, before any work is initiated, the walking/working surfaces at the job site are capable of supporting both our personnel and equipment.

The Fall Protection Program Administrator will be familiar with all applicable standards and will keep abreast of developments in the field of fall protection.

PRE-PROJECT PLANNING

Fall protection requires a joint effort by our personnel and the specialty subcontractors who may be working with us to identify work situations in which fall hazards exist, determine the most appropriate fall protection system to be utilized, and to ensure that all persons understand the proper methods of utilizing the selected fall protection systems. A pre-construction survey by a competent person will often provide the information needed to make these determinations.

Fall protection system requirements may change during a project and the competent person on site will ensure that fall protection is maintained at all times. Care will be taken to assure that load limits are not exceeded on walking/working surfaces and attachment points and hardware is capable of withstanding (with the appropriate safety factor) the potential forces that may be generated during an actual fall incident.

Fall protection hardware and equipment owned, rented, or leased will be NIOSH/ANSI approved and it is assumed that the manufacturer's technical specifications and capabilities are accurate.

From the very inception of a potential project (pre-bid) to completion, fall protection needs and costs will be factored in.

DEFINITIONS

There are a number of terms and phrases, not common in everyday life, which must be understood to grasp the thrust of this Program. For those employees directly involved with this Program or affected by it, there are specific requirements and procedures which would be meaningless without an understanding of the "language" of our Fall Protection Program. Words used within the definitions which are themselves defined are printed in bold italic.

ANCHORAGE: a secure point of attachment for ***lifelines***, ***lanyards*** or ***deceleration devices***.

BODY HARNESS: straps which may be secured about the employee in a manner that will distribute the fall arrest over at least the thighs, pelvis, waist, chest, and shoulders with means for attaching it to other components of a ***personal fall arrest system***.

BUCKLE: any device for holding the ***body harness*** closed around the employee's body.

CARABINER: an oval metal ring with a snap link used to fasten a rope to the piton [a spike (attachment) with an eye to which a rope can be secured.]

CFR: Code of Federal Regulations.

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

CONNECTOR: a device which is used to couple (connect) parts of the ***personal fall arrest system*** and ***positioning device systems*** together. It may be an independent component of the system, such as a ***carabiner***, or it may be an integral component of part of the system (such as a ***buckle*** or dee-ring sewn into a self-retracting ***lanyard***).

CONTROLLED ACCESS ZONE (CAZ): an area in which certain work (e.g., ***overhand bricklaying***) may take place without the use of ***guardrail systems***, ***personal fall arrest systems***, or safety net systems; access to the zone is controlled.

DANGEROUS EQUIPMENT: equipment (such as pickling or galvanizing tanks, degreasing units, machinery, electrical equipment, and other units) which, as a result of form or function, may be hazardous to employees who fall onto or into such equipment.

DECELERATION DEVICE: any mechanism, such as a ***rope grab***, rip-stitch ***lanyard***, specially-woven ***lanyard***, tearing or deforming ***lanyards***, automatic self-retracting ***lifelines***/***lanyards***, etc., which serves to dissipate a substantial amount of energy during a fall arrest, or otherwise limit the energy imposed on an employee during fall arrest.

DECELERATION DISTANCE: the additional vertical distance a falling employee travels from the point at which the ***deceleration device*** begins to operate before stopping, excluding ***lifeline*** elongation and ***free fall distance***. It is measured as the distance between the location of an employee's ***body harness*** attachment point at the moment of activation (at the onset of fall arrest forces) of the ***deceleration device*** during a fall, and the location of that attachment point after the employee comes to a full stop.

EQUIVALENT: alternative designs, materials, or methods to protect against a hazard which the employer can demonstrate will provide an equal or greater degree of safety for employees than the methods, materials or designs specified in the standard.

FAILURE: load refusal, breakage, or separation of component parts. Load refusal is the point where the ultimate strength is exceeded.

FREE FALL: the act of falling before a ***personal fall arrest system*** begins to apply force to arrest the fall.

FREE FALL DISTANCE: the vertical displacement of the fall arrest attachment point on the employee's ***body harness*** between onset of the fall and just before the system begins to apply force to arrest the fall. This distance excludes ***deceleration distance***, and ***lifeline***/***lanyard*** elongation, but includes any ***deceleration device*** slide distance of ***self-retracting lifeline/lanyard*** extension before they operate and fall arrest forces occur.

GUARDRAIL SYSTEM: a barrier erected to prevent employees from falling to ***lower levels***.

HOLE: a gap or void 2 inches (5.1 cm) or more in its least dimension, in a floor, ***roof***, or other ***walking/working surface***.

INFEASIBLE: it is impossible to perform the construction work using a conventional fall protection system (i.e., ***guardrail system***, safety net system, or ***personal fall arrest system***) or that it is technologically impossible to use any one of these systems to provide fall protection.

LANYARD: a flexible line of rope, wire rope, or strap which generally has a ***connector*** at each end for connecting the ***body harness*** to a ***deceleration device***, ***lifeline***, or ***anchorage***.

LEADING EDGE: the edge of a floor, ***roof***, or formwork for a floor or other ***walking/working surface*** (such as the deck) which changes location as additional floor, ***roof***, decking, or formwork sections are placed, formed, or constructed. A leading edge is considered to be an "unprotected side and edge" during periods when it is not actively and continuously under construction.

LIFELINE: a component consisting of a flexible line for connection to an ***anchorage*** at one end to hang vertically (vertical lifeline), or for connection to ***anchorages*** at both ends to stretch horizontally (horizontal lifeline), and which serves as a means for connecting other components of ***personal fall arrest system*** to the ***anchorage*.**

LOW-SLOPE ROOF: a ***roof*** having a slope less than or equal to 4 in 12 (vertical to horizontal).

LOWER-LEVELS: those areas or surfaces to which an employee can fall. Such areas or surfaces include, but are not limited to, ground levels, floors, platforms, ramps, runways, excavations, pits, tanks, material, water, equipment, structures, or portions thereof.

MECHANICAL EQUIPMENT: all motor or human propelled wheeled equipment used for ***roofing work***, except wheelbarrows and mopcarts.

OPENING: a gap or void 30 inches or more high and 18 inches or more wide, in a wall or partition through which employees can fall to a ***lower level***.

OVERHAND BRICKLAYING AND RELATED WORK: the process of laying bricks and masonry units such that the surface of the wall to be jointed is on the opposite side of the wall from the mason, requiring the mason to lean over the wall to complete the work. Related work includes mason tending and electrical installation incorporated into the brick wall during the overhand bricklaying process.

PERSONAL FALL ARREST SYSTEM: a system used to arrest an employee in a fall from a working level. It consists of an ***anchorage***, ***connectors***, a ***body harness*** and may include a ***lanyard***, ***deceleration device***, ***lifeline***, or suitable combination of these. **The use of body belts for fall arrest is prohibited.**

POSITIONING DEVICE SYSTEM: a *body belt* or ***body harness*** system rigged to allow an employee to be supported on an elevated vertical surface, such as a wall, and work with both hands free while leaning.

QUALIFIED PERSON: one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his ability to solve or resolve problems relating to the subject matter, the work, or the project.

ROPE GRAB: a ***deceleration device*** which travels on a ***lifeline*** and automatically, by friction, engages the ***lifeline*** and locks so as to arrest the fall of an employee. A rope grab usually employs the principle of inertial locking, cam/level locking, or both.

ROOF: the exterior surface on the top of a building. This does not include floors or formworks which, because a building has not been completed, temporarily become the top surface of a building.

ROOFING WORK: the hoisting, storage, application, and removal of roofing materials and equipment, including related insulation, sheet metal, and vapor barrier work, but not including the construction of the ***roof*** deck.

SAFETY-MONITORING SYSTEM: a safety system in which a competent person is responsible for recognizing and warning employees of fall hazards.

SELF-RETRACTING LIFELINE/LANYARD: a ***deceleration device*** containing a drum-wound line which can be slowly extracted from, or retracted onto, the drum under slight tension during normal employee movement, and which, after onset of a fall, automatically locks the drum and arrests the fall.

SNAPHOOK: a ***connector*** comprised of a hook-shaped member with a normally closed keeper of similar arrangement which may be opened to permit the hook to receive an object and, when released, automatically closes to retain the object. Snaphooks are generally one of two types:

(1) the locking type with a self-closing, self-locking keeper which remains closed and locked until unlocked and pressed open for connection or disconnection; or

(2) the non-locking type with a self-closing keeper which remains closed until pressed open for connection or disconnection. The use of a non-locking snaphook as part of ***personal fall arrest systems*** and ***positioning device systems*** is prohibited.

STEEP ROOF: a ***roof*** having a slope greater than 4 in 12 (vertical to horizontal).

TOEBOARDS: a low protective barrier that will prevent the fall of material and equipment to ***lower levels*** and provide protection from falls for personnel.

UNPROTECTED SIDES AND EDGES: any side or edge (except at entrances to points of access) of a ***walking/working surface***, e.g., floor, ***roof***, ramp, or runway where there is no wall or ***guardrail system*** at least 39 inches high.

WALKING/WORKING SURFACE: any surface, whether horizontal or vertical, on which an employee walks or works, including, but not limited to, floors, roofs, ramps, bridges, runway, formwork and concrete reinforcing steel; not including ladders, vehicles, or trailers on which employees must be located in order to perform their job duties.

WARNING LINE SYSTEM: a barrier erected on a ***roof*** to warn employees that they are approaching an unprotected ***roof*** side or edge, and which designates an area in which ***roofing work*** may take place **without** the use of guardrail, ***body belt***, or safety net systems to protect employees in the area.

WORK AREA: that portion of a ***walking/working surface*** where job duties are being performed.

WHERE FALL PROTECTION IS REQUIRED

The "key" distance is six (6) feet. All employees must be aware that if there is a possibility of falling six (6) feet or more at least one (1) fall protection system will be implemented. Further, protection from being struck by falling objects from above will be provided on all job sites.

All areas identified by OSHA are included because, over time, most of these areas will present themselves on job sites even if the exposures are the result of another contractor's work.

Below listed are specific situations where fall protection systems will be utilized.

UNPROTECTED SIDES AND EDGES:

Each employee on a walking/working surface (horizontal and vertical surface) with an unprotected side or edge which is 6 feet or more above a lower level shall be protected from falling by the use of guardrail systems, safety net systems, or personal fall arrest systems.

LEADING EDGES:

Each employee who is constructing a leading edge 6 feet or more above lower levels shall be protected from falling by guardrail systems, safety net systems, or personal fall arrest systems.

HOIST AREAS:

Each employee in a hoist area shall be protected from falling 6 feet or more to lower levels by guardrail systems or personal fall arrest systems.

If a guardrail system is utilized in a hoist area and portions of the system are removed to facilitate the hoisting operation, and an employee must lean through the access opening or out over the edge of the access opening, that employee must be protected by a fall arrest system.

HOLES:

Each employee on walking/working surfaces shall be protected from falling through holes (including skylights) more than 6 feet above lower levels by personal fall arrest systems, covers, or guardrail systems.

a. Each employee on a walking/working surface shall be protected from tripping in or stepping into or through holes (including skylights) **(regardless of height)** by covers.

b. Each employee on a walking/working surface shall be protected from objects falling through holes **(regardless of height)** by covers.

FORMWORK and REINFORCING STEEL:

Each employee on the face of formwork or reinforcing steel shall be protected from falling 6 feet or more to lower levels by personal fall arrest systems, safety net systems, or positioning device systems.

RAMPS, RUNWAYS, and OTHER WALKWAYS:

Each employee on ramps, runways, and other walkways shall be protected from falling 6 feet or more to lower levels by guardrail systems.

EXCAVATIONS:

Each employee at the edge of an excavation 6 feet or more in depth shall be protected from falling by guardrail systems, fences, or barricades when the excavations are not readily seen because of plant growth or other visual barriers.

Further, each employee at the edge of a well, pit, shaft, and similar excavation 6 feet or more in depth shall be protected from falling by guardrail systems, fences, barricades, or covers.

DANGEROUS EQUIPMENT:

Each employee **less than 6 feet** above dangerous equipment shall be protected from falling into or onto the dangerous equipment by guardrail systems or by equipment guards.

Each employee **6 feet or more** above dangerous equipment shall be protected from fall hazards by guardrail systems, personal fall arrest systems, or safety net systems.

OVERHAND BRICKLAYING AND RELATED WORK:

Each employee performing overhand bricklaying and related work 6 feet or more above lower levels shall be protected from falling by guardrail systems, safety net systems, personal fall arrest systems, or shall work in a controlled access zone.

Each employee performing overhand bricklaying and related work who is required to reach more than 10 inches below the level of the walking/working surface on which he/she is working shall be protected from falling by a guardrail system, safety net system, or personal fall arrest system.

ROOFING WORK ON LOW-SLOPED ROOFS:

Each employee engaged in roofing activities on low-sloped roofs with unprotected sides and edges 6 feet or more above lower levels shall be protected from falling by guardrail systems, safety net systems, personal fall arrest systems or a combination of a warning line system and a safety net system or a warning line system and a safety monitoring system.

NOTE: On roofs 50 feet or less in width, the use of a safety monitoring system alone (without the warning line system) is permitted.

STEEP ROOFS:

Each employee on a steep roof with unprotected sides and edges 6 feet or more above lower levels shall be protected from falling by guardrail systems with toeboards, safety net systems, or personal fall arrest systems.

PRECAST CONCRETE ERECTION:

Each employee, engaged in the erection of precast concrete members (including, but not limited to the erection of wall panels, columns, beams, and floor and roof "tee") and related operations such as grouting of precast concrete members, who is 6 feet or more above lower levels shall be protected from falling by guardrail systems, safety net systems, or personal fall arrest systems.

RESIDENTIAL CONSTRUCTION:

Each employee engaged in residential construction activities 6 feet or more above lower levels shall be protected by guardrail systems, safety net systems, or personal fall arrest systems.

WALL OPENINGS:

Each employee working on, at, above, or near wall openings (including those with chutes attached) where the outside bottom edge of the wall opening is 6 feet or more above lower levels and the inside bottom edge of the wall opening is less than 39 inches above the walking/working surface, shall be protected from falling by the use of a guardrail system, a safety net system, or a personal fall arrest system.

WALKING/WORKING SURFACES NOT OTHERWISE ADDRESSED:

Each employee on a walking/working surface 6 feet or more above a lower level that is not addressed in the preceding fourteen (14) categories shall be protected from falling by a guardrail system, a safety net system, or a personal fall arrest system except when:

a. working on scaffolds fall protection requirements are covered by subpart L of 29 CFR 1926.

b. working on certain cranes and derricks fall protection requirements are covered by subpart N of 29 CFR 1926.

c. performing steel erection work in buildings fall protection requirements are covered by subpart R of 29 CFR 1926.

d. working on certain types of equipment used in tunneling operations fall protection requirements are covered by subpart S of 29 CFR 1926.

e. engaged in the construction of electric transmission and distribution lines, equipment fall protection requirements are covered by subpart V of 29 CFR 1926.

f. working on stairways and ladders fall protection requirements are covered by subpart X of 29 CFR 1926.

NOTE: On multi-employer work sites, employees of all contractors and subcontractors must understand the fall protection hazards that exist and be aware of the various methods of fall protection even if they are NOT directly exposed to fall hazards in their particular work area. For example, a contractor may have a controlled access zone in place and all persons on the job site, regardless of their employer, must understand the importance of remaining outside that CAZ.

PRE-CONSTRUCTION SURVEY

Prior to the initiation of any construction project, the job site will be surveyed by a competent/qualified person to determine:

a. if fall protection systems will be required.

b. if fall hazards exist, the types of conventional fall protection systems to be utilized.

    1. particular attention will be given to anchorage points, location of warning lines, etc..

c. rescue procedures to be used if a fall actually occurs.

d. the load-carrying capabilities of the walking/working surface.

e. assuring that all personnel utilizing a fall protection system have training in that system.

This survey may be made without the use of fall protection because no work will be accomplished during this survey and installing fall protection systems would create a greater hazard.

If it is determined that certain areas within the overall worksite have fall hazards that cannot be addressed with conventional fall protection systems (those areas being limited to leading edge work, residential construction work, and precast concrete work), **then** a Fall Protection Plan must be prepared to specifically protect employees from these hazards.

FALL PROTECTION SYSTEMS

GUARDRAIL SYSTEM:

A guardrail system is a physical barrier erected to prevent employees from falling to lower levels.

Specific guardrail systems criteria are found in 29 CFR 1926.502(b) and we will erect guardrail systems that comply with the cited criteria.

The main advantage of a guardrail system is that it is a “passive” system which, once installed, requires no employee involvement in its function. A guardrail will stop an employee who inadvertently walks into it.

A guardrail system is an acceptable fall protection system in each of the fifteen (15) OSHA designated work areas save one (1) - “Formwork and Reinforcing Steel.”

GUARDRAIL SYSTEMS AT HOISTING AREAS:

When guardrail systems are used at hoisting areas, a chain, gate or removable guardrail section shall be placed across the access opening between the guardrail sections when hoisting operations are not taking place.

NOTE: If a portion of the guardrail system is removed at a hoisting area to facilitate the hoisting operations **and** an employee must lean out over the opening, then that employee must be protected by a personal fall arrest system. In this instance it is important to remember that the personal fall arrest system may not be attached to the guardrail system.

GUARDRAIL SYSTEMS AT HOLES:

Guardrail systems used at holes shall be erected on all unprotected sides of the edges of the hole.

When the hole is to be used for the passage of materials, the hole shall not have more than two sides provided with removable guardrail sections to allow the passage of materials. When the hole is not in use, it shall be closed over with a cover **or** protected with a guardrail system on all unprotected sides or edges.

NOTE: Guardrails need not be erected around holes while employees are working at the hole, passing materials through the hole, etc.. When work is completed around the hole, the hole must be protected by guardrails on all sides of the hole or by covers.

Guardrail systems used around holes which are used as points of access (such as ladderways) will be provided with a gate or be offset so that a person cannot walk directly into the hole.

GUARDRAIL SYSTEMS ON RAMPS AND RUNWAYS:

Guardrail systems used on ramps and runways shall be erected along each unprotected side or edge. Ramps, runways, and other walkways on which employees need protection from falling 6 feet or more to a lower level must be protected by a guardrail system and only a guardrail system.

PERSONAL FALL ARREST SYSTEM:

A personal fall arrest system is, as the name implies, a means of safety decelerating a falling body before a lower level is hit. The three (3) main components of a personal fall arrest system are the:

a. anchorage point.
b. lanyard.
c. body harness.

NOTE: Body belts **will not** be used in a personal fall arrest system.

Specific personal fall arrest systems criteria are found in 29 CFR 1926.502(d) and we will use personal fall arrest systems that comply with the cited criteria.

The tie-off attachment point must be at or above the connection point on the harness to prevent additional free fall distance.

As are guardrails, personal fall arrest systems are “passive” and require no employee involvement once they are properly rigged.

For all practical purposes, dee-rings and locking type snaphooks shall have a minimum tensile strength of 5,000 pounds and lanyards and vertical lifelines shall have a minimum breaking strength of 5,000 pounds. Anchorages must be capable of supporting 5,000 per employee. Anchorages used in personal fall arrest systems must be independent of any anchorage being used to support or suspend platforms.

NOTE: Knots in a rope lanyard or lifeline can reduce its strength by as much as 50% and having a lanyard go over or around sharp edges can completely destroy its effectiveness.

With the exception that harnesses and components may be used as positioning device systems, personal fall arrest system components may not be used for purposes other than that for which they were designed.

Positioning device system components shall be inspected prior to each use for wear, damage, and other deterioration and defective components shall be removed from service.

Personnel should be aware that should a fall occur and self rescue is not possible, equipment and personnel will be available for rescue.

Should a personal fall arrest system actually be used to stop a fall, it will be removed from service and not used again until inspected and determined to be undamaged and suitable for reuse by a competent person.

SAFETY NET SYSTEM:

Specific safety net systems criteria are found in 29 CFR 1926.502(c).

Safety nets will be installed as close as practicable under the walking/ working surface on which employees are working and in no case shall they be more than 30 feet below such level.

Safety nets shall be inspected at least once per week and after an occurrence which could affect the integrity of the system. Defective nets will not be used.

All items that have fallen in a safety net will be removed as soon as possible and at least before the next work shift.

Safety nets will be drop-tested at the job site after initial installation and before being used as a fall protection system; whenever relocated; after major repair; and at six-month intervals if left in one place.

NOTE: If it is demonstrably unreasonable to perform a drop-test, a designated competent person shall prepare a certification in accordance with 29 CFR 1926.502(c)(4)ii.

WARNING LINE SYSTEM:

A warning line system is a barrier erected on a roof to warn employees that they are approaching an unprotected roof side or edge, and which designates an area in which roofing work may take place without the use of guardrail, body belt, or safety net systems to protect employees in the area.

A warning line system is to be used only during roofing work on low-sloped roofs over 50-feet in width with unprotected sides and edges 6-feet or more above lower levels (on a simple rectangular roof, width is the lesser of the two primary overall dimensions. This is also the case with roofs which are sloped toward or away from the roof center). Most importantly, warning line systems must be used in conjunction with either a guardrail system; a safety net system; a personal fall arrest system; or a safety monitoring system.

NOTE: In the above scenario, either a guardrail system, a safety net system, or a personal fall arrest system alone provides adequate fall protection.

Specific warning line systems criteria are found in 29 CFR 1926.502(f) and we will use warning line systems that comply with the cited criteria.

As a general rule, warning line systems will be used in conjunction with a safety monitoring system.

A warning line, made of ropes, wires, chains and supporting stanchions will be flagged at no more than 6-feet intervals with high-visibility material. As the name implies, this line will only “warn” employees that they are approaching an unprotected side or edge. The horizontal resisting force of a warning line is 16 pounds versus 200 pounds for a guardrail system.

No personnel are allowed in the area between a roof edge and a warning line unless they are performing roofing work in that area.

Mechanical equipment on roofs shall only be used in areas that are protected by either a warning line system, a guardrail system, or a personal fall arrest system.

The warning line shall be erected around all sides of the roof work area not less than 6-feet from the roof edge unless mechanical equipment is being used. In that case, the warning line shall be erected not less than 6-feet

from the roof edge which parallels the mechanical operation and not less than 10 feet from the roof edge which is perpendicular to the direction of the mechanical operation.

Points of access, material handling areas, storage areas, and hoisting areas shall be connected to the work area by an access path formed by two warning lines. When the aforementioned areas are not in use, the warning line will be adjusted to completely seal off the work area so that a person cannot inadvertently enter the area.

SAFETY MONITORING SYSTEM:

Specific safety monitoring systems criteria are found in 29 CFR 1926.502(h) and we will use safety monitoring systems that comply with the cited criteria.

A safety monitoring system used in conjunction with a warning line system is not considered a “passive system” because it takes active employee involvement and, as such, both the Safety Monitor and the employee(s) being monitored must be alert for fall hazards.

A competent person will perform the duties of Safety Monitor. These duties include:

a. recognizing fall hazards,

b. warning the employee when it appears the employee is unaware of a fall hazard or is acting in an unsafe manner,

c. remaining on the same walking/working surface and within visual sighting of the employee being monitored, and

d. remaining close enough to communicate orally with the employee being monitored.

The Safety Monitor shall have no other responsibilities which could take the monitor’s attention from the monitoring function.

Only the employee engaged in roofing work on low-sloped roofs or an employee covered by a fall protection plan [29 CFR 1926.502(k)] is allowed in the area being protected by the Safety Monitor.

When a safety monitoring system is being used, mechanical equipment will not be used or stored in that controlled zone.

Of course, the employee being monitored is required to comply promptly with the fall hazard warnings from the Safety Monitor.

POSITIONING DEVICE SYSTEM:

A positioning device system consists of a body belt or body harness system rigged to allow an employee to be supported on an elevated vertical surface, such as a wall, and work with both hands free while leaning. It is used during formwork and steel reinforcing.

Specific positioning device systems criteria are found in 29 CFR 1926.502(e) and we will use positioning device systems that comply with the cited criteria.

Positioning device systems must be inspected prior to each use for wear, damage, and other deterioration. Defective components must be removed from service. Components of positioning device systems must never be used for purposes other than that for which they were designed -- specifically fall protection and/or positioning on a vertical surface.

CONTROLLED ACCESS ZONE (CAZ):

A controlled access zone is an area in which certain work activity may take place without the use of guardrail systems, personal fall arrest systems, or safety net systems and access to the zone is controlled.

Specific controlled access zone criteria are found in 29 CFR 1926.502(g). A controlled access zone will be created when appropriate.

Controlled access zones will only be used as part of a fall protection plan (reference 29 CFR 1926.502(k) and *Fall Protection Plan*, below) or when an employee is performing overhand bricklaying and related work. Persons performing overhand bricklaying or related work that requires reaching more than 10 inches below the walking/working surface may not be afforded fall protection by working in a controlled access zone.

Controlled access zones are work areas that have limited access to only authorized personnel by means of control lines or other means that restrict access.

COVERS:

Covers can prevent an employee from stepping into a hole, tripping over a hole, falling through a hole, or being injured by objects falling through a hole.

NOTE: When work is completed around a hole, the hole must be protected by guardrails on all sides of the hole or by covers.

Specific cover criteria are found in 29 CFR 1926.502(i) and we will use covers that comply with the cited criteria.

Covers must be capable of supporting, without failure, twice the weight of the employees, equipment, and/or materials that may be imposed upon them.

Covers, when used, must be secured to prevent accidental displacement by wind, equipment, or employees.

All covers must be color coded or marked with the word: "HOLE" or "COVER" to identify the hazard.

NOTE: The above does not apply to cast iron manhole covers or roadway steel grates.

Covers, and only covers, will be used on walking/working surfaces to protect employees from tripping or stepping into or through a hole (including skylights). This provision is **regardless of the height** of the hole above a lower surface.

Covers, and only covers, will be used to protect employees from objects falling through holes (including skylights). This provision is **regardless of the height** of the hole above a lower surface.

PROTECTION FROM FALLING OBJECTS:

Specific protection from falling objects criteria are found in 29 CFR 1926.502(j) and we will use that criteria to protect our employees from falling objects.

Covers are to be used to protect employees from objects falling through holes (including skylights) from upper surfaces regardless of heights.

Toeboards, used to prevent objects from falling on employees on a lower level must be at least 3½ inches high with not more than a ¼ inch clearance between the toeboard and the walking/working surface. When tools, materials, or equipment are piled higher than the top edge of the toeboard, paneling or screening will be erected from the top of the toeboard to the appropriate mid or top rail of the guardrail system to provide adequate protection to employees below.

FALL PROTECTION PLAN

The foregoing Fall Protection Program is not a Fall Protection Plan per se. However, implementing the preceding guidelines for conventional fall protection systems coupled with certified formal and hands-on training will provide appropriate fall protection for our employees.

There may be occasions where conventional fall protection systems just will not work. OSHA has determined that these occasions will be limited to:

a. leading edge work.

NOTE: Leading edge work involves construction which moves the location of the edge forward (backward). Working at the edge of a walking/working surface (such as a roof) is not leading edge work - it is (roofing) work at an unprotected side or edge.

b. precast concrete construction work.

c. residential construction work.

The criteria for determination that conventional fall protection systems are infeasible are: 1) it is impossible to perform construction work using conventional fall protection systems, or 2) it is technologically impossible to use conventional fall protection systems. Inconvenience and cost are not acceptable considerations.

Specific Fall Protection Plan criteria are found in 29 CFR 1926.502(k) and, if necessary, a Fall Protection Plan will be completed that complies with the cited criteria.

Fall Protection Plans must be prepared by a qualified person and developed specifically for the site where the work is to be performed. All changes to the Plan must be approved by a qualified person.

NOTE: A qualified person is one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his ability to solve or resolve problems relating to the subject matter, the work, or the project. OSHA has indicated that an employer may use the services of more than one qualified person to comply with these requirements as long as (1) those persons, collectively, are qualified to prepare the fall protection plan and approve any changes; and (2) the resulting plan complies with the applicable requirements of the standards.

Fall Protection Plans must be maintained at the job site and be up to date.

The implementation of the fall protection plan must be under the supervision of a competent person.

A Fall Protection Plan must document reasons why conventional fall protection systems are infeasible and/or offer a detailed explanation why conventional fall protection systems create a greater hazard in their use than non-use.

All measures taken to reduce or eliminate fall hazards (in lieu of conventional fall protection systems) such as the use of ladders or scaffolds shall be discussed.

In each area where a conventional fall protection system cannot be used, a safety monitoring system must be utilized that conforms with the requirements of 29 CFR 1926(h).

Either the names of the employees or some other means of employee identification (such as armbands or color coded hard hats) will be used to control access to the controlled access zone.

In the event an employee falls or a serious incident occurs, the circumstances will be investigated and changes to the Fall Protection Plan will be made to prevent a reoccurrence of a similar incident.

After completion of all work and after all fall protection systems have been removed, a competent/qualified person may survey the work areas for inspection purposes without the use of fall protection systems. Care will be taken to assure solid footing and focused attention to potential fall hazards.

There are only two (2) instances where employees may be exposed to fall hazards without the use of fall protection systems. Those times are: pre-construction activities (inspecting, investigating, or assessing the workplace) and post-construction activities. During these times, no actual construction work may take place.

ACCIDENTS AND NEAR ACCIDENTS

Accidents and near accidents involving fall hazards will be investigated by the Fall Protection Program Administrator to determine the cause of the incident and a method of preventing a reoccurrence. Questions to be considered are:

a. Was the fall protection system selected appropriate for the hazard?

b. Was the system properly installed?

c. Was the person involved in the accident following proper procedures?

d. Were there contributing factors such as ice, wind, debris, etc.?

e. Is retraining or a change of the Fall Protection Plan required?

TRAINING/RETRAINING

Training, which must be certified, will include the following topics:

a. the nature of fall hazards in the work area.

b. the correct procedures for erecting, maintaining, disassembling, and inspecting the fall protection to be used.

c. the use and operation of guardrail systems; personal fall arrest systems; safety net systems' warning line systems; safety monitoring systems' controlled access zones; and other protection to be used.

d. the role of the Safety Monitor and the role of the employee when a safety monitoring system is used.

e. the limitations on the use of mechanical equipment during the performance of roofing work on low-sloped roofs.

f. the correct procedures for handling and storage of equipment and materials and the erection of overhead protection.

g. the role of employees in fall protection plans.

Training will be conducted by competent person(s) using the below listed items as resource materials:

a. this Fall Protection Program.

b. the manufacturer's instruction manuals that come with fall protection equipment.

c. OSHA standards pertaining to fall protection which include 29 CFR 1926.500, 501, 502, and 503.

d. the competent person's work experiences.

Should the competent person, a supervisor, or the Program Administrator suspect that an employee lacks the skills needed for proper fall protection, that employee will be retrained.

Changes in the workplace, types of fall protection systems and equipment will also necessitate retraining.

Only the latest Training Certificate will be kept on file.

FALL PROTECTION AT THE JOB SITE

A quick glance through this Fall Protection Program may leave the reader with the impression that fall protection requires an inordinate amount of attention to small details which, in practice, would render the fall protection provisions of subpart M, 29 CFR 1926 unworkable in real work situations.

The opposite is true. OSHA has gone to great lengths to make subpart M user friendly by incorporating performance-oriented criteria (as opposed to specification-oriented criteria) into their standards. Following a hazard assessment, we will select the most advantageous fall protection system that is compatible with our task needs and our protection requirements.

Lastly, while time, equipment, training, and money are devoted to fall protection systems which either physically prevent persons from falling from height, control the rate of deceleration during an actual fall, prevent objects from falling onto persons below, or warn personnel of restricted areas, we must never forget that it is important not to fall in the first place.

Accidents are more likely to occur as we become "adjusted" to working at height. Most slips, trips and falls are preventable. Proper footwear, wearing hard hats when there is a possibility of falling objects, cleaning up of debris, and paying attention to footing, hand holds, and edges is as important as the fall protection systems themselves.

ServiceBoss International, Inc.

FALL PROTECTION PLAN

(Required when standard fall protection systems are not feasible)

With changes: _____
(If no changes, enter "None")

This Fall Protection Plan is specific for the following project:

Project Name: _____

Location of Job: _____

_____

Date Plan Prepared: _____ by: _____
(Must be a Qualified Person)

Date Plan Modified: _____ by: _____
(Must be a Qualified Person)

Date Plan Modified: _____ by:
_____
(Must be a Qualified Person)

Plan Approved by: _____

Plan Supervised by: _____

POLICY STATEMENT

Our Fall Protection Program has been developed to protect our employees from the easily identifiable danger associated with working at height: falling. While the general concept of Fall Protection is straight forward, those employees to whom this Program applies must have specific training applicable to their individual jobs. It is recognized that the nature of fall hazards may vary from project to project and even change during a specific project. Training will be on-going to reflect the various existing work situations.

A copy of our Fall Protection Program can be found in the main office at:

RR 1 Box 232 Route 407
Dalton, PA 18414

A copy of our Fall Protection Plan will be found on every applicable Job Site.

FALL PROTECTION SYSTEMS TO BE USED ON THIS JOB

All employees on this job/project will be protected from fall hazards by the use of one or more conventional fall protection systems. These systems include guardrail systems; safety net systems; personal fall arrest systems; positioning device systems; warning line systems; controlled access zones; safety monitoring systems; covers; and protection from falling objects.

Further, the conventional fall protection system used in each required circumstance will be in compliance with 29 CFR 1926.502 which addresses which systems are appropriate (allowed) for specific types of work.

TRAINING

All our personnel working on this job/project have received training in the our Fall Protection Program and are able to recognize fall hazards and understand procedures to minimize these hazards. Further, they have been trained, as necessary, by a competent person qualified in the following areas using both formal and hands on training:

a. The nature of fall hazards in the work area.

b. The procedures for erecting, maintaining, disassembling, and inspecting the fall protections to be used.

c. The use and operation of guardrail systems; personal fall arrest systems; safety net systems' warning line systems; safety monitoring systems' controlled access zones; and other protection to be used.

d. Their role in the safety monitoring system when this system is used.

e. The limitations on the use of mechanical equipment during the performance of roofing work on low sloped roofs.

f. The procedures for handling and storage of equipment and materials and the erection of overhead protection.

g. The roll of employees in fall protection plans.

ENFORCEMENT

Awareness of and respect for fall hazards, and compliance with all safety rules are of great importance. Appropriate disciplinary action will be taken should an employee disregard our safety guidelines.

ACCIDENT INVESTIGATION

All accidents that result in injury to employees, regardless of their nature, will be investigated and reported. It is important that documentation of accidents take place as soon as possible so that the cause may be determined and steps may be taken to prevent a reoccurrence.

CHANGES TO THIS PLAN

Changes to this plan, specifically a deviation from conventional fall protection systems, will be documented by a qualified person whose name appears on the front of this fall protection plan.

Changes will be limited to:

a. leading edge work.

NOTE: Leading edge work involves construction which moves the location of the edge forward (backward). Working at the edge of a walking/working surface (such as a roof) is not leading edge work - it is (roofing) work at an unprotected side or edge.

b. precast concrete construction work.

c. residential construction work.

The criteria for determination that a conventional fall protection is infeasible is that it is impossible to perform construction work with a conventional fall protection system or it is technologically impossible to use a conventional fall protection system. Inconvenience and cost are not acceptable considerations.

Specific Fall Protection Plan criteria are found in 29 CFR 1926.502(k) and we will, if necessary, create a Fall Protection Plans that comply with the cited criteria.

A separate change will be made for each situation where conventional fall systems cannot be used.

CHANGE TO FALL PROTECTION PLAN

CHANGE NUMBER: _____

This change to the Fall Protection Plan for the below listed project will be attached to the original Fall Protection Plan and a copy will be available at the job site.

Project Name: _____

Location of Job:_____

Date Change Prepared: _____ by:_____
(Must be a Qualified Person)

Date Change Modified: _____ by:_____
(Must be a Qualified Person)

Change Approved by: _____

Change Supervised by: _____

Reference the above.

Changes to this Fall Protection Plan for this specific project are required for the following reason(s):

Specific work that requires fall protection other than conventional fall protection:

_____
_____
_____
_____
_____
_____
_____
_____
_____

Specific work areas where the above work will take place:

_____
_____
_____
_____
_____
_____
_____
_____
_____

Before any non-conventional fall protections are used as part of the work plan, a controlled access zone (CAZ) shall be clearly defined by the competent person _____ as an
(Name(s) of Competent Person)
area where a recognized hazard exists. The demarcation of the CAZ will be communicated by the competent person in a recognized manner such as:

Circle one or more of the below:

a. signs
b. wires
c. tapes
d. ropes
e. chains
f. other: _____

All access to the CAZ will be restricted to authorized entrants. Those entrants will be identified by _____
(Color hard hats; arm bands, etc.)
and are listed below:

_____ _____ _____

_____ _____ _____

_____ _____ _____

The competent person will ensure the protective elements of the CAZ are implemented prior to the beginning of work.

Specific reasons why conventional fall protection is either infeasible or creates a greater hazard:

_____
_____
_____
_____
_____
_____
_____
_____
_____

Specific measures to be taken to reduce or eliminate fall hazards for personnel who cannot be provided conventional fall protection:

_____
_____
_____
_____
_____
_____
_____

In the above CAZ, a safety monitoring system will be implemented in conformance with 29 CFR 1926.502(h).

SAFETY NET INSTALLATION CERTIFICATION

This is to certify that the Safety Net identified below was installed with sufficient clearance under it to prevent contact with the surface or structures below when subjected to an impact force equip to the drop test specified in 29 CFR 1926.502(c)(4)(i).

SAFETY NET MAKE: _____

SAFETY NET MODEL: _____

SAFETY NET LOCATION: _____

It was found to be unreasonable to perform the below listed drop test for the following reasons:

_____
_____
_____
_____
_____

Drop Test (Circle appropriate drop test to which the certification applies):

a. After initial installation and before using drop test.

b. After relocation drop test.

c. After major repair drop test.

d. After remaining in the same location for 6 months drop test.

_____ _____
(Competent Person) (Date)

ServiceBoss International, Inc.

HAZARD COMMUNICATION

ServiceBoss International, Inc.

Safety Program

SECTION III

HAZARD COMMUNICATION

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TOPIC **PAGE**

OSHA Standards:

29 CFR 1926.59, *Hazard Communication*
29 CFR 1910.1200, *Hazard Communication*
29 CFR 1910.1200 Appendix A, *Health Hazard Definitions (Mandatory)*
29 CFR 1910.1200 Appendix B, *Hazard Determination (Mandatory)*
29 CFR 1910.1200 Appendix C, *Information Sources (Advisory)*
Note: The Federal Register of March 7, 1996, removed 1926.59 Appendix C., [61 FR 9227, March 7, 1996]
29 CFR 1910.1200 Appendix D, *Definition of Trade Secret (Mandatory)*
29 CFR 1910.1200 Appendix E, *Guidelines for Employer Compliance*

Forms:

[Found immediately following this program]

Letter - Request for MSDS
List of Hazardous Chemicals

OVERVIEW

Petroleum products, adhesives, sealants -- even saw dust from treated wood! What do these typical job site products have in common? They are all chemicals and their properties may cause harm to an employee if inhaled, ingested, or absorbed into the skin. A common error is thinking that a hazard communication plan is not needed because there are no "hazardous" chemicals such as nitroglycerin or sulfuric acid on the job site. Hazard communication addresses the health and physical hazards associated with essentially all the chemical and chemical products found on the job site.

There may be a tendency to think of common everyday products such as hand cleaners as just that -- hand cleaners. However, even these items are job site chemicals and, if misused, have a health hazard. What possible hazard could be associated with hand cleaner? Quick! Some gritty hand cleaner gets in your eye! What do you do?

This hazard communication plan is designed to make all employees aware that most, if not all, job site chemicals have a downside if improperly used, spilled, transferred or stored. The hazard may be a physical hazard such as an explosion or a health hazard such as cancer.

DEFINITIONS

Article: [Note: Articles are exempt from the Hazard Communication standard]	a manufactured item which is formed to a specific shape or design during manufacture; has end use function(s) dependent in whole or in part upon its shape or design during end use; and does not release, or otherwise result in exposure to a hazardous chemical under normal conditions of use.
Hazardous Chemical:	any chemical which is a physical or a health hazard.
Physical Hazard:	a chemical for which there is scientifically valid evidence that it is a combustible liquid, a compressed gas, explosive, flammable, an organic peroxide, an oxidizer, pyrophoric (will ignite spontaneously in air at a temperature of 130°F or below), unstable (reactive) or water-reactive.
Health Hazard:	a chemical for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principals that acute or chronic health effects may occur in exposed employees.

To clarify the difference between acute and chronic, acute effects occur rapidly as a result of short term exposure and are of short duration. Chronic effects occur as a result of long term exposure and are of a long duration. These terms can overlap. For example, a mild heart attack, with no pain severity, would be termed acute within the first two hours, yet if there were long term effects, it would be termed chronic.

Exempt from hazard communication are “articles”. Note that a manufactured item that has a downstream use is not an article. The below example from 29 CFR 1926.59(f)(2) illustrates this point:

> *For a solid metal (such as a steel beam or a metal casting) that is not exempted as an article due to its downstream use, the required label may be transmitted to the customer at the time of the initial shipment, and not be included with subsequent shipments to the same employer unless the information on the label changes. The label may be transmitted with the initial shipment itself, or with the material safety data sheet that is to be provided prior to or at the time of first shipment. This exception to requiring labels on every container of hazardous chemicals is only for the solid metal itself and does not apply to hazardous chemicals used in conjunction with, or known to be present with the metal and to which employees handling the metal may be exposed (for example, cutting fluids or lubricants).*

Almost all chemicals are considered hazardous -- a steel beam or metal casting does not immediately come to mind as a hazardous chemical. Without a material safety data sheet (MSDS) and/or a label, one cannot assume a chemical is safe.

Even filters for your equipment will have an MSDS. This is because, until it is placed in your equipment, it still has a down stream use and therefore until it is used it is not an article by definition.

Also exempt from the hazard communication standard are chemicals which are regulated by other government agencies such as hazardous waste, food, tobacco products, and normal consumer products that are used in the workplace in the same manner, frequency and duration as normal consumer use and produces the same or less exposure as normal consumer use.

CHEMICAL TYPES AS THEY RELATE TO HEALTH

Below is a list of categories of hazardous chemical types as they relate to health:

a. Carcinogen or potential carcinogen as determined by the International Agency for Research on Cancer (IARC) or a carcinogen or potential carcinogen as listed in the Annual Report on Carcinogens published by the National Toxicology Program (NTP), latest edition, or as regulated by OSHA as a carcinogen.

b. Corrosive: A chemical that causes visible destruction of, or irreversible alterations in, living tissue by chemical action at the site of contact. This is not to be confused with, and does not refer to, action on inanimate surfaces.

c. Highly Toxic: A chemical which is lethal to test animals under specific doses and time limits. Some tests require ingestion, some inhalation, some skin exposure, and some implantation.

d. Irritant: A chemical which is not a corrosive, but which causes a reversible inflammatory effect on living tissue by chemical action at the site of contact.

e. Sensitizer: A chemical that causes a substantial proportion of exposed people or animals to develop an allergic reaction in normal tissue after repeated exposure.

f. Toxic: A chemical which is lethal to test animals under specific doses and time limits. A toxic chemical has a greater dose per weight than a Highly Toxic chemical.

g. Target Organ Effects:

Hepatotoxins: Chemicals which produce liver damage
Signs & Symptoms: Jaundice; liver enlargement
Chemicals: Carbon tetrachloride; nitrosamines

Nephrotoxins: Chemicals which produce kidney damage
Signs & Symptoms: Edema; proteinuria
Chemicals: Halogenated hydrocarbons; uranium

Neurotoxins: Chemicals which produce their primary toxic effects on the nervous system
Signs & Symptoms: Narcosis; behavioral changes; decreased motor function
Chemicals: Mercury; carbon disulfide

Agents which act on the blood or hemotopoietic system: decrease hemoglobin function; deprive the body tissue of oxygen
Signs & Symptoms: Cyanosis; loss of consciousness
Chemicals: Carbon monoxide; cyanides

Agents which damage the lungs: chemicals which irritate or damage the pulmonary tissue
Signs & Symptoms: Cough; tightness in the chest; shortness of breath
Chemicals: Silica; asbestos

Reproductive toxins: Chemicals which affect the reproductive capabilities including chromosomal damage (mutations) and effects on fetuses (teratogenesis)
Signs & Symptoms: Birth defects; sterility
Chemicals: Lead; DBCP

Cutaneous hazards: Chemicals which affect the dermal (skin) layer of the body
Signs & symptoms: Defatting of the skin; rashes; irritation
Chemicals: Ketones; chlorinated compounds

Eye hazards: Chemicals which affect the eye or visual capacity
Signs & Symptoms: Conjunctivitis; corneal damage
Chemicals: Organic solvents; acids

The above is to illustrate the broad scope of health hazards.

HAZARD DETERMINATION

The determination of chemical hazards is primarily the responsibility of the manufacturer and/or importer. It is performance-oriented and, surprisingly, there is no specific method required to determine if a chemical or chemical mixture is hazardous. Personal judgment of the evaluator is relied upon and it takes but one scientifically acceptable study to force a chemical onto the hazardous chemical list.

According to OSHA regulations, thousands of studies could indicate complete safety and one study indicate a hazard and the chemical will be deemed a hazard. We will rely on the evaluations of the chemical product's manufacturers or importers. Should hazard information be received from a source other than the manufacturer, it shall be placed in this Hazard Communication Plan.

LABELS

A label is any written, printed, or graphic material displayed on or affixed to containers of hazardous chemicals.

All chemicals used in or on the job site will be properly labeled using the manufacturer's labeling system. Labels will not be removed or defaced. If a chemical is not labeled, it will not be used with the following exception which is quite common with contractors:

> *portable containers into which hazardous chemicals are transferred from labeled containers need not be labeled if they are for immediate use of the employee who makes the transfer.*

To simplify the above, one may take a hazardous chemical (*example*: paint) out of a labeled container and put it into a smaller, unlabeled container (*example*: paint tray), for immediate use. OSHA defines "immediate use" as being under the control of and used only by the person who transfers it from a labeled container and only within the work shift in which it is transferred.

The label must clearly state:

a. the identity of the hazardous chemical(s).
b. the appropriate hazard warning.
c. the name and address of the manufacturer.

Appropriate hazard warnings would contain:

a. instruction for proper and safe use. This would include obvious information such as, "do not ingest" or "do not spray in eyes" as well as less obvious information such as, "caustic, wear rubber gloves"
b. first aid instructions
c. fire containment instructions
d. storage
e. disposal instructions

Treat empty containers of hazardous materials as if they were full. Proper disposal is a must!

MATERIAL SAFETY DATA SHEETS (MSDS)

It is required that material safety data sheets (MSDS) be maintained for all hazardous chemicals in our inventory. The information contained on MSDS must be readily accessible to the individual(s) using the products and we will share that information with whom we may work.

Chemicals come in all forms of matter: liquid, solid, and gas; they can be found as sludge, vapor, mist, dust, etc..

How would one know what a chemical smelled or looked like? How would one be able to administer first aid quickly? Where would you find the proper procedure for cleaning up a spill? Where would you find a listing of symptoms caused by inadvertent exposure to a chemical or chemical mixture? Where would you find fire fighting procedures? These questions and many others are answered on Material Safety Data Sheets (MSDS).

The Safety Director will be notified immediately if a chemical is in inventory without an MSDS. Should that event occur, the Safety Director will submit a letter to the manufacturer or distributor requesting an MSDS.

Personnel utilizing a new chemical product will review the MSDS before initial use. New chemical products will be added to our List of Hazardous Chemicals.

While there is no specific format, the following information will be found on an MSDS:

a. identity (chemical or common name) which will be the same as on the label and on the required list of hazardous chemicals.

b. hazardous chemical ingredients -- both the chemical and common name(s).

c. physical and chemical characteristics such as boiling point, flash point, solubility in water, etc.. Two of the most important items to be found in this category are appearance and odor. It is important to be able to identify chemicals rapidly and appearance and odor are of great value in initial determination.

d. physical hazards which would include the potential for explosion, fire, and reactivity. Also included in this section are the flash point and auto ignition temperature. Special fire fighting procedures are also noted and should be carefully studied by potential users.

e. health hazards which include first aid procedures, signs and symptoms of exposure, medical dangers, exposure limits, routes of entry, precautions for safe handling, potential carcinogen information, and whether professional medical response is required after a mishap.

f. chemical reactivity which includes stability, incompatibility with other chemicals, hazardous decomposition products and hazardous polymerization. Special conditions to avoid may also be included.

g. spill and/or leak procedures which include approved waste disposal methods.

h. special handling information which includes appropriate hygienic practices, protective equipment requirements, and needed ventilation.

i. special precautions which would include applicable control measures known to the manufacturer and/or importer. Should it be determined there are special advisories that pertain to our company, the advisories will be placed in this section of the MSDS.

j. the name, address and telephone number as well as the date of preparation or revision must be included.

Of course, you are not required to memorize nor are you expected to know all the information contained therein; however, you are expected to know where to find information when it is needed and you are expected to ask any questions to clear up any uncertainties that you may have concerning chemicals in the workplace.

Particular attention should be paid to:

a. Identification/detection of a hazardous chemical. This would include odor and color as well as container labeling.

b. Physical hazards of the hazardous chemical. This information would include the potential for fire, explosion, and reactivity. Reactivity, in chemistry, is defined as "the reciprocal action of chemical agents upon each other; chemical change." The MSDS will indicate proper procedures for fire extinguishing, including special precautions, if needed.

c. The health hazards of the chemical. Routes of entry are noted. A chemical may enter the body through ingestion, inhalation, absorption, or injection. Signs and symptoms are indicated such as irritation of the skin, redness of the eyes, nausea, etc.. Health hazards are defined as acute, chronic or both. Carcinogenicity is

indicated. First Aid procedures are explained as well as notes to a treating physician, if appropriate.

Methods to lessen or prevent exposure are explained. The need for protective equipment such as rubber gloves, disposable suits, respirators, goggles, etc. is explained. Hygienic work practices are re-enforced such as keeping the product away from food and washing hands after use.

The MSDS has a wealth of information which is to be made available to all employees and to anyone who wants to review them. There is nothing secret about an MSDS; its whole purpose is the dissemination of information. It provides awareness.

Should an employee not be able to read English, the information contained on MSDS and labels (and any other warning sign) will be given orally or written in that employee's language. The actual labels, MSDS, and all warning signs must be written in English.

LIST OF HAZARDOUS CHEMICAL PRODUCTS

A list will be maintained of all hazardous chemical products in our inventory. This list will be arranged alphabetically by trade or common name and be readily available to our employees. This will also be the order in which our MSDS are filed.

TRAINING AND DOCUMENTATION

The Safety Director is responsible for employee training and will ensure that all new employees attend training on our Hazard Communication Plan prior to initial work assignment. Training shall include:

a. Methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area. The primary method to detect the presence of a release is sight and smell. As mentioned above, the appearance and odor of a hazardous chemical can be found on the MSDS for that chemical.

b. Physical and health hazards of the chemicals in the workplace. Again, this information is found on the appropriate MSDS.

c. Measures to take to protect the employee from chemical hazards. This Hazard Communication Program, the specific MSDS, as well as oral and hands on training and instruction provide the basis for measures to protect one's self. Where required protective equipment will be provided. Never minimize the value of protective safety equipment. For example, the use of relatively inexpensive eye protection could easily save your eyesight.

Each employee will sign a form indicating that they have attended training and understand the above.

Annually, all employees will receive refresher training to ensure that awareness is maintained. Furthermore, with the introduction of each new hazard, not necessarily each new chemical, training will be given with specific emphasis on emergency procedures as noted on the MSDS. This training will include procedures for handling leaks and spills, personal protection equipment if required, decontamination procedures, etc..

NON-ROUTINE TASKS

Prior to performing a non-routine task, an employee will be given information by a competent person or supervisor concerning the hazardous chemicals to which he may be exposed. This information will include:

a. Specific chemical hazards

b. Protective/safety measures the employee may take.

c. Measures taken to lessen the hazards including ventilation, respirators, presence of another employee and emergency procedures.

CHEMICALS IN UNLABELED PIPES

Should work activities be performed in areas where chemicals are transferred through unlabeled pipes, the employee shall be informed by the competent person or supervisor of:

a. The chemical in the pipes.

b. Potential Hazards.

c. Safety precautions to be taken.

SHARING OF INFORMATION

The competent person on the job site will inform those with whom we work of any hazardous chemical products we are using and will provide them with the appropriate MSDS for their review. MSDS for all chemical products used on the job site will be readily available.

Should we introduce a new chemical product to the job site that contains a physical or health safety hazard, the product's MSDS will accompany that product and, before use, employees will be given instruction on the products hazards. This information will be shared with other contractors with whom we may be working. Employees are to be kept informed of the chemical products being used by other contractors if they pose a safety hazard.

ServiceBoss International, Inc.

RR 1 Box 232 Route 407
Dalton, PA 18414

_____
(Date)

_____
(Supplier)

_____
(PO Box/Street Address)

_____
(City, State, ZIP)

Dear Sir:

On _____, we received a shipment of _____,
(Date) (Product Name)
reference invoice: _____.
(Invoice Number)

The above product was received without an accompanying Material Safety Data Sheet (MSDS). Per 29 CFR 1926.59, we are unable to use this product without its MSDS.

Please furnish the appropriate MSDS as soon as possible.

Thank you,

Safety Director

ServiceBoss International, Inc.
Environmental, Health & Safety Program

LIST OF HAZARDOUS CHEMICALS

The Material Safety Data Sheets for the below listed Hazardous Chemicals following this list. The Material Safety Data Sheets are arranged in the order listed below:

CHEMICAL	MSDS DATE	NOTES

ServiceBoss International, Inc.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

[General]

ServiceBoss International, Inc.

Safety Program

SECTION III

PERSONAL PROTECTIVE EQUIPMENT (PPE)

[General]

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OSHA Standards:

29 CFR 1910.136, *Occupational Foot Protection*

29 CFR 1910.138, *Hand Protection*

29 CFR 1926.28, *Personal Protective Equipment*
(w/29 CFR 1910.132, *General Requirements*)

29 CFR 1926.95, *Criteria for Personal Protective Equipment*

29 CFR 1926.100, *Head Protection* (w/29 CFR 1910.135, *Head Protection*)

29 CFR 1926.101, *Hearing Protection* (w/ 29 CFR 1926.52, Occupational Noise Exposure

29 CFR 1926.102, *Eye and Face Protection* (w/29 CFR 1910.133, *Eye and Face Protection*)

29 CFR 1926.107, *Definitions Applicable to this Subpart*

Forms:

[Found immediately following this program]

Certificate of Workplace Hazard Assessment

OVERVIEW

This Personal Protective Equipment (PPE) Program has been prepared to inform our employees of potential hazards in the workplace and to identify the proper PPE to be used to reduce or eliminate these hazards. This Program relies on a cooperative effort by all personnel to understand the reasons for PPE and to protect themselves from harm.

The use of PPE does not lessen an employee's obligation to use safe work practices and procedures. Employees are expected to be aware of the hazards within their area of responsibility and properly use prescribed PPE.

Our operations, work methods and individual job sites present specific hazards which must be identified, analyzed, and matched with the appropriate PPE through a continuing hazard assessment process.

A Certificate of Hazard Assessment will be kept on the job site for inspection purposes.

DUTIES OF THE PPE PROGRAM ADMINISTRATOR

The primary duties of the Program Administrator include: hazard assessment; PPE selection; PPE training; and monitoring of our PPE Program. Certain types of PPE may require hands-on training before on the job use (primarily for sizing and fitting) and this training may be further delegated to competent persons.

HAZARD ASSESSMENT AND PPE SELECTION

A careful, systematic personal protective equipment selection process is used to identify what, if any, protection is required to reduce or eliminate the possibility of eye, hand, foot, limb, or head injury.

Hazard assessment, performed by the PPE Program Administrator or a designated competent person, starts with a thorough knowledge of our job sites, work procedures and methods of operation as well as the hazards that may be created by other contractors working in the vicinity of our employees. The basic hazard categories are: impact; penetration; compression; chemical; heat; harmful dust; and light radiation.

Identifying the source of the above hazards allows for consideration of administrative or engineering controls to eliminate the hazard as opposed to providing protection against it. Examples would include: redirecting traffic flow, ventilation, temporary weather barriers, non-slip surfaces, etc..

Because administrative and engineering controls are passive -- no employee involvement is required -- they are preferable to PPE.

A PPE selection is made by analyzing the above information and evaluating the type of risk, the level of risk, the potential for injury and the possible seriousness of that injury. PPE, which is compatible with the above risks and work situation, is considered. Actual selection involves all the above factors plus an attempt to provide a level of protection greater than the minimum required.

In all situations where it has been determined that a particular type of PPE is to be used, it will be used. There will be no exceptions by virtue of position or rank to this policy. Within an area on a job site where the possibility of falling objects exists, hard hats will be worn. It follows that once an item of PPE (hard hat, in this case) is selected, it must be used by all persons in the identified area regardless of job title or function.

Having the PPE Program Administrator or designated competent person on a job site determine the PPE requirements allows for knowledgeable selection and consistency, and eliminates chaos that would result if each individual were to decide when, where, and if PPE should be used.

29 CFR 1910 Subpart I, Appendix B, *Non-mandatory Compliance Guidelines for Hazard Assessment and Personal Protective Equipment Selection*, provides excellent selection guidelines for eye and face protection; head protection; foot protection; and hand protection.

DISSEMINATION OF PPE SELECTION INFORMATION

Employees must understand when PPE is necessary and what type(s) of PPE are necessary.

All persons for whom PPE will provide a measure of safety will be given appropriate training on that item of PPE as well as an explanation of the importance of its use.

ANSI STANDARDS AND PPE

Most items of PPE are manufactured in accordance with a specific American National Standards Institute (ANSI) standard. For example, protective eye and face devices purchased after 07/05/94 must comply with ANSI standard ANSI Z87.1-1989, *American National Standard Practice for Occupational and Educational Eye and Face Protection*; protective helmets purchased after 07/05/94 must comply with ANSI standard ANSI Z89.1-1986, *American National Standard for Personnel Protection-Protective Headwear for Industrial Employees-Requirements.*

PPE safety products are tested to ensure they meet ANSI standards. Because products are tested in the manner in which they are designed to be used, ANSI certification is valid only if the user follows the manufacturer's instructions for proper sizing, fitting, wearing, and adjusting. A review of

OSHA citations reveals that fines can be levied because employees were improperly using PPE. For example, a hard hat worn with the bill toward the rear may provide adequate protection from impact, however, because it is tested with the bill toward the front, this improper use is cause for a safety violation.

Prior to purchase, items of selected PPE will be checked to ensure they were manufactured in accordance with the proper ANSI standard.

The importance of hazard assessment takes on added significance when judgments are made matching the hazard to the protection desired in cases where ANSI certification is not available. What matters most is: does the selected PPE do what it is intended to do?

Employee owned PPE must be approved for use by the PPE Program Administrator. Further, such equipment must be properly maintained and cleaned in accordance with the manufacturer's instructions.

SIZING AND FITTING

The word "personal" in the phrase "personal protective equipment" correctly implies that the equipment is for a specific person. As such, sizing and fitting are important for a variety of reasons.

a. Function: an improperly fitted piece of PPE may not do its job. For example, eye protection against dust must have an excellent face seal.

b. Comfort: the likelihood of continued use is increased if the PPE selected is comfortably fitted. Example: gloves that fit poorly and, over time, make a person's hands hot and clammy are likely to be removed exposing that person to the hazard for which the gloves were required in the first place.

c. Safety: ill-fitting PPE may actually cause an accident. Example: loose hard hat may slip and block one's vision.

Most PPE come in a variety of sizes and within those size groups, adjustments may be made to affect a perfect fit. It is important to understand the procedures for donning, adjusting, using, and removing PPE. Each person who is required to use any type of PPE will be taught, before initial issue, the specific procedures for properly donning, adjusting, using, and removing the specific PPE. This instruction will generally be given by the employee's Supervisor. When available, the manufacturer's instructions will be issued with the PPE.

CARE AND MAINTENANCE OF PPE

PPE will be visually inspected before each use and if defects are noticed, it will not be used. Some types of PPE are expendable (cotton gloves) and have a limited life span after which they are discarded and new PPE is reissued. Plastic safety glasses become scratched and they too must be exchanged for new ones when vision is impaired. Other types of safety equipment consist of both non-expendable and expendable components. A hard hat is non-expendable, yet the head band does wear out and becomes expendable. PPE will be maintained in accordance with the manufacturer's instructions and, where appropriate, kept in a sanitary condition.

Cleanliness takes on an added importance when dealing with PPE designed to protect the eyes and face. Dirty or fogged lenses can impair vision and, rather than offer protection from a hazard, actually becomes a contributory factor in causing an accident.

Lastly, should PPE become contaminated with a chemical substance and decontamination is impossible, the PPE will be properly disposed of following the disposal instructions on the Material Safety Data Sheet for that substance.

TRAINING

Affected employees will be given an understanding of:

a. when PPE is necessary;
b. what PPE is necessary;
c. how to properly put on, take off, adjust, and wear PPE;
d. the limitations of the PPE; and,
e. the proper care, maintenance, useful life and disposal of the PPE.

Retraining will be given in situations when changes in PPE requirements render the previous training obsolete or it is noticed that an employee is not following our PPE policies -- specifically, not properly wearing the selected PPE in identified locations or work situations.

As a contractor, we are not required to have a PPE Program, per se, nor is the hazard assessment a ***specific*** requirement. In fact, there is no hand

protection standard. Construction standards are short and to the point. The complete standard for head protection is printed below:

> Standard Number: 1926.100
>
> Title: Head protection.
>
> Applicable 1910 Standards 1910.135
>
> (a) Employees working in areas where there is a possible danger of head injury from impact, or from falling or flying objects, or from electrical shock and burns, shall be protected by protective helmets.
>
> (b) Helmets for the protection of employees against impact and penetration of falling and flying objects shall meet the specifications contained in American National Standards Institute, Z89.1-1969, Safety Requirements for Industrial Head Protection.
>
> (c) Helmets for the head protection of employees exposed to high voltage electrical shock and burns shall meet the specifications contained in American National Standards Institute, Z89.2-1971.

Most PPE requirements are obvious and PPE wear is so simple that training is almost unnecessary.

What is important -- vitally important -- is actually using the proper PPE when it is required.

To ensure employee compliance with PPE requirements, we have opted to treat all employees as intelligent, responsible persons who, when reminded of what PPE actually protects, will enthusiastically endorse PPE use.

EYE AND FACE PROTECTION

Your eyes are a marvel of engineering. Most of us take them for granted as we do all our senses until an accident, injury, or disease forces us to realize the miracle we lost or almost lost. Can you imagine a system that can take (absorb) light and convert it to electrical signals (by way of the 120 million rods and 6 million cones on the retina) and transfer these signals through an optic nerve which has about one million fibers directly into the brain?

Most of us see the world in living color and with depth perception. The body itself does much to protect the eyes. Bony eye sockets in the skull protect the eye from many mechanical injuries. Orbital fluids and tissues cushion direct blows. Eyelids close reflexly from visual or mechanical stimuli. Eyes reflexly rotate upward with the lid closing to protect the cornea. Tears can flush away chemicals and foreign bodies. We all come with these safeguards. Sometimes, they are not enough.

Eye protection is required when there is a possibility of eye injury. Eye injury is not confined to flying objects. Eye injury can be caused by bright light, dust, chemicals, heat, and, literally, anything that can reach them. Different hazards require different types of protection.

Eye (and face) protection is required when one is exposed to flying particles, chemicals, or injurious light radiation. Types of eye protection include: impact resistant safety glasses; safety glasses with side shields; goggles; goggles with a face seal; face masks; and shaded goggles with varying degrees of darkness.

Affected employees who wear prescription lenses will wear eye protection over the prescription lenses without disturbing the proper positioning of the prescription lenses, or will wear eye protection that incorporates their prescription into the design.

All prescription glasses should be made with impact-resistant lenses. Hardened lenses, through a tempering process, are extremely hard and resistant to impact and breakage. Safety lenses are similar to hardened lenses but are 1 mm thicker. Safety lenses are used in goggles where there is a danger of flying glass or chips of metal.

All employees who wear contact lenses must also wear appropriate eye and face protection in hazardous environments.
Welding helmets and faceshields, if required, should be worn over primary eye protection (spectacles or goggles).

An inexpensive pair of safety glasses can save your priceless eyesight.

HEAD PROTECTION

Talking about head protection is really talking about brain protection. Your brain, either through divine providence, evolution, or quirk of nature, is you. The brain, that soft mass of gray and white convoluted matter, is what you are all about. Destroy your brain and you no longer exist.

Your brain is naturally protected by a cranium. Your skull actually has many bones which protect your brain and support your face. Obviously, there are other parts to your head which need protecting such as your eyes, ears, nose, tongue, skin, etc., but your brain is the most important.

Head protection is required when there is a possibility of injury to the head from falling objects and when working near exposed electrical conductors which could contact the head.

Brain injury is the second most common cause of major neurologic deficits and causes more deaths than injury to any other organ.

When the skull receives an impact, it actually can indent and deform. A fracture may occur and the fracture may be distant from the point of impact.

A direct blow to the head can cause the brain to actually move within the skull. Surprisingly, there is often a reverse correlation between skull damage and brain damage. Just because there is no external visible injury to the skull does not preclude the possibility of brain injury.

Wearing head protection (a hard hat) accomplishes two major objectives: it reduces the rate of energy transfer and spreads out the area of energy transfer. Just as your head should be checked out at a hospital after a head impact, so should your hard hat. A hard hat can absorb energy by destructing and this destruction may be unnoticeable.

A head injury may occur after a blow to the head and the following symptoms may be present: unconsciousness or disorientation, confusion, nausea, vomiting, and/or double vision. Get medical help immediately. Cover open wounds lightly with sterile dressing. Keep victim still, warm, and reassured. DO NOT move the victim unless he/she would be in greater danger if you did not. DO NOT apply pressure to a head wound. DO NOT try to stop blood or clear fluid coming from ears, nose, or mouth.

HEARING PROTECTION

Wherever it is not feasible to reduce the noise levels or duration of exposures to those specified in Table D-2, below, ear protective devices shall be provided and used.

Ear protective devices inserted in the ear shall be fitted or determined individually by competent persons.

Plain cotton is not an acceptable protective device.

TABLE D-2 - PERMISSIBLE NOISE EXPOSURES

Sound level Duration per day, hours	dBA slow response
8	90
6	92
4	95
3	97
2	100
1 1/2	102
1	105
1/2	110
1/4 or less	115

Hearing damage is caused by noise level and duration of exposure to the noise. If, after using the formula below, the equivalent noise exposure exceeds unity (1), then a Hearing Conservation Program will be initiated.

F(e)=(T(1)divided by L(1))+(T(2)divided by L(2))+ ... + (T(n) divided by L(n)) where:

F(e) = The equivalent noise exposure factor.
T = The period of noise exposure at any essentially constant level.
L = The duration of the permissible noise exposure at the constant level (from Table D-2).

If the value of F(e) exceeds unity (1) the exposure exceeds permissible levels.

A sample computation showing an application of the formula in paragraph (d)(2)(ii) of this section is as follows. An employee is exposed at these levels for these periods:

110 db A 1/4 hour.
100 db A 1/2 hour.
90 db A 1 1/2 hours.

F(e) = (1/4 divided by 1/2)+(1/2 divided by 2)+(1 1/2 divided by 8)
F(e) = 0.500+0.25+0.188
F(e) = 0.938

Since the value of F(e) does not exceed unity, the exposure is within permissible limits.

Understanding some interesting facts about your hearing will emphasize the need for hearing protection.

Your outer ears on the side of your head are the least important part of your hearing system. Should you lose your ear, you would not necessarily lose your hearing. Your outer ear, made of cartilage, includes the external auditory canal which leads to the eardrum which is only 2/5" in diameter. The eardrum separates the outer ear from the middle ear. Within the middle ear are three (3) bones commonly called the hammer, anvil, and stirrup. The stirrup (stapes) is the smallest bone in your body -- thinner than a grain of rice. Also in the middle ear is the Eustachian tube which connects the middle ear to the back of the throat to maintain equal air pressure on both sides of the ear drum.

The inner ear, where sound waves are converted to electrical impulses, actually has a function unrelated to hearing. It contains the semicircular canals which completely control your balance. Also in the inner ear is the cochlea, a small spiral coil in which you would find the basilar membrane which has over 15,000 hair cells. These hair cells are the end of the auditory nerve which goes directly to the temporal lobe of the brain.

The hardest bone in your whole body is the temporal bone which protects two thirds of the auditory canal and all of the middle and inner ear. Nature, itself, seems to have placed a high priority on your hearing.

Protect your hearing. If you are issued hearing protection, use it!

FOOT PROTECTION

When purchasing new protective footwear, ensure that it complies with ANSI Z41-1991, “American National Standard for Personal Protection-Protective Footwear”.

Specific hazards require specific types of protective footwear. Certain types of footwear can offer traction, crush protection, penetration protection, electrical protection, chemical resistance, heat and/or fire resistance, dryness, cushion, or ankle-protection. Further, certain activities may require a combination of these features.

Your foot is a remarkable piece of engineering which is composed of 26 bones, muscles, fatty tissue, nerves, tendons, skin and joints. The foot itself can absorb a tremendous amount of punishment without damage. But there are limits and it would be a shame to lose a foot, or part of a foot, because of failure to wear the prescribed protective footwear.

HAND PROTECTION

Your hand is composed of 20 muscles, 3 major nerves, 27 bones (14 of which are in your fingers) plus skin, fatty tissue, tendons, and joints. There are 15 muscles in your forearm which provide power to your hand. Your hand is your gateway to the world. It lets you do what you think. Its function is feeling and grasping.

Try to pick up something while holding your thumb still. It is very difficult. If the nerve to the small muscles of the thumb is severed, 80% of the total hand function is lost.

There are numerous types of hand protection (gloves) available -- each with a specific purpose. The most common are general purpose cotton work gloves which provide protection from minor skin abrasions and cold. However, there are many other types of gloves. Hands need protection from chemicals, abrasions, cuts and lacerations, temperature extremes, germs, radiation, impact, punctures, electricity, and other hazards in the workplace. Specific job requirements determine the type of hand protection needed. Proper hand protection must do more than protect your hand; it must allow you to accomplish your job assignment with efficiency as well as safety.

Wearing hand protection could prevent your hand and/or fingers from being severed, burned, crushed, punctured, lacerated, cut, or generally abused.

MISCELLANEOUS PERSONAL PROTECTION

PPE immediately brings to mind eye, head, hand, and foot protective equipment. However, there may be other types of protective equipment which are readily available and which have the capability of protecting employees from identified hazards in the workplace. Some of these items may not fall under a specific OSHA standard or may not be ANSI approved or disapproved, however, in the judgment of our PPE Program Administrator, they may be appropriate for use in our operations.

RESPIRATORY PROTECTION

Employees who, by nature of their work, are exposed to harmful aerosols, vapors, gases, contaminated air, or non-breathable air will be provided air purifying or air supplying respirators after training, medical evaluation, and fit testing per our Respiratory Protection Program. The one exception is dust masks worn solely for comfort and not for respiratory protection.

SUMMARY

The true beneficiary of PPE utilization is the user. The whole thrust of this Program is to protect our employees from injury. This is accomplished by, among other things, explaining the process of hazard assessment; the reasons for PPE use; and the necessity of using the PPE selected.

What possible justification could there be for maiming, losing, or even slightly injuring a body part because available (and required) PPE was not used? “I forgot”; “I was in a hurry”; “I misplaced my PPE”; “I felt silly wearing PPE”; or “I really didn’t believe PPE was necessary” will not undo what could be a lifetime of regret.

ServiceBoss International, Inc.
Environmental, Health & Safety Program

CERTIFICATE OF WORKPLACE HAZARD ASSESSMENT

I certify, this date, that I have performed a hazard assessment of our job sites and our methods of operations.

This hazard assessment was accomplished to determine if hazards are present, or are likely to be present, which necessitate the use of personal protective equipment (PPE).

Identified hazards which cannot be eliminated through engineering controls or changes in procedures will be addressed by the use of selected PPE.

All affected employees will be informed of the required PPE for specific work locations or specific types of work to be performed and will receive initial training or retraining, if necessary, before being allowed to perform work requiring PPE.

If conditions or procedures change, a reassessment will be made.

_____ _____

(Date)

Personal Protective Equipment
Program Administrator

ServiceBoss International, Inc.

SCAFFOLD & LADDER

ServiceBoss International, Inc.

Safety Program

SECTION III

SCAFFOLD & LADDER

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Ladder Standards:

29 CFR 1926.1051 ***General Requirements*** **(Ladders)**
29 CFR 1926.1053 ***Ladders***
29 CFR 1926.1060 ***Training Requirements*** **(Ladders)**

OVERVIEW

Scaffolds and ladders are everyday items on most construction sites and their use presents specific hazards -- the most common being electrical shock, falls and falling objects. This program addresses these hazards and provides safety rules for the use of this type of equipment.

Affected individuals must be aware of the specific hazards applicable to their work situation and the proper safety procedures for avoiding these hazards.

All scaffold and ladder applications require a knowledge of: equipment inspection, load capacities, ground conditions, effects of weather, fall protection, potential electrical hazards, and protection from falling objects. It is expected that all personnel understand how to perform work in a safe manner while on a scaffold or ladder, recognize unsafe work situations, and effectively deal with them. If you are aware of a ladder or scaffold hazard (or any safety hazard), immediately bring it to the attention of your immediate Supervisor or the competent person on the job site.

SCAFFOLD SAFETY

A scaffold, by definition, is any temporary elevated platform and its supporting structure used for supporting employees or materials or both. Because of the numerous types of scaffolds, the infinite possible combinations of uses, the various surface features on which the scaffold may rest, and the varying conditions in which scaffolds may be used, it would be impossible to detail what to do in every situation. The goal of any safety program - including scaffold safety - is to eliminate the possibility of harm to employees while they are performing their duties.

Only safety harnesses, not belts, will be used in fall protection.

Leading causes for scaffold accidents and injuries are plank slippage, being struck by falling objects, and the actual collapse of the support structure or plankage.

DEFINITIONS

There are a number of terms and phrases which must be understood by all employees when dealing with scaffolds. Below are listed important definitions to aid in the understanding of this Program, however they are not all-inclusive. A complete list of definitions, including the many types of scaffolds and their individual components is found in 29 CFR 1926.450.

BODY HARNESS: a design of straps which may be secured about the employee in a manner to distribute the fall arrest forces over at least the thighs, pelvis, waist, chest, and shoulders with means for attaching it to other components of a personal fall arrest system.

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

EXPOSED POWER LINES: electrical power lines which are accessible to employees and which are not shielded from contact. Such lines do not include extension cords or power tool cords.

FAILURE: load refusal, breakage, or separation of component parts. Load refusal is the point where the ultimate strength is exceeded.

GUARDRAIL SYSTEM: a vertical barrier consisting of, but not limited to, toprails, midrails, and posts erected to prevent employees from falling off a scaffold platform or walkway to lower levels.

LANDING: a platform at the end of a flight of stairs.

LIFELINE: a component consisting of a flexible line that connects to an anchorage at one end to hang vertically (vertical lifeline), or that connects to anchorages at both ends to stretch horizontally (horizontal lifeline), and which serves as a means for connecting other components of a personal fall arrest system to the anchorage.

LOWER LEVELS: areas below the level where the employee is located and to which an employee can fall. Such areas include, but are not limited to, ground levels, floors, roofs, ramps, runways, excavations, pits, tanks, materials, water, and equipment.

MAXIMUM INTENDED LOAD: the total load of all persons, equipment, tools, materials, transmitted loads, and other loads reasonably anticipated to be applied to a scaffold or scaffold component at any one time.

OPEN SIDES AND ENDS: the edges of a platform that are more than 14 inches away horizontally from a sturdy, continuous, vertical surface (such as a building wall) or a sturdy, continuous, horizontal surface (such as a floor), or a point of access. Exception: For plastering and lathing operations, the horizontal threshold distance is 18 inches.

PERSONAL FALL ARREST SYSTEM: a system used to arrest an employee's fall. It consists of an anchorage, connectors, a body harness and may include a lanyard, deceleration device, lifeline, or combinations of these.

PLATFORM: a work surface elevated above lower levels. Platforms can be constructed using individual wood planks, fabricated planks, fabricated decks, and fabricated platforms.

QUALIFIED PERSON: one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his/her ability to solve or resolve problems related to the subject matter, the work, or the project.

RATED LOAD: the manufacturer's specified maximum load to be lifted by a hoist or to be applied to a scaffold or scaffold equipment.

SCAFFOLD: any temporary elevated platform (supported or suspended) and its supporting structure (including points of anchorage) used for supporting employees or materials or both.

UNSTABLE OBJECTS: items whose strength, configuration, or lack of stability may allow them to become dislocated and shift and therefore may not properly support the loads imposed on them. Unstable objects do not constitute a safe base support for scaffolds, platforms, or employees. Examples include, but are not limited to, barrels, boxes, loose brick, and concrete blocks.

GUIDELINES FOR SCAFFOLD USE

ALL SCAFFOLDS:

Employees who work on any type of scaffold must follow the below listed guidelines:

a. scaffolds and scaffold components shall not be loaded in excess of their maximum intended loads or rated capacities, whichever is less.

b. scaffolds and scaffold components will be inspected for visible defects by a competent person before each work shift and after any occurrence which could affect a scaffold's structural integrity.

c. damaged or weakened parts will be immediately replaced.

d. scaffolds shall be erected, moved, dismantled or altered only under the supervision and direction of a competent person qualified in scaffold erection, moving, dismantling or alteration. Such activities shall be performed only by experienced and trained employees selected for such work by the competent person.

e. work on or from scaffolds is prohibited during storms or high winds unless a competent person has determined that it is safe for employees to be on the scaffold and these employees are protected by a personal fall arrest system or wind screens.

f. personnel may not work on scaffolds covered with snow, ice or other slippery material except to remove the material with extreme care.

g. where swinging loads are being hoisted onto or near scaffolds such that the loads might contact the scaffold, tag lines or equivalent measures to control the loads shall be used.

h. debris shall not be allowed to accumulate on platforms.

i. make-shift devices on top of scaffold platforms shall not be used to increase the working level height of employees.

j. guardrails should have smooth surfaces to prevent puncture, laceration, or snagging injuries.

k. make-shift parts will not be used. A nail is not a substitute for a pin.

SUPPORTED SCAFFOLDS:

Employees who work on supported scaffolds must follow the below listed rules and guidelines. These guidelines cover most, but not all situations. The competent person will address unusual situations.

a. Each platform unit on all working levels of a scaffold shall be fully planked or decked between the front uprights and the guardrail supports and each platform unit shall be installed so that the space between adjacent units and the space between the platform and the uprights is no more than 1 inch wide (where feasible.)

b. Supported scaffolds must have a height to base (including outrigger supports, if used) width ratio of no more than 4:1 unless restrained from tipping by guying, tying, bracing, or equivalent means. The competent person will direct the procedures for prevention of tipping.

c. Supported scaffold poles, legs, posts, frames and uprights must rest on **base plates AND** mud sills or other adequate firm foundation.

Note: Base plates must always be used on supported scaffolds

1. Footings must be level, sound, rigid, and capable of supporting the loaded scaffold without settling or displacement.
2. Unstable objects can not be used to support scaffolds or platform units.
3. Unstable objects shall not be used as working platforms.
4. Front-end loaders and similar pieces of equipment shall not be used to support scaffold platforms unless they have been specifically designed by the manufacturer for such use.
5. Fork-lifts shall not be used to support scaffold platforms unless the entire platform is attached to the fork and the fork-lift is not moved horizontally while the platform is occupied.

d. Supported scaffold poles, legs, posts, frames and uprights shall be plumb and braced to prevent swaying and displacement.

e. Scaffolds shall not be moved horizontally while employees are on them unless they have been designed by a registered professional engineer specifically for such movement or, in the case of mobile scaffolds:

   1. the surface on which the scaffold is being moved is within 3 degrees of level and free of pits, holes, and obstructions.

   2. the height to base width ratio of the scaffold during movement is two to one or less.

   3. outrigger frames, when used, are installed on both sides of the scaffold.

   4. when power systems are used, the propelling force is applied directly to the wheels and does not produce a speed in excess of 1 foot per second.

   5. no employee is on any part of the scaffold which extends outward beyond the wheels, casters, or other supports.

   6. before the scaffold is moved, each employee on the scaffold must be made aware of the move.

SUSPENDED SCAFFOLDS:

Employees who work on suspended scaffolds must follow the below listed rules and guidelines. These guidelines cover most, but not all situations. The competent person will address unusual situations.

a. All suspension scaffold devices shall rest on surfaces capable of supporting at least 4 times the load imposed on them by the scaffold operating at the rated load of the hoist (or at least 1.5 times the load imposed on them by the scaffold at the stall capacity of the hoist, whichever is greater).

b. Direct connections on suspension scaffolds must be evaluated before use by a competent person who shall confirm that the supporting surfaces are capable of supporting the loads to be imposed.

c. Counterweights shall be made of non-flowable material. Sand, gravel and similar materials that can be easily dislocated may not be used as counterweights.

    1. Only items specifically designed as counterweights shall be used as counterweights. Construction material shall not be used as counterweights.

    2. Counterweights shall not be removed from an outrigger beam until the scaffold is disassembled.

d. The use of repaired wire rope as suspension rope is prohibited.

e. Wire ropes shall not be joined together except through the use of eye splice thimbles and secured by eye splicing or equivalent means.

f. Wire ropes shall be inspected for defects by a competent person prior to each work shift and after every occurrence which could affect a wire rope's integrity. Wire ropes will be **replaced** if any of the following conditions exist:

    1. any physical damage which impairs the function and strength of the rope.

    2. kinks that might impair the tracking or wrapping of rope around the drum(s) or sheave(s).

    3. six randomly distributed broken wires in one rope lay or three broken wires in one strand in one rope lay.

    4. abrasion, corrosion, scrubbing, flattening or peeling causing loss of more than one third of the original diameter of the outside wires.

    5. heat damage caused by a torch or any damage caused by contact with electrical wire.

    6. evidence that the secondary brake has been activated during an overspeed condition and has engaged the suspension rope.

g. Gasoline-powered equipment and hoists shall not be used on suspension scaffolds.

h. Gears and brakes of power-operated hoists used on suspension scaffolds shall be enclosed.

i. Manually operated hoists shall require a positive crank force to descend.

GUIDELINES FOR THE CONTROL OF ELECTRICAL HAZARDS

To prevent the possibility of electrical shock, neither the scaffold nor any conductive material handled on the scaffold shall come closer to exposed and energized power lines as noted below:

INSULATED POWER LINES

Voltage	Minimum Distance	Alternatives
Less than 300 volts	3 feet	
300 volts to 50 kv	10 feet	
More than 50 kv	10 feet plus 0.4" for each 1 kv over 50 kv	2 X's the length of the line insulator, but never less than 10 feet

UNINSULATED POWER LINES

Voltage	Minimum Distance	Alternatives
Less than 50 kv	10 feet	
More than 50 kv	10 feet plus 0.4" for each 1 kv over 50 kv	2 X's the length of the line insulator, but never less than 10 feet

Scaffolds may be closer to power lines if it is necessary to accomplish the work, but only after the utility company or electrical system operator has been notified of the need to work closer, and the utility company or electrical system operator has deenergized or relocated the lines or installed protective coverings to prevent accidental contact with the lines.

When using 110 volt electrical power tools or lights, ground fault circuit breakers must be used. Electrical extension cords must be inspected for cuts or cracks in the insulation before use.

GUIDELINES FOR THE CONTROL OF FALL HAZARDS

Each employee working on a scaffold more than 10 feet above a lower level must be protected from falling to that lower level as noted below:

SCAFFOLD TYPE	FALL PROTECTION REQUIREMENTS
Boatswains' Chair Catenary Scaffold Float Scaffold Needle Beam Scaffold Ladder Jack Scaffold	Personal Fall Arrest System

SCAFFOLD TYPE	FALL PROTECTION REQUIREMENTS
Single-Point Adjustable Suspension Scaffold Two-Point Adjustable Suspension Scaffold	Personal Fall Arrest System and a Guardrail System
Crawling Board (Chicken Ladder)	Personal Fall Arrest System; *Guardrail System or a ¾" diameter grabline or equivalent handhold securely fastened beside each crawling board.
Self-Contained Adjustable Scaffold	*Guardrail System when the platform is supported by the frame structure; by both a Personal Fall Arrest System and a *Guardrail System when the platform is supported by ropes.
Walkway Located within a Scaffold	*Guardrail System installed within 9½" of and along at least one side of the Walkway.
Supported Scaffolds used while performing Overhand Bricklaying	Personal Fall Arrest System or a *Guardrail System (except at the side next to the wall being laid.)
All Other Scaffolds not specified above	Personal Fall Arrest System or a *Guardrail System

*Guardrail Systems must have a minimum 200 pound toprail capacity.

SPECIAL PRECAUTIONS FOR THE PREVENTION OF FALLING

PLANKING REQUIREMENTS:

Plank slippage causes falls and falls cause injuries. Below are requirements for platforms and/or planks used on scaffolds and walkways:

a. each platform unit (e.g., scaffold plank, fabricated plank, fabricated deck, or fabricated platform) shall be installed so that the space between adjacent units and the space between the platform and the uprights is no more than 1 inch wide.

   1. Exceptions to the above:

      when a wider space is necessary (for example, to fit around uprights when side brackets are used to extend the width of the platform). In this instance, the platform must be planked or decked as fully as possible and the remaining open space between the platform and the uprights shall not exceed 9½", or

when planking or decking is used solely for walkways or solely for use by personnel erecting or dismantling the scaffold. In these instances, only the planking the competent person establishes as necessary to provide safe working conditions is required.

b. Each scaffold platform and walkway shall be at least 18 inches wide.

   1. Exceptions to the above:

      each ladder jack scaffold, top plate bracket scaffold, roof bracket scaffold, and pump jack scaffold shall be at least 12 inches wide.

      there is no minimum width for boatswain's chairs.

      where working areas are so narrow that platforms and walkways cannot be at least 18 inches wide, the platforms and walkways shall be as wide as feasible. In these instances, personnel shall be protected from fall hazards by the use of guardrails and/or personal fall arrest systems regardless of the height.

c. The front edge of all platforms shall not be more than 14 inches from the face of the work unless guardrail systems are erected along the front edge and/or fall arrest systems are used.

   1. Exceptions to the above:

      for outrigger scaffolds, the maximum distance from the face of the work shall be 3 inches.

      for plastering and latching operations, the maximum distance from the face of the work shall be 18 inches.

d. Each end of a platform, unless cleated or otherwise restrained by hooks or equivalent means, shall extend over the centerline of its support by at least 6 inches and not more than:

   1. twelve (12) inches for a platform 10 feet or less in length unless the platform is designed and installed so that the cantilevered* portion of the platform is able to support personnel and/or material without tipping, or has guardrails which block access to the cantilevered end.
   2. eighteen (18) inches for a platform greater than 10 feet in length unless it is designed and installed so that the cantilevered* portion of the platform is able to support personnel without tipping or has guardrails which block access to the cantilevered end.

*NOTE: Cantilevered portion of the platform is the portion of the platform which extends beyond the support by 12 or 18 inches.

e. On scaffolds where scaffold planks are abutted to create a long platform, each abutted end shall rest on a separate support surface. The use of common support members such as “T” sections to support abutting planks or hook on platforms designed to rest on common support is acceptable.

f. Where platforms are overlapped to create a long platform, the overlap shall occur only over supports and shall not be less than 12 inches unless the platforms are nailed together or otherwise restrained to prevent movement.

g. At points of a scaffold where the platform changes direction, such as turning a corner, any platform that rests on a bearer at an angle other than a right angle shall be laid first; platforms which rest at right angles over the same bearer shall be laid second on top of the first platform.

h. With the exception that the edges may be marked for identification, wood platforms shall not be covered with opaque finishes. Platforms may be coated with wood preservatives, fire-retardant finishes, and slip-resistant finishes as long as the coatings allow the actual wood to be seen. This is so the wood platforms may be inspected for damage and/or deterioration.

i. Scaffold components manufactured by different manufacturers can not be intermixed unless the components fit together without force and the scaffold’s structural integrity, as determined by a competent person, is maintained.

j. Scaffold components made of dissimilar metals shall not be used together unless a competent person has determined that galvanic action will not reduce the strength of any component below acceptable levels.

FALL PROTECTION DURING ERECTION & DISMANTLING OF SUPPORTED SCAFFOLDS

Supported Scaffolds: The competent person must determine the feasibility and safety of providing fall protection for employees erecting and dismantling supported scaffolds.

Suspended Scaffolds: Fall protection for those erecting and dismantling suspended scaffolds is possible because the anchorage points used for supporting the scaffold would certainly support a fall protection system. Therefore, fall protection will be utilized for personnel erecting or dismantling supported scaffolds.

GUIDELINES FOR THE CONTROL OF FALLING OBJECTS

All personnel working on a scaffold must wear hard hats. Further protection from falling objects will be provided, if needed, by toeboards*, screens, or guardrail systems; or through the erection of debris nets, catch platforms, or canopy** structures that contain or deflect the falling objects.

Objects that are too heavy or massive to be prevented from falling by the above measures will be kept away from the edge of the scaffold and secured as necessary to prevent their falling.

Where there is a possibility of falling objects (tools, materials, or equipment), the below safeguards must be implemented:

a. the area below the scaffold to which objects can fall shall be barri--caded and employees shall not be permitted to enter the hazard area, **or**

b. a toeboard will be erected along the edge of platforms more than 10 feet above lower levels for a distance sufficient to protect employees below.

When tools, material, or equipment are piled to a height higher than the top edge of the toeboard, the below listed safeguards must be implemented:

a. paneling or screening extending from the toeboard or platform to the top of the guardrail shall be erected for a distance sufficient to protect employees below, **or**

b. a guardrail system shall be installed with openings small enough to prevent passage of potential falling objects, **or**

c. a canopy structure, debris net or catch platform strong enough to prevent passage of potential falling objects shall be erected over the employees below.

*NOTE: Toeboards must be capable of withstanding, without failure, a force of at least 50 pounds applied in any downward or horizontal direction and be at least 3½" high from the top edge of the walking/working surface. Further, toeboards must be secured to the outermost edge of the platform and not have more than ¼" clearance above the walking/working surface. Toeboards must either be solid or have openings not over 1" in the greatest dimension.

**NOTE: Canopies used for falling object protection must be installed between the falling object hazard and the employees below.

ACCESS

Two feet -- 24 inches -- is the height at which some sort of access is required to reach a scaffold platform. When a scaffold platform is two (2) feet above or below the point of access (often the ground level), portable ladders, hook-on ladders, ramps, walkways, ladder stands, etc. must be used. Never use a crossbrace as a means of getting on or off a scaffold.

Hook-on and attachable ladders must:

a. be positioned so they do not tip the scaffold.

b. have the bottom rung within 24 inches of the supporting level.

c. have rest platforms at least at 35-foot vertical intervals when used on supported scaffolds.

d. be designed for use with the scaffold being used.

e. have a minimum spacing between rungs of 16 ¾ inches and a minimum rung length of 11 ½ inches.

Stairway type ladders have essentially the same requirements except that:

a. the rest platforms must be at the 12 foot (maximum) vertical level.

b. the minimum step width is 16 inches (mobile scaffold stairway-type ladders: 11 ½ inches).

c. slip-resistant treads are required on all steps and landings.

Stairtowers, if used, must have the bottom step within 24 inches of the supporting level and have

a. a toprail and midrail (stairrail) on each side.

b. a landing platform at least 18 inches by 18 inches at each level.

c. a width of 18 inches between stairrails.

d. resistant surfaces on treads and landings.

Employees must be able to safely get on and off a scaffold platform and, at 24 inches, you will need a specific method of access.

GENERAL VERSUS SPECIFIC SCAFFOLD SAFETY GUIDELINES

General safety guidelines apply to all situations. In all situations, employees must be aware of:

a. potential electrical hazards, fall hazards, and falling object hazards and how to eliminate them.

b. the proper use of scaffolds and the proper handling methods of materials on the scaffold being used.

c. the maximum intended load and the load-carrying capacities of the scaffold being used and never exceeding these limits.

Within the broad categories of suspended and supported scaffolds, there are many specific types of scaffolds -- each with its own limitations and special characteristics. Each job site has its own unique ground composition on which a supported scaffold is erected, or unique attachment points for suspended scaffolds. The competent person on the job site will instruct affected employees on any unusual or unique items that must be known about a specific circumstance.

LADDERS

Ladder safety is no less important than scaffold safety. How easy it is to overlook ladder safety. After all, who hasn't used a ladder? All employees using ladders are required by OSHA standard to receive training and understand proper procedures for ladder use before using a ladder in a work situation. For employees who have been using ladders safely for years, consider this a refresher course.

American National Standards Institute (ANSI) and NIOSH approval labels should never be covered with paint or tape. Having ladders that are constructed to standard will prevent collapse and resultant falls.

Specific operational procedures for ladders directly relating to the elimination of fall hazards are listed below:

a. a stairway or a ladder will be provided at all personnel points of access where there is a break in elevation of 19 inches or more.

b. ladders will never be overloaded.

c. ladder rungs, cleats, and steps must be parallel, level, and uniformly spaced when a ladder is in position for use.

d. ladders will not be tied or fastened together unless they are so designed.

e. portable ladders used for gaining access to an upper level will extend at least 3 feet above the upper landing surface or the ladder will be secured at its top.

f. ladders must be free of oil, grease, or other slipping hazards.

g. ladders must be used for the purpose for which they were designed.

h. non-self supporting ladders will be used at an angle that the horizontal distance from the top support to the foot of the ladder is approximately ¼ of the working length of the ladder.

i. ladders will only be used on stable and level surfaces unless secured to prevent displacement.

j. ladders shall not be used on slippery surfaces unless secured or provided with slip-resistant feet to prevent accidental displacement.

k. ladders placed in any location where they can be displaced by workplace activities or traffic will be secured to prevent accidental displacement, or a barricade will be used to keep the activities or traffic away from the ladder.

l. the area around the top and bottom of the ladder shall be kept clear.

m. ladders shall not be moved, shifted, or extended while occupied.

n. the top step of a stepladder shall not be used as a step.

o. portable ladders with structural defects will be immediately marked in a manner that readily identifies them as defective and removed from service until repaired.

p. when ascending or descending a ladder, one must face the ladder.

q. employees must use at least one hand to grasp the ladder when progressing up and/or down the ladder.

r. employees are not to carry any object or load that could cause loss of balance and a resultant fall.

Fixed ladders where the length of climb is less than 24 feet but the top of the ladder is greater than 24 feet above the lower level must have cages, wells, ladder safety devices, or self-retracting lifelines.

Fixed ladders where the length of climb equals or exceeds 24 feet shall have at least one of the following:

a. ladder safety devices;

b. self-retracting lifelines and rest platforms not exceeding 150 feet;

c. a cage or well, and multiple ladder sections not exceeding 50 feet in length. At the maximum interval of 50 feet, ladder sections will be offset on landing platforms.

TRAINING

Interactive training will be given to all employees who will be performing work on scaffolds by a competent person; it will focus on the hazards associated with the type(s) of scaffolding used on our job site, as well as the methods to minimize or eliminate those hazards.

For those employees who will be erecting, disassembling, moving, operating, repairing, inspecting, or maintaining our scaffolds, the competent person will provide additional training applicable to their job requirements.

Retraining will be provided should new types of scaffolding be introduced, standards change, or on-the-job performance indicate that a particular employee has not retained the required proficiency in scaffold safety.

Training will be given, as necessary, to all employees who will be performing work using ladders by a competent person. Issues addressed will include:

a. the nature of fall hazards in the work area.

b. the correct procedures for erecting, maintaining, and disassembling the fall protection systems to be used.

c. the proper construction, placement, care and handling of all ladders.

d. the maximum intended load-carrying capacities of ladders used.

e. the availability of the ladder standards which are contained within this program.

Retraining will be provided, as necessary. Observation of failure to follow established ladder safety procedures would be a cause for retraining.

ServiceBoss International, Inc.

APPENDIX A

TRAINING DOCUMENTATION

ServiceBoss International, Inc.

APPENDIX A
Training Documentation

INDEX

ServiceBoss International, Inc.

POLICY STATEMENT

New Hire Safety Orientation

The safety director, or a designated competent person, will ensure that all new hires are aware of the accessibility of our safety program and, through interactive discussion or practical demonstration, be assured that the new hire understands the safety policies and procedures that pertain to the actual work the new hire will perform.

Further, each new hire will read (or have explained) the contents of our employee handbook and sign the Employee Acknowledgement form which states:

> I have read and understand the contents of this Employee Handbook.
>
> I will, to the best of my ability, work in a safe manner and follow established work rules and procedures.
>
> I will ask for clarification of safety procedures of which I am not sure **prior** to performing a task.
>
> I will report to the job site supervisor or competent person any unsafe acts or procedures and will ensure they are addressed and resolved before continuing work.
>
> I understand that the complete safety program is located at:
>
> RR 1 Box 232 Route 407
> Dalton, PA 18414
>
> and is available for my review.

It will be explained to all new hires that safety training and safety performance is an on-going process. Depending on circumstances, training will take the form of some or all of the following: safety meetings, on-the-job instruction, formal and informal training.

Lastly, all new hires will be informed of the importance of our inspection and enforcement policies and procedures.

_____

Safety Director

Certificate of Training

With Training Synopsis

ServiceBoss International, Inc.

CERTIFICATE OF **TRAINING**

I certify the below listed person(s) have received interactive training by a competent person in the subject matter initialed below. All appropriate standards are available to our personnel. The prime training directive is found in 29 CFR 1926.21, Title: *Safety training and education*, paragraph (b)(2): "The employer shall instruct each employee in the recognition and avoidance of unsafe conditions and the regulations applicable to his work environment to control or eliminate any hazards or other exposure to illness or injury." Training, at a minimum, includes all items required by appropriate standard.

Initials of Trainer	Date	Subject
		All subjects contained in our Safety Program.
		Control of Hazardous Energy - Lockout/Tagout *Signature of Trainer: _____
		Exposure Control for Bloodborne Pathogens and Other Infectious Materials *Signature of Trainer: _____
		Fall Protection - *Signature of Trainer: _____
		Hazard Communication *Signature of Trainer: _____
		Permit-Required Confined Space Entry *Signature of Trainer: _____
		Personal Protective Equipment - General
		Personal Protective Equipment – Hearing *Signature of Trainer: _____
		Personal Protective Equipment - Respiratory *Signature of Trainer: _____
		Forklifts Trainer: _____ Evaluation Date: _____
		Scaffolds & Ladders
		Steel Erection Activities Qualified Trainer: _____
		Multiple Lift Procedures Qualified Trainer: _____
		Connector Procedures Qualified Trainer: _____
		Controlled Decking Zone Procedures Qualified Trainer: _____
		Other:

Note: The trainer for each subject listed above is both qualified and competent in the subject matter.

(Employee Name - Print)	(Employee Signature)

Safety Director

(Initials)

See following three pages for training synopsis.

TRAINING SYNOPSIS:

Control of Hazardous Energy - 29 CFR 1910.147

A complete understanding of the purpose and function of the energy control program and the knowledge and skills required for the safe application, usage, and removal of the energy controls. The training shall include the following:

a. Each authorized employee will receive training in the recognition of applicable hazardous energy sources, the type and magnitude of the energy available in the workplace, and the methods and means necessary for energy isolation and control.

b. Each affected employee will be instructed in the purpose and use of the energy control procedure.

c. All other employees whose work operations are or may be in an area where energy control procedures may be utilized, will be instructed about the procedure, and about the prohibition relating to attempts to restart or reenergize machines or equipment which are locked out or tagged out.

d. When tagout systems are used, employees will also be trained in the following limitations of tags: 1) tags are essentially warning devices affixed to energy isolating devices, and do not provide the physical restraint on those devices that is provided by a lock; 2) when a tag is attached to an energy isolating means, it is not to be removed without authorization of the authorized person responsible for it, and it is never to be bypassed, ignored, or otherwise defeated; 3) tags must be legible and understandable by all authorized employees, affected employees, and all other employees whose work operations are or may be in the area, in order to be effective; 4) tags and their means of attachment must be made of materials which will withstand the environmental conditions encountered in the workplace; 5) tags may evoke a false sense of security, and their meaning needs to be understood as part of the overall energy control program; and 6) tags must be securely attached to energy isolating devices so that they cannot be inadvertently or accidentally detached during use.

NOTE: Control of Hazardous Energy Training must be certified and kept up to date. The certification must include the employee's name and dates of training.

Exposure Control for Bloodborne Pathogens or Other Infectious Materials - 29 CFR 1910.1030

An accessible copy of the regulatory text and an explanation of its contents; a general explanation of the epidemiology and symptoms of bloodborne diseases; an explanation of the modes of transmission of bloodborne pathogens; an explanation of the employer's exposure control plan and the means by which the employee can obtain a copy of the written plan; an explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials; an explanation of the use and limitations of methods that will prevent or reduce exposure including appropriate engineering controls, work practices, and personal protective equipment; information on the types, proper use, location, removal, handling, decontamination and disposal of personal protective equipment; an explanation of the basis for selection of personal protective equipment; information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine and vaccination will be offered free of charge; information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials; an explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available; information on the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident; an explanation of the signs and labels and/or color coding requirements; and an opportunity for interactive questions and answers with the person conducting the training session.

NOTE: The person conducting the training shall be knowledgeable in the subject matter covered by the elements contained in the training program as it relates to the workplace that the training will address.

Fall Protection - 29 CFR 1926.503

Training must enable each employee to recognize the hazards of falling and explain the procedures to be followed in order to minimize these hazards. Specific training will include: 1) the nature of fall hazards in the work area; 2) the correct procedures for erecting, maintaining, disassembling, and inspecting the fall protection systems to be used; 3) the use and operation of guardrail systems, personal fall arrest systems, safety net systems, warning line systems, safety monitoring systems, controlled access zones, and other protection to be used; 4) the role of each employee in the safety monitoring system when this system is used; 5) the limitations on the use of mechanical equipment during the performance of roofing work on low-sloped roofs; 6) the correct procedures for the handling and storage of equipment and materials and the erection of overhead protection; and, 7) the role of employees in fall protection plans.

NOTE: The latest certification of training must be maintained and include the name of the employee trained, the date(s) of training, and the signature of the competent person who conducted the training or the signature of the employer.

Forklifts - 29 CFR 1910.178 (See Powered Industrial Trucks, below)

Hazard Communication - 29 CFR 1926.59

Employee training shall include at least: methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area (such as monitoring conducted by the employer, continuous monitoring devices, visual appearance or odor of hazardous chemicals when being released, etc.); the physical and health hazards of the chemicals in the work area; the measures employees can take to protect themselves from these hazards, including specific procedures the employer has implemented to protect employees from exposure to hazardous chemicals, such as appropriate work practices, emergency procedures, and personal protective equipment to be used; and, the details of the hazard communication program including an explanation of the labeling system and the material safety data sheet, and how employees can obtain and use the appropriate hazard information.

Permit-Required Confined Space Entry - 29 CFR 1910.146

Training will be provided so that all employees whose work is regulated by 29 CFR 1910.146 acquire the understanding, knowledge, and skills necessary for the safe performance of the duties assigned under this standard. Training will be given to each affected employee: a) before the employee is first assigned duties under this standard; and, b) whenever there is a change in permit space operations that presents a hazard about which an employee has not previously been trained. The training shall establish employee proficiency in the duties required by this standard and shall introduce new or revised procedures, as necessary, for compliance with 29 CFR 1910.146.

NOTE: Training must be certified and the certification must contain each employee's name, the signatures or initials of the trainers, and the dates of training. The certification shall be available for inspection by employees and their authorized representatives.

Personal Protective Equipment [General] - 29 CFR 1926.28 & 29 CFR 1910.132

Each such employee shall be trained to know at least the following: when PPE is necessary; what PPE is necessary; how to properly don, doff, adjust, and wear PPE; the limitations of the PPE; and, the proper care, maintenance, useful life and disposal of the PPE. Each affected employee shall demonstrate: 1) an understanding of the training specified above and, 2) the ability to use PPE properly, before being allowed to perform work requiring the use of PPE.

Personal Protective Equipment [Hearing] - 29 CFR 1926.52 & 29 CFR 1910.95

The effects of noise on hearing; the purpose of hearing protectors, the advantages, disadvantages, and attenuation of various types, and instructions on selection, fitting, use, and care; and the purpose of audiometric testing, and an explanation of the test procedures.

Personal Protective Equipment [Respiratory] - 29 CFR 1910.134

Training will ensure that each employee can demonstrate knowledge of at least the following: a) why the respirator is necessary and how improper fit, usage, or maintenance can compromise the protective effect of the respirator; b) what the limitations and capabilities of the respirator are; c) how to use the respirator effectively in emergency situations, including situations in which the respirator malfunctions; d) how to inspect, put on and remove, use, and check the seals of the respirator; e) what the procedures are for maintenance and storage of the respirator; f) how to recognize medical signs and symptoms that may limit or prevent the effective use of respirators; and, g) the general requirements of 29 CFR 1910.134 including Appendix D.

Powered Industrial Trucks - 29 CFR 1910.178

If the employee was hired:	The initial training and evaluation of that employee must be completed:
Before December 1, 1999	By December 1, 1999.
After December 1, 1999	Before the employee is assigned to operate a forklift.

Allowed exception to required training: If an operator has previously received training in a topic specified below, and such training is appropriate to the truck and working conditions encountered, additional training in that topic is not required if the operator has been evaluated and found competent to operate the truck safely.

Forklift operators shall receive initial training in the following topics if applicable to our circumstances: a) operating instructions, warnings, and precautions for the types of truck the operator will be authorized to operate; b) differences between the truck and the automobile; c) truck controls and instrumentation: where they are located, what they do, and how they work; d) engine or motor operation; e) steering and maneuvering; f) visibility (including restrictions due to loading); g) fork and attachment adaptation, operation, and use limitations; h) vehicle capacity; i) vehicle stability; j) any vehicle inspection and maintenance that the operator will be required to perform; k) refueling and/or charging and recharging of batteries; l) operating limitations; m) any other operating instructions, warnings, or precautions listed in the operator's manual for the types of vehicle that the employee is being trained to operate; n) surface conditions where the vehicle will be operated; o) composition of loads to be carried and load stability; p) load manipulation, stacking, and unstacking; q) pedestrian traffic in areas where the vehicle will be operated; r) narrow aisles and other restricted places where the vehicle will be operated; s) hazardous (classified) locations where the vehicle will be

operated; t) ramps and other sloped surfaces that could affect the vehicle's stability; u) closed environments and other areas where insufficient ventilation or poor vehicle maintenance could cause a buildup of carbon monoxide or diesel exhaust; and, v) other unique or potentially hazardous environmental conditions in the workplace that could affect safe operation. Each operator will be made aware of the requirements of 29 CFR 1910.178.

NOTES: Trainees may operate a forklift only:

a. Under the direct supervision of persons who have the knowledge, training, and experience to train operators and evaluate their competence; and

b. Where such operation does not endanger the trainee or other employees.

Training will consist of a combination of formal instruction (e.g., lecture, discussion, interactive computer learning, video tape, written material), practical training (demonstrations performed by the trainer and practical exercises performed by the trainee), and evaluation of the operator's performance in the workplace.

All operator training and evaluation shall be conducted by persons who have the knowledge, training, and experience to train forklift operators and evaluate their competence.

Certification. The employer will certify that each operator has been trained and evaluated as required above. The certification shall include the name of the operator, the date of the training, the date of the evaluation, and the identity of the person(s) performing the training or evaluation.

Scaffolds & Ladders - 29 CFR 1926.454 & 29 CFR 1926.1060

Ladders (and Stairways): Training, as necessary, will enable each employee to recognize hazards related to ladders and stairways and the procedures to be followed to minimize these hazards. Training will include, as applicable: 1) the nature of fall hazards in the work area; 2) the correct procedures for erecting, maintaining, and disassembling the fall protection systems to be used; 3) the proper construction, use, placement, and care in handling of all stairways and ladders; and, 4) the maximum intended load-carrying capacities of ladders.

Scaffolds: Training will enable those who perform work on scaffolds to recognize the hazards associated with the type of scaffold being used and to understand the procedures to control or minimize those hazards. The training shall include the following areas, as applicable: 1) the nature of any electrical hazards, fall hazards and falling object hazards in the work area; 2) The correct procedures for dealing with electrical hazards and for erecting, maintaining, and disassembling the fall protection systems and falling object protection systems being used; 3) the proper use of the scaffold, and the proper handling of materials on the scaffold; 4) the maximum intended load and the load-carrying capacities of the scaffolds used; and, 5) any other pertinent requirements that apply to our operations.

NOTE: Those employees who are involved in erecting, disassembling, moving, operating, repairing, maintaining, or inspecting a scaffold will be trained to recognize any hazards associated with the work in question. The training shall include the following topics, as applicable: 1) the nature of scaffold hazards; 2) the correct procedures for erecting, disassembling, moving, operating, repairing, inspecting, and maintaining the type of scaffold in question; 3) the design criteria, maximum intended load-carrying capacity and intended use of the scaffold; and, 4) any other pertinent requirements that apply to our operations.

Certificate of Retraining

With Retraining Synopsis

ServiceBoss International, Inc.

CERTIFICATE OF **RETRAINING**

I certify the below listed person(s) have received interactive retraining by a competent person in the subject matter initialed below. All appropriate standards are available to our personnel. The prime training directive is found in 29 CFR 1926.21, Title: *Safety training and education*, paragraph (b)(2): "The employer shall instruct each employee in the recognition and avoidance of unsafe conditions and the regulations applicable to his work environment to control or eliminate any hazards or other exposure to illness or injury." Retraining, at a minimum, will include all items required by appropriate standard.

Initials of Trainer	Date	Subject
		All subjects contained in our Safety Program.
		Control of Hazardous Energy - Lockout/Tagout *Signature of Trainer: _____
		Exposure Control for Bloodborne Pathogens and Other Infectious Materials *Signature of Trainer: _____
		Fall Protection - *Signature of Trainer: _____
		Hazard Communication *Signature of Trainer: _____
		Permit-Required Confined Space Entry *Signature of Trainer: _____
		Personal Protective Equipment - General
		Personal Protective Equipment – Hearing *Signature of Trainer: _____
		Personal Protective Equipment - Respiratory *Signature of Trainer: _____
		Forklifts Trainer: _____ Evaluation Date: _____
		Scaffolds & Ladders
		Steel Erection Activities Qualified Trainer: _____
		Multiple Lift Procedures Qualified Trainer: _____
		Connector Procedures Qualified Trainer: _____
		Controlled Decking Zone Procedures Qualified Trainer: _____
		Other:

Note: The trainer for each subject listed above is both qualified and competent in the subject matter.

(Employee Name - Print)	(Employee Signature)

Safety Director

(Initials)

See following three pages for training synopsis.

Retraining Synopsis

Control of Hazardous Energy - 29 CFR 1910.147

a. Retraining shall be provided for all authorized and affected employees whenever there is a change in their job assignments, a change in machines, equipment or processes that present a new hazard, or when there is a change in the energy control procedures.

b. Additional retraining shall also be conducted whenever a periodic inspection under paragraph (c)(6) of this section reveals, or whenever the employer has reason to believe that there are deviations from or inadequacies in the employee's knowledge or use of the energy control procedures.

c. Retraining shall reestablish employee proficiency and introduce new or revised control methods and procedures, as necessary.

NOTE: Control of Hazardous Energy Training must be certified and kept up to date. The certification must include the employee's name and dates of training.

Exposure Control for Bloodborne Pathogens or Other Infectious Materials - 29 CFR 1910.1030

a. At least annually.

b. When changes such as modification of tasks or procedures or institution of new tasks or procedures affect the employee's occupational exposure. The additional training may be limited to addressing the new exposures created.

NOTE: The person conducting the training shall be knowledgeable in the subject matter covered by the elements contained in the training program as it relates to the workplace that the training will address.

Fall Protection - 29 CFR 1926.503

When it is determined that an affected employee who has already been trained does not have the understanding and skill required by the initial training. Circumstances where retraining is required include, but are not limited to, situations where: 1) changes in the workplace render previous training obsolete; 2) changes in the types of fall protection systems or equipment to be used render previous training obsolete; or, 3) inadequacies in an affected employee's knowledge or use of fall protection systems or equipment indicate that the employee has not retained the requisite understanding or skill.

NOTE: The latest certification of training must be maintained and include the name of the employee trained, the date(s) of training, and the signature of the competent person who conducted the training or the signature of the employer.

Forklifts - 29 CFR 1910.178 (See Powered Industrial Trucks, below)

Hazard Communication - 29 CFR 1926.59

Whenever a new physical or health hazard the employees have not previously been trained about is introduced into their work area.

Permit-Required Confined Space Entry - 29 CFR 1910.146

a. Before there is a change in assigned duties;

b. Whenever there is a change in permit space operations that presents a hazard about which an employee has not previously been trained;

c. Whenever there is reason to believe either that there are deviations from the permit space entry procedures required by paragraph (d)(3) of 29 CFR 1910.146 or that there are inadequacies in the employee's knowledge or use of these procedures.

NOTE: Training must be certified and the certification must contain each employee's name, the signatures or initials of the trainers, and the dates of training. The certification shall be available for inspection by employees and their authorized representatives.

Personal Protective Equipment [General] - 29 CFR 1926.28 & 29 CFR 1910.132

When there is reason to believe that any affected employee who has already been trained does not have the understanding and skill required. Circumstances where retraining is required include, but are not limited to, situations where:

a. Changes in the workplace render previous training obsolete; or

b. Changes in the types of PPE to be used render previous training obsolete; or

c. Inadequacies in an affected employee's knowledge or use of assigned PPE indicate that the employee has not retained the requisite understanding or skill.

Personal Protective Equipment [Hearing] - 29 CFR 1926.52 & 29 CFR 1910.95

Annually.

Personal Protective Equipment [Respiratory] - 29 CFR 1910.134

Annually and when the following situations occur:

a. Changes in the workplace or the type of respirator render previous training obsolete;

b. Inadequacies in the employee's knowledge or use of the respirator indicate that the employee has not retained the requisite understanding or skill; or

c. Any other situation arises in which retraining appears necessary to ensure safe respirator use.

Powered Industrial Trucks

Every three (3) years or when the operator:

a. Has been observed to operate the vehicle in an unsafe manner.

b. Has been involved in an accident or near-miss incident.

c. Has received an evaluation that reveals that the operator is not operating the truck safely.

d. Is assigned to drive a different type of truck and/or a condition in the workplace changes in a manner that could affect safe operation of the truck.

Scaffolds & Ladders - 29 CFR 1926.454 & 29 CFR 1926.1060

Ladders (and Stairways): As necessary. Observation of employee use of ladders (and stairways) will be used to determine if additional training is necessary.

Scaffolds: When there is reason to believe that an employee lacks the skill or understanding needed for safe work involving the erection, use or dismantling of scaffolds, retraining will be given so that the requisite proficiency is regained. Retraining is required in at least the following situations: 1) where changes at the worksite present a hazard about which an employee has not been previously trained; 2) where changes in the types of scaffolds, fall protection, falling object protection, or other equipment present a hazard about which an employee has not been previously trained; and, 3) where inadequacies in an affected employee's work involving scaffolds indicate that the employee has not retained the requisite proficiency.

Training Cards

____
(Name)

Has demonstrated, this date, an understanding of our Safety Program and will work in a safe manner and follow established work rules and procedures.

Certificates of training are located at our main office:
RR 1 Box 232 Route 407
Dalton, PA 18414

______________ ______________________
(Date)
Safety Program Administrator

____
(Name)

Has demonstrated, this date, an understanding of our Safety Program and will work in a safe manner and follow established work rules and procedures.

Certificates of training are located at our main office:
RR 1 Box 232 Route 407
Dalton, PA 18414

______________ ______________________
(Date)
Safety Program Administrator

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(Name)

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(Date)
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(Name)

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Certificates of training are located at our main office:
RR 1 Box 232 Route 407
Dalton, PA 18414

______________ ______________________
(Date)
Safety Program Administrator

Forklift Instruction Guide

FORKLIFT

INSTRUCTION GUIDE

PREFACE

This guide has been prepared to ensure that the training requirements contained in 29 CFR 1910.178, *Forklifts*, are met.

Prior to training, the Program Administrator should make a hazard assessment of truck operations and identify real or potential areas of concern such as:

a. physical layout:

1. are aisles sufficiently wide?
2. are there “blind” spots?
3. are other personnel kept clear of truck operations?
4. are dock plates & chocks in good repair?
5. are stacked items the proper height?
6. are fuel storage/battery charging areas properly maintained with appropriate fire extinguishers?
7. is the atmosphere in which the truck will operate appropriate?

b. personal protective equipment (PPE):

1. are PPE requirements identified?
2. is PPE available and its use enforced?

c. trucks:

1. are trucks properly inspected and maintained?
2. are owner’s/operator’s manuals available?

d. operations:

1. are vehicles being operated in a safe manner?

The Program Administrator or the designated competent (by training or experience) person who will conduct the training should understand the underlining reason for instruction and evaluation is to provide a safe work environment for the truck operator.

While it is not **legally** necessary to provide re-training on truck and work related topics if an operator has had training in those topics, for ease and consistency, we will provide the same **initial** training for all operators. This would include new, experienced, hires.

Initial training should consist of three distinct phases:

a. interactive, formal training.

b. practical training.

    1. This will include demonstrations performed by the trainer and practical exercises performed by the trainee.

c. evaluation.

    1. This is an actual evaluation of the operator's performance in the workplace conducted by the Program Administrator or a designated competent person.

Forklift training must be certified.

FORKLIFT TRAINING

Materials needed:

a. Our Forklift Program.

b. 29 CFR 1910.178, *Powered Industrial Trucks*.

c. The Owner's/Operator's Manual for our truck(s).

d. Forklift Daily Check List.

e. Forklift Quiz and Quiz Explanations.

f. Answer Sheets, paper & pencils.

Procedure:

a. Use the following formal training as a guide to ensure all major topics are covered.

   1. The items in *italics* are notes to the instructor.

   2. Prior to teaching, fill in the blanks on pages:

b. Encourage questions and group discussion. Identify and solve problems with the help of the employees.

c. Administer the written (multiple-choice) quiz.

d. Self-grade the quizzes using the Quiz Explanations as a starting point for discussion.

NOTE: How personnel do on the quiz is less important than their understanding of the material after answers are explained and discussed. Satisfy yourself that information pertinent to our truck operations -- especially safety information -- is retained by the operators.

INTRODUCTION

We are committed to safety and providing a work environment that is free of recognized hazards. That same commitment is expected of all our employees.

As part of our continuing effort to provide a safer workplace for our employees, we have developed a training program for our forklifts operators.

Forklifts are an indispensable asset allowing us to move materials efficiently within our facility. However, because of their size, weight, power, and restricted visibility, these trucks present a potential hazard if improperly used. Only trained and authorized personnel will operate our industrial trucks.

This training will be interactive which means, to the extent possible, a dialogue will be established between all of us present. Not only are questions welcome, but real life examples of difficulties experienced with truck operations are encouraged. All of us will benefit by discussing these problems and finding solutions.

References for this training include:

a. Our Forklift Program.
b. 29 CFR 1910.178, Forklifts, upon which our program is based. This will be readily available for our operators to review and they are encouraged to read it.
c. The Owner and/or Operator Manuals for our trucks.

All of the above references are readily available for review at any time. Just ask.

WHY IS TRAINING NEEDED?

Ask if anyone can answer that question. Try to get a discussion going to keep up interest and activity in the training.

Because of their power, weight; size, restricted visibility, and, often, high center of gravity, operation of industrial trucks takes skill and attention to detail. One moment of inattention can lead to a major mishap in an instant. Additionally, the load presents potential hazards if not properly secured, balanced, and/or properly placed on the truck.

Ask if anyone has heard of a truck accident or mishap (not necessarily at this facility). More than likely, someone would have heard about a truck falling off a dock edge, through a trailer floor, or hitting an object or person. What about falling loads?

While many safety features are designed into forklifts such as seat belts, lights, fire extinguishers, audible alarms, etc., accidents still happen and they are generally the result of operator error.

There is a general agreement that training for all persons (including part-time, seasonal, and temporary employees) who operate forklifts will significantly reduce the above accident and injury rate.

THE TRUCKS

Forklifts are designed to move items quickly, safely, and cleanly. As a point of interest, forklifts include: fork trucks; tractors; platform lift trucks; motorized hand trucks; and other specialized industrial trucks powered by electric motors or internal combustion engines.

Generally, trucks are powerful and nimble with many safety features built into them. However, each type of truck has its limitations which could include stability, capacity, and visibility both with and without a load.

Ask if anyone has had a problem with stability, capacity or visibility.

To get an idea of the value of forklifts, in a typical factory, 40% of all activity involves material handling. In a warehouse operation, material handling approaches 100% of the activity.

Ask if anyone knows the percentage of truck activity in our facility. The number is approximately: _____%.

RULES REGARDING INDUSTRIAL TRUCKS

1. No person shall operate one of our trucks without written authorization.
2. No riders are allowed unless:
   a. the truck is specifically designed for such use.
   b. the rider is authorized for the performance of a job.
3. Unsafe acts will result in the revocation of your authority to operate a truck and retraining will be required.
4. At the beginning of each shift, the operator will inspect the truck using our Forklift Daily Check List.

Go over the Check List and answer all questions related to its use.

   a. Safety deficiencies will be noted on the Check List and the truck will not be used until they are corrected.
   b. No truck will be operated with safety defects.
   c. If cosmetic damage will not stop operations.

METHODS TO AVOID MAJOR INDUSTRIAL TRUCK HAZARDS

Ask if anyone can identify a major category of truck accidents which result in injury.

The major categories are:

a. physically hitting a person/object with the truck or load.
b. having a load fall and hit the operator or other person.
c. having the truck tip and crush the operator or other person.
d. fire or explosion during refueling/recharging.

Ask what procedures might prevent these accidents.

HITTING A PERSON/OBJECT

a. Never drive up to a person standing in front of a fixed object.

b. When possible, stay within delineated travel lanes or aisles.

c. Be seen and/or heard.

d. Ensure that adequate lighting is available.

e. Maintain a clear view of travel. If the load blocks or restricts your view, drive with the load trailing (backwards).

f. Slow down, sound horn, and do not pass where vision is restricted.

g. Operate the truck at speeds that will allow it and the load to be stopped in a safe, smooth, manner.

h. Be aware of floor conditions. Remove loose objects in the travel lanes. Slow down on wet or slippery floors.

I. Of course, stunt or reckless driving is prohibited.

j. Be aware of the height of the truck and, if equipped, its mast and load. Carelessness can damage ceiling, lights, pipes, etc..

k. Never allow anyone to stand or pass under an elevated portion of any truck at any time.

Ask if anyone has had this type of accident. If yes, discuss what would prevent a reoccurrence.

FALLING LOADS

a. Know your load -- do not “overstack”. Because practically all loads lifted or hauled by a forklift are not secured to the truck, ensure the load is properly stacked. Cartons generally should be interlaced or banded.

b. If lifting a load or pallet, get the forks (or other engaging means) as far under the load as possible.

c. Travel with the load in the lowest position for stability as well as prevention of hitting objects overhead. If using forks, tilt the load backward for stabilization.

d. Do not exceed the truck’s rated capacity or stack loads too high.

e. Do not make “jerky” movements such as slamming the brakes or high speed turns.

f. A load backrest extension will reduce the possibility of part of the load falling rearward.

g. When using a fork lift, the forks may be tilted forward only for picking up or setting down a load.

Ask if anyone has had this type of accident. If yes, discuss what would prevent a reoccurrence.

TIPPING

Tipping or falling off an edge (or dock) is a preventable accident by following the guidelines below. If your truck tips, keep your body and limbs within the safety of the cage. Wear a seat belt if the truck is so equipped.

a. Stay within travel lanes.

b. If entering a trailer, ensure:

   1. the trailer brakes are engaged.
   2. the trailer is secured from movement by means of chocks and/or a locking mechanism.
   3. the tractor is either shut off or removed from the trailer.
   4. the trailer is squared up with the dock opening and dock plates are secure.
   5. the trailer floor is capable of supporting the forklift and its load.
   6. the lighting within the trailer is adequate.

NOTE: Falling off a dock edge because a trailer has moved is invariably a serious accident. Do not count on the tractor-trailer driver to lock his brakes or even trust that his brakes work. Physically check and ensure the trailer into which you are taking your forklift is securely against the dock. If possible, the trailer should be actually attached to the dock, but in all cases, it should be chocked.

c. Travel with the load in the lowest possible position and avoid sharp turns at higher speeds as well as abrupt truck movements.

d. Be aware of the surface on which you are traveling -- its traction, ability to hold weight, slope, and surface.

Ask if anyone has had this type of accident. If yes, discuss what would prevent a reoccurrence.

FIRE/EXPLOSION DURING REFUELING/RECHARGING

Refueling accidents are not common experiences, however should they occur, they would be sudden and possibly catastrophic. Follow the manufacturer's owner's manual and local fire laws.

a. There is absolutely NO SMOKING or open flame during any portion of the refueling/recharging process.

b. An appropriate (B:C) fire extinguisher must be readily available.

Ensure that refueling/recharging procedures are clearly understood.

Conduct an interactive discussion on the appropriate truck-related and workplace-related topics listed below.

For example, you could start each subparagraph below with, "Do you understand ....?"

TRUCK-RELATED TOPICS

a. Operating instructions, warnings, and precautions for the types of truck the operator will be authorized to operate.

b. Differences between the truck and the automobile.

c. Truck controls and instrumentation: where they are located, what they do, and how they work.

d. Engine or motor operation.

e. Steering and maneuvering.

f. Visibility (including restrictions due to loading).

g. Fork and attachment adaptation, operation, and use limitations.

h. Vehicle capacity.

i. Vehicle stability.

j. Any vehicle inspection and maintenance that the operator will be required to perform.

k. Refueling and/or charging and recharging of batteries.

l. Operating limitations.

m. Any other operating instructions, warnings, or precautions listed in the operator's manual for the types of vehicle that the employee is being trained to operate.

WORKPLACE-RELATED TOPICS

a. Surface conditions where the vehicle will be operated.

b. Composition of loads to be carried and load stability.

c. Load manipulation, stacking, and unstacking.

d. Pedestrian traffic in areas where the vehicle will be operated.

e. Narrow aisles and other restricted places where the vehicle will be operated.

f. Hazardous (classified) locations where the vehicle will be operated.

g. Ramps and other sloped surfaces that could affect the vehicle's stability.

h. Closed environments and other areas where insufficient ventilation or poor vehicle maintenance could cause a buildup of carbon monoxide or diesel exhaust.

i. Other unique or potentially hazardous environmental conditions in the workplace that could affect safe operation.

Lastly, remind all personnel that the reference materials are readily available for their use and that should a safety concern develop, it will be resolved before proceeding with work.

PRACTICAL TRAINING

Materials Needed:

a. A “Demonstration of Operational Skills” form for each trainee.

b. A forklift.

c. The Forklift Daily Check List.

d. Typical items to be moved, placed, or lifted.

Procedure:

a. Establish a protected training area that has been cordoned off to prevent injury to persons not involved with truck training.

b. Establish stations which are representative of typical operations such as:

   1. lifting, pulling, pushing, stacking materials.

   2. maneuvering in tight spaces, narrow aisles, or blind spots.

   3. entering trailers.

c. Demonstrate:
    1. inspecting the truck.
    2. performing the tasks required at each station.
    3. fuel/charging the truck.
    4. securing the truck as if the shift was completed.
d. Observe:
    1. the trainee performing the above tasks.
    2. complete a “Demonstration of Operational Skills” for each trainee.

As with all training, an interactive approach should be taken with the operator being encouraged to ask questions and resolve any safety issues.

EVALUATION

Materials needed:

a. A Certification of Truck Operator Training Form.

b. Operator’s Licenses.

NOTE: The trainee may not be authorized as an operator until an evaluation of performance during actual operations is made by the Program Administrator or a designated competent person.

Prior to this certification, all truck operations must be under the direct supervision and observation of a competent person.

Procedure:

a. Observe the employee performing actual operations safely in accordance with the training received.

b. Complete our Certification of Truck Operator Training Form.

c. Provide a completed Operator’s License to the individual.

Forklift Quiz

FORKLIFT

QUIZ

Circle the correct answer.

1. To become an authorized forklift operator, one must:

   a. read and understand all pertinent information in the Owner's Manual.

   b. understand the hazards associated with truck operations and how to avoid them.

   c. demonstrate skills in actual truck operation.

   d. all of the above.

2. Who is allowed to operate an industrial truck?

   a. Anyone over 25 years of age.

   b. Anyone who can turn it on.

   c. One who has demonstrated his/her knowledge and ability to safely operate the truck and has authorization to do so.

3. A malfunctioning truck may be used:

   a. with extreme caution.

   b. only after being properly repaired by authorized personnel.

   c. by ground controls only.

4. Trucks should be inspected:

   a. daily.

   b. weekly.

   c. monthly.

5. There is absolutely NO SMOKING or open flame during any portion of the refueling/recharging process.

   a. True.

   b. False.

6. Rated load capacities are:

   a. general guidelines established by the manufacturer.

   b. must never be exceeded.

   c. are used to determine fluid levels.

7. Industrial trucks are so stable they may be driven on any grade.

   a. True.

   b. False.

8. Because of the driver protection and the rubber tires, there is no danger if overhead electrical lines are hit by a truck component or load.

   a. True.

   b. False.

9. Loads should always be carried as close to the ground as possible to lower the center of gravity.

    a. True.

    b. False.

10. The surface on which a truck travels should be checked for:

    a. load bearing capacity.

    b. traction.

    c. lack of debris.

    d. all of the above.

11. Primary hazards that present themselves during truck operations include:

    a. hitting a person/object; falling loads; tipping; and fire/explosion during refueling/recharging.

    b. flat tires; leaking fuel tanks; and excess debris.

    c. hazardous atmospheres and excessive noise.

12. Accidents involving forklifts result in approximately:

    a. 90,000 injuries and 100 deaths per year.

    b. 1,000,000 injuries and 350 deaths per year.

    c. three (3) billion dollars in property damage per year.

Forklift Quiz Answer Sheet

ServiceBoss International, Inc.

FORKLIFT QUIZ

ANSWER SHEET

_____ _____

(Name) (Date)

Circle the correct, or best, answer.

1. a. b. c. d.

2. a. b. c. d.

3. a. b. c. d.

4. a. b. c. d.

5. a. b. c. d.

6. a. b. c. d.

7. a. b. c. d.

8. a. b. c. d.

9. a. b. c. d.

10. a. b. c. d.

11. a. b. c. d.

12. a. b. c. d.

Forklift Quiz Scoring Sheet

ServiceBoss International, Inc.

FORKLIFT QUIZ

SCORING SHEET

1. d.
2. c.
3. b.
4. a.
5. a.
6. b.
7. b.
8. b.
9. a.
10. d.
11. a.
12. a.

Forklift Quiz Explanations

FORKLIFT

QUIZ EXPLANATIONS

1. To become an authorized forklift operator, one must:

    a. read and understand all pertinent information in the Owner's Manual.

    b. understand the hazards associated with truck operations and how to avoid them.

    c. demonstrate skills in actual truck operation.

    d. all of the above.

The actual standard on which this training is based states, as far as training goes, that a method must be devised to train operators in the safe operation of forklifts. By successfully completing the above tasks, it is our opinion that the goal of zero accidents will be achieved.

2. Who is allowed to operate an industrial truck?

    a. Anyone over 25 years of age.

    b. Anyone who can turn it on.

    c. One who has demonstrated his/her knowledge and ability to safely operate the truck and has authorization to do so.

Improperly used forklifts are potentially very dangerous items of equipment. Therefore, only authorized personnel may operate them. Should an operator be found to be lacking in any of the required skills for safe operation, re-training will be given. Intentional recklessness and/or disregarding safety guidelines will result the operator's authorization being revoked.

3. A malfunctioning truck may be used:

    a. with extreme caution.

    b. only after being properly repaired by authorized personnel.

    c. by ground controls only.

There are two (2) points to this question. One, to emphasis that any truck that is mechanically defective will be taken out of service until repaired, and, two, only authorized maintenance personnel may do the actual repairs. Of course, operators are allowed to replenish fluids as allowed in the Operator's Manual.

4. Trucks should be inspected:

    a. daily.

    b. weekly.

    c. monthly.

There are three (3) main categories of items to inspect on our Forklift Daily Checklist: 1) Visual Overall Truck Condition; 2) Fluids; and 3) Truck Operations. Be sure to check each item indicating that it is O.K., deficient, or not applicable. This inspection checklist is part of our maintenance procedures and will ensure that not only are our trucks safe, they will perform at their expected capacities and lifetimes.

5. There is absolutely NO SMOKING or open flame during any portion of the refueling/recharging process.

    a. True.

    b. False.

Refueling propane requires at least an 8B:C rated fire extinguisher and recharging batteries requires immediate access to eye flush and body drenching.

6. Rated load capacities are:

    a. general guidelines established by the manufacturer.

    b. must never be exceeded.

    c. are used to determine fluid levels.

Rated capacities must never be exceeded. Remember, you are dealing with powerful, heavy, expensive machinery capable of serious work. At the least, going beyond truck capacities may damage the truck (or load), and, at the most, you may seriously injure yourself or a fellow employee if something gives way.

7. Industrial trucks are so stable they may be driven on any grade.

    a. True.

    b. False.

Forklifts are extremely stable when properly driven, loaded, and operated within its stated limits. Exceeding a truck's limit, such as the grade on which it may be driven, is asking for a sudden, possibly violent, certainly tragic accident.

8. Because of the driver protection and the rubber tires, there is no danger if overhead electrical lines are hit by a truck component or load.

    a. True.

    b. False.

This is blatantly false. Any reasonable person would know that there is danger in hitting any object. However, remember not only the driver of the truck is put at risk through careless operations, other persons are as well.

9. Loads should always be carried as close to the ground as possible to lower the center of gravity.

    a. True.

    b. False.

Not only does this lower the center of gravity, it greatly reduces the chance of injury should the load fall. If lowering the load blocks your line of sight, travel with the load trailing.

10. The surface on which a truck travels should be checked for:

    a. load bearing capacity.

    b. traction.

    c. lack of debris.

    d. all of the above.

Not only is the above an OSHA requirement, it makes good sense. Slow down when traction is poor (a wet floor, for example). Serious accidents can occur when trailer floors fail, dock plates slip, or there is some sort of surface collapse.

11. Primary hazards that present themselves during truck operations include:

    a. hitting a person/object; falling loads; tipping; and fire/ explosion during refueling/recharging.

    b. flat tires; leaking fuel tanks; and excess debris.

    c. hazardous atmospheres and excessive noise.

One of the main purposes of our training has been to point out the primary hazards involved with forklift operations and the methods and procedures to avoid them.

12. Accidents involving forklifts result in approximately:

    a. 90,000 injuries and 100 deaths per year.

    b. 1,000,000 injuries and 350 deaths per year.

    c. three (3) billion dollars in property damage per year.

Ninety thousand injuries and 100 deaths per year is a terrible price to pay for disregarding standard safety procedures. Most accidents are preventable. With a concerted effort by all personnel from the highest levels of management to the newest hire, needless accidents and injuries can be eliminated.

Demonstration of Operation Skills

ServiceBoss International, Inc.

DEMONSTRATION OF OPERATION SKILLS

The truck operator whose signature appears below has demonstrated his/her ability to perform the below listed tasks in a satisfactory manner.

☑ = O.K.
☒ = Not Applicable

☐ A truck walk-around and safety check.

☐ A check of all fluid levels.

☐ A check of horn, lights, brakes, fire extinguisher, etc..

☐ Fueling the truck.

☐ Starting the truck.

☐ Driving around obstacles (such as empty boxes) both in a forward and reverse direction.

☐ Lifting a stack of empty pallets and placing them on another empty pallet.

☐ Securing the truck after use (engaging the parking brake).

☐ Special maneuvers appropriate for job requirements such as ramps, trailer entry, narrow aisles, high reach, etc..

Notes:

_____
_____
_____
_____

_____ _____
(Operator's Signature) (Program Administrator's Signature)

_____
(Date)

Certification of Forklift Operator Training

ServiceBoss International, Inc.

Certification of Forklift Operator Training

I certify the below listed personnel have received training/refresher training as required by 29 CFR 1910.178, *Powered Industrial Trucks*.

Name(s) of competent person(s) who performed the training:
(If other than the Program Administrator)

_____ _____
(Print Name) (Print Name)

Date(s) of training:

_____ _____
(From) (To)

NAME	Initial Training	Refresher Training	Evaluation Date
_____	☐	☐	_____
_____	☐	☐	_____
_____	☐	☐	_____
_____	☐	☐	_____
_____	☐	☐	_____
_____	☐	☐	_____
_____	☐	☐	_____
_____	☐	☐	_____
_____	☐	☐	_____
_____	☐	☐	_____

_____ _____
(Program Administrator's Signature) (Date)

Forklift Operator Cards

(Operator's Name)
Has demonstrated, this date, the skills & knowledge necessary to operate a forklift and is
AUTHORIZED TO OPERATE
the below
ServiceBoss International, Inc.
Forklifts

[Type(s)] [Model(s)]

(Date)
Safety Program Administrator

(Operator's Name)
Has demonstrated, this date, the skills & knowledge necessary to operate a forklift and is
AUTHORIZED TO OPERATE
the below
ServiceBoss International, Inc.
Forklifts

[Type(s)] [Model(s)]

(Date)
Safety Program Administrator

(Operator's Name)
Has demonstrated, this date, the skills & knowledge necessary to operate a forklift and is
AUTHORIZED TO OPERATE
the below
ServiceBoss International, Inc.
Forklifts

[Type(s)] [Model(s)]

(Date)
Safety Program Administrator

(Operator's Name)
Has demonstrated, this date, the skills & knowledge necessary to operate a forklift and is
AUTHORIZED TO OPERATE
the below
ServiceBoss International, Inc.
Forklifts

[Type(s)] [Model(s)]

(Date)
Safety Program Administrator

(Operator's Name)
Has demonstrated, this date, the skills & knowledge necessary to operate a forklift and is
AUTHORIZED TO OPERATE
the below
ServiceBoss International, Inc.
Forklifts

[Type(s)] [Model(s)]

(Date)
Safety Program Administrator

(Operator's Name)
Has demonstrated, this date, the skills & knowledge necessary to operate a forklift and is
AUTHORIZED TO OPERATE
the below
ServiceBoss International, Inc.
Forklifts

[Type(s)] [Model(s)]

(Date)
Safety Program Administrator

(Operator's Name)
Has demonstrated, this date, the skills & knowledge necessary to operate a forklift and is
AUTHORIZED TO OPERATE
the below
ServiceBoss International, Inc.
Forklifts

[Type(s)] [Model(s)]

(Date)
Safety Program Administrator

(Operator's Name)
Has demonstrated, this date, the skills & knowledge necessary to operate a forklift and is
AUTHORIZED TO OPERATE
the below
ServiceBoss International, Inc.
Forklifts

[Type(s)] [Model(s)]

(Date)
Safety Program Administrator

ServiceBoss International, Inc.

Environmental, Health & Safety Program

Safety Program Additions

Safety Program Addendum

[Items not required by OSHA standard, may be required by GC or client]

Assured Equipment Grounding Conductor Program

[Not required by OSHA if ground-fault circuit interrupters are used. Generally required by client or GC in highly hazardous locations]

Job Task Safety Analysis Form

[Not required by OSHA. May be required by client or GC]

Additional OSHA Programs

[Programs not found in every safety program]

Laser Operations

[Low powered lasers used for distance measuring and leveling]

Policy Statement

[Securing the Work Area]

Policy Statement

[Floor Maintenance Procedures and Signage]

Safety Committee

Safety Committee Minutes

Cold Illness Prevention Program

Heat Illness Prevention Program

Anhydrous Ammonia

Return to Work Policy and Procedures

Weapons Policy Statement

Fill-In Forms

ServiceBoss International, Inc.

Environmental, Health & Safety Program

Safety Program Addendum

The below initialed items are incorporated into our Safety Program. This Addendum will be conspicuously posted at the job site.

Safety Director Initials	Program Addendum
_____	All personnel will wear hard hats at all times on the job site.
_____	All personnel will wear eye protection at all times on the job site.
_____	All personnel will wear steel toes boots at all times on the job site.
_____	The 6' foot rule will be enforced at all times on this job site meaning that fall protection is required for all persons working six feet or more above a lower level.
_____	A 2-tier inspection policy is in effect meaning that senior management will conduct and document random, unannounced, inspections of our supervisors.
_____	An Assured Equipment Grounding Conductor Program is in effect on this job site.
_____	Job Task Hazard Analysis Form will be prepared for certain tasks on this job site.
_____	Smoking is not permitted on this job site.
_____	**[Other]:** _____ _____
_____	**[Other]:** _____ _____

_____

Safety Director

ServiceBoss International, Inc.

Environmental, Health & Safety Program

Assured Equipment Grounding Conductor Program

Test Log

ServiceBoss International, Inc.

Environmental, Health & Safety Program

Assured Equipment Grounding Conductor Program

29 CFR 1926.404

Per paragraph (b)(1)(i), 29 CFR 1926.404, *Wiring Design and Protection*, ground fault protection for our employees will be provided by the use of ground fault circuit interrupters or an Assured Equipment Grounding Conductor Program.

As a general rule, the use ground fault circuit interrupters is sufficient for employee protection. However, if we are working within a facility that requires the use of an Assured Equipment Grounding Conductor Program or if the client requires an Assured Equipment Grounding Conductor Program, the following applies.

The provisions of our Assured Equipment Grounding Conductor Program cover all cord sets, receptacles which are not a part of a building or structure, and equipment which is connected by cord and plug for use, or used by, our employees on our construction sites .

A copy of this program will be maintained at all job sites where it is in use and it will be available for review by affected employees as well as inspection and copying by authorized representatives of OSHA.

At least one competent person (one who by virtue of training or experience is capable of identifying existing and predictable hazards as they relate to electrical safety and has the authorization to take prompt corrective measures to eliminate them) will be designated to implement our program. This person or persons will be identified on our Job Site Form, Designation of Competent Persons, found in our Project Manual.

The designated competent person(s) will ensure that:

a. each cord set, attachment cap, plug and receptacle of cord sets, and any equipment connected by cord and plug [except cord sets and receptacles which are fixed and not exposed to damage] are visually inspected before each day's use for external defects, such as deformed or missing pins or insulation damage, and for indications of possible internal damage. Equipment found damaged or defective will be disposed of or be tagged out of service and not used until repaired.

b. the following tests are performed on all cord sets, receptacles which are not a part of the permanent wiring of the building or structure, and cord- and plug-connected equipment required to be grounded:

   i all equipment grounding conductors will be tested for continuity. Equipment grounding conductors must be electrically continuous.

ii each receptacle and attachment cap or plug will be tested for correct attachment of the equipment grounding conductor. The equipment grounding conductor must be connected to its proper terminal.

c. the above tests will be performed:

i before first use;

ii before equipment is returned to service following any repairs;

iii before equipment is used after any incident which can be reasonably suspected to have caused damage (for example, when a cord set is run over); and

iv at intervals not to exceed 3 months, except that cord sets and receptacles which are fixed and not exposed to damage will be tested at intervals not exceeding 6 months.

Employees are not permitted to use any equipment which falls within the scope of this program which has not passed the above tests and inspections noted in paragraphs a., b., and c., above.

The above tests and inspections must be recorded. The test record will identify each receptacle, cord set, and cord- and plug-connected equipment that passed the test and shall indicate the last date it was tested or the interval for which it was tested.

The test record will be kept by logs, color coding, or other effective means. Only the **latest** log must be available at the job site for inspection and review by affected employees or OSHA representatives. Previous logs may be destroyed.

While a written log identifying the equipment and the test date is acceptable, using colored electrical tape on cords, receptacles and equipment indicating the time period of the tests might be easier to accomplish and less confusing.

The competent person will ensure that outlet devices have an ampere rating not less than the load to be served and that they comply with the following:

a. Single receptacles: a single receptacle installed on an individual branch circuit shall have an ampere rating of not less than that of the branch circuit.

b Two or more receptacles: where connected to a branch circuit supplying two or more receptacles or outlets, receptacle ratings shall conform to the values listed in below table.

c. Receptacles used for the connection of motors: the rating of an attachment plug or receptacle used for cord- and plug-connection of a motor to a branch circuit will not exceed 15 amperes at 125 volts or 10 amperes at 250 volts if individual overload protection is omitted.

TABLE: Receptacle Ratings for Various Size Circuits

Circuit rating amperes	Receptacle rating amperes
15	Not over 15
20	15 or 20
30	30
40	40 or 50
50	50

ServiceBoss International, Inc.

Environmental, Health & Safety Program

Assured Equipment Grounding Conductor

Test Log A

[Use Test Log A or B and retain most current log]

Reference 1926.404(b)(iii)(G). As of _____, _____,
(time) (date)

All equipment grounding conductors identified by _____
(color of tape or other means)

have been tested for continuity and are electrically continuous. Additionally, all receptacles and attachment caps or plugs [identified by the same color tape or other means] have been tested for correct attachment of the equipment grounding conductor and the grounding conductor is connected to its proper terminal.

Note: If color coding is used, previous and subsequent tests will use a different color code.

_____ _____
(Competent Person Signature) (Date)

Test for continuity and electrically continuous

Test Log B

[Use Test Log A or B and retain most current log]

	Pass	Fail and removed from Svc
_____	☐	☐
(Equipment Grounding Conductor Identity)		
_____	☐	☐
_____	☐	☐
_____	☐	☐
_____	☐	☐
_____	☐	☐
_____	☐	☐

Test for receptacle and attachment cap or plug for correct attachment of equipment grounding conductor

Note: The equipment grounding conductor must be connected to its proper terminal.

_____	☐	☐
(Receptacle & attachment cap or plug & equipment identity)		
_____	☐	☐
_____	☐	☐
_____	☐	☐
_____	☐	☐
_____	☐	☐

_____ _____
(Competent Person Signature) (Date)

ServiceBoss International, Inc.

Environmental, Health & Safety Program

Job Task Safety Analysis

_____ _____

(Activity being analyzed) **(Analysis performed by)**

_____ _____

(Trade or craft to perform activity) **(Date of Analysis)**

Instructions: For each activity being analyzed, fill our each of the six (6) sections above and use "N/A" if not appropriate. If more than 1 page is required, use a second sheet and ensure that they are attached together and numbered, i.e., 1 of 2 or 3 of 4

SEQUENCE OF BASIC JOB STEPS Step No		POTENTIAL HAZARDS/ACCIDENTS Step No	
1		1	
2		2	
3		3	
4		4	

RECOMMENDED SAFE JOB PROCEDURE Step No		EQUIPMENT TO BE USED Step No	
1		1	
2		2	
3		3	
4		4	

INSPECTION REQUIREMENTS Step No		TRAINING REQUIREMENTS Step No	
1		1	
2		2	
3		3	
4		4	

ServiceBoss International, Inc.

Environmental, Health & Safety Program

Job Task Safety Analysis

_____ _____

(Activity being analyzed) **(Analysis performed by)**

_____ _____

(Trade or craft to perform activity) **(Date of Analysis)**

Instructions: For each activity being analyzed, fill our each of the six (6) sections above and use "N/A" if not appropriate. If more than 1 page is required, use a second sheet and ensure that they are attached together and numbered, i.e., 1 of 2 or 3 of 4

Step No	SEQUENCE OF BASIC JOB STEPS	Step No	POTENTIAL HAZARDS/ACCIDENTS
5		5	
6		6	
7		7	
8		8	

Step No	RECOMMENDED SAFE JOB PROCEDURE	Step No	EQUIPMENT TO BE USED
5		5	
6		6	
7		7	
8		8	

Step No	INSPECTION REQUIREMENTS	Step No	TRAINING REQUIREMENTS
5		5	
6		6	
7		7	
8		8	

ServiceBoss International, Inc.

Environmental, Health & Safety Program

Job Task Safety Analysis

_____ _____

(Activity being analyzed) **(Analysis performed by)**

_____ _____

(Trade or craft to perform activity) **(Date of Analysis)**

Instructions: For each activity being analyzed, fill our each of the six (6) sections above and use "N/A" if not appropriate. If more than 1 page is required, use a second sheet and ensure that they are attached together and numbered, i.e., 1 of 2 or 3 of 4

SEQUENCE OF BASIC JOB STEPS		POTENTIAL HAZARDS/ACCIDENTS	
Step No		Step No	

RECOMMENDED SAFE JOB PROCEDURE		EQUIPMENT TO BE USED	
Step No		Step No	

INSPECTION REQUIREMENTS		TRAINING REQUIREMENTS	
Step No		Step No	

ServiceBoss International, Inc.

Safety Program

SECTION III

SPECIFIC COMPLIANCE PROGRAMS

Control of Hazardous Energy - Lockout/Tagout
Exposure Control Plan for Bloodborne Pathogens & Other Infectious Materials
Permit-Required Confined Space
Personal Protective Equipment
Hearing Conservation
Respiratory Protection

ServiceBoss International, Inc.

CONTROL OF HAZARDOUS ENERGY

Lockout/Tagout

ServiceBoss International, Inc.

Safety Program

SECTION III

CONTROL OF HAZARDOUS ENERGY - LOCKOUT/TAGOUT

INDEX

TOPIC **PAGE**

OSHA Standards:

29 CFR 1910.147, *The Control of Hazardous Energy (Lockout/Tagout)*
29 CFR 1910.333, *Selection and Use of Work Practices*

Forms:

[Found immediately following this program]

Energy Source Evaluation
Control Procedures
Group Leader Documentation
Periodic Inspection

OVERVIEW

As a contractor, we would not be involved in normal production operations. We could, however, be involved in the constructing, installing, setting up, adjusting, inspecting, modifying, maintaining or servicing with the possibility of injury due to the unexpected energization, start up or release of stored energy. During these situations, we will comply with the provisions of 29 CFR 1910.147, *The Control of Hazardous Energy (Lockout/Tagout)* and 29 CFR 1910.333, *Selection and Use of Work Practices,* the standards on which this program is based.

Coordination will be established between the client and, if appropriate, subcontractors to clearly indicate who is responsible for what function of the program as well as the identifying characteristics of the lockout/ tagout devices -- shape, color, color codes for locks and tags, if used.

Coordination is required because -- for example: our employee may complete lockout/tagout procedures and perform maintenance on a fixed piece of equipment while a client's employee is affected by that work.

All our employees affected by this program will be "authorized employees" by virtue of their work (see "Definitions" below.)

DEFINITIONS

There are a number of terms and phrases which must be understood by all employees to grasp the general thrust of this Program. For those employees directly involved with this Program or affected by it, there are specific requirements and procedures which would be meaningless without an understanding of the "language" of Control of Hazardous Energy.

AFFECTED EMPLOYEE: an employee whose job requires him/her to operate or use a machine or equipment on which servicing or maintenance is being performed under lockout or tagout, or whose job requires him/her to work in an area in which such servicing or maintenance is being performed.

AUTHORIZED EMPLOYEE: a person who locks out or tags out machines or equipment in order to perform servicing or maintenance on that machine or equipment. An affected employee becomes an authorized employee when that employee's duties include performing service or maintenance covered under 29 CFR 1910.147, *The Control of Hazardous Energy (Lockout/Tagout)*.

[NOTE: An authorized employee is authorized to service only machines and equipment with which he/she is familiar by training and/or experience.]

CAPABLE OF BEING LOCKED OUT: an energy isolating device is capable of being locked out if it has a hasp or other means of attachment to which, or through which, a lock can be affixed, or it has a locking mechanism built into it. Other energy isolating devices are capable of being locked out if lockout can be achieved without the need to dismantle, rebuild, or replace the energy isolating device or permanently alter its energy control capability.

ENERGIZED: connected to an energy source or containing residual or stored energy.

ENERGY ISOLATING DEVICE: a mechanical device that physically prevents the transmission or release of energy, including but not limited to the following: a manually operated electrical circuit breaker; a disconnect switch; a manually operated switch by which the conductors of a circuit can be disconnected from all ungrounded supply conductors, and, in addition, no pole can be operated independently; a line valve; a block; and any similar device used to block or isolate energy. Push buttons, selector switches and other control circuit type devices are not energy isolating devices.

ENERGY SOURCE: any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.

FIXED EQUIPMENT: equipment fastened in place or connected by permanent wiring methods.

HOT TAP: a procedure used in the repair, maintenance and service activities which involves welding on a piece of equipment (pipelines, vessels, or tanks) under pressure in order to install connections or appurtenances. It is commonly used to replace or add sections of pipeline without the interruption of service for air, gas, water, steam, and petrochemical distribution systems.

LOCKOUT: the placement of a lockout device on an energy isolating device, in accordance with an established procedure, ensuring that the energy isolating device and the equipment being controlled cannot be operated until the lockout device is removed.

LOCKOUT DEVICE: a device that utilizes a positive means such as a lock, either key or combination type, to hold an energy isolating device in a safe position and prevent the energizing of a machine or equipment. Included are blank flanges and bolted slip blinds.

NORMAL PRODUCTION OPERATIONS: the utilization of a machine or equipment to perform its intended production function.

OTHER EMPLOYEES: those employees whose work operations are or may be in an area where energy control procedures may be utilized.

SERVICING AND/OR MAINTENANCE: workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying, and maintaining and/or servicing machines or equipment. These activities include lubrication, cleaning or unjamming of machines or equipment, and making adjustments or tool changes where the employee may be exposed to the unexpected energization or start up of equipment or release of hazardous energy.

SETTING UP: any work performed to prepare a machine or equipment to perform its normal production operation.

TAGOUT: the placement of a tagout device on an energy isolating device, in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.

TAGOUT DEVICE: a prominent warning device, such as a tag and a means of attachment, which can be securely fastened to an energy isolating device in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.

APPLICABILITY

The provisions of this program apply when there is a possibility of injury due to the unexpected energization, start up or release of stored energy while constructing, installing, setting up, adjusting, inspecting, modifying, maintaining or servicing fixed machinery. Stored energy in an electro/mechanical system can be found in rotating flywheels, weights and counter-weights, hydraulic and pneumatic pressure, thermal and chemical energy, springs and unbalanced loads.

This program does not apply to:

a. work on cord and plug connected electric equipment for which exposure to the hazards of unexpected energization or start up of the equipment is controlled by unplugging the equipment from the energy source and by the plug being under the exclusive control of the employee performing the servicing or maintenance.

b. hot tap operations provided:

    1. continuity of service is essential.

    2. shut down of the system is impractical.

    3. documented procedures are followed and special equipment is used which will provide proven effective protection for employees.

PROCEDURES FOR CONTROL OF HAZARDOUS ENERGY

The general procedures for lockout, tagout, or lockout and tagout are quite similar. Below are instructions which apply to all control of hazardous energy procedures. Exceptions and specific requirements for lockout without tagout; tagout without lockout; and lockout used in conjunction with tagout are noted in their own subchapters.

GENERAL PROCEDURES

[NOTE: Throughout this section, lockout/tagout refers to lockout without tagout; tagout without lockout; and lockout used in conjunction with tagout.]

PURPOSE AND SCOPE: effective hazardous energy control procedures will protect employees during machine and equipment servicing and maintenance where the unexpected energization, start up or release of stored energy could occur and cause injury. Further, effective hazardous energy control procedures will protect employees when working near or on exposed deenergized electrical conductors and parts of electrical equipment. Hazards being guarded against include, but are not limited to, being cut, struck, caught, crushed, thrown, mangled, and/or shocked by live electrical circuits caused by the unexpected release of hazardous energy. One (1) piece of machinery can have more than one (1) real or potential source of hazardous energy that must be guarded against.

These procedures for the control of hazardous energy will ensure that machines and equipment are isolated properly from hazardous or potentially hazardous energy sources during servicing and maintenance and properly protected from reenergization as required by 29 CFR 1910.147.

While any employee is exposed to contact with parts of fixed electrical equipment or circuits which have been deenergized, the circuits energizing the parts will be locked out and/or tagged in accordance with the requirements of 29 CFR 1910.333 (b)(2).

PREPARATION FOR SHUTDOWN: prior to lockout/tagout, all energy isolating devices must be located which apply to the specific machine in question. **There may be more than one energy source**. While electrical is most common, other sources could be: hydraulic, pneumatic, chemical, thermal, rotational, spring, etc.. All must be isolated. The Energy Source Evaluation Form and the Control Procedures Form must be completed prior to isolation. These forms must be completed by an authorized employee. Once completed, it is recommended that these evaluations remain on file for future use. Any changes in design or energy hazard will require an update of these forms. Not only the energy source hazard, but its magnitude must be recorded on the Energy Source Evaluation Form. Example: Energy Source: Pneumatic. Magnitude: 125 p.s.i..

Before an authorized or affected employee turns off the piece of equipment, the authorized employee must have knowledge of the type and magnitude of the energy to be controlled and the methods or means to control the energy. Refer to the Control Procedures Form for specific energy control procedures.

MACHINE OR EQUIPMENT SHUTDOWN: before lockout/tagout controls are applied, all affected employees will be notified and given the reasons for the lockout/tagout.

If a machine or equipment is operating, it will be shut down by normal stopping procedures by either the affected or authorized employee.

LOCKOUT/TAGOUT DEVICE APPLICATION: authorized employees will lockout/tagout the energy isolating devices with assigned individual locks. Locks or other lockout/tagout devices will be color coded and shall be used for no other purpose. Lockout/tagout devices will indicate the identity of the authorized employee applying the device.

Lockout/tagout devices will be durable and capable of withstanding the environment to which they are exposed for the maximum period of time that exposure is expected. They shall be standardized in color and be substantial enough to prevent their removal without the use of excessive force or unusual techniques such as bolt cutters or other metal cutting tools. Key or combination locks are acceptable. Tagout device attachments shall be non-reusable, attachable by hand, self-locking, and non-releasable with a minimum unlocking strength of no less than 50 pounds. The tagout attachment will have the general design and basic characteristics of, at a minimum, a one-piece, all environmental tolerant nylon cable tie.

Lockout/tagout devices will be applied so that they will hold the energy isolating devices in a "Neutral" or "Off" position. Protective materials and hardware shall be provided for isolating, securing or blocking of machines or equipment from energy sources. These protective materials and hardware include, but are not limited to, locks, tag chains, wedges, key blocks, adapter pins, self-locking fasteners, etc..

RELEASE OF STORED ENERGY: all stored energy will be blocked or dissipated. Types of stored energy include flywheels, springs, hydraulic or pneumatic systems, etc.. Should there be a possibility of reaccumulation of stored energy, verification of isolation must be continued until servicing is complete.

VERIFICATION OF ISOLATION: prior to starting work on machines or equipment that have been locked out and after ensuring that no personnel are exposed to the release of hazardous energy, the authorized employee shall operate the normal operating controls to verify that the machine or equipment has been deenergized and that it will not operate.

After the above test, the operating controls will be returned to the "NEUTRAL" or "OFF" position.

At this point, the machine/equipment is now locked out. The work may proceed.

RELEASE FROM LOCKOUT/TAGOUT: Before the lockout/tagout devices are removed and energy is restored to the machine or equipment, the following procedures will be implemented to ensure the following:

a. the work area will be inspected to ensure that nonessential items have been removed and to ensure that the machine or equipment components are operationally intact.

b. the work area will be checked to ensure that all employees have been safely positioned or removed.

After the lockout/tagout devices have been removed and before the machine or equipment is started, affected employees will be notified that the lockout/tagout devices have been removed.

Each lockout/tagout device must be removed by the authorized employee who applied it.

NOTE: The one exception to the above is when the authorized employee who applied the lockout/tagout device is not available to remove it. That device may be removed under the direction of the competent person provided that the below specific procedures are followed:

a. verification by the competent person that the authorized employee who applied the lockout/tagout device is not within the facility.

b. all reasonable efforts will be made to contact the authorized employee to inform him/her that his/her lockout/tagout device has been removed.

c. ensuring that the Authorized employee has been informed of the above before resuming work.

The person who removes the device must be an authorized employee.

Each type of control of hazardous energy procedure shall be documented using the Energy Source Evaluation Form and the Control Procedures Form **except** when all the below listed conditions exist:

a. The machine or equipment has no potential for stored or residual energy or reaccumulation of stored energy after shut down which could endanger employees; and

b. The machine or equipment has a single energy source which can be readily identified and isolated; and

c. The isolation and locking out of that energy source will completely deenergize and deactivate the machine or equipment; and

d. The machine or equipment is isolated from that energy source and locked out during servicing and maintenance; and

e. A single lockout device is under the exclusive control of the authorized employee performing the servicing and maintenance; and

f. The servicing and maintenance does not create hazards for other employees; and

g. No accidents have occurred involving the unexpected activation or re-energization of the machine or equipment during servicing or maintenance.

The above exceptions apply to documentation only. Whether using lockout, tagout, or lockout and tagout, the general procedures are the same.

DEVICE SELECTION CRITERIA FOR NON-ELECTRICAL HAZARDOUS ENERGY

A lock, color coded with either paint or tape and identifiable with the name of the employee who applied it, shall be placed on each energy isolating device where feasible. Lockout is the primary means of non-electrical hazardous energy isolation and, where possible, will always be used in lieu of tagout. In the event a machine or piece of equipment will not accept a lock on its energy isolating device(s), it will be modified to do so whenever it is replaced, renovated, or undergoes a major repair.

There are occasions where lockout cannot be accomplished and in those instances, tagout alone may be used as long as it provides full employee protection as explained below:

a. A tag may be used without a lock if a lock cannot be physically applied. This procedure must be supplemented with at least one additional safety measure providing a level of safety equivalent to that obtained by the use of a lock. Examples of additional safety measures include, but are not limited to the:

    1. removal of an isolating circuit element.
    2. blocking of a controlling switch.
    3. opening of an extra disconnecting device.

NOTE: A tag may be used without a lock if it can be demonstrated that tagging procedures will provide a level of safety equivalent to that obtained by the use of a lock. This demonstration must be documented. This is an allowable, but not preferred, option.

All affected persons must be fully aware of the fact that tags used in tagout procedures are essentially a warning device affixed to energy isolating devices. Unlike locks, tags do not physically restrain. Tags will:

a. be capable of withstanding the environment to which they have been exposed for the maximum period of time that exposure is expected.

b. be constructed and printed so that exposure to weather conditions or wet and damp locations will not cause the tag to deteriorate or the message on the tag to become illegible.

c. be standardized in at least one (1) of the following:

   1. color.
   2. shape.
   3. size.

d. be standardized in print and format.

e. in their method of attachment, be substantial enough to prevent inadvertent or accidental removal. Tagout device attachment methods and means shall be of a non-reusable type, attachable by hand, self-locking, and non-releasable with a minimum strength of no less than 50 pounds and have the general design and basic characteristics of being at least equivalent to a one-piece, all-environment-tolerant nylon cable tie.

f. indicate the identity of the employee applying the tag.

g. warn against the hazardous conditions if the machine or equipment is energized and shall include a legend such as the following: *Do Not Start; Do Not Open; Do Not Close; Do Not Operate, etc.*.

CONTROL OF ELECTRICAL HAZARDOUS ENERGY ON FIXED EQUIPMENT

Electrical hazards associated with fixed equipment present a special hazard class and, in each case, a determination must be made whether lockout, tagout, or lockout used in conjunction with tagout is to be utilized.

The guidelines for this determination are found in 29 CFR 1910.333. 29 CFR 1910.333 makes no mention of maintenance or servicing. Its provisions apply to any possible exposure to contact with fixed electrical equipment or circuits which have been deenergized. Live parts that operate at less than 50 volts to ground need not be deenergized if there will be no increased exposure to electrical burns or to explosion due to electric arcs. Fixed equipment is defined as: "equipment fastened in place or connected by permanent wiring methods."

Before circuits and/or equipment are deenergized, safe procedures will be determined before the fact. At a minimum:

a. the circuits and equipment to be deenergized will be disconnected from all electric energy sources. Control circuit devices, such as push buttons, selector switches, and interlocks, may not be used as the sole means for deenergizing circuits or equipment. Interlocks for electric equipment may not be used as a substitute for lockout and tagging procedures.

b. stored electric energy which might endanger personnel shall be released. Capacitors shall be discharged and high capacitance elements shall be short-circuited and grounded if the stored electric energy might endanger personnel. Be aware of the shock potential of capacitors and associated equipment. If they are handled in meeting this requirement (discharging), they shall be treated as energized until they have been totally discharged.

c. stored non-electrical energy in devices that could reenergize electric circuit parts shall be blocked or relieved to the extent that the circuit parts could not be accidentally energized by the device.

DEVICE SELECTION CRITERIA FOR ELECTRICAL HAZARDOUS ENERGY

NOTE: When dealing with safety related work practices to prevent electric shock or other injuries resulting from either direct or indirect electrical contacts, a Qualified Person is defined as one who: "is permitted to work on or near exposed energized parts" and who, at a minimum, has been trained in and is familiar with:

a. the skills and techniques necessary to distinguish exposed live parts from other parts of electric equipment, and

b. the skills and techniques necessary to determine the nominal voltage of exposed live parts, and

c. the clearance distances specified in §1910.333(c) and the corresponding voltages to which the qualified person will be exposed.

A lock and tag shall be placed on each disconnecting means used to de-energize circuits and equipment on which work is to be performed except:

a. a tag may be used without a lock if it can demonstrate that tagging procedures will provide a level of safety equivalent to that obtained by the use of a lock. This demonstration must be documented. This is an allowable, but not preferred, option. A tag may also be used without a lock if a lock cannot be physically applied. Under either of the above two circumstances that a tag is used without a lock, the procedures must be supplemented with at least one additional safety

measure that provides a level of safety equivalent to that obtained by the use of a lock. Examples of additional safety measures include:

1. the removal of an isolating circuit element.
2. the blocking of a controlling switch.
3. the opening of an extra disconnecting device.

b. A lock may be used without a tag if, and only if:

1. only one circuit or piece of equipment is being deenergized, and
2. the lockout period does not extend beyond the work shift, and
3. employees exposed to the hazards associated with reenergizing the circuit are familiar with this procedure -- utilizing a lock without a tag.

After electrical hazards are locked out, tagged out, or locked and tagged out, a Qualified Person must verify deenergization before work can proceed on deenergized equipment. Verification by the Qualified Person will include:

a. operation of the equipment operating controls or otherwise verify that the equipment cannot be restarted.

b. using test equipment to test the circuit elements and electrical parts of equipment to which employees will be exposed and verifying that the circuit elements and equipment parts are deenergized.

c. using test equipment to determine if any energized condition exists as a result of inadvertently induced voltage or unrelated voltage backfeed even though specific parts of the circuit have been deenergized and presumed to be safe.

NOTE: If the circuit to be tested is over 600 volts, the test equipment shall be checked for proper operation immediately before and immediately after this test.

REENERGIZING ELECTRICAL EQUIPMENT

The process of reenergizing electrical equipment, even temporarily, must be accomplished as noted below in the order listed:

a. A Qualified Person shall conduct tests and visual inspections, as necessary, to verify that all tools, electrical jumpers, shorts, grounds, and other such devices have been removed, so that the circuit and equipment can be safely energized.

b. Employees exposed to the hazards associated with reenergizing the circuit or equipment shall be warned to stay clear of circuits and equipment.

c. Each lock and tag will be removed by the authorized employee (who must also be a Qualified Person when dealing with electrical hazards).

d. If the person who applied the lock or tag is absent from the workplace, the competent person may designate another Qualified Person to remove the lock and/or tag provided that:

   1.it is assured that the Authorized Person who applied the lock or tag is not available at the workplace, and

   2. it is assured that the Authorized Person who applied the lock and/or tag is aware that the lock and/or tag has been removed before he/she resumes work at the workplace.

e. A visual determination shall be accomplished to ensure all employees are clear of the circuits energized.

SPECIAL CONSIDERATIONS

Whether using lockout, tagout, or lockout and tagout procedures, the below special considerations apply.

There may be special circumstances where, during a lockout procedure, a machine or equipment must be temporarily removed from the energy isolating device and the machine or equipment energized to test or position the machine or equipment or components thereof. The below procedures will be followed to accomplish this task:

a. The machine or equipment will be cleared of tools and nonessential items and, if it is to be operated, all components will be operationally intact.
b. The work area will be checked to ensure that all employees have been safely positioned or removed.
c. The standard release from lockout procedures will be implemented.
d. The machine or equipment will be energized and testing or positioning will proceed.
e. After testing or positioning, deenergize all systems and reapply the energy control device following standard procedures.

GROUP LOCKOUT AND/OR TAGOUT PROCEDURES

In the event that servicing or maintenance is performed by more than one individual, the following shall be implemented:

a. One person will be designated as Group Leader and that person will have overall responsibility for a set number of employees working under his/her control.
b. The Group Leader will have exclusive control of a Master Group Lockout and/or Group Tagout device.

c. The Group Leader will ascertain the exposure status of individual group members with regard to the lockout and/or tagout of the machine or equipment.

d. Each authorized employee within the group shall affix his personal lockout/tagout device to a group lockout box or comparable device before beginning work and shall remove his/her personal lockout/tagout device upon completion of work.

If there is more than one group of personnel working a machine or piece of equipment, an employee shall be designated to coordinate and take responsibility for all the individual groups.

SHIFT AND/OR PERSONNEL CHANGES

In the event that Energy Control Procedures must extend into the next shift or if there are individual or group personnel changes, the procedures listed below will be implemented in the order listed:

a. If the energy isolation device **will** accept two lockout/tagout devices:

   1. The authorized employee coming on duty will place his personalized lockout/tagout device in place, and

   2. After the above step has been completed, the employee going off duty will remove his lockout/tagout device.

b. If the energy isolation device **will not** accept two lockout/tagout devices, both the incoming and outgoing authorized employees will:

   1. ensure that all affected employees are aware that a lockout/tagout change is about to take place, then

   2. ensure that the area is clear of tools and affected employees, then

   3. the outgoing authorized employee will remove his lockout/tagout devices and immediately the incoming authorized employee will install his lockout/tagout devices, and

   4. the incoming authorized employee will inform the affected employees that the change has been completed.

Following the above procedure will ensure the energy isolating device was never disturbed and that complete control of hazardous energy was maintained. The above procedure provides for continuing protection for both incoming and outgoing employees from the potential hazards of the unexpected release of hazardous energy and an orderly transfer of lockout/tagout responsibilities.

PERIODIC INSPECTIONS

The Safety Director will conduct periodic inspections of this Control of Hazardous Energy Program at least annually to ensure that the procedures and requirements of 29 CFR 1910.147 are being followed. The information gleaned from the periodic inspection will be used to correct any deviations or inadequacies identified. These inspections will be documented and certification will be prepared to identify the machine or equipment on which an energy control procedure was utilized, the date of the inspection, the employees included in the inspection, and the name of the person performing the inspection. It should be noted that all periodic inspections shall be conducted by a competent person designated by the Safety Director **other** than the person who actually used the energy control procedure being inspected.

TRAINING

Control of Hazardous Energy training will be documented giving the name of the trainer, the name of the trainee, and the date. Authorized employees must be familiar with this program and will be trained in the following areas: recognition of all applicable hazardous energy sources, types and magnitude of energy sources, methods and means necessary for energy isolation and control, and changes to our program.

Retraining will be conducted when a periodic inspection reveals inadequacy in an authorized employee's knowledge; there has been a deviation from established policy or procedure; or our procedures are changed.

All training will be interactive with applicable standards readily accessible.

Machine/Equipment Identification: _____ **Date:** _____

Location of Machine Equipment: _____

Authorized Person Name: _____

ENERGY SOURCE EVALUATION FORM

MACHINE OR EQUIPMENT NAME: _____ LOCATION: _____

MODEL: _____ SERIAL NUMBER: _____ PROCEDURE NUMBER: _____

ENERGY SOURCE	MAGNITUDE (Volts; Amps; Phase; HP; Lbs; RPM; Ft-Lbs; p.s.i.; °F/°C; Highly Reactive)	LOCATION OF ISOLATING DEVICE	MEANS OF ISOLATION	COMMENTS
CAPACITOR				
CHEMICAL				
COUNTER WEIGHT				
ELECTRICAL				
ENGINE				
FLYWHEEL				
HYDRAULIC				
PNEUMATIC				
SPRING				
THERMAL				
OTHER				
OTHER				

[NOTE: This form must be completed by an Authorized Employee.]

EVALUATION CONDUCTED BY:

NAME: _____ DATE: _____

(MUST BE AN AUTHORIZED EMPLOYEE)

Machine/Equipment Identification: _____ **Date:** _____

Location of Machine Equipment: _____

Authorized Person Name: _____

CONTROL PROCEDURES FORM

These Procedures must be accomplished in the order listed.

1. **PREPARATION FOR SHUTDOWN:** The Authorized Employee will be totally familiar with the first page of this form. The Affected Employees will be notified that the piece of equipment is about to be shutdown and locked out.
Specific Instructions: _____
_____

2. **SHUTDOWN:** Affected Employees will be given the reason(s) for the lockout/tagout procedures. If the machine is running, it will be turned off using normal procedures. It may be shutdown by either the Authorized Employee or the Affected Employee.
Specific Instructions: _____
_____

3. **MACHINE ISOLATION:** All real or potential hazardous energy listed on the first page of this form will be isolated from their source. The location of the isolation devices and the methods used are also found on the first page of the form.
Specific Instructions: _____
_____
_____

4. **LOCKOUT/TAGOUT DEVICE APPLICATION:** Authorized Employees will (circle appropriate procedure): [lockout] [tagout] [lockout and tagout] the energy isolating devices. Lock and tag devices will be color coded and they will contain the identity of the Authorized Employee actually performing this procedure. The lockout/tagout devices will be applied so that they hold the energy isolating device in a "Neutral" or "Off" position.
Specific Instructions: _____
_____

4a. If a tag is used in lieu of a lock because the energy isolating device will not accept a lock, the following additional safety precautions will be taken [29 CFR 1910.147 c(3)(ii) & 29 CFR 1910.333(2)(b)(iii)((D)]:

_____

_____

Specific Instructions: _____

_____

5. **RELEASE OF STORED ENERGY:** All stored energy will be blocked or dissipated. Reference page one (1) of this form to ensure real or potential stored energy in a system is identified and controlled.
Specific Instructions: _____

_____

6. **VERIFICATION OF ISOLATION:** Prior to starting work on the piece of equipment and after ensuring that no personnel are exposed to the release of hazardous energy, the Authorized Employee shall operate the controls to verify that there has been deenergization and that the equipment will not operate. After this verification, the operating controls will be returned to the "Neutral" or "Off" position.
Specific Instructions: _____

_____

7. **RELEASE FROM LOCKOUT/TAGOUT:** The Authorized Employee shall 1.) ensure that all Employees have been safely positioned or removed and the work area will be cleared of non-essential items, 2.) ensure the equipment or equipment components are operationally intact; 3.) ensure machine guards have been replaced; 4.) inform the Affected Employees that lockout and or tagout devices are going to be removed; 5.) remove the lockout and or tagout devices including all energy restraints such as blocks; and 6.) inform the Affected Employees that the equipment is ready for operation.

Specific Instructions: _____

_____

GROUP LEADER DOCUMENTATION

One (1) person shall be designated as Group Leader. The Group Leader will have overall responsibility for a set number of employees.

The Group Leader shall have exclusive control of a Master (Group) Lockout and/or Group Tagout device.

The Group Leader will ascertain the exposure status of individual group members with regard to the lockout and/or tagout of the machine or equipment.

Each individual authorized employee within the group shall affix his personal lockout/tagout device to a group lockout box or comparable device before beginning work and shall remove his/her personal lockout/tagout device upon completion of work.

If there is more than one group of personnel working on a machine or piece of equipment, an employee shall be designated to coordinate and take responsibility for all the individual groups.

NAME OF DESIGNATED GROUP LEADER: _____

EQUIPMENT REQUIRING CONTROL OF HAZARDOUS ENERGY

NAME: _____ SERIAL NUMBER: _____

DATE: _____ MODEL NUMBER: _____

AUTHORIZED (QUALIFIED) EMPLOYEES OF THE GROUP

_____ (Name)	_____ (Signature)
_____ (Name)	_____ (Signature)
_____ (Name)	_____ (Signature)
_____ (Name)	_____ (Signature)

Program Administrator

SIGNATURE OF GROUP LEADER: _____

ServiceBoss International, Inc.
Environmental, Health & Safety Program

PERIODIC INSPECTION DOCUMENTATION

EQUIPMENT ON WHICH CONTROL OF HAZARDOUS ENERGY PROCEDURES WERE UTILIZED

NAME: _____ SERIAL NUMBER: _____

DATE: _____ MODEL NUMBER: _____

WERE ALL THE CORRECT PROCEDURES CORRECTLY APPLIED? YES NO

[If yes, sign the form and return to the Safety Director.]
[If no, complete the below section, sign the form and return to the Safety Director.]

EMPLOYEES PERFORMING THE PROCEDURE

_____ _____
(Name) (Signature)

_____ _____
(Name) (Signature)

_____ _____
(Name) (Signature)

_____ _____
(Name) (Signature)

_____ _____
(Name) (Signature)

_____ _____
(Name) (Signature)

IMPROPER PROCEDURES NOTED

_____
_____
_____
_____
_____
_____

_____ _____
(SIGNATURE OF INSPECTOR) (Date)

[NOTE: If improper procedures are noted, the above employees must have retraining or the Program must be modified.]

ServiceBoss International, Inc.

EXPOSURE CONTROL PLAN
for
BLOODBORNE PATHOGENS & OTHER INFECTIOUS MATERIALS

ServiceBoss International, Inc.

NOTE

Per CPL 2-2.69, *Enforcement Procedures for the Occupational Exposure to Bloodborne Pathogens*, the bloodborne pathogens standard does not apply to the construction industry. OSHA has not, however, stated that the construction industry is free from the hazards of bloodborne pathogens. Exposure to bloodborne pathogens would fall under Section 5(a)(1) of the OSH Act which states that "each employer shall furnish to each of his employees employment and a place of employment which is free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees."

The primary job assignment of our designated first aid providers is not the rendering of first aid or other medical assistance. Any first aid rendered by them is rendered only as a collateral duty, responding solely to injuries resulting from workplace incidents and only at the location where the incident occurred.

Recordkeeping: all work-related injuries from needlesticks and cuts, lacerations, punctures and scratches from sharp objects contaminated with another person's blood or other potentially infectious materials (OPIM) are to be recorded on the OSHA 300 as an injury.

Note: Our first aid kits do not contain sharps or needles. However, a contaminated sharp, such as a broken pair of glasses, may trigger the above.

a. To protect the employee's privacy, the employees name may not be entered on the OSHA 300.

b. If the employee develops a bloodborne disease, the entry must be updated and recorded as an illness.

ServiceBoss International, Inc.

Safety Program

SECTION III

EXPOSURE CONTROL PLAN
for
BLOODBORNE PATHOGENS & OTHER INFECTIOUS MATERIALS

INDEX

OSHA Standards:

29 CFR 1910.1030, Bloodborne Pathogens

Forms:

[Found immediately following this program]

Exposure Determination: Lists I, II, & III
Housekeeping Schedule & Checklist
Hepatitis B Vaccination Declination
Sharps Injury Log
Annual Exposure Control Plan Review
Exposure Incident Report

POLICY STATEMENT

This Exposure Control Plan has been developed to eliminate or minimize the risk of exposure to bloodborne pathogens and other potentially infectious materials. This Plan presents methods and procedures to eliminate and/or minimize the hazards associated with occupational exposure to bloodborne pathogens or other infectious materials.

As a matter of policy, universal precautions will be used.

Additional components of this Plan include exposure determinations by job classification, standard operating procedures to eliminate or reduce the likelihood of disease transmission, the methods of disease transmission, definitions of terms, post exposure procedures and follow-up, training documentation, and recordkeeping.

Compliance with this Plan not only fulfills the requirements of the Occupational Safety and Health Administration, more importantly, it fulfills our desire to maintain a safe working environment and safeguard the health of our employees.

All affected employees should feel free to review this Plan at any time and are encouraged to consult with our Exposure Control Plan Administrator to resolve any issues affecting its implementation. Immediately following our Exposure Control Plan is a copy of 29 CFR 1910.1030, *Bloodborne Pathogens*. Our Plan is to be made available to the Assistant Secretary of Labor for Occupational Safety and Health or designated representative.

DEFINITIONS

All employees should know the "language" of this plan. Because some of the words and/or terms are not used in everyday life, each person must be aware of the definitions so that we are all "reading off the same page". Below are OSHA definitions:

Assistant Secretary: the Assistant Secretary of Labor for Occupational Safety and Health, or designated representative.

Blood: human blood, human blood components, and products made from human blood.

Bloodborne Pathogens: pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

Clinical Laboratory: a workplace where diagnostic or other screening procedures are performed on blood or other potentially infectious materials.

Contaminated: the presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.

Contaminated Laundry: laundry which has been soiled with blood or other potentially infectious materials or may contain sharps.

Contaminated Sharps: any contaminated object that can penetrate the skin including, but not limited to, needles, scalpels, broken glass, broken capillary tubes, and exposed ends of dental wires.

Decontamination: the use of physical or chemical: to remove, inactivate, or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.

Director: the Director of the National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, or designated representative.

Engineering Controls: controls (e.g., sharps disposal containers, self-sheathing needles, safer medical devices, such as sharps with engineered sharps injury protections and needleless systems) that isolate or remove the bloodborne pathogens hazard from the workplace.

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

Handwashing Facilities: a facility providing an adequate supply of running potable water, soap and single use towels or hot air drying machines.

Licensed Healthcare Professional: a person whose legally permitted scope of practice allows him or her to independently perform the activities required by paragraph 29 CFR 1910.1030(f), *Hepatitis B Vaccination and Post-exposure Evaluation and Follow-up*, a copy of which follows this section.

> Note: The above activities include actually providing Hepatitis B vaccine, ordering appropriate laboratory test, determining contraindications to vaccination, providing post-exposure prophylaxis and counseling. The legal scope of practice for this professional must allow the independent performance of all the procedures described in paragraph (f), *Hepatitis B Vaccination and Post-exposure Evaluation and Follow-up*.

HBV: hepatitis B virus.

HIV: human immunodeficiency virus.

Needleless systems: a device that does not use needles for:

a. The collection of bodily fluids or withdrawal of body fluids after initial venous or arterial access is established;

b. The administration of medication or fluids; or

c. Any other procedure involving the potential for occupational exposure to bloodborne pathogens due to percutaneous injuries from contaminated sharps.

Occupational Exposure: reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.

Other Potentially Infectious Materials:

a. The following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids;

b. Any unfixed tissue or organ (other than intact skin) from a human (living or dead); and

c. HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV-containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV.

Parenteral: piercing mucous membranes or the skin barrier through such events as needlesticks, human bites, cuts, and abrasions.

Personal Protective Equipment is specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (e.g., uniforms, pants, shirts or blouses) not intended to function as protection against a hazard are not considered to be personal protective equipment.

Production Facility: a facility engaged in industrial-scale, large-volume or high concentration production of HIV or HBV.

Regulated Waste: liquid or semi-liquid blood or other potentially infectious materials; contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed; items that are caked with dried blood or other potentially infectious materials and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or other potentially infectious materials.

Research Laboratory: a laboratory producing or using research-laboratory-scale amounts of HIV or HBV. Research laboratories may produce high concentrations of HIV or HBV but not in the volume found in production facilities.

Sharps with engineered sharps injury protections: a non-needle sharp or a needle device used for withdrawing body fluids, accessing a vein or artery, or administering medications or other fluids, with a built-in safety feature or mechanism that effectively reduces the risk of an exposure incident.

Source Individual: any individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to the employee. Examples include, but are not limited to, hospital and clinic patients; clients in institutions for the developmentally disabled; trauma victims; clients of drug and alcohol treatment facilities; residents of hospices and nursing homes; human remains; and individuals who donate or sell blood or blood components.

Sterilize: the use of a physical or chemical procedure to destroy all microbial life including highly resistant bacterial endospores.

Universal Precautions is an approach to infection control. According to the concept of Universal Precautions, all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens.

Work Practice Controls: controls that reduce the likelihood of exposure by altering the manner in which a task is performed (e.g., prohibiting recapping of needles by a two-handed technique).

EXPOSURE CONTROL PLAN
[29 CFR 1910.1030(c)]

This Exposure Control Plan is provided for all personnel who, as a result of the performance of their duties, would have reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials.

This Plan will be reviewed and updated annually and whenever necessary as new or modified tasks and procedures are introduced which affect occupational exposure to bloodborne pathogens or other potentially infectious materials. The review and update of this plan will:

a. reflect changes in technology that eliminate or reduce exposure to bloodborne pathogens.
b. document, annually, consideration and implementation of appropriate commercially available and effective safer medical devices designed to eliminate or minimize occupational exposure.

First aid providers employees responsible for direct trauma victim care who are potentially exposed to injuries for contaminated sharps will be asked for input in the identification, evaluation, and selection of effective engineering and work practice controls.

This Exposure Control Plan, with a copy of 29 CFR 1910.1030, Bloodborne Pathogens, will be made accessible to all employees as well as the Assistant Secretary and the Director (see definitions) who may examine and copy this plan.

EXPOSURE DETERMINATION

Three (3) lists will be prepared and they will be maintained in Section II of this plan.

List I: A list of all job classifications in which all employees have occupational exposure.

List II: A list of job classifications in which some employees have occupational exposure.

List III: A list of all tasks and procedures or groups of closely related tasks and procedures in which occupation exposure occurs and are performed by employees in job classifications noted in List II.

Note: The above exposure determinations are to be made without regard to the use of personal protective equipment.

METHODS OF COMPLIANCE

Universal precautions will be used. We will treat all trauma victims' blood, bodily fluids, and other potentially infectious materials as if they are known to be infectious. Unfortunately, there is no immediate, practical way to determine if HIV, HBV, and other bloodborne pathogens are present so, to be safe, we will assume they are. Traditionally, isolation of infectious materials has been diagnosis-driven. This meant that if a person were diagnosed to have HIV or HBV infection, for example, then isolation precautions would be taken. Because the infection status of each trauma victim cannot be immediately known, it makes sense to treat all trauma victims and their body fluids as if they were infected. The precautions to take depend on the procedures being performed. For example, if one's hands will be in contact with body substances, disposable gloves will be worn. If there is risk of one's eyes being splashed with body fluids, eye protection will be worn. An impermeable barrier must be placed between yourself and the potentially infectious bodily fluids. Overkill is not necessary. Cleaning up a minor spill on a counter top does not require a

mask, eye protection, and plastic apron. It does, however, require disposable gloves.

All employees will strictly adhere to the below engineering and work practice controls to eliminate or reduce the possibility of occupational exposure to bloodborne pathogens or other potentially infectious materials. Specific controls and procedures, noted below, will be used to eliminate or minimize employee exposure. If occupational exposure is:

HANDWASHING EQUIPMENT AND PROCEDURES: Handwashing facilities are provided which are readily accessible to all employees.

Employees will wash their hands and any other skin area exposed to blood or other potentially infectious materials with soap and water immediately or as soon as feasible:

a. after removal of gloves or other personal protective equipment.
b. following contact with blood or other potentially infectious materials.

Particular attention will be given to fingernails and between fingers and rings under which infectious material may lodge. Furthermore, one should be aware that rings and jewelry are a good hiding place for bloodborne pathogens and other potentially infectious materials.

Examples of situations where handwashing is appropriate:

a. before and after examining any trauma victim.
b. after handling any soiled waste or other materials.
c. after handling any chemicals or used equipment.

If for some reason handwashing facilities are not functioning, appropriate antiseptic hand cleaner and clean cloth/paper towels (antiseptic towelettes) will be provided and used. If antiseptic hand cleaner and clean cloth/paper towels are used, hands will be washed with soap and water as soon as feasible.

EATING, DRINKING, SMOKING:

There shall be no eating, drinking, smoking, applying cosmetics or lip balm, or handling contact lenses in areas where there is a likelihood of occupational exposure to bloodborne pathogens or other potentially infectious materials.

Furthermore, food and drink shall not be kept in refrigerators, freezers, shelves, cabinets, or on countertops or benches where blood or other potentially infectious materials are present.

CONTAMINATED NEEDLES & OTHER CONTAMINATED SHARPS:

Contaminated needles will not be sheared, or broken.

Furthermore, all contaminated needles and other contaminated sharps shall not be bent, recapped, or removed unless:

a. it can be demonstrated that no alternative is feasible or that it is required by a specific medical procedure.
b. recapping or needle removal may be accomplished through the use of a mechanical device or a one-handed method.

Contaminated **reusable** sharps will be placed in appropriate containers immediately or as soon as possible after use until properly reprocessed. These containers will:

a. be puncture resistant.
b. have warning labels affixed to containers potentially infectious material and contain the following legend:

Note: The above label will be fluorescent orange or orange-red or predominantly so, with lettering and symbols in a contrasting color.

Labels shall be affixed as close as feasible to the container by string, wire, adhesive, or other method that prevents their loss or unintentional removal.

Red bags or red containers may be substituted for labels.

c. be leakproof on the sides and bottom.

Reusable sharps that are contaminated with blood or other potentially infectious materials will not be stored or processed in a manner that requires employees to reach by hand into the containers where these sharps have been placed.

Contaminated **non-reusable** sharps will be discarded immediately or as soon as feasible and placed in containers that:

a. are closable
b. are puncture resistant.
c. are leakproof on sides and bottom.
b. have warning labels affixed that contain the following legend:

Note: The above label will be fluorescent orange or orange-red or predominantly so, with lettering and symbols in a contrasting color.

Labels shall be affixed as close as feasible to the container by string, wire, adhesive, or other method that prevents their loss or unintentional removal.

Red bags or red containers may be substituted for labels.

Contaminated **reusable** sharps shall not be stored or processed in such a manner that requires employees to reach by hand into the containers where these sharps have been placed.

During use, containers for contaminated sharps must be:

a. easily accessible to our employees.
b. located as close as feasible to the immediate area where sharps are used or can be reasonably anticipated to be found.
c. maintained upright throughout use.
d. replaced routinely and not be allowed to overfill.

If leakage is possible when removing a container of contaminated sharps, it shall be placed in a second container with the following container requirements:

a. it will be closable.
b. it will be constructed to contain all contents and prevent leakage during handling, storage, transport or shipping, and;
c. colored coded red or labeled as noted above.

Reusable containers shall not be opened, emptied, or cleaned manually or in any other manner which would expose employees to the risk of percutaneous (introduced through the skin such as a cut) injury.

OTHER REGULATED WASTE - CONTAINMENT:

The provisions that apply to contaminated sharps, above, apply to other regulated waste.

DISPOSAL OF CONTAMINATED SHARPS & OTHER REGULATED WASTE:

The actual disposal of all regulated waste shall be in compliance with applicable state laws.

SPECIMENS OF POTENTIALLY INFECTIOUS MATERIALS:

Specimens of blood and potentially infectious materials shall be placed in a container which prevents leakage during collection, handling, processing, storage, transport, or shipping.

SPLASHING, SPRAYING OF POTENTIALLY INFECTIOUS MATERIALS:

All procedures involving blood or other potentially infectious materials shall be performed in such a manner as to minimize splashing, spraying, spattering, and the generation of droplets of these substances.

MOUTH PIPETTING:

Mouth pipetting and mouth suction of blood or other potentially infectious materials is prohibited.

DESIGNATED EXPOSURE CONTROL PLAN ADMINISTRATOR

Our designated the Exposure Control Plan Administrator will be knowledgeable in all aspects of this Plan as it relates to our operations and be available to answer questions raised by our first aid providers. The Exposure Control Plan Administrator may call upon professionals in the Medical Arts to field questions that are of technical nature outside of the Administrator's area of expertise.

The Exposure Control Plan Administrator will:

a. ensure this Plan is kept current.
b. ensure training is provided as required.
c. maintain all records associated with this plan.

DESIGNATED FIRST AID PROVIDERS

Before one may be designated as a first aid provider, he/she must have a valid certificate in first aid training from the U.S. Bureau of Mines, the Red Cross, or equivalent training that can be verified by documentary evidence. No person is to administer any medical assistance for which they are not appropriately trained. It is noted that the rendering of first aid is not the primary job of the our designated first aid providers.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

In spite of work practice and engineering controls, there is a requirement for appropriate personal protective equipment to provide an impermeable barrier between potentially infectious materials and the employees work clothes, street clothes, undergarments, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time which the protective equipment will be used.

Employees will use appropriate personal protective equipment when there is a possibility of occupational exposure to bloodborne pathogens or other potential infectious materials.

Personal protective equipment will be provided in appropriate sizes and at no cost to the employees. Further, maintenance and replacement of personal protective equipment will be provided at no cost to the employee.

Personal protective equipment will be discarded immediately if its ability to function as a barrier is compromised.

Most importantly, employees must understand that personal protective equipment is useless unless it provides an impermeable barrier between bloodborne pathogens and other potentially infectious materials and the employee's clothes, skin, eyes, mouth, or other mucous membranes.

Personal Protective Equipment is considered appropriate if it prevents potentially infectious materials from reaching work/street clothing or body surface when used under normal conditions.

<u>DISPOSABLE GLOVES</u>:

Disposable, single use gloves, such as surgical or examination gloves will be worn when it can be reasonably anticipated that the employee may have hand contact with blood or other potentially infectious materials and when handling or touching contaminated items or surfaces. Disposable gloves will always be used when there is a possibility of contact with bloodborne pathogens or other potentially infectious materials.

Disposable gloves shall never be washed, decontaminated, or reused.

Disposable gloves shall be replaced as soon as practical when contaminated or as soon as feasible if they are torn, punctured, or their ability to function as a barrier is compromised.

Should any employee be allergic to the normal gloves provided, an appropriate alternative (such as hypoallergenic and/or powderless gloves) will be provided in the proper size at no cost to the employee.

UTILITY GLOVES:

Utility gloves may be used for general cleanup (not for any trauma victim procedure) when there is anticipated exposure to bloodborne pathogens or other potentially infectious materials. Utility gloves may be decontaminated for re-use if the integrity of the gloves is not compromised. They will be discarded if they are cracked, peeling, torn, punctured, or exhibit signs of deterioration or when their ability to function as a barrier is compromised.

EYE AND RESPIRATORY PROTECTION:

Eye (goggles, glasses, face shield, etc.) and respiratory (mask, etc.) protection will be used when it can reasonably be expected that bloodborne pathogens or other potentially infectious materials may splash or spray in or around the eyes, nose, mouth, and general head area of the employee.

PROTECTIVE BODY CLOTHING:

Protective body clothing such as gowns, aprons, lab coats, etc. will be worn as determined by the professional judgment of the employee in relation to task. The protective body clothing will certainly be worn where there can reasonably be expected exposure to bloodborne pathogens or other potentially infectious materials to the body area.

LAUNDRY:

Personal protective equipment will be cleaned, laundered, and disposed of at no cost to the employee.

[Note: In rare and extraordinary circumstances, an employee, in her/his professional judgment, may decline to temporarily and briefly wear personal protective equipment if he/she deems that the equipment would prevent the delivery of health care or would have increased the hazard of occupational exposure to the employee or his/her co-workers. Should this event occur, it will be documented, investigated, and procedures will be developed to prevent a reoccurrence.]

HOUSEKEEPING

Housekeeping is an ongoing, never ending procedure which not only enhances our work environment but also eliminates health risk to our personnel. In the area of bloodborne pathogens and other hazardous materials, to ensure proper cleaning, decontamination, sterilization, and disinfecting of surfaces within our facility, cleaning will be accomplished only by employees who have received training in universal precautions and the provisions of this plan. The written Housekeeping Schedule & Checklist is found in Section II and this Schedule will be adhered to following an incident that results in the potential exposure to bloodborne pathogens or other potentially infectious materials.

Broken, potentially infected glassware, should be picked up and disposed of using mechanical means such as a brush and dust pan or forceps.

All sharps will be stored in a manner that allows easy access and safe handling.

Infectious waste will be placed in containers that are color coded red. These containers will be decontaminated as soon as practical.

Subsequent to rendering any procedures, employees will ensure that all surfaces on which blood, body fluids, bloodborne pathogens, or other infectious materials may be present are cleaned with an appropriate disinfectant.

HEPATITIS B EPIDEMIOLOGY

Hepatitis B (serum hepatitis) routes of infection include parenteral, oral, or direct contact. The virus can also spread by contact with the respiratory tract. Its sources include contaminated needles and surgical instruments as well as contaminated blood products. The virus of hepatitis B has been found in urine. Further, the virus of hepatitis B can live for up to seven (7) days on a dry surface and can be easily be transmitted by a single needle stick. Its incubation period is quite lengthy generally between 45 and 180 days. It affects all age groups. Recovery from hepatitis B does provide immunity. Generally, one can expect a complete recovery from viral hepatitis, however, it is potentially fatal depending on many factors including the virulence (aggressiveness) of the virus, prior hepatic damage, and natural barriers to damage and disease of the liver. It is possible for viral hepatitis to lead to fulminating viral hepatitis and subacute fatal viral hepatitis both of which are fatal. Onset symptoms may include headache, elevated temperature, chills, nausea, dyspepsia, anorexia, general malaise, and tenderness over the liver. These types of symptoms will last

about one (1) week, then subside, and jaundice will occur. Jaundice is caused by damaged liver cells. The convalescent stage begins with the disappearance of the jaundice and may last several months. Recovery is expected in six (6) months.

RISK OF EXPOSURE

Per the Department of Human Services of the Center for Disease Control, below is the risk of infection after occupational exposure:

HBV:

First aid providers who have received hepatitis B vaccine and have developed immunity to the virus are at virtually no risk for infection. For an unvaccinated person, the risk from a single needlestick or cut exposure to HBV-infected blood ranges from 6-30% and depends on the hepatitis B e antigen (HBeAg) status of the source individual. In individuals who are both hepatitis B surface antigen (HBsAG) positive and HBeAg positive have more virus in their blood and are more likely to transmit HBV.

HCV:

Based on limited studies, the risk for infection after a needlestick or cut exposure to HCV-infected blood is approximately 1.8%. The risk following a blood splash is unknown, but is believed to be very small; however, HCV infection from such an exposure has been reported.

HIV:

The average risk of HIV infection after a needle stick or cut exposure to HIV-infected blood is 0.3% (i.e., three-tenths of one percent, or about 1 in 300). Stated another way, 99.7% of needlestick/cut exposures do not lead to infection.

The risk after exposure of the eye, nose, or mouth to HIV-infected blood is estimated to be, on average, 0.1% (1 in 1,000).

The risk after exposure of the skin to HIV-infected blood is estimated to be less than 0.1%. A small amount of blood on intact skin probably poses no risk at all. There have been no documented cases of HIV transmission due to an exposure involving a small amount of blood on intact skin (a few drops of blood on skin for a short period of time). The risk may be higher if the skin is damaged (for example, by a recent cut) or the contact involves a large area of skin or is prolonged (for example, being covered in blood for hours).

All employees with occupation exposure are encouraged to accept the hepatitis B vaccination.

HEPATITIS B VACCINATION

The hepatitis B vaccination series will be provided, at no cost, to all unvaccinated first aid providers as soon as possible (within 24 hours of initial exposure). All exposed first aid providers employees are encouraged to take this vaccination series unless they have previously received the complete hepatitis B vaccination series; antibody testing has revealed that the employee is immune; or the vaccine is contraindicated (not recommended) for medical reasons. Post-exposure evaluation, prophylaxis (prevention of or protection from disease), and follow-up will be provided at no cost to the employee.

The Hepatitis B vaccination will be performed under the supervision of a licensed physician or other licensed healthcare professional.

All laboratory tests will be conducted by an accredited laboratory at no cost to the employee.

Should routine booster dose(s) of hepatitis B vaccine (as recommended by the U.S. Public Health Service at a future date) be required, they will be provided at no cost as long as the employee remains a first aid provider.

An employee may decline the Hepatitis B vaccination and this declination shall not shall not reflect unfavorably upon him/her, however this declination must be in writing. See Section II.

It is important to note that if a first aid provider initially declines the hepatitis B vaccination series, he/she may at a later date decide to accept the vaccination series and it will be provided at no cost assuming he/she is still occupationally exposed to bloodborne pathogens or other potentially infectious materials.

SHARPS INJURY LOG

A Sharps injury log will be maintained for the recording of percutaneous injuries from contaminated sharps.

The information on the log will be recorded and maintained in such manner as to protect the confidentiality of the injured employee.

The sharps injury log will contain:

a. the type and brand of device involved in the incident.
b. the department or work area where the exposure incident occurred.
c. an explanation of how the incident occurred.

The sharps injury log shall be maintained for the period of five years.

FIRST AID PROVIDER INPUT

As a matter of policy, all first aid providers who are responsible for first aid delivery as an additional job are encouraged to suggest methods to improve our engineering and workplace controls. This input may be made verbally to the Plan Administrator at any time. Additionally, during the annual refresher training, suggestions will be solicited.

PLAN REVIEW

This plan will be reviewed, and if necessary, updated annually to reflect new or modified tasks and procedures which affect occupational exposure and to reflect new or revised employee positions with occupational exposure. As new medical devices are developed which reduce employee exposure, they will be introduced into our practice. A review of the "Sharps Log" will help identify problem areas and/or ineffective devices which may need replacement.

POST-EXPOSURE EVALUATION AND FOLLOW-UP

The information that has preceded this Section has dealt with the methods to restrict occupational exposure to bloodborne pathogens and other infectious materials. Post-exposure evaluation and follow-up deals with the steps to take immediately following a potential exposure incident and the steps that will be taken over time to protect our employees from further health risk.

All incidents involving exposure to blood or other potentially infectious materials will be reported to the Exposure Control Plan Administrator, in writing, before the end of the shift in which the incident occurred using the Exposure Incident Report (Section II). This Report will be prepared regardless of whether or nor there has been an "Exposure Incident" as defined in this Plan and in 29 CFR 1910.1030. A separate Exposure Incident Report will be completed for each employee who was occupationally exposed.

Information in this Report will include:

a. the date and time the incident occurred.

b. a brief description of the events leading up to the exposure (what happened.)

c. the name of the individual exposed.

d. the route of exposure.

e. "source individual" and "exposed individual" information including the acceptance or rejection of hepatitis B vaccination series.

d. a determination of whether or not an actual "exposure incident" occurred. Refer to Definitions in this Plan or 29 CFR 1910.1030.

The Exposure Control Plan Administrator or his authorized representative will review the Exposure Incident Report and determine if methods or procedures may be altered to prevent a reoccurrence of the incident.

Further, an occupational bloodborne pathogens exposure incident which results in the recommendation for hepatitis B vaccination would be recorded on OSHA Form 300 as an injury. See Recordkeeping.

All unvaccinated employees who have assisted in any situation involving blood will be afforded the opportunity to receive the hepatitis B vaccination series as soon as possible but not later than twenty-four (24) hours after the situation.

A confidential medical evaluation and follow-up will be provided immediately, at not cost, to the employee. The healthcare professional evaluating an employee after an exposure incident will be provided a copy of 29 CFR 1910.1030 (Section II).

Further, the healthcare professional will be provided a description of the exposed employee's duties as they relate to the exposure incident; documentation of the route(s) of exposure; the circumstances under which the exposure occurred; the results of the source individual's blood testing, if available; and all medical records relevant to the appropriate treatment of the employee including vaccination status which is maintained by our office. See Recordkeeping.

The confidential medical evaluation and follow-up will include:

a. documentation of the route(s) of exposure.

b. the circumstances under which the exposure incident occurred.

c. the identification and documentation of the source individual, unless it can be established that the identification is not feasible or prohibited by state or local law.

d. the exposed employee's blood shall be collected as soon as feasible and tested after consent is obtained.

Note: If the employee consents to baseline blood collection, but does not consent at that time for HIV serologic testing, the sample shall be preserved for at least 90 days. If, within 90 days of the exposure incident, the employee elects to have the baseline sample tested, such testing shall be done as soon as feasible.]

e. the source individual's blood shall be tested as soon as feasible to determine HBV and HIV infectivity unless it is already known in which case this procedure is not necessary.

If consent to test the source individual's blood cannot be obtained the following will occur:

a. it will be established and documented that legally required consent cannot be obtained.
b. when the source individual's consent is not required by law, the source individual's blood shall be tested and the results documented.

The results of the source individual's testing shall be made available to the exposed employee and the employee shall be informed of applicable laws and the identity and infectious status of the source individual.

The employee shall be provided post-exposure prophylaxis, when medically indicated, and counseling.

The employee will be provided with a copy of the healthcare professional's written opinion within 15 days of the completion of the evaluation. The written opinion shall be limited to:

a. whether Hepatitis B vaccination is indicated and if the employee has received such vaccination.
b. an indication that the employee has been informed of the results of the evaluation.
c. an indication that the employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation or treatment.

All other findings or diagnoses will remain confidential and will not be included in the written report.

RECORDKEEPING

Complete and accurate medical records will be maintained for each employee with occupational exposure. These records shall remain confidential and will not be disclosed or reported without the employee's express written consent to any person within or outside the workplace except as required by law.

Medical records will be maintained for at least the duration of employment plus 30 years.

Included in the employee's medical record will be:

a. the employee's name and social security number.
b. a copy of the employee's hepatitis B vaccination status including the date of all the hepatitis B vaccinations and any medical records relative to the employee's ability to receive vaccination.
    1. if the employee has declined to receive the hepatitis B vaccination series when appropriate, this declination will be included in the person's medical records.
c. a copy of all results of examinations, medical testing, and follow-up procedures as required following an exposure incident.
d. the employer's copy of the healthcare professional's written opinion following an exposure incident.
e. a copy of all information provided to the healthcare professional following an exposure incident.

All work-related injuries from needlesticks and cuts, lacerations, punctures and scratches from sharp objects contaminated with another person's blood or other potentially infectious materials are to be recorded on the OSHA 300 as an injury.

a. To protect the employee's privacy, the employees name may not be entered on the OSHA 300.
b. If the employee develops a bloodborne disease, the entry must be updated and recorded as an illness.

TRAINING

All of our first aid providers must have current certificates of first aid and CPR training on file. These records will be maintained by the Plan Administrator.

Initial training, training at the introduction of a new or altered task affecting exposure to bloodborne pathogens or other potentially hazardous materials, and annual training will be provided by a person knowledgeable in the subject matter contained in this Plan.

Training will be interactive between the instructor and employee. An opportunity to ask questions will be provided. Further, this Plan as well as 29 CFR 1910.1030, *Bloodborne Pathogens*, will be readily available for review.

All training will be documented using the forms found in Appendix A. Training documentation will be maintained for a period of three (3) years from the date on which the training occurred.

Training will include, but not be limited to, the following topics and materials:

a. a complete review of our Exposure Control Plan and its accessibility.
b. an accessible copy of 29 CFR 1910.1030 and an explanation of its contents.
c. a general explanation of the epidemiology and symptoms of bloodborne diseases.
d. an explanation of the modes of transmission of bloodborne pathogens.
e. an explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials.
f. an explanation of the use and limitations of methods that will prevent or reduce exposure including appropriate engineering controls, work practices, and personal protective equipment.
g. information on the types, proper use, location, removal, handling, decontamination and disposal of personal protective equipment.
h. an explanation of the basis for selections of personal protective equipment.
i. information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, benefits of being vaccinated, and that the vaccine and vaccination will be offered free of charge.
j. information on the appropriate actions to take and persons to contact in an emergency involving blood other potentially infectious materials.
k. an explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available.
l. information on the post-exposure evaluation and follow-up that is provided after an exposure incident.
m. an explanation of the color coding required by paragraph (g)(1), 29 CFR 1910.1030.
n. a request for input from employees in the identification, evaluation, and selection of effective engineering and work practice controls.

WASTE MANAGEMENT

Waste ,management, if necessary, will comply with State EPA standards regarding handling, storage, and shipping of medical wastes.

SUMMARY

The whole thrust of the Program is to provide an awareness of the dangers of bloodborne pathogens, provide a means of reducing the possibility of occupational exposure, and, should occupational exposure occur, provide a means of reducing health risk.

ServiceBoss International, Inc.

EXPOSURE DETERMINATION

LIST I

All job classifications in which all employees have occupational exposure.

Note: The above exposure determinations are to be made without regard to the use of personal protective equipment.

1. First Aid Providers_____

2. _____

3. _____

4. _____

5. _____

6. _____

Note: The primary job assignment of our designated first aid providers is not the rendering of first aid or other medical assistance. Any first aid rendered by them is rendered only as a collateral duty, responding solely to injuries resulting from workplace incidents and only at the location where the incident occurred.

ServiceBoss International, Inc.

EXPOSURE DETERMINATION

LIST II

Job classifications in which some employees have occupational exposure.

1. None_____

2. _____

3. _____

4. _____

5. _____

6. _____

Note: The above exposure determinations are to be made without regard to the use of personal protective equipment.

Note: The primary job assignment of our designated first aid providers is not the rendering of first aid or other medical assistance. Any first aid rendered by them is rendered only as a collateral duty, responding solely to injuries resulting from workplace incidents and only at the location where the incident occurred.

ServiceBoss International, Inc.

EXPOSURE DETERMINATION

LIST III

All tasks and procedures or groups of closely related tasks and procedures in which occupation exposure occurs and are performed by employees in job classifications noted in List II.

	Job Classification	Tasks
1.	None	
2.		
3.		
4.		

Note: The primary job assignment of our designated first aid providers is not the rendering of first aid or other medical assistance. Any first aid rendered by them is rendered only as a collateral duty, responding solely to injuries resulting from workplace incidents and only at the location where the incident occurred.

Note: The above exposure determinations are to be made without regard to the use of personal protective equipment.

HOUSEKEEPING SCHEDULE & CHECKLIST

SCHEDULE

Following every incident where there is a possibility of the presence of residual bloodborne pathogens or other potentially infectious materials.

CHECKLIST

Only personnel who have had training in our Exposure Control will ensure that all surfaces are decontaminated and that cleaning materials are properly disposed of. Areas to consider include, but are not limited to:

	YES	NA
FLOORS	☐	☐
WALLS	☐	☐
EQUIPMENT	☐	☐
PRODUCT	☐	☐
WASTE CONTAINERS	☐	☐
TOOLS	☐	☐

Broken, potentially infected glassware, should be picked up and disposed of using mechanical means such as a brush and dust pan or forceps.

All sharps will be stored in a manner that allows easy access and safe handling.

Infectious waste will be placed in containers that are color coded red. These containers will be decontaminated as soon as practical.

Subsequent to rendering any procedures, employees will ensure that all surfaces on which blood, body fluids, bloodborne pathogens, or other infectious materials may be present are cleaned with an appropriate disinfectant.

ServiceBoss International, Inc.

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

_____
(WITNESS)

_____
(EMPLOYEES SIGNATURE)

_____
(PRINTED NAME)

_____
(DATE)

SHARPS INJURY LOG

Note: A sharps injury log will be maintained for the recording of percutaneous injuries from contaminated sharps.

The information on the log will be recorded and maintained in such manner as to protect the confidentiality of the injured employee.

This sharps injury log shall be maintained for the period of five years.

_____ _____
(Incident Date) (Employee SSN)

Type and brand of device involved in the incident:

_____

Work area where the exposure incident occurred:

_____

Explanation of how the incident occurred:

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Safety Program Administrator

ANNUAL EXPOSURE CONTROL PLAN REVIEW

At least annually, this program will be reviewed and, if necessary, updated, to reflect innovations in procedure and technological developments that eliminate or reduce exposure to bloodborne pathogens.

As part of the annual review, the below will be considered:

a. Employee Input
b. Sharps Injury Log
c. Exposure Incident Reports
d. Professional Journals

Date Reviewed:	Signature	Title
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

ServiceBoss International, Inc.
Environmental, Health & Safety Program

EXPOSURE INCIDENT REPORT

ALL INFORMATION ON THIS FORM IS TO REMAIN CONFIDENTIAL

THIS FORM SHALL BE COMPLETED AS SOON AS FEASIBLE AFTER AN EXPOSURE INCIDENT BUT, UNDER NO CIRCUMSTANCES, AFTER THE SHIFT ON WHICH THE INCIDENT OCCURRED.

DATE: _____ TIME: _____

NAME OF EMPLOYEE: _____

ROUTE OF EXPOSURE: _____

SOURCE INDIVIDUAL'S NAME: _____

a. Above individual did / did not consent to be tested for HBV or HIV.

b. Testing was done by: _____

1. Results: _____

EMPLOYEE WAS OFFERED AND ACCEPTED:	**NO**	**YES**	
a. Hepatitis Vaccination Series. [Date(s)]	☐	☐	_____
1. If "NO", written declination was signed.	☐	☐	
b. Post Exposure Evaluation and follow-up.	☐	☐	
c. Employee consents to baseline blood collection.	☐	☐	_____ (Signature)

Description of events leading to this exposure incident:

_____
_____
_____
_____

Corrective Measures to Prevent a Reoccurrence:

_____
_____
_____
_____

_____ (Exposure Control Plan Administrator Signature)

_____ (Employee Signature)

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PERMIT-REQUIRED CONFINED SPACE PROGRAM

ServiceBoss International, Inc.

Safety Program

SECTION III

PERMIT-REQUIRED CONFINED SPACE

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TOPIC **PAGE**

OSHA Standards:

29 CFR 1910.1046, *Permit-Required Confined Spaces*
29 CFR 1910.1000, *Air Contaminants*

Table Z-1, *Limits for Air Contaminants*
Table Z-2, *No Title*
Table Z-3, *Mineral Dusts*

Forms:

[Found immediately following this program]

Emergency Phone Numbers
Permit-Space Information & Attendant Designation
Entry Roster
Entry Permit & Pre-Entry Checklist
Pre-Entry Checklist for Confined Space Entry Using Forced Air Ventilation for Control of Hazardous Atmosphere - Parts 1 & 2

OVERVIEW

As a contractor, we are subject to 29 CFR 1926 standards. According to 29 CFR 1926.21(b)(6)(i), *Safety Training and Education*, all employees required to enter into confined or enclosed spaces shall be instructed as to the nature of the hazards involved, the necessary precautions to be taken, and in the use of protective and emergency equipment required. We are to comply with any specific regulations applying to this potentially dangerous situation. 29 CFR 1910.146, *Permit-Required Confined Spaces*, applies to confined space entry.

CONFINED SPACES

Confined spaces are dangerous because of their configuration, their actual or potential atmosphere, and other hazards that may present themselves such as engulfment.

This Program is designed to:

a. identify and evaluate permit space hazards before entry.

b. provide a system of testing conditions before entry and monitoring conditions during entry.

c. provide a system of preventing unauthorized entry.

d. provide a method of eliminating or controlling hazards for safe permit-space entry operations.

e. provide a method of ensuring at least one (1) Attendant is stationed outside the permit space for the duration of the entry operations.

f. provide a method of coordinating and monitoring entry operations when employees of more than one employer are to be working in the permit space.

g. provide appropriate procedures for emergency rescue.

h. establish a written procedure for preparation, issuance, use, and cancellation of entry permits.

i. provide a system for review and revision of our Program.

j. provide a complete understanding of OSHA Standard 29 CFR 1910.146 for all workers affected by the provisions.

After all is said and done, the bottom line is this:

a. A confined space is a space that:

   is large enough and so configured that an employee can bodily enter and perform assigned work; and

   has limited or restricted means for entry or exit. On the job site, these spaces may include: ventilation or exhaust ducts, bins and tanks, boilers, sewers, tunnels and open top spaces more than 4 feet in depth such as pits, tubs, and vessels; and

   is not designed for continuous employee occupancy.

b. A Permit-Required Confined Space is:

   a confined space that contains any recognized serious safety or health hazards.

DEFINITIONS

The Permit-Required Confined Space standard contains terms which must be understood by all those involved with entry to confined space, permit-required or not. These terms should be known to avoid miscommunication:

ACCEPTABLE ENTRY CONDITIONS: the conditions that must exist in a permit space to allow entry and to ensure that employees involved with a permit-required confined space entry can enter safely into and work within the space.

ATTENDANT: an individual stationed outside one or more permit spaces who monitors the Authorized Entrants and who performs all Attendant's duties identified and assigned in our permit-required confined space program.

AUTHORIZED ENTRANT: denotes an employee who is authorized to enter a permit space.

BLANKING OR BLINDING: the absolute closure of a pipe, line, or duct by the fastening of a solid plate (such as a spectacle blind or a skillet blind) that completely covers the bore, and is capable of withstanding the maximum pressure of the pipe, line, or duct with no leakage beyond the plate.

DOUBLE BLOCK AND BLEED: the closure of a line, duct, or pipe by closing and locking or tagging two in-line valves, and by opening and locking or tagging a drain or vent valve in the line between the two closed valves.

EMERGENCY: any occurrence (including any failure of hazard control or monitoring equipment) or event internal or external to the permit space that could endanger entrants.

ENGULFMENT: the surrounding and effective capture of a person by a liquid or finely divided (flowable) solid substance that can be aspirated to cause death by filling or plugging the respiratory system, or that can exert enough force on the body to cause death by strangulation, constriction, or crushing.

ENTRY: the action by which a person passes through an opening into a permit-required confined space. Entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space.

ENTRY PERMIT (*PERMIT*): the document that is prepared to allow and control entry into a permit space and that contains the below listed information:

a. the permit space to be entered.

b. the purpose of the entry.

c. the date and authorized duration of the entry permit.

d. the authorized entrants listed in a manner that will allow the attendant to determine, for the duration of the permit, quickly and accurately which entrants are inside the confined space.

e. the names of personnel currently serving as attendants.

f. the name of the individual serving as entry supervisor, with a space for the signature or initials of the entry supervisor who originally authorized entry.

g. the hazards of the permit space to be entered.

h. the measures used to isolate the permit space and to eliminate or control permit space hazards before entry, i.e., lockout or tagging of equipment, as well as procedures for purging, inerting, ventilating, and flushing permit spaces.

i. the acceptable conditions.

j. The results of initial and periodic tests accompanied by the names or initials of the testers and by an indication of when the tests were performed. Permit space conditions will be evaluated as follows:

    1. testing of conditions in the permit space to determine if acceptable entry conditions exist before entry is authorized to begin. If isolation of the space is not feasible because the space is large or is part of a continuous system (such as a sewer), pre-entry testing

shall be performed to the extent feasible before entry is authorized. If entry is authorized, entry conditions shall be continuously monitored in the areas where Authorized Entrants are working.

2. testing and/or monitoring the permit space as necessary to determine if acceptable entry conditions are being maintained during the course of entry operations.
3. testing for atmospheric conditions will be conducted in this order: 1) oxygen; 2) combustible gases and vapors; and 3) toxic gases and vapors.

ENTRY SUPERVISOR: the person responsible for determining if acceptable entry conditions are present at a permit space where entry is planned, for authorizing entry and overseeing entry operations, and for terminating entry as required.

HAZARDOUS ATMOSPHERE: an atmosphere that may expose employees to the risk of death, incapacitation, impairment of ability to self-rescue (i.e., escape unaided from a permit space), injury, or acute illness from one or more of the following causes:

a. flammable gas, vapor, or mist in excess of 10% of its lower flammable limit.
b. airborne combustible dust at a concentration that meets or exceeds its lower flammable limit.
c. atmosphere oxygen concentration below 19.5% or above 23.5%.
d. atmospheric concentration of any substance for which a dose or permissible exposure limit is published in Subpart G, *Occupational Health and Environmental Control*, or Subpart Z, *Toxic and Hazardous Substances,* (29 CFR 1910), and which could result in employee exposure in excess of its dose or permissible exposure limit.
e. any other atmospheric condition that is immediately dangerous to life or health.

HOT WORK PERMIT: the written authorization to perform operations capable of providing a source of ignition, i.e., riveting, welding, cutting, burning, and heating.

IMMEDIATELY DANGEROUS TO LIFE OR HEALTH (IDLH): any condition that poses an immediate or delayed threat to life, causes irreversible adverse health effects, or interferes with an individual's ability to escape unaided from a permit space.

INERTING: The displacement of the atmosphere in a permit space by a noncombustible gas (such as nitrogen) to such an extent that the resulting atmosphere is noncombustible.

[NOTE: This procedure produces an IDLH oxygen-deficient atmosphere.]

ISOLATION: the process by which a permit space is removed from service and completely protected against the release of energy and material into the space by such means as: blanking or blinding; misaligning or removing sections of line, pipes, or ducts; a double block and bleed system; lockout or tagout of all sources or energy; or blocking or disconnecting all mechanical linkages.

LFL: lower flammable limit.

LINE BREAKING: the intentional opening of a pipe, line, or duct that is or has been carrying flammable, corrosive, or toxic material, an inert gas, or any fluid at a volume, pressure, or temperature capable of causing injury.

NON-PERMIT CONFINED SPACE: a confined space that does not contain or, with respect to atmospheric hazards, have the potential to contain any hazard capable of causing death or serious physical harm.

OXYGEN DEFICIENT ATMOSPHERE: an atmosphere containing less than 19.5 percent oxygen by volume.

OXYGEN ENRICHED ATMOSPHERE: an atmosphere containing more than 23.5 percent oxygen by volume.

PEL: Permissible Exposure Limit.

PERMIT-REQUIRED CONFINED SPACE: a confined space that has one or more of the following characteristics:

a. contains or has a potential to contain a hazardous atmosphere.

b. contains a material that has the potential for engulfing an entrant.

c. has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section.

d. contains any other recognized serious safety or health hazard.

PERMIT SYSTEM: our written procedure for preparing and issuing permits for entry and for returning the permit space to service following termination of entry.

PROHIBITED CONDITION: any conditions in a permit space that is not allowed by the permit during the period when entry is authorized.

RESCUE SERVICE: the personnel designated to rescue employees from permit spaces.

RETRIEVAL SYSTEM: the equipment (including a retrieval line, chest or full body harness, wristlets if appropriate, and a lifting device or anchor) used for non-entry rescue of persons from permit spaces.

STRATIFIED ATMOSPHERE: layered atmosphere.

TESTING: the process by which the hazards confronting entrants of a permit space are identified and evaluated. Testing includes specifying the tests to be performed in the permit space.

JOB SITE EVALUATION

The Entry Supervisor will evaluate the job site to determine if any spaces are permit-required spaces. Should a permit-required confined space(s) be identified, all exposed employees will be informed of the location and danger by posting a sign that reads:

DANGER--PERMIT-REQUIRED CONFINED SPACE
DO NOT ENTER

Personnel are not allowed in the Permit-Required Confined Space except under the provisions of this Program. The above sign shall remain in place unless the space is reevaluated and re-designated a non-permit confined space. By the same token, non-permit confined space(s) shall be reevaluated as configurations, uses, and changes in hazards are identified, and, if necessary, re-classified as a permit-required confined space.

In the absence of other guidelines, this Program will be used for all Permit-Space Entry by our employees. When working with a client that has permit spaces, we will:

a. inform the client that the workplace contains permit spaces and that permit space entry is allowed only through compliance with a permit-required confined space program meeting the requirements of 29 CFR 1910.146.

b. inform the client of reasons that make the confined space a permit-required confined space.

c. seek information from the client concerning their experience with the space in question and the hazards associated with it.

d. seek any information from the client concerning any precautions or procedures they have implemented for the protection of employees in or near permit spaces where our employees will be working.

e. should our employees and a client's employees be working near or in the same permit-required confined space, one person will be designated Senior Attendant and have authority over the other Attendants. This authority will be in writing.

A decision flow chart will be used to identify permit-required confined spaces.

As a general policy, no employee shall enter any confined space, permit-required or not, unless entry is dictated by work assignment. Entry of permit-required confined spaces will be made under the provisions of this Program.

STANDARD PROCEDURES FOR PERMIT-REQUIRED CONFINED SPACE ENTRY

MEASURES TO PREVENT UNAUTHORIZED ENTRY

Unauthorized entry will be prevented by:

a. posting of the below sign:

DANGER--PERMIT-REQUIRED CONFINED SPACE
DO NOT ENTER

b. posting of Attendants outside the permit-required confined space to ensure that unauthorized personnel are not allowed in.

c. ensuring that the Entry Supervisor is aware of his authority, under 29 CFR 1910.146(j)(5), to remove unauthorized individuals who enter or attempt to enter the permit space during entry operations.

d. ensuring the Authorized Entrants are aware of the provisions of 29 CFR 1910.146(h)(5)(iii) which requires an immediate evacuation in the event of the detection of a prohibited condition. An unauthorized entrant is a prohibited condition.

A roster system which allows the Attendant to keep track of the Authorized Entrants within the permit space will be used. The times in and out are recorded. This system accomplishes two major safety goals and one time management goal:

a. identifies who is actually in the permit-required space.

b. records the time of exposure to the hazardous condition(s).

c. documents the time required for accomplishing the assigned task.

ATMOSPHERIC TESTING

Atmospheric testing is required for two (2) distinct purposes: evaluation of the hazards of the permit space and verification that acceptable conditions exist for entry into that space.

a. **Evaluation testing.** The atmosphere of a confined space should be analyzed using equipment of sufficient sensitivity and specificity to identify and evaluate any hazardous atmospheres existing or arising so that appropriate permit entry procedures can be developed and acceptable entry conditions stipulated for that space. Evaluation and interpretation of these data and development of the entry procedure should be reviewed by a technically qualified professional (e.g., OSHA consultation service, certified industrial hygienist, registered safety engineer, or certified safety professional) based on evaluation of all serious hazards.

b. **Verification testing.** The atmosphere of a permit space which may contain a hazardous atmosphere should be tested for residues of all contaminants identified by evaluation testing using permit specified equipment to determine that residual concentration at the time of testing and entry are within the range of acceptable entry conditions. Testing order should be oxygen, flammables, then toxics. Results of testing (i.e., actual concentration) should be recorded on the permit in the space provided adjacent to the stipulated acceptable entry condition.

Duration of testing. Measurement of values for each atmospheric parameter should be made for at least the minimum response time of the test instrument specified by the manufacturer.

Testing stratified (layered) atmospheres. When monitoring for entries involving a descent into atmospheres which may be stratified, the atmospheric envelope should be tested at a distance of approximately four (4) feet in the direction of travel and to each side. If a sampling probe is used, the entrant's rate of progress should be slowed to accommodate the sampling speed and detector response.

Periodic re-testing will verify the atmosphere remains within acceptable entry conditions.

PROCEDURES AND PRACTICES FOR PERMIT SPACE ENTRY

The confined space will be evaluated to determine if, in fact, it is a Permit-Required Confined Space. The decision process will be aided by using the Permit-Required Confined Space Decision Flow Chart. The Entry Supervisor will make this determination.

Questions to be answered in the decision making process include:

a. Does the atmosphere have an oxygen content of between 19.5% and 23.0% by volume?

b. Does the atmosphere contain or have a potential to contain a hazardous atmosphere?

c. Does the confined space contain a material with a potential for engulfing the entrant?

d. Does the confined space have an internal configuration capable of entrapping or asphyxiating the entrant?

e. Does the confined space contain any other recognized hazards?

Once it has been determined that the procedures for Permit-Required Confined Space operations will be implemented, the following actions will be taken:

a. the space will be secured and isolated to prevent non-authorized entry. Barriers, or some other protection as dictated by circumstance, will be erected or installed to protect entrants from external hazards such as pedestrians, vehicles, falling objects, etc..

b. the Pre-Entry Check List will be prepared.

c. a check will be made of the records of all personnel involved with the operations to insure they have had appropriate training for the hazards involved. Material Safety Data Sheets will be made available.

d. before entry, a comprehensive rescue plan will be written and a check of the rescue team's qualifications will be made.

e. all feasible engineering controls will be implemented. The atmosphere will be purged, ventilated, inerted, and/or flushed to control or eliminate the hazardous atmosphere.

f. before entry, all personnel involved will review the Pre-Entry Check List and have a completed understanding of what the operations are to accomplish, the safety measures available, and the rescue plan.

g. all available data will be sought from our client concerning the space including its history, its hazards, their experience with the space and, if applicable, problems encountered. At the completion of the project, all information pertinent to the confined space operation will be provided to the client. Coordination of work and the assignment of one (1) Senior Attendant will be made.

Throughout the duration of an authorized entry into a permit confined space, conditions will be continually verified for acceptability.

After all measures listed above: training; testing; identification of hazards; evaluation; specifying acceptable entry conditions; controlling the atmospheric hazards and other identified hazards through engineering controls, such as forced air ventilation, isolation, and control of hazardous energy (lockout/tagout); preparing a rescue plan; barricading; equipping the appropriate employees with personal protective gear and notifying them of all hazards involved with the entry, etc., the Entry Permit will be issued and signed by the Entry Supervisor.

The duration of the Entry Permit may not exceed the time required to complete the assigned task identified on the permit and will be terminated:

a. when the assigned task is completed.
b. when a condition that is not allowed under the entry permit arises in or near the permit space.

During Permit-Required Confined Space entry, employees will be provided, at no cost, the following:

a. testing and monitoring equipment to test conditions in the permit space to determine if acceptable entry conditions exist before entry is authorized to begin and, if acceptable conditions exist, to continually monitor conditions during the entry process to ensure that acceptable conditions are maintained.
b. ventilating equipment, if required, to maintain acceptable atmospheric conditions.
c. communications equipment, or a method of communicating, between the entrant(s) and the Attendant.
d. personal protective equipment should feasible engineering controls not adequately protect the entrants.
e. adequate lighting to provide safe working conditions and enhance the ability of entrants to safely and quickly evacuate the permit-required confined space in an emergency.
f. required equipment, such as ladders, for safe entry and exit for the Authorized Entrants.
g. rescue equipment, such as wristlets, life lines, and harnesses to extricate entrants in the event of an emergency. The Emergency Rescue Plan will be implemented so that rescue personnel are either on call or on station with adequate medical resources.

RESCUE AND EMERGENCY SERVICES PLAN

One of the most important elements of any Permit-Required Confined Space Program is the Rescue and Emergency Services Plan. There shall be, as a matter of policy, at least one Attendant for each applicable confined space. Regardless of the emergency, if only one Attendant is on duty, he shall not enter a Permit-Required Confined Space to attempt a rescue until replaced by a second Attendant as required by 29 CFR 1910.146 (i)(4).

Should an employee be assigned to be a member of a Rescue Team, that employee must have had documented training in:

a. proper use of personal protective equipment and rescue equipment.

b. the same training as required of the entrant.

c. a simulated rescue within at least twelve (12) months in the same type of confined space (i.e., representative space of the same general dimensions, opening size, hazard type, and accessibility.)

At least one member of the Rescue Team must be trained and certified in basic first aid and cardiopulmonary resuscitation (CPR) and that documentation will be on file. This person must also have training in bloodborne pathogens and exposure control.

As a general procedure, we will notify the local Emergency Rescue Department before permit-required confined space entry is made to coordinate a possible rescue before the fact. The local Emergency Department will be informed of the exact location of the project, the hazards involved, the number of entrants, the types of protective equipment worn by the entrants, and, if needed, a practice rescue will be accomplished.

Non-entry rescue will be used by retrieval systems, where possible, in lieu of actual entry unless the retrieval system would contribute to the overall risk of the entrant.

Retrieval systems to be considered include:

a. a chest or full body harness with a retrieval line attached at the center of the entrant's back near shoulder level.

b. wristlets if they create a lesser danger to the entrant than the above.

c. a retrieval line attached to a mechanical lifting (pulling) device fixed to an anchorage outside the permit space.

Should a potential rescue be required to retrieve an entrant from a five (5) foot vertical drop, a mechanical retrieval device will be employed.

The Attendant will have on site the MSDS for all chemical substances to which the entrant will be exposed. The emergency responders as well as the treating hospital will be provided this information.

The rescue procedure to be used will be noted on the Entry Permit before entry.

CONFINED SPACE ENTRY USING FORCED AIR VENTILATION FOR CONTROL OF HAZARDOUS ATMOSPHERE

(NO OTHER HAZARDS ARE IDENTIFIED)

IF it can be demonstrated that the only hazard posed by the permit space is an actual or potential hazardous atmosphere; and

IF it can be demonstrated that continuous forced air ventilation alone is sufficient to maintain that permit space safe for entry; and

IF monitoring and inspection data supports the above; and

IF the initial entry of the permit space is necessary to obtain the above data, it is carried out by the complete Permit-Required Confined Space Program; and

IF the determinations and supporting data for the above are documented and made available to each employee who enter the permit space; then

ENTRY may be made provided:

THAT any conditions making it unsafe to remove an entrance cover have been eliminated before the cover is removed; and

THAT when the entrance covers are removed, the openings shall be promptly guarded by a railing, temporary cover, or other temporary barrier preventing an accidental fall through the opening, and protecting each employee working in the space from foreign objects entering the space; and

THAT before entering the space, the internal atmosphere shall be tested, with a calibrated direct-reading instrument, for the following conditions in the order given:

a. Oxygen content.

b. Flammable gasses and vapors.

c. Potential toxic air contaminants; and

THAT there be no hazardous atmosphere within the space whenever any employee is inside the space; and

THAT continuous forced air ventilation shall be used, as follows:

a. no employee may enter the space until the forced air ventilation has eliminated any hazardous atmosphere; and

b. the forced air ventilation will be so directed as to ventilate the immediate areas where an employee is or will be present within the space and shall continue until all employees have left the space; and

c. the air supply for the forced air ventilation shall be from a clean source and may not increase the hazards in the space; and

THAT the atmosphere within the space shall be periodically tested as necessary to ensure that the continuous forced air ventilation is preventing the accumulation of a hazardous atmosphere; and

THAT if a hazardous atmosphere is detected during entry:

a. each employee shall leave the space immediately; and

b. the space will be evaluated to determine how the hazardous atmosphere developed; and

c. measures will be implemented to protect employees from the hazardous atmosphere before any subsequent entry takes place; and

THAT all the above is verified with a written certification that contains the date, location of the space, and the signature of the person providing the certification before entry and made available to each employee entering the space.

THEN, per 29 CFR 1910.146(c)(5)(i) & (c)(5)(ii), we may use an alternate procedure for Confined Space Entry which does not require compliance with the following provisions of 29 CFR 1910.146:

a. Permit-Required Confined Space Program.

b. Permit System.

c. Entry Permit.

d. Duties of Authorized Entrants.

e. Duties of Attendants.

f. Duties of Entry Supervisors.

g. Rescue and Emergency Services.

In spite of the above, this type of confined space is still a Permit-Required Confined Space. We are only talking about authorized entry here. Remember, when the forced air ventilation has been removed, the hazardous atmosphere will return.

At first glance, this may seem like a way to avoid much of the paperwork and compliance requirements. To a small degree, it is. However, the confined space which falls under these provisions of the OSHA standard do require documented evaluation, training of employees, barricading of the area, a plan for emergency contingencies, and record keeping. Adherence to all applicable safety standards and practices must be maintained.

This is an alternate set of procedures which may or may not be used. If they are used, all employees should be aware that their safety is first and foremost and that provisions of 29 CFR 1910 (5)(c)(i) & (5)(c)(ii) will be adhered to. Specifically, what we are dealing with is a space with only one hazardous condition (atmosphere) before any action (i.e., forced air ventilation) is taken. Before entry is made the hazardous atmosphere is made acceptable through continuous forced air ventilation and the safety of the atmosphere is periodically checked to ensure that the atmosphere remains safe whenever an employee is within the space in question.

TRAINING

Training will be given to all employees whose work is regulated by this plan. Training will ensure that these persons have the knowledge and skills necessary for the safe accomplishment of their assigned jobs with a confined space. Training will include the duties and responsibilities of each Permit-Required Confined Space position: Authorized Entrant, Attendant, Entry Supervisor, and Rescue Team Member.

Training will be certified with the trainee's name and signature; the trainer's name and signature; and the date of the training. This will be available for inspection by the employees and their authorized representatives.

Training will be accomplished before any assignment involving permit-required confined space operations and when there is a change in assigned duties. Further training will be given at the introduction of a new hazard for which the employee has not been trained.

Should actual job experience indicate a lack of knowledge or proficiency, training will be re-accomplished.

Training for the various Permit-Required Confined Space job positions is noted below.

AUTHORIZED ENTRANTS:

Authorized Entrants will be trained in:

a. an awareness of the hazards that may be encountered during entry, including: information on the mode, signs or symptoms, and consequences of the exposure.

b. proper use of monitoring equipment, ventilation equipment, communications equipment, personal protective equipment, lighting equipment, rescue equipment, entry and egress equipment, barriers to protect entrants from external hazards, and other equipment necessary for safe entry into and rescue from permit spaces.

c. the skills necessary to communicate with the Attendant should a reason for evacuation be present.

d. the requirement to alert the Attendant whenever:

   1. the entrant notices a warning sign or symptom of exposure to a dangerous situation. An example of this may be a tingling of the skin, dizziness, or a headache. Consult the Material Safety Data Sheets for information on specific chemical hazards.

   2. a prohibited condition is detected.

e. exit procedures which include the need to exit the permit space as quickly as possible whenever:

   1. an order to evacuate is given by the attendant or the Entry Supervisor.

   2. the entrant recognizes any warning sign or symptom of exposure to a dangerous situation.

   3. a prohibited condition is recognized.

   4. an evacuation alarm is activated.

ATTENDANTS:

Attendants will be trained in:

a. an awareness of the hazards that may be encountered during entry, including the mode, signs or symptoms, and consequences of the exposure.

b. an awareness of possible behavioral effects of hazard exposure in Authorized Entrants.

c. the method used to continuously maintain an accurate count of Authorized Entrants in the permit space and the use of a roster on the entry permit to readily identify who is in the permit space.

d. the requirement that, while an external rescue attempt may be attempted (such as the use of an external retrieval system), they may not attempt to enter a permit-required confined space to attempt a rescue under any circumstances unless:

    1. they are relieved by a second Attendant.

    2. they are thoroughly trained and certified in appropriate rescue techniques as required by the Rescue and Emergency Services Plan of this Program.

e. communication procedures, as necessary, with Authorized Entrants to monitor entrant status and alert entrants of the need to evacuate if one of the following conditions presents itself:

    1. a prohibited condition is detected by the Attendant.

    2. the Attendant detects the behavioral effects of hazard exposure in an Authorized Entrant.

    3. the Attendant detects a situation outside the space that could endanger the Authorized Entrants.

    4. the Attendant realizes that he/she cannot perform all the required duties of this Plan.

f. the procedures to summon rescue and other emergency services as soon as the Attendant determines that Authorized Entrants need assistance to escape from permit space hazards.

g. taking the following steps when unauthorized persons approach or enter a permit space while entry is underway:

    1. warn the unauthorized persons that they must stay away from the permit space.

    2. advise the unauthorized persons they must exit immediately if they have entered the permit space.

    3. inform the Authorized Entrants and the Entry Supervisor if unauthorized persons have entered the permit space.

h. the procedures for safe non-entry rescues as specified by our rescue procedure.

i. an awareness that no duties may be performed which might interfere with the Attendant's primary duty to monitor and protect the Authorized Entrants. The Attendant must remain outside the Permit Space during entry operations until relieved by another Attendant.

ENTRY SUPERVISOR:

The Entry Supervisor will be trained in:

a. an awareness of the hazards that may be encountered during entry including information of the mode, signs, symptoms, and consequences of the hazard exposure.

b. verification procedures, especially checking that the appropriate entries have been made on the permit, that all tests specified by the permit have been conducted, and that all procedures and equipment specified by the permit are in place before endorsing the permit and allowing entry to begin.

c. termination procedures. Operations will terminate when:

   1. the entry operations covered by the entry permit have been completed, or

   2. a condition arises in or near the permit space that is not allowed.

d. verifying that rescue services are available and that means for summoning them are operational.

e. an awareness that unauthorized personnel who enter or attempt to enter the permit space must be removed.

f. maintaining entry operations consistent with the terms of the entry permit. Whenever responsibility for a permit space entry operation is transferred, and at intervals dictated by the hazards and operations performed within the space, the entry operations must remain consistent with the terms of the entry permit and acceptable entry conditions must be maintained.

RESCUE AND EMERGENCY SERVICES:

Rescue and Emergency Services (Teams and/or Personnel) will be trained and knowledgeable in all areas applicable to Authorized Entrants as well as:

a. the use of personal protective equipment and rescue equipment.

b. rescue duties consistent with the permit space involved and the identified hazards or potential hazards.

c. first aid -- at least one (1) member of a rescue team will be certified in basic first aid and CPR.

Assigned rescue personnel must complete permit space simulated rescues at least once every twelve (12) months from representative permit spaces similar to the permit space in question with regard to size, configuration, hazards involved, accessibility, and opening size.

REVIEW OF PROGRAM

Canceled entry permits will be retained for at least one (1) year to facilitate the review of the permit-required confined space program. Any problems encountered during an entry operation will be noted on the appropriate permit so this program may be revised to correct deficiencies before subsequent entries are authorized.

This Permit-Required Confined Space Program will be reviewed and altered, if appropriate, at the following times:

a. when there is reason to believe the measures taken under this program may not protect employees such as: unauthorized entry; detection of a permit space hazard not covered by the permit; occurrence of an injury or near injury; change in the use or configuration or a permit space; or employee complaints about the effectiveness of this Program.

b. within one year of each entry to ensure employees participating in entry operations are protected from permit space hazards.

NOTE: A single review may be conducted covering all entries during a twelve (12) month period.

RE-DESIGNATION OF CONFINED SPACES

Confined spaces will be reevaluated and re-designated as appropriate. If all hazards, both atmospheric and non-atmospheric, are eliminated from a confined space, it shall be re-classified as a Non-Permit Confined Space. This will be accomplished provided that actual and potential hazards are eliminated.

By the same token, should a space that is classified a Non-Permit Confined Space be found to have a hazard, it shall be reclassified as a Permit-Required Confined Space.

Should a Non-Permit Confined Space, by virtue of altered configuration, use, addition, or identification of hazards become a Permit-Required Confined Space, its designation will change accordingly.

A confined space is one of the following:

a. a non-permit confined space not falling under the Confined Space standards.

b. a confined space whose one and only hazard is atmospheric and can be controlled by forced air ventilation. The Pre-Entry Check List provides this information.

c. a permit-required confined space; all hazards must be identified. The Pre-Entry Check List and Entry Permit provide this information.

Controlling and eliminating hazards are two distinct concepts. Controlling an atmosphere to make it acceptable (i.e., forced air ventilation) does not eliminate the hazard. Stop the forced air ventilation, and the hazard returns.

SUMMARY

All employees who, by virtue of their work assignments, fall under the provisions of this standard should have a comprehensive understanding of confined spaces and the potential dangers involved when working in them. Certain items can not be overemphasized; safety is so important. Most accidents are sudden and unexpected. It is much wiser to plan ahead for possible courses of action in response to potential danger than wait until an accident happens and find, for example, there is no external retrieval system or method of summoning qualified medical response.

Some of the provisions of this program may, on first review, seem unnecessary and/or harsh. One item is the requirement forbidding the Attendant trained in rescue, CPR and First Aid and having the proper safety equipment on site to enter a Permit-Required Confined Space to rescue a fellow worker until he/she is replaced by another Attendant. Another item is the requirement to evacuate the Permit-Required Confined Space immediately at the first sign of a problem.

An explanation of these two items might help to clarify the importance of the whole program.

In the first case, the worker has succumbed to a hazard in a Permit-Required Confined Space. The following information is assumed: the Authorized Entrant entered the space in question after the Pre-Entry Check List and Permit were issued; he/she is aware of the dangers and trained and qualified for entry; he/she has all the required personal protective gear and it is properly worn and functioning. The worker is down! The Attendant would, at the time of the emergency, have no additional information. Therefore whatever hazard fell the first worker would certainly fall the Attendant if the Attendant were to enter the space. No one would

know there are now two people to rescue. Even if they did, by the time the Emergency Response Team arrived, they would now be dealing with two people instead of one. The time lost could be critical to the survival of the Authorized Entrant and to the unwitting Attendant who, while trying to save his friend, actually put his life at greater risk.

Let's analyze the second case concerning immediate evacuation. Suppose you are in a smoke-free environment such as an office, a house, or room and someone lights a cigarette. Even a smoker can detect the odor in a few moments. This gives an indication of how fast the gases in an atmosphere mix even at room temperature (it would be faster at higher temperatures). Immediate evacuation means just that -- immediate. If an Authorized Entrant has just a few seconds to complete a work assignment in a permit-required confined space and is told by the Attendant to evacuate; a warning sign or symptom of exposure is noticed; a prohibited condition is observed; or an evacuation alarm is activated, the entrant must stop work at once and evacuate. Time is of the essence -- hazardous atmospheres may spread quickly. Other hazards (such as engulfment) can happen instantly with little or no warning. It is much easier to re-assess a situation and re-group from outside the permit-required confined space.

ServiceBoss International, Inc.
Environmental, Health & Safety Program

EMERGENCY PHONE NUMBERS

(To be accessible to attendant)

AMBULANCE	911	[_____] (If no 911 Service Available)
FIRE	911	[_____] (If no 911 Service Available)
POLICE	911	[_____] (If no 911 Service Available)
EMERGENCY RESCUE SERVICE		NAME: _____ PHONE: _____
HOSPITAL		NAME: _____ PHONE: _____
MAIN OFFICE		800-810-0730

Safety Director	Work: _____ Pager: _____
OTHER:	
_____ (Name/Title)	Work: _____ Pager: _____
_____ (Name/Title)	Work: _____ Pager: _____
_____ (Name/Title)	Work: _____ Pager: _____
_____ (Name/Title)	Work: _____ Pager: _____

When calling for EMERGENCY RESPONSE, this location is:

_____

_____

ServiceBoss International, Inc.
Environmental, Health & Safety Program

PERMIT-SPACE INFORMATION & ATTENDANT DESIGNATION

CONFINED SPACE DATE: _____

SPACE IDENTIFICATION: _____
SPACE LOCATION: _____
CLIENT: _____

1. Reasons the above confined space is designated a Permit-Required Confined Space:

_____
_____
_____

2. Special precautions taken to protect personnel in or around the above space:

_____
_____
_____

3. Specific hazards and experience with the above confined space:

_____
_____
_____

CLIENT UNDERSTANDING

I, _____, have been provided the above
(Client Representative)
information and understand that permit space entry is allowed only through compliance with a Permit Space Program meeting the requirements of 29 CFR 1910.146.

In the event our employees and your company employees are working near or in the same Permit-Required Confined Space, the below listed person is designated as the one and only Senior Attendant. The person, listed below, will have authority over other Attendants.

_____
(Designated Senior Attendant)

_____ _____
(Client Representative Signature/Title) (Date)

_____ _____
(Date)

Safety Director

[A copy of this form will be kept at the job site during all operations.]

ENTRY ROSTER

CONFINED SPACE DATE: _____

SPACE IDENTIFICATION _____
SPACE LOCATION: _____

AUTHORIZED ENTRANT	TIME IN	TIME OUT	TIME IN	TIME OUT	TIME IN	TIME OUT	TIME IN	TIME OUT

ServiceBoss International, Inc.
Environmental, Health & Safety Program

PERMIT-REQUIRED CONFINED SPACE

ENTRY PERMIT

Note: This Entry Permit must be used with the attached **Pre-Entry Checklist**. Additional pages may be added as necessary.

PERMIT VALID FOR _____ HOURS

CONFINED SPACE-HAZARDOUS AREA:

CONFINED SPACE IDENTIFICATION: _____ START DATE: _____

SPACE LOCATION: _____ TIME: _____

PURPOSE OF ENTRY: _____

SUPERVISOR(S) in charge of crew:

_____

_____

AUTHORIZED ATTENDANTS:

_____

_____

_____

_____

ATMOSPHERE (GAS) TESTER'S SIGNATURE & INITIALS: _____ _____

ATMOSPHERE TESTING EQUIPMENT USED:

_____ (Type)	_____ (Model and/or Serial Number)	_____ (Calibration date)
_____ (Type)	_____ (Model and/or Serial Number)	_____ (Calibration date)
_____ (Type)	_____ (Model and/or Serial Number)	_____ (Calibration date)

_____ **(Signature of Entry Supervisor/Date)**

_____ **(Signature of Program Administrator/Date)**

REVIEWED BY: (Confined Space Operations Personnel)

NOTE: The below listed persons, or their representative, have had the opportunity to observe the pre-entry atmospheric testing as well as any periodic testing that may be deemed necessary for employee safety.

_____ (Print Name)	_____ (Signature)	_____ (Print Name)	_____ (Signature)
_____ (Print Name)	_____ (Signature)	_____ (Print Name)	_____ (Signature)
_____ (Print Name)	_____ (Signature)	_____ (Print Name)	_____ (Signature)
_____ (Print Name)	_____ (Signature)	_____ (Print Name)	_____ (Signature)

PRE-ENTRY CHECKLIST

This checklist is an integral part of our Permit System and MUST be maintained with the Entry Permit.

All items on this Pre-Entry Checklist must be completed before entry.

For items that do not apply, enter N/A.

INITIAL ATMOSPHERIC CHECK (BEFORE VENTILATION): TIME: _____

		Acceptable Parameters	**Tester's Initials**
Oxygen: _____%	_____%	> 19.5 % <23.5 %	_____
Flammable gases and vapors:			
_____: (NAME)	_____% LEL	< 10.0 %	_____
_____: (NAME)	_____% LEL	< 10.0 %	_____
_____: (NAME)	_____% LEL	< 10.0 %	_____
Potential toxic air contaminants:			**Tester's Initials**
_____: (NAME)	_____ PPM	< _____PPM	_____
_____: (NAME)	_____ PPM	< _____PPM	_____
_____: (NAME)	_____ PPM	< _____PPM	_____

[NOTE: mg/m³ may be substituted for PPM. See Table Z-1 to Z-3, Subpart Z 29 CFR 1910. Further, reference Subpart G, 29 CFR 1910.]

METHOD OF ISOLATION (Atmospheric Conditions): _____
_____

MEANS OF VENTILATION (To control Atmospheric Conditions): _____
_____

ATMOSPHERIC CHECK (AFTER VENTILATION & ISOLATION AND IMMEDIATELY PRIOR TO INITIAL ENTRY): TIME: _____

			Acceptable Parameters	**Tester's Initials**
Oxygen: _____%	_____%	>	19.5 % < 23.5 %	_____
Flammable gases and vapors:				
_____: (NAME)	_____% LEL		< 10.0 %	_____
_____: (NAME)	_____% LEL		< 10.0 %	_____
_____: (NAME)	_____% LEL		< 10.0 %	_____
Potential toxic air contaminants:				
_____: (NAME)	_____ PPM	<	_____PPM	_____
_____: (NAME)	_____ PPM	<	_____PPM	_____
_____: (NAME)	_____ PPM	<	_____PPM	_____

[NOTE: mg/m³ may be substituted for PPM. See Table Z-1 to Z-3, Subpart Z 29 CFR 1910. Further, reference Subpart G, 29 CFR 1910.]

OTHER HAZARDS:

(Type, i.e., configuration, engulfment, unacceptable atmosphere, any recognized serious safety or health hazard)

(Engineering controls to control or eliminate the hazard to the extent feasible.)
____
____
____

(Type, i.e., configuration, engulfment, unacceptable atmosphere, any recognized serious safety or health hazard)

(Engineering controls to control or eliminate the hazard to the extent feasible.)
____
____
____

(Type, i.e., configuration, engulfment, unacceptable atmosphere, any recognized serious safety or health hazard)

(Engineering controls to control or eliminate the hazard to the extent feasible.)
____
____
____

(Type, i.e., configuration, engulfment, unacceptable atmosphere, any recognized serious safety or health hazard)

(Engineering controls to control or eliminate the hazard to the extent feasible.)
____
____
____

(Type, i.e., configuration, engulfment, unacceptable atmosphere, any recognized serious safety or health hazard)

(Engineering controls to control or eliminate the hazard to the extent feasible.)
____
____
____
____

HAZARDS NOT COMPLETELY ELIMINATED BY ENGINEERING CONTROLS AND SAFETY GEAR REQUIRED (i.e., respirators (specific type), special boots, gloves, suits, eye protection, etc.):

(HAZARD)	(SAFETY GEAR)
(HAZARD)	(SAFETY GEAR)
(HAZARD)	(SAFETY GEAR)

COMMUNICATIONS PROCEDURES:

[NOTE: Acceptable, non-electrical, suggestions include, but are not limited to, predetermined rapping sounds, tugs on a rope or line, air horn signals, voice communications]

BELOW LISTED ITEMS MUST BE COMPLETED AND REVIEWED PRIOR TO ENTRY:

NOTE: For items that do not apply, enter N/A.

REQUIREMENT	COMPLETED	DATE	TIME	REQUIREMENT	COMPLETED	DATE	TIME
Lock Out/De-energize/Try Out		_____	_____	Full Body Harness w/"D" ring		____	____
Lines Broken/Capped/blanked		_____	_____	Emergency Escape Retrieval Equipment		____	____
Purge-Flush & Vent		_____	_____				
Ventilation		_____	_____	Lifelines		____	____
Secure Area (Post & Flag)		_____	_____	Fire Extinguishers		____	____
Breathing Apparatus		_____	_____	Lighting (Explosion Proof)		____	____
Resuscitator-Inhalator		_____	_____	Protective Clothing		____	____
Standby Safety Personnel		_____	_____	Respirator(s) (Air Purifying)		____	____
Hoisting Equipment		_____	_____	Direct reading gas monitor tested		____	____
All electric equipment listed Class I, Division I, Group D		_____	_____	Non-Sparking Tools		____	____
SCBA's for entry & standby		_____	_____	Powered Communications		____	____
Other: _____		_____	_____	Burning & Welding Permit		____	____
Other: _____		_____	_____	Other: _____		____	____

EMERGENCY AND RESCUE PROCEDURES

	YES	NO	N/A
Rescue Procedures will be implemented by Company Employees.	☐	☐	☐
Company Rescue Personnel have had training in:			
a. Use of Personal Protective Equipment.	☐	☐	☐
b. Use of Rescue Equipment.	☐	☐	☐
c. Practiced simulated permit space rescue within the past 12 months for a space representative of the space for which this permit is issued.	☐	☐	☐
Each member of the Rescue Team has had training in basic First Aid and cardiopulmonary resuscitation (CPR) and at least one (1) member is currently certified.	☐	☐	☐
NAME OF CERTIFIED PERSON (CPR): _____			
NAME OF CERTIFIED PERSON (1st AID): _____			
Appropriate Material Safety Data Sheets are at the job site.	☐	☐	☐
The retrieval line is affixed to the entrants and a fixed point outside the space or a mechanical device should the space be a vertical type more than five (5) feet deep.	☐	☐	☐
All entrants will wear a chest or full body harness with a retrieval line attached at the center of the entrant's back neat shoulder level, or above the entrant's head.	☐	☐	☐
Entrants will wear wristlets, in lieu of the above, should they create a lesser danger to the entrants.	☐	☐	☐

	YES	NO	N/A
Rescue procedures will be implemented by a rescue service consisting of persons who are not employees.	☐	☐	☐

This rescue service has been provided with:

a. information on all hazards or potential hazards they may confront.	☐	☐	☐
b. access to all permit spaces from which rescue may be necessary to enable the rescue service to develop appropriate rescue plans and practice rescue procedures.	☐	☐	☐

SPECIFIC RESCUE PLAN FOR AN EMERGENCY IN THIS CONFINED SPACE:

RECORD OF CONTINUOUS MONITORING

[The results of continuous monitoring, if applicable, are to be recorded below every two (2) hours.]

TESTS TO BE TAKEN	Permissible Entry Level	TIME/ RESULTS	TIME/ RESULTS	TIME/ RESULTS	TIME/ RESULTS	TESTER'S INITIALS	DATE
PERCENT OF OXYGEN	**19.5 to 23.5%**	____/____	____/____	____/____	____/____	_____	_____
LOWER EXPLOSIVE LIMIT	**Under 10%**	____/____	____/____	____/____	____/____	_____	_____
_____	*_____ **_____	____/____	____/____	____/____	____/____	_____	_____
_____	*_____ **_____	____/____	____/____	____/____	____/____	_____	_____
_____	*_____ **_____	____/____	____/____	____/____	____/____	_____	_____
_____	*_____ **_____	____/____	____/____	____/____	____/____	_____	_____
_____	*_____ **_____	____/____	____/____	____/____	____/____	_____	_____

***8 Hour Time Weighted Average: Employee can work in area 8 hours (longer with appropriate protection).**

****Short term exposure limit: Employee can work in area up to 15 minutes.**

TESTS TO BE TAKEN	Permissible Entry Level	TIME/ RESULTS	TIME/ RESULTS	TIME/ RESULTS	TIME/ RESULTS	TESTER'S INITIALS	DATE
PERCENT OF OXYGEN	**19.5 to 23.5%**	____/____	____/____	____/____	____/____	_____	_____
LOWER EXPLOSIVE LIMIT	**Under 10%**	____/____	____/____	____/____	____/____	_____	_____
_____	*_____ **_____	____/____	____/____	____/____	____/____	_____	_____
_____	*_____ **_____	____/____	____/____	____/____	____/____	_____	_____
_____	*_____ **_____	____/____	____/____	____/____	____/____	_____	_____
_____	*_____ **_____	____/____	____/____	____/____	____/____	_____	_____
_____	*_____ **_____	____/____	____/____	____/____	____/____	_____	_____

***8 Hour Time Weighted Average: Employee can work in area 8 hours (longer with appropriate protection).**

****Short term exposure limit: Employee can work in area up to 15 minutes.**

This six (6) page Entry Permit and Pre-Entry Checklist as been prepared by the Entry Supervisor and reviewed by all personnel involved in this Permit-Required Confined Space Entry Operation.

ENTRY SUPERVISOR: _____ _____ _____

(Name) (Signature) (Date)

PRE-ENTRY CHECK LIST
and
CERTIFICATION OF COMPLIANCE WITH 29 CFR 1910.146(c)(5)(ii)
for
CONFINED SPACE ENTRY USING FORCED AIR VENTILATION FOR CONTROL OF HAZARDOUS ATMOSPHERE
(NO OTHER HAZARDS ARE IDENTIFIED)

PART 1

I certify that the below listed confined space falls under the Permit-Required Confined Space Standard, 29 CFR 1910.146(c)(5)(i) & entry will be performed under the provisions of 29 CFR 1910.146(c)(5)(ii).

CONFINED SPACE IDENTIFICATION: _____ **DATE:** _____

SPACE LOCATION: _____ **TIME:** _____

WORK TO BE ACCOMPLISHED IN CONFINED SPACE: _____

PRE ENTRY CHECKLIST

INITIAL ATMOSPHERIC CHECK (BEFORE VENTILATION): TIME: _____

		Acceptable Parameters
Oxygen:	_____% _____%	**> 19.5 % < 23.5 %**
Flammable gases and vapors:		
_____: (NAME)	_____% LEL	**< 10.0 %**
_____: (NAME)	_____% LEL	**< 10.0 %**
_____: (NAME)	_____% LEL	**< 10.0 %**
Potential toxic air contaminants:		
_____: (NAME)	_____ PPM	**<** _____PPM
_____: (NAME)	_____ PPM	**<** _____PPM
_____: (NAME)	_____ PPM	**<** _____PPM

NOTE: mg/m³ may be substituted for PPM. See Table Z-1 to Z-3, Subpart Z 29 CFR 1910. Reference Subpart G, 29 CFR 1910.

METHOD OF ISOLATION: _____
_____

MEANS OF VENTILATION: _____
_____

ATMOSPHERIC CHECK (AFTER VENTILATION & ISOLATION): TIME: _____

		Acceptable Parameters
Oxygen:	**_____% _____%**	**> 19.5 % < 23.5 %**

Flammable gases and vapors:

_____ (NAME):	**_____% LEL**	**< 10.0 %**
_____ (NAME):	**_____% LEL**	**< 10.0 %**
_____ (NAME):	**_____% LEL**	**< 10.0 %**

Potential toxic air contaminants:

_____ (NAME):	**_____ PPM**	**< _____PPM**
_____ (NAME):	**_____ PPM**	**< _____PPM**
_____ (NAME):	**_____ PPM**	**< _____PPM**

NOTE: mg/m³ may be substituted for PPM. See Table Z-1 to Z-3, Subpart Z 29 CFR 1910. Reference Subpart G, 29 CFR 1910.

PERMIT AND CHECK LIST PREPARED BY: _____
(Entry Supervisor/Date)

APPROVED BY: _____
(Program Administrator/Date)

REVIEWED BY: (Confined Space Operations Personnel)

NOTE: The below listed persons, or their representative, have had the opportunity to observe the pre-entry atmospheric testing as well as any periodic testing that may be deemed necessary for employee safety.

(Print Name)	**(Signature)**	**(Print Name)**	**(Signature)**
(Print Name)	**(Signature)**	**(Print Name)**	**(Signature)**
(Print Name)	**(Signature)**	**(Print Name)**	**(Signature)**

THE ATMOSPHERE WITHIN THE SPACE SHALL BE PERIODICALLY TESTED AS NECESSARY TO ENSURE THAT THE CONTINUOUS FORCED AIR VENTILATION IS PREVENTING THE ACCUMULATION OF A HAZARDOUS ATMOSPHERE.

IF CONDITIONS ARE IN COMPLIANCE WITH THE ABOVE REQUIREMENTS AND THERE IS NO REASON TO BELIEVE CONDITIONS MAY CHANGE ADVERSELY, THEN PROCEED TO THE PERMIT SPACE PRE-ENTRY CHECK LIST. COMPLETE AND POST WITH THIS FORM. MAINTAIN THIS FORM AND SUPPORTING DOCUMENTATION FOR A PERIOD OF ONE (1) YEAR.

THIS PERMIT AND SUPPORTING DOCUMENTATION SHALL BE KEPT AT THE JOB SITE. AT COMPLETION OF THE JOB, THIS COPY WILL BE FORWARDED TO THE PROGRAM ADMINISTRATOR.

ServiceBoss International, Inc.
Environmental, Health & Safety Program

PRE-ENTRY CHECK LIST
For
CONFINED SPACE ENTRY USING FORCED AIR VENTILATION
FOR CONTROL OF HAZARDOUS ATMOSPHERE
(NO OTHER HAZARDS ARE IDENTIFIED)

PART 2

I certify that the below listed confined space falls under the Permit-Required Confined Space Standard, 29 CFR 1910.146(c)(5)(i) & (c)(5)(ii):

CONFINED SPACE PRE-ENTRY CHECK LIST

A confined space either is entered through an opening other than a door (such as a manhole or side port) or requires the use of a ladder or rungs to reach the working level. Test results must be satisfactory. This check list must be filled out whenever the job site meets this criteria.

		YES	NO
1.	Did your survey of the surrounding area show it to be free of hazards such as drifting vapors from any source?	☐	☐
2.	Does your knowledge of industrial or other discharges indicate this area is likely to remain free of dangerous air contaminants while occupied?	☐	☐
3.	Are you certified in the operation of the gas monitor to be used?	☐	☐
4.	Has a gas monitor functional test (Bump Test) been performed this shift on the gas monitor to be used?	☐	☐
5.	Did you test the atmosphere of the confined space prior to entry?	☐	☐
6.	Did the atmosphere check as acceptable (no alarms given)?	☐	☐
7.	Will the atmosphere be continuously monitored while the space is occupied?	☐	☐

NOTE: If any of the above questions are answered "NO", DO NOT ENTER. Contact your immediate supervisor.

JOB LOCATION: _____ DATE: _____

COMPETENT PERSON NAME: _____ SHIFT: _____

COMPETENT PERSON SIGNATURE/DATE: _____

EMERGENCY PHONE NUMBERS:

LOCAL FIRE DEPARTMENT (RESCUE): _____

LOCAL FIRE DEPARTMENT (FIRE): _____

ON-SITE EMERGENCY PHONE NUMBER: _____

POLICE: _____

ServiceBoss International, Inc.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

[Hearing Conservation]

ServiceBoss International, Inc.

Safety Program

SECTION III

PERSONAL PROTECTIVE EQUIPMENT (PPE)

[Hearing Conservation]

INDEX

TOPIC **PAGE**

OSHA Standards:

29 CFR 1910.95, ***Occupational Noise Exposure***
29 CFR 1926.52, ***Occupational Noise Exposure***
29 CFR 1926.101, ***Hearing Protection***

OVERVIEW

This Hearing Conservation Program is designed for one purpose -- to prevent hearing damage caused by occupational noise exposure.

Most forms of personal protective equipment (PPE) are a response to an obvious hazard and are easy to understand. A hard hat will protect your head from falling objects, for example.

Hearing protection is different from most other types of PPE because loss of hearing generally occurs painlessly over a period of time and, when finally realized, the damage is permanent.

Because of the above, it is vital that cooperation between all affected employees and management be established to prevent occupational hearing loss. To achieve this goal, our Hearing Conservation Program focuses on the effects of noise on hearing as well as the selection and use of hearing protectors. Information is provided on how sound is transmitted to your brain, and lastly, the actual application of our Hearing Conservation Program.

While our Hearing Conservation Program has all the elements required of a complete safety program, it is not necessary to understand all the technical formulas and procedures that are required of licensed monitors, doctors, and hygienists. Individual employees are required to wear appropriate hearing protection when so directed and to understand the importance of protecting their hearing from damage. If job site noise bothers you and those noises are below the threshold for required ear protection, you should bring this to the attention of the Hearing Conservation Program Administrator for resolution.

DUTIES OF THE PROGRAM ADMINISTRATOR

The duties of the Hearing Conservation Program Administrator include identifying work areas where the equivalent noise exposure factor exceeds unity (see next section); determining what types of noise level monitoring may be necessary; and ensuring that all personnel who are directed to wear hearing protection are trained in its proper use, cleaning, and storage. The Program Administrator will also be responsible for recordkeeping, testing, and training. Lastly, the Program Administrator will keep abreast on developments in the hearing conservation field and he is encouraged to seek outside professional help when needed.

WHEN A HEARING CONSERVATION PROGRAM IS NEEDED

The two construction standards that deal with occupational noise exposure, 29 CFR 1926.101, *Hearing Protection*, and 29 CFR 1926.52, *Occupational Noise Exposure*, both reference the industry standard 29 CFR 1910.95, *Occupational Noise Exposure*, on which this program is based.

When it is not feasible to reduce the noise levels or duration of exposures to those specified in Table D-2 below, ear protective devices shall be provided and used.

TABLE D-2 - PERMISSIBLE NOISE EXPOSURES

Duration per day, hours	Sound level dBA slow response
8	90
6	92
4	95
3	97
2	100
1 1/2	102
1	105
1/2	110
1/4 or less	115

Ear protective devices inserted in the ear shall be fitted or determined individually by competent persons.

Plain cotton is not an acceptable protective device.

This Hearing Conservation Program must be implemented when the equivalent noise exposure exceeds unity (the number 1) using the below formula and example:

F(e)=(T(1)divided by L(1))+(T(2)divided by L(2))+ ... + (T(n) divided by L(n)) where:

F(e) = The equivalent noise exposure factor.
T = The period of noise exposure at any essentially constant level.
L = The duration of the permissible noise exposure at the constant level (from Table D-2).

If the value of F(e) exceeds unity (1) the exposure exceeds permissible levels.

A sample computation showing an application of the formula is as follows. An employee is exposed at these levels for these periods:

110 db A	1/4	hour
100 db A	1/2	hour
90 db A	11/2	hours

F(e) = (1/4 divided by 1/2)+(1/2 divided by 2)+(1 1/2 divided by 8)
F(e) = 0.500+0.25+0.188
F(e) = 0.938

Since the value of F(e) does not exceed unity, the exposure is within permissible limits.

DEFINITIONS

There are certain words in our Hearing Conservation Program which are not used in everyday life. So that all may have a clearer understanding of this program, the below definitions are presented:

ACTION LEVEL	An 8-hour time-weighted average of 85 decibels measured on the A-scale, slow response, or equivalently, a dose of fifty percent.
ATTENUATE	To lessen the intensity.
AUDIOGRAM	A chart, graph, or table resulting from an audiometric test showing an individual's hearing threshold levels as a function of frequency.
AUDIOLOGIST	A professional, specializing in the study and rehabilitation of hearing, who is certified by the American Speech-Language-Hearing Association or licensed by a state board of examiners.
BASELINE AUDIOGRAM	The audiogram against which future audiograms are compared.
CRITERION SOUND LEVEL	A sound level of 90 decibels.
DECIBEL (dB)	Unit of measurement of sound level.

DOSIMETER	An instrument that integrates a function of sound pressure over a period of time in such a manner that it directly indicates a noise dose.
HERTZ (HZ)	Unit of measurement of frequency, numerically equal to cycles per second.
MEDICAL PATHOLOGY	A disorder or disease which should be treated by a physician specialist.
NIHL	Noise Induced Hearing Loss.
NOISE DOSE	The ratio, expressed as a percentage, of: (1) the time integral, over a stated time or event, of the 0.6 power of the measured SLOW exponential time-averaged, squared A-weighted sound pressure and (2) the product of the criterion duration (8 hours) and the 0.6 power of the squared sound pressure corresponding to the criterion sound level (90 dB).
OTOLARYNGOLOGIST	A physician specializing in diagnosis and treatment of disorders of the ear, nose and throat.
REPRESENTATIVE EXPOSURE	Measurements of an employee's noise dose or 8-hour time-weighted average sound level that the employers deem to be representative of the exposures of other employees in the workplace.
SOUND LEVEL	Ten times the common logarithm of the ratio of the square of the measured A-weighted sound pressure to the square of the standard reference pressure of 20 micropascals. Unit: decibels (dB). For use with OSHA standard 29 CFR 1910.95, SLOW time response is required.

SOUND LEVEL METER	An instrument for the measurement of sound level.
TIME-WEIGHTED AVERAGE	That sound level, which if constant over an SOUND LEVEL8-hour exposure, would result in the same noise dose as is measured.

IMPLEMENTATION OF NOISE MONITORING PROGRAM

Initially, the implementation of a noise monitoring program is the result of subjective reasoning by the Program Administrator. Indications of excessive noise would include: actual information pertaining to specific machines; personal observation; complaints from employees; and noticed indications of hearing loss. It is requested that employees draw attention to work situations where there is an apparent loudness that possibly requires hearing protection.

The measure of a sound's strength is referred to as "sound level" and it is measured in units called "decibels" (dB).

To provide some idea of the loudness of 85 dB, the following comparisons are provided:

Sound of:	Approximate Decibels:
Softest sound heard with normal hearing	0 dB
Ordinary speech at conversational distance	65 dB to 70 dB
Telephone dial tone	80 dB
Train whistle at 500 feet	90 dB
Power mower	107 dB
Jet engine at 100 feet	140 dB
Gun Shot	140 dB

Sound levels above 80 dB may become uncomfortable; sound above 125 dB may be painful.

Individual occupational sound exposures above 85 dB do not trigger the need for noise monitoring or a Hearing Conservation Program -- it is when the equivalent noise exposure factor exceeds unity. The two factors that cause occupational hearing loss are: 1) loudness and 2) the duration of time one is exposed to that loudness.

Hearing loss generally occurs over a lengthy period of time. Of course, as one would reasonably expect, acoustic trauma to your hearing can cause instant and permanent damage.

Our monitoring program is designed to identify:

a. areas where feasible administrative controls may be implemented to reduce noise exposure. Example: shorter exposure times.

b. areas where feasible engineering controls may be implemented to reduce noise exposure. Example: soundproofing.

c. which employees should be included in our hearing conservation program.

d. the types of hearing protection to be used.

Noise monitoring equipment and procedures will be determined by employee mobility; variations in workplace sound levels; individual types of noise such as impact, impulse, or steady stream; and/or the noise type combinations.

NOISE LEVEL MONITORING

The monitoring equipment and procedures will be designed to determine the actual sound levels that reach the employee's ears and the length of time there is exposure to those levels.

Noise level monitoring is generally conducted by using either a dosimeter, a sound level meter, or both. Because a sound level meter takes one measurement at one point in time, it is useful when sound is fairly constant and the employee is not moving in and out of the noise area.

A dosimeter, on the other hand, stores sound level measurements and can produce an average noise exposure which can be calculated into an 8-hour time weighted average. When using a dosimeter in an area where employees are exposed to varying sound levels or they move in and out of the noise area, the dosimeter is actually worn and the sound pick-up is placed close to the employee's ear to get an accurate measurement of the sound level exposure. Generally, a dosimeter is the best choice for a job site.

MONITORING PLAN

All continuous, intermittent and impulsive sound levels from 80 dB to 130 dB will be integrated into the noise measurements.

All instruments to measure employee noise exposure will be calibrated to ensure measurement accuracy.

Representative personal sampling will be used, in lieu of area sampling, when there is high employee mobility, significant variations in sound levels, or a significant component of impulse noise.

Area sampling will be used when sound levels are relatively constant and employees have a constant exposure to them.

When there is a change in job site activity or equipment which would likely increase noise levels, additional monitoring will be undertaken.

a. All persons found to be exposed to sound levels at or above the action level will be notified.

b. Affected employees or their representatives will be allowed to observe the noise monitoring process.

RECORDKEEPING

All noise level monitoring records will be kept for a period of two (2) years.

AUDIOMETRIC TESTING PROGRAM

Audiometric testing will be made available at no cost to affected employees.

Audiometric tests will be performed by a licensed or certified audiologist, otolaryngologist, physician, technician who is certified by the Council of Accreditation in Occupational Hearing Conservation, or who has satisfactorily demonstrated competence in administering audiometric examinations, obtaining valid audiograms, and properly using, maintaining and checking calibration and proper functioning of the audiometers being used. A technician who operates microprocessor audiometers does not need to be certified. A technician who performs audiometric tests must be responsible to an audiologist, otolaryngologist or physician.

BASELINE AUDIOGRAM

Within 6 months of an employee's first exposure at or above the action level, a baseline audiogram will be given against which subsequent audiograms can be compared. Hearing loss can occur as a result of age, trauma, drug reaction, and exposures that are not work related. However, with a baseline audiogram -- which measures the frequency (125 or 250 Hz to 8000 Hz) and loudness (-10 or 0 dB to 110 dB) -- it is possible from subsequent audiograms to determine with accuracy if hearing loss is due to occupational noise exposure or some other cause.

For the purposes of this program, audiograms must measure, in each ear, at least the frequencies of 500, 1000, 2000, 3000, 4000, and 6000 Hz.

Occupational hearing loss occurs within the inner ear in the cochlea. By using a bone-conduction vibrator, sounds can be carried directly to the inner ear and bypass the outside and middle ear areas.

An annual audiogram may be substituted for the baseline audiogram if the audiologist, otolaryngologist or physician who is evaluating the audiogram determines:

a. the standard threshold shift revealed by the audiogram is persistent; or

b. the hearing threshold shown in the annual audiogram indicates significant improvement over the baseline audiogram.

PROCEDURE

To ensure an accurate test, employees must not be exposed to occupational noises for at least 14 hours before the test. To meet this requirement, if needed, hearing protectors may be worn during the preceding work shifts. This procedure is to factor out temporary hearing changes from the test.

ANNUAL AUDIOGRAM

An annual audiogram will be given against which the original baseline audiogram will be compared to see if a standard threshold shift has occurred.

A standard threshold shift would be a change in hearing of an average of 10 dB or more at 2000, 3000, and 4000 Hz in either ear.

While audiograms may be compared by a technician, problem audiograms will be referred to an audiologist, otolaryngologist, or physician for further evaluation.

The person performing this evaluation will be provided the following:

a. a copy of this program including all standards.

b. the baseline audiogram and most recent audiogram of the employee to be evaluated.

c. measurements of background sound pressure levels in the audiometric test room as required in Appendix D to 29 CFR 1910.95.

d. records of audiometer calibrations.

NOTE: If the annual audiogram shows that an employee has suffered a standard threshold shift, the employee will be re-tested within 30 days and these results will be considered the annual audiogram.

If a standard threshold shift has occurred, the employee will be informed in writing within 21 days of this determination.

If the physician determines that the threshold shift is work related, then the following will take place:

a. those employees not using hearing protectors will wear them and be trained in their use and care.

b. those employees using hearing protectors will be refitted and provided with hearing protectors that offer greater attenuation. They will also be retrained using this program with emphasis on the need for hearing protection.

c. the employee shall be referred for a clinical audiological evaluation or an otological examination if additional testing is necessary or if it is suspected that a medical pathology of the ear is caused or aggravated by the wearing of hearing protectors.

d. the employee will be informed of the need for an otological examination if a medical pathology of the ear that is unrelated to the use of hearing protectors is suspected.

AUDIOMETRIC TESTS - RECORDKEEPING

Audiometric test records will be retained for the duration of the affected employees' employment.

These records will include:

a. the employee's name and job classification.

b. the date of the audiogram.

c. the examiner's name.

d. the date of the last acoustic or exhaustive calibration of the audiometer.

e. the employee's most recent noise exposure assessment.

f. accurate records of the measurements of the background sound pressure levels in audiometric test rooms.

Upon request, employees may have access to these records.

HEARING PROTECTORS

At no cost, and replaced as necessary, hearing protectors will be provided to all affected employees.

Appropriate hearing protectors will be available in a variety of styles from which to choose from to provide a comfortable fit; employees will be made aware of the proper use and care of the protectors selected.

In selecting appropriate hearing protectors, the Program Administrator will consider the below factors:

a. the hearing protector's noise reduction rating (Subject Fit) [NRR(SF)].

Note: The NRR(SF), measured in dB and found as a number on the hearing protector, can be used by subtracting that number from an A-weighted sound level or a time-weighted
average noise exposure to determine the level of protection for most (84%) of the users.

Note: The NRR(SF) is based on tests of continuous noise and may not be an appropriate indicator for protection against impulse or impact noise.

b. the user's daily equivalent noise exposure.

c. variations in noise levels.

d. user preference.

e. communication needs.

f. hearing ability.

g. compatibility with other safety equipment.

h. user's physical limitations.

i. climate and other working conditions.

j. replacement, care, and use requirements.

Using one of the methods described in Appendix B to 29 CFR 1910.95, a competent person or an outside qualified professional will evaluate hearing protector attenuation for the environment in which the hearing protector will be used.

Specifically, hearing protectors must attenuate sound exposure at least to an 8-hour time-weighted average of 90 dB or, for those who have experienced a standard threshold shift, to an 8-hour time-weighted average of 85 dB or below.

Should noise levels increase, more effective hearing protectors will be provided to meet the above requirements.

TRAINING

Affected employees will receive training in our Hearing Conservation Program and this training will be repeated annually. An employee who is required to wear hearing protectors and fails to do so will be retrained with emphasis on the needless and permanent damage to hearing caused by careless exposure to hazardous noises in the work environment.

Interactive training will include, but not be limited to:

a. the effects of noise on hearing.

b. the purpose of hearing protectors, the advantages, disadvantages, and attenuation of various types, and instructions on selection, fitting, use, and care.

c. the purpose of audiometric testing and an explanation of the test procedures.

d. a review of the program including all appropriate standards.

PROCESS OF HEARING

Hearing involves, in its simplest terms, conducting sounds from outside your body to your brain. The ear is divided into three main sections:

a. EXTERNAL EAR — collects sounds and directs them to the tympanic membrane (ear drum).

Major Components:

Pinna: the visible part of the ear.

External auditory canal: approximately 1¼ inch tube to direct sound to the eardrum.

Tympanic membrane: vibrates as it is hit with incoming sounds.

b. MIDDLE EAR — air filled space that connects outer ear to inner ear.

Major Components:

Ossicles: three bones commonly called the “hammer”, the “anvil”, and the “stirrup”. These bones collect the sound, amplify it, and transfer it to the fluid in the inner ear.

Eustachian tube: small tube connected to the throat that brings air into the middle ear allowing pressure equalization of both sides of the ear drum.

c. INNER EAR — transfers sound vibrations to nerve impulses and sends them to the brain.

Major Components:

Vestibule:	helps maintain balance.
Cochlea:	takes vibrations of the middle ear bones and transfers them into nerve impulses that go the brain. The stirrup, in the middle ear, vibrates through a small opening in the cochlea. This opening is connected to fluid filled canals. The pressure waves in the fluid cause small hair type cells to bend. As they bend, they release a nerve impulse which is sent to the brain. The brain perceives these impulses as sound. This is where noise induced hearing loss occurs.
Semicircular canals:	involved with equilibrium (balance)
Acoustic nerve:	a. cochlear nerve: connects the cochlea to the brain. b. vestibular nerve: connects the semicircular canals to the brain.

NOISE INDUCED HEARING LOSS (NIHL)

Moderate exposure to loud noise (over 90 dB for one or more hours) may cause **reversible** changes within the inner ear such as: subtle intracellular changes in the hair cells or swelling of the auditory nerve endings. These temporary changes present themselves as temporary threshold shifts (TTS) 10 dB or more at various frequencies in either ear. This temporary hearing loss will go away within hours -- 16 hours maximum.

How this loss may occur is as follows: continued sound may decrease the stiffness in the hair bundles at the top of the hair cells in the inner ear. This in turn would cause less vibration at a given sound level and an accompanying loss in hearing.

However, continued exposure to loud noise over time will result in permanent threshold shift (PTS) and the resultant permanent, **non-reversible** hearing loss.

Additionally, the most common cause of tinnitus (an annoying ringing in the ears) is damage to the ear from noise exposure resulting in hearing loss.

Because the loss of hearing is so gradual, so painless, so unnoticeable, there may be a tendency to not take hearing conservation seriously until it is too late and you have lost one of your major contacts with the world around you -- your hearing.

Why bother with a Hearing Conservation Program? Why not, instead, just require hearing protectors at all times, in all situations?"

This misses the point. Your hearing -- just as your sight, touch, and smell -- is your means of contact and placement in the world around you. By wearing hearing protectors when not needed, you lessen your ability to hear and be in touch with your environment.

You certainly wouldn't want to save your hearing and lose your life because you didn't hear the warning "Watch out!", "Stop!" or you missed the sound of approaching danger.

ServiceBoss International, Inc.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

[Respiratory Protection Program]

ServiceBoss International, Inc.

Safety Program

SECTION III

PERSONAL PROTECTIVE EQUIPMENT (PPE)

[Respiratory Protection]

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OVERVIEW

The best respiratory protection one can have is clean, breathable air. Engineering controls are our first line of defense against contaminated or oxygen deficient air. These controls include, but are not limited to, using measures such as enclosure or confinement to keep atmospheric hazards away from employees, general or local ventilation to exhaust hazardous atmospheres, and/or substitution of less toxic materials to avoid hazardous atmospheres in the first place. When effective engineering controls are not feasible, or during the time frame they are being instituted, appropriate respirators will be used.

The concept of respiratory protection is quite simple. Certain types of atmospheric hazards are merely particles that can be filtered out of the air through the use of an air-purifying respirator. Air-purifying respirators force the harmful particles into a filter specifically designed for the hazard(s) where they are trapped or absorbed. The air reaching the employee's lungs is essentially free of the hazard.

a. If the action of inhalation causes the ambient air to be sucked through the filter, the respirator is considered a negative pressure respirator.

b. If the ambient air is forced through the respirator filter (with a blower, for example), the respirator is considered a positive pressure respirator.

A respirator that removes harmful contaminants is of no value in an oxygen deficient (less than 19.5% oxygen) or oxygen enriched (more than 23.5 % oxygen) atmosphere.

An atmosphere-supplying respirator will be used in oxygen deficient atmospheres or in atmospheres where a filter cannot reduce the particulate hazard to an acceptable level. This type of respirator provides clean, breathable air from a source independent of the ambient atmosphere.

Different types of respirators provide different levels of protection. **Never** may an air-purifying respirator be substituted for a required atmosphere-supplying respirator.

Unfortunately, respiratory protection is more complicated than it first appears. Because of the variety and severity of respiratory hazards, the types of respirators and their limitations, the methods for fitting and testing, and, most importantly, the detrimental ramifications of respirator misuse, this respiratory protection program is required.

Proper respirator selection and use can prevent occupational diseases caused by breathing air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays and vapors. In atmospheres that are immediately dangerous to life or health, proper respirator selection and use will save your life.

When required, employees will be supplied appropriate respirators and all incidental costs associated with respirator use (fit testing, repair parts, filters, medical examinations, cleaning supplies, etc.) will be borne by the company.

DUTIES OF THE PROGRAM ADMINISTRATOR

The Respiratory Protection Program Administrator will keep abreast of developments in the respiratory protection field and ensure that our personnel are provided safe respiratory working conditions.

Additionally, the Program Administrator will:

a. measure, estimate, or review data on the concentration of airborne contaminants in the work area prior to respirator selection.

b. select the appropriate type of respirator that will provide adequate protection from the airborne contaminants or provide clean, breathable air.

c. maintain applicable records including:

    1. fit test records.
    2. medical records.
    3. inspection records.
    4. evaluation records.
    5. training records.

DEFINITIONS

There are a number of terms and phrases, not used in ordinary everyday life, which must be understood by affected employees.

Air-purifying respirator: a respirator with an air-purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through the air-purifying element.

Atmosphere-supplying respirator: a respirator that supplies the respirator user with breathing air from a source independent of the ambient atmosphere, and includes supplied-air respirators (SARs) and self-contained breathing apparatus (SCBA) units.

Canister or cartridge: a container with a filter, sorbent, or catalyst, or combination of these items, which removes specific contaminants from the air passed through the container.

Demand respirator: an atmosphere-supplying respirator that admits breathing air to the facepiece only when a negative pressure is created inside the facepiece by inhalation.

Emergency situation: any occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment that may or does result in an uncontrolled significant release of an airborne contaminant.

Employee exposure: exposure to a concentration of an airborne contaminant that would occur if the employee were not using respiratory protection.

End-of-service-life indicator (ESLI): a system that warns the respirator user of the approach of the end of adequate respiratory protection, for example, that the sorbent is approaching saturation or is no longer effective.

Escape-only respirator: a respirator intended to be used only for emergency exit.

Filter or air-purifying element: a component used in respirators to remove solid or liquid aerosols from the inspired air.

Filtering facepiece (dust mask): a negative pressure particulate respirator with a filter as an integral part of the facepiece or with the entire facepiece composed of the filtering medium.

Fit factor: a quantitative estimate of the fit of a particular respirator to a specific individual, and typically estimates the ratio of the concentration of a substance in ambient air to its concentration inside the respirator when worn.

Fit test: the use of a protocol to qualitatively or quantitatively evaluate the fit of a respirator on an individual.

Helmet: a rigid respiratory inlet covering that also provides head protection against impact and penetration.

High efficiency particulate air (HEPA) filter: a filter that is at least 99.97% efficient in removing monodisperse particles of 0.3 micrometers in diameter. The equivalent NIOSH 42 CFR 84 particulate filters are the N100, R100, and P100 filters.

Hood: a respiratory inlet covering that completely covers the head and neck and may also cover portions of the shoulders and torso.

Immediately dangerous to life or health (IDLH): an atmosphere that poses an immediate threat to life, would cause irreversible adverse health

effects, or would impair an individual's ability to escape from a dangerous atmosphere.

Loose-fitting facepiece: a respiratory inlet covering that is designed to form a partial seal with the face.

Negative pressure respirator (tight fitting): a respirator in which the air pressure inside the facepiece is negative during inhalation with respect to the ambient air pressure outside the respirator.

Oxygen deficient atmosphere: an atmosphere with an oxygen content below 19.5% by volume.

Physician or other licensed health care professional (PLHCP): an individual whose legally permitted scope of practice allows him or her to independently provide, or be delegated the responsibility to provide, some or all of the health care services required medical evaluation.

Positive pressure respirator: a respirator in which the pressure inside the respiratory inlet covering exceeds the ambient air pressure outside the respirator.

Powered air-purifying respirator (PAPR): an air-purifying respirator that uses a blower to force the ambient air through air-purifying elements to the inlet covering.

Pressure demand respirator: a positive pressure atmosphere-supplying respirator that admits breathing air to the facepiece when the positive pressure is reduced inside the facepiece by inhalation.

Qualitative fit test (QLFT): a pass/fail fit test to assess the adequacy of respirator fit that relies on the individual's response to the test agent.

Quantitative fit test (QNFT): an assessment of the adequacy of respirator fit by numerically measuring the amount of leakage into the respirator.

Respiratory inlet covering: that portion of a respirator that forms the protective barrier between the user's respiratory tract and an air-purifying device or breathing air source, or both. It may be a facepiece, helmet, hood, suit, or a mouthpiece respirator with nose clamp.

Self-contained breathing apparatus (SCBA): an atmosphere-supplying respirator for which the breathing air source is designed to be carried by the user.

Service life: the period of time that a respirator, filter or sorbent, or other respiratory equipment provides adequate protection to the wearer.

Supplied-air respirator (SAR) or airline respirator: an atmosphere-supplying respirator for which the source of breathing air is not designed to be carried by the user.

Tight-fitting facepiece: a respiratory inlet covering that forms a complete seal with the face.

User seal check: an action conducted by the respirator user to determine if the respirator is properly sealed to the face.

RESPIRATOR SELECTION

Respirators will be selected on the basis of hazards to which the employee will be exposed. Using an inappropriate respirator is just as bad, if not worse, than using no respirator at all because it can evoke a false sense of security while offering no protection to the hazard at hand.

All respirators will be NIOSH approved.

Work area surveillance will be made by the Program Administrator taking into consideration the actual work area conditions, the degree of exposure and employee stress.

Respirator selection will take into consideration the air quality; the contaminant; the amount of the contaminant; the time exposure to that contaminant; and the work area surveillance.

Oxygen-deficient atmospheres as well as atmospheres in which the respiratory hazard exposure cannot be determined are considered immediately dangerous to life or health and the use of one of the below listed respirators is required:

a. a full facepiece pressure demand SCBA certified by NIOSH for a minimum service life of thirty minutes, or

b. a combination full facepiece pressure demand supplied-air respirator (SAR) with auxiliary self-contained air supply.

NOTE: Respirators provided only for escape from IDLH atmospheres shall be NIOSH-certified for escape from the atmosphere in which they will be used.

Generally, but not always, atmospheres work areas that require respiratory protection are not IDLH and in these cases respirator selection offers more options. The respirator selected will be adequate to protect the health of the employee and ensure compliance with all other OSHA statutory and regulatory requirements under routine and reasonably foreseeable

emergency situations. Of course, the respirator selected will be appropriate for the chemical state and physical form of the contaminant.

For protection against gases and vapors, the respirator provided will be:

a. atmosphere-supplying.

b. air-purifying, provided that:

1. it is equipped with an end-of-service-life indicator (ESLI) certified by NIOSH for the contaminant; or

2. if there is no ESLI appropriate for conditions in respiratory hazard area, a change schedule for canisters and cartridges will be used that is based on objective data that will ensure that canisters and cartridges are changed before the end of their service life.

The Program Administrator will rely on past experience and cartridge manufacturer recommendations. If the competent person on site or any respirator user notices that breathing becomes more strained, the change schedule will be modified.

For protection against particulates, the respirator provided will be:

a. atmosphere-supplying; or

b. air-purifying equipped with a filter certified by NIOSH under 30 CFR part 11 like a HEPA filter; or

NOTE: Filters manufactured under 30 CFR part 11 standards may continue to be used, however, as of July 10, 1998, other than PAPR's, they are not to be purchased. Only 42 CFR part 84 type filters will be used.

c. air-purifying equipped with a filter certified for particulates by NIOSH under 42 CFR part 84; or

NOTE: These respirators and filters, other than PAPR's are identified on the packaging with numbers that take the form: TC-84A-XXX.

a) Filters will have an "N", "R", or "P" designation followed by "100", "99" or "95". Examples: N100 or R99

1. "N" indicates the filter is for any solid or non-oil containing particulate contaminant.

2. "R" indicates the filter is for any particulate contaminant. If used for an oil containing particulate, a one shift use limit applies.

3. "P" indicates the filter may be used with any particulate contaminant.

b) The number indicates the filter efficiency -- the higher the number, the more efficient. 100 = 99.97% efficiency; 99 = 99% efficiency; and 95 = 95% efficiency.

d. air-purifying equipped with any filter certified for particulates by NIOSH for contaminants consisting primarily of particles with mass median aerodynamic diameters (MMAD) of at least 2 micrometers.

Often, the permissible exposure limit (PEL) and suggested respirator is listed on an MSDS. Published exposure limits for the contaminant at hand will assist in determining respirator selection.

The Program Administrator will select respirators based on:

a. the nature of the hazardous operation or process.

b. the type of respiratory hazard including permissible exposure limits.

c. the period of time for which respiratory protection must be worn.

d. the activities of workers in the hazardous area.

e. the respirator's characteristics, capabilities, and limitations.

PARTICULATE RESPIRATOR SELECTION

Prior to respirator selection, the following factors must be known:

a. the identity and concentration of the particulates in the workplace air.

b. the permissible exposure limit (PEL), the NIOSH recommended exposure limit (REL) or other occupational exposure limit.

c. the hazard ratio (HR). The (HR) is obtained by dividing the airborne particulate concentration by the exposure limit.

d. the assigned protection factor (APF) for the type of respirator to be used. The (APF) is the minimum anticipated level of protection provided by each type of respirator worn in accordance with an adequate respiratory protection program. For example, an (APF) of 10 means that the respirator should reduce the airborne concentration of a particulate by a factor of 10 (or to 10% of the workplace concentration).

e. the immediately dangerous to life or health (IDLH) concentration, including oxygen deficiency.

The (APF) should be greater than the (HR) and multiplying the occupational exposure limit by the APF gives the maximum workplace concentration in which the respirator may be used.

All filters will have a 99.97% efficiency rating indicated by the number 100.

SERVICE LIFE OF FILTERS

If the selected filters have an end-of-service-life indicator (ESLI), the filters will be used until the indicator shows that it is time to be replaced.

In the absence of an ESLI, the following is our policy of service life of filters:

All HEPA filters manufactured under 30 CFR part 11 (for PAPR's) will be replaced at least daily (once each work shift) or if breathing resistance becomes excessive or if the filter suffers physical damage (tears, holes, etc.) If PAPR filters become available under 42 CFR part 84 standards, they will be used and fall under the below schedule:

All filters will be replaced whenever they are damaged, soiled, or causing noticeably increased breathing resistance.

N-series filters may be used and reused subject only to considerations of hygiene, damage, and increased breathing resistance. If the competent person determines the workplace to be exceptionally dirty, the filters will be changed each work shift.

R-series filter will be changed every work shift if oil is present. If oil is not present, they may be used and reused subject only to considerations of hygiene, damage, and increased breathing resistance. If the competent person determines the workplace to be exceptionally dirty, the filters will be changed each work shift.

P-series filters will be used and reused in accordance with the manufacturer's time-use limitations when oil aerosols are present. P-series filters can be used and reused subject only to consideration of hygiene, damage, and increased breathing resistance if oil aerosols are not present.

MEDICAL APPROVAL FOR RESPIRATOR USE

Before respirator use -- even before fit testing -- it must be determined that one is physically capable to wear the type of respirator to be assigned. Wearing negative pressure respirators can place an increased strain on one's respiratory system, and, depending on the task and the environmental conditions (especially heat and cold), respirators can put an additional strain on your whole body. Prior to respirator use, an employee must have a medical examination. The actual medical tests, if any, depend on the hazards involved, the condition of the employee, and the judgment of the physician or other licensed health care professional (PLHCP). If respirators are used to prevent exposure to certain toxic and hazardous substances (for example, lead or asbestos), then additional medical tests and surveillance procedures are required appropriate for the hazard.

A PLHCP will be identified to perform medical evaluations using the medical questionnaire with this program. The PLHCP will be given a copy of this program as well as the appropriate standards.

A follow-up medical examination will:

a. be given to an employee who gives a positive response to any question among questions 1 through 8 in Section 2, Part A of Appendix C, or whose initial medical examination demonstrates the need for a follow-up medical examination.
b. include any medical tests, consultations, or diagnostic procedures that the PLHCP deems necessary to make a final determination.

The medical questionnaire and examinations will be given confidentially during normal working hours or at a time and place convenient to the employee. The employee will be given the opportunity to discuss the questionnaire and examination results with the PLHCP.

The PLHCP will be provided the following information to be used in determining an employee's ability to use a respirator:

a. the type and weight of the respirator to be used by the employee.
b. the duration and frequency of respirator use.
c. the expected physical work effort.
d. additional protective clothing and equipment to be worn.
e. temperature and humidity extremes that may be encountered.

An annual review of medical status is not required and additional medical evaluations are required only if:

a. an employee reports medical signs or symptoms that are related to ability to use a respirator.
b. a PLHCP, supervisor, or the respirator program administrator determines that the employee needs to be reevaluated.
c. fit testing and work area program evaluation indicates a need.
d. a change occurs in workplace conditions (e.g., physical work effort, protective clothing, temperature) that may result in a substantial increase in the physiological burden placed on an employee.

A negative pressure respirator may place an undue burden on an employee’s system and the PLHCP may recommend a PAPR be used instead.

Medical records will be retained for 30 years.

Once medical approval is received allowing the respirator use, fit testing may proceed. The employee will be provided with a copy of this determination.

RESPIRATOR FIT TEST

There are various protocols for fit testing respirators and they can be found in Appendix A, 29 CFR 1910.134. One (1) of the four (4) qualitative protocols listed below will be used:

Protocol/Fit Test Procedure	Appendix A to 29 CFR 1910.134
a. Isoamyl Acetate	Paragraph B2
Fit Test Procedure	Paragraph B2(b)
b. Saccharin Solution Aerosol	Paragraph B3
Fit Test Procedure	Paragraph B3(b)
c. BitrexTM Solution Aerosol	Paragraph B4
Fit Test Procedure	Paragraph B4(b)
d. Irritant Smoke (Stannic Chloride)	Paragraph B5
Fit Test Procedure	Paragraph B5(c)

The purpose of fit testing is to ensure that the respirator selected will actually do the job for which it was intended. Different manufacturers make different sizes of each model. Fit testing, following the OSHA approved protocols, will ensure that the specific make, model and size is appropriate for the user. An employee may only use the specific respirator(s) on which he/she has passed a fit test.

Eye glasses and contact lenses pose special problems when dealing with respirators. Contact lenses will not be worn during the fit test or during respirator use. Normal eye glasses, while they do not interfere with the skin to facepiece seal of a ½ face respirator, will prevent a proper seal on a full face respirator and thus will not be worn. If glasses are needed, special adapters can be provided to hold lenses within the respirator.

Upon successful completion of respirator fit testing, a Record of Respirator Fit Test form will be completed and maintained with the employee's records. Only the latest fit test record need be retained. The Respirator Fit Test will be repeated at least annually or when:

a. a different respirator facepiece (size, style, model or make) is used.

b. there has been a weight change of at least 20 pounds.

c. there has been significant facial scarring in the area of the face-piece seal.

d. there has been significant dental changes; i.e., multiple extractions without prosthesis or acquiring dentures.

e. reconstructive or cosmetic surgery.

f. any other condition that may interfere with facepiece sealing.

As explained in the protocols, the fit tests shall not be conducted if there is any hair growth between the skin and the facepiece sealing surface. Further, there shall not be mustaches that are so long as to interfere with the inlet or exhaust valves in the respirator. Of course, these requirements apply not only to fit testing procedures, they apply to actual on the job use where the seal between face and respirator must be maintained.

USER SEAL CHECK

A user seal check, performed in accordance with the manufacturer's instructions or Appendix B-1 to 29 CFR 1910.134 (found immediately after this program), will be made prior to each use by the wearer of a tight-fitting respirator.

A user seal check is solely for respiratory protection of the employee and without this check there is no way of knowing if the selected respirator is actually working. Failure to perform a seal check may result in the use of a respirator which is of little or no value.

HAZARD COMMUNICATION & EMERGENCY PROCEDURES

One would not be wearing a respirator in the first place if there were not some detrimental health consequences of non-use. Often, these consequences are chronic (long term) and immediately unnoticeable.

If respirator failure would lead to noticeable physical or mental impairment, then, in these situations, two (2) employees will be assigned in the same area and in view of each other. If one employee presents symptoms of physical or mental distress, the second employee will remove the first employee from the area. If there is not an immediate, total recovery, the affected employee will be provided medical care by emergency responders.

In the event work is being performed in an IDLH atmosphere, a safety harness and safety lines will be used so that the employee may be pulled to safety. Suitable rescue equipment will be available and a standby man or men with suitable self-contained breathing apparatus shall be at the nearest fresh air base for emergency rescue.

All personnel should be aware of the appropriate MSDS for the products they are working with, and particular attention should be given to health hazards, both acute and chronic; symptoms of overexposure; first aid measures; emergency procedures; and exposure limits.

WORK AREA SURVEILLANCE

The competent person at the work area where respirator use is required will maintain appropriate surveillance of work area conditions and degree of employee exposure or stress. When there is a change in work area conditions or degree of employee exposure or stress that may affect respirator effectiveness, the Program Administrator or competent person will reevaluate the continued effectiveness of the respirator.

Employees are to leave the respirator use area:

a. to wash their faces and respirator facepieces as necessary to prevent eye or skin irritation associated with respirator use.

b. if they detect vapor or gas breakthrough, changes in breathing resistance, or leakage of the facepiece.

c. to replace the respirator or the filter, cartridge, or canister elements.

Defective respirators will be repaired or replaced before returning to the respirator use area.

AIR QUALITY

Atmosphere-supplying respirators, depending on the type (supplied-air or SCBA) use compressed air, compressed oxygen, liquid air or liquid oxygen. Compressed and liquid oxygen must meet the requirements of the United States Pharmacopoeia for medical or breathing oxygen. Compressed breathing air must meet the requirements of Grade "D" breathing air including: oxygen content (v/v) of 19.5-23.5%; hydrocarbon (condensed) content of 5 milligrams per cubic meter of air or less; carbon monoxide content of 10 ppm or less; carbon dioxide content of 1,000 ppm or less; and lack of noticeable odor. Compressed oxygen shall not be used in supplied-air respirators or open circuit self-contained breathing apparatus that have previously used compressed air. Oxygen must never be used with air line respirators.

Breathing air may be supplied to respirators from cylinders or air compressors. If cylinders are used, they will be tested and maintained as prescribed in the Shipping Container Specification Regulations of the Department of Transportation (49 CFR part 178).

If a compressor is used for supplying breathable air by way of air line hoses to a respirator mask, it is a Type "C" system. The hose couplings used on these systems must not be compatible with any other gas systems. Breathable air -- not pure oxygen -- is used in these systems. All safety and standby devices will be maintained in working order such as alarms to warn of compressor failure or overheating. Compressors will be located so

that contaminated air does not enter the system and suitable in-line filters will be installed. A receiver of sufficient capacity to enable the respirator wearer to escape from a contaminated atmosphere in the event of a compressor failure shall be in place. If an oil lubricated system is used, it shall have a high temperature and carbon monoxide alarm.

CLEANING; INSPECTION; AND MAINTENANCE

Respirators issued for the exclusive use of one worker will be cleaned and disinfected after each day's use or more often, if necessary. A respirator used by more than one person will be cleaned and disinfected after each use by the employee who used it. Cleaning should be done using the manufacturer's recommendations or the guidelines in Appendix B-2 to 29 CFR 1910.134 (immediately following this program). Remove or protect the filters/cartridges before cleaning because moisture can defeat the effectiveness of a filter. During cleaning, an inspection of the respirator will be made to ensure it retains its original effectiveness. Valves, straps, canisters, elasticity, facepieces, if applicable, will be inspected per the manufacturer's instructions. Defective parts will be replaced before reuse.

Employees who use respirators will be instructed in the replacement of parts as allowed by the manufacturer (such as valves and straps). Respirators that require a higher level of repair will be returned to the manufacturer. All replacement parts will be of the same manufacture as the respirator and all replacement parts will be NIOSH approved. Maintenance will be limited to replacing parts (straps, filters, valves, etc.) allowed by the manufacturer. Only respirators in 100% working order will be used.

Cleaning supplies and replacement parts will be provided at no cost. In the event a respirator is not used for thirty (30) days, it will be inspected by a competent person. Particular attention will be paid to SCBA apparatus and Type "C" connections. SCBA apparatus shall be inspected monthly and air and oxygen cylinders will be fully charged according to the manufacturer's instructions. All warning devices will be checked to ensure they are properly functioning.

MAINTENANCE OF EMERGENCY/UNASSIGNED RESPIRATORS

Emergency and unassigned respirators (respirators used by more than one person) will be cleaned and inspected for defects every thirty (30) days and after each use. Particular attention will be given to the elasticity of the respirator and ensuring that the respirator is defect free. Only the latest record of this inspection will be maintained. A tag showing the name of inspector, the date, and condition of the respirators will be attached to the respirator.

STORAGE OF RESPIRATORS

Respirators will be stored in a convenient, clean, and sanitary location in such a manner as to protect them from dust, heat, sunlight, extreme cold, excessive moisture, and damaging chemicals. On a job site, a plastic bag can help protect a respirator from dust and moisture. Respirators will not be stored in lockers or tool boxes unless they are in cases or cartons. Respirators will be stored with the facepiece and exhalation valve resting in a normal position. This will also prevent the soft, pliable material of which respirators are made from setting in an abnormal position, changing shape, and reducing face to mask seal.

PROGRAM EVALUATION

This Program will be evaluated on a continual basis and updated if the need arises. Reasons for upgrading would include new atmospheric hazards; new respiratory protection equipment; new or altered work procedures; the introduction of new engineering controls; the failure of employees to follow standard operating procedures.

Often, the effects of breathing contaminated atmospheres are chronic in nature and thus some employees may tend to become lax in using their respirators properly. Supervisors must be on alert for this tendency.

Employees must realize that they must use the provided respiratory protection in accordance with the instructions and training received.

TRAINING

Training will be given by a competent person, prior to use, to ensure each affected employee can demonstrate knowledge of at least the following:

a. why a respirator is necessary and how improper fit, usage, or maintenance can compromise the protective effect of the respirator.
b. what the limitations and capabilities of the respirator are.
c. how to use the respirator effectively in emergency situations, including situations in which the respirator malfunctions.
d. how to inspect, put on and remove, use, and check the seals.
e. the procedures for maintenance and storage of the respirator.
f. how to recognize medical signs and symptoms that may limit or prevent the effective use of respirators.
g. the general concepts of this program.

Retraining will be given annually and when:

a. changes in the workplace or the type of respirator render previous training obsolete.

b. inadequacies in the employee's knowledge or use of the respirator indicates that the employee lacks the required understanding or skill.

c. a situation arises in which retraining appears necessary to ensure safe respirator use.

DUST MASKS - USE OF RESPIRATORS WHEN NOT REQUIRED

The Program Administrator or competent person in the work area will determine when respirator use is **required**. Dust masks may be used at any time to reduce annoying particles in the air on a job site.

An employee who wants to wear an actual respirator on the job site for comfort or an additional level of safety that is **not required** for health reasons according to standards must obtain medical approval for respirator use according to the procedures outlined in this program.

Additionally, that employee should read this program (formal training is not required) and:

a. read and heed all manufacturer's instructions on use, maintenance, cleaning and care, and warnings regarding the respirator's limitations.

b. choose a respirator certified for use to protect against the contaminant of concern. The respirator must be NIOSH approved.

c. not wear the respirator into atmospheres containing contaminants for which your respirator is not designed to protect against. A respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.

d. not interchange the respirator with another employee.

Disposable Respirators:

OSHA requires that employees who voluntarily use disposable respirators in situations where respiratory protection is not specifically required by OSHA standard (in atmospheres where exposures are below the permissible exposure limit) essentially for personal comfort or additional, though not required, respiratory protection be informed of 29 CFR 1910.134 Appendix D, printed below.

All disposable respirators, such as Moldex, 3M, Willlson, North Safety, etc. must be marked with the manufacturer's name, the part number, the protection provided by the filter, and "NIOSH".

Disposable filters are particulate respirators. They are also known as "air-purifying respirators" because they protect by filtering particles out of the air you breathe.

The below outlines the types of approved disposable respirators and their description.

N95	Filters at least 95% of airborne particles.	Not resistant to oil.
N99	Filters at least 99% of airborne particles.	Not resistant to oil.
N100	Filters at least 99.7% of airborne particles.	Not resistant to oil.
R95	Filters at least 95% of airborne particles.	Somewhat resistant to oil.
P95	Filters at least 95% of airborne particles.	Strongly resistant to oil.
P100	Filters at least 99.7% of airborne particles.	Strongly resistant to oil.

Though disposable filters cannot be fit-tested in the traditional sense, they must be fit-tested in accordance with the manufacturer's instructions.

Under no circumstances may any respirator other than the above disposable respirators be used without compliance with a respiratory protection program.

Standard Number: 1910.134 App D

Standard Title: (Mandatory) Information for Employees Using Respirators When not Required Under 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]

RESPIRATORY PROTECTION PROGRAM

EVALUATION FORM

The Respiratory Protection Program Administrator or a designated competent person will conduct job site and administrative evaluations to ensure the provisions of our respiratory protection program are being properly implemented. Discrepancies noted will be immediately corrected.

A random sampling of affected personnel addressed the below listed concerns and the responses are indicated below:

	Yes	No
Is the respiratory protection program understood?	☐	☐

Problem areas: _____

Corrective action: _____
_____

Do respirators fit without interfering with job performance?	☐	☐

Problem areas: _____

Corrective action: _____
_____

Are respirators being properly maintained?	☐	☐

Problem areas: _____

Corrective action: _____
_____

Are appropriate respirators selected for the hazard?	☐	☐

Problem areas: _____

Corrective action: _____
_____

_____ _____
(Signature of Person performing evaluation) (Date)

Note: Retain only the latest evaluation.

REPORT OF MEDICAL EXAMINATION

_____
(Date)

_____
(Applicant's Name)

_____
(Applicant's SSN)

Job for which person is being examined: _____

Reason for medical examination: Respirator use.

Type(s) of respirator to be used: _____

Atmospheric hazards for which the above respirators will be used: _____
_____ _____ _____

NOTE: Circle the appropriate paragraphs and subparagraphs.

1. Based on the information available to me, it is my opinion that the above named person may be placed in the job position with no restrictions in work assignments.

2. Based on all the information available to me, it is my opinion that the above named person has a detected medical conditions(s) or finding(s) which:

   a. Places this person or others at increased risk of material impairment of health from anticipated or potential occupational exposures or activities.

   b. May be aggravated by occupational exposures or activities.

   c. May interfere with safe and/or effective performance.

   d. Needs follow-up. This includes changes which may be with "normal limits" based on the current assessment and/or comparison with previous results. Based on available data, the casual relationship of these findings to occupational exposures appears to be positive/negative/ill defined.

   e. Other: (Explain) _____

3. On the basis of the above, I recommend:

   a. No restrictions in work assignments for the above job.

   b. Restricted activities: (List) _____

   c. Limited exposure: (Note) _____

   d. Special protective measures: (Note) _____

   e. Medical follow-up: (Note) _____

   f. Limitation on the use of a negative pressure or air purifying respirator: (Explain) _____

   _____

   g. Other: (Note) _____

4. I have advised the employee of any detected medical condition of finding which dictates further medical examination or treatment and have appropriate recommendations regarding medical follow-up and exposure. This will be documented in writing.

5. Additional comments: _____
_____
_____
_____
_____

6. I understand that a copy of this report will be given to the examinee by the person receiving it.

DATE: _____ _____
(Physician's Signature)
_____
(Address)
_____
(City, State, ZIP)
_____
(Telephone Number)

Return this form to:
ServiceBoss International, Inc.

RR 1 Box 232 Route 407
Dalton, PA 18414

MEDICAL OPINION FOR RESPIRATOR WEAR

_____
(Date)

_____
(Applicant's Name)

_____
(Applicant's SSN)

TO: ServiceBoss International, Inc.
Respiratory Protection Program Administrator
RR 1 Box 232 Route 407
Dalton, PA 18414

RE: Medical Opinion for Respirator Use

On this date, based on the employee medical questionnaire and/or further medical examination, the above named applicant is found to be:

a. Eligible to use a respirator. _____
(Respirator type, i.e., ½ face; full face; PAPR; SCBA)

_____
_____
_____

b. Eligible to use a respirator with the following restrictions:

_____
_____

_____
(Respirator type, i.e., ½ face; full face; PAPR; SCBA)

c. Not eligible to use a respirator.

_____
(Signature of physician or licensed healthcare professional)

_____
(Typed or Printed Name)

_____
(Street Address)

_____
(City, State, ZIP)

ServiceBoss International, Inc.
Environmental, Health & Safety Program

RESPIRATOR FIT TEST SUMMARY

Name of employee: _____ SSN: _____

Date of Testing: _____ Test Conducted By: _____

Respirator(s) Selected: _____ _____
(Manufacturer) **(Model/Series)**

☐ Pass

_____ _____

☐ Fail **(Respirator Size)** **(NIOSH Certification #)**

Respirator(s) Selected: _____ _____
(Manufacturer) **(Model/Series)**

☐ Pass

_____ _____

☐ Fail **(Respirator Size)** **(NIOSH Certification #)**

Respirator(s) Selected: _____ _____
(Manufacturer) **(Model/Series)**

☐ Pass

_____ _____

☐ Fail **(Respirator Size)** **(NIOSH Certification #)**

Testing Agent (Protocol): Circle One

a. Isoamyl Acetate Protocol.	(Banana Oil)
b. Saccharin Solution Aerosol Protocol.	(Saccharin Taste)
c. BitrexTM Solution Aerosol Protocol	(Denatonium Benzoate)
d. Irritant Smoke Protocol.	(Irritant Smoke)

Signature of Person Conducting the Test: _____

Signature of Employee: _____

The Respirator Fit Test will be repeated at least annually or when:

a. a different respirator facepiece (size, style, model or make) is used.
b. there has been a weight change of at least 20 pounds.
c. there has been significant facial scarring in the area of the face-piece seal.
d. there has been significant dental changes; i.e., multiple extractions without prosthesis or acquiring dentures.
e. reconstructive or cosmetic surgery.
f. any other condition that may interfere with facepiece sealing.

RECORD OF INSPECTION

EMERGENCY/UNASSIGNED RESPIRATORS

All emergency and unassigned respirators were inspected and cleaned on the date indicated. Any defects found were corrected or the respirator was removed from service. This inspection was performed after each use and/or monthly.

DATE	SIGNATURE OF INSPECTOR	NOTES

Note: Only the latest record must be retained.

ServiceBoss International, Inc.

Environmental, Health & Safety Program

Laser Operations

Laser Operations

Nonionizing radiation. - 1926.54

Laser devices used in construction for distance measuring and leveling are generally of such low power that they present no recognizable safety hazard except one, severe damage to the eye which is caused only by intrabeam viewing. There are no skin, hearing, explosive, chemical, burn, heat, or any other type of hazard associated with laser devices.

The primary safety rule is: The laser operator must not let the laser beam impact any person's eye and any employee working in an area where laser operations are taking place must never look directly into a laser beam.

Additionally, beam shutters or caps shall be utilized, or the laser turned off, when laser transmission is not actually required. When the laser is left unattended for a substantial period of time—such as during lunch hour, overnight, or at change of shifts—the laser shall be turned off.

Only qualified and trained employees will be authorized to operate laser devices.

At a minimum, training, conducted by a knowledgeable designated individual, will included informing the operator of all hazards associated with laser operations in accordance with the applicable manufacturer's recommendations. This information will be found in the laser's owner/operator manual or literature.

Employees who have received training and are deemed qualified will be authorized to operate Class I, 1A, II, or IIIA type lasers will be issued an Operator Card to be kept on their person when operating the laser equipment.

Class I: cannot emit laser radiation at known hazard levels (typically continuous wave: cw 0.4 µW at visible wavelengths). Users of Class I laser products are generally exempt from radiation hazard controls during operation and maintenance (but not necessarily during service).

Since lasers are not classified on beam access during service, most Class I industrial lasers will consist of a higher class (high power) laser enclosed in a properly interlocked and labeled protective enclosure. In some cases, the enclosure may be a room (walk-in protective housing) which requires a means to prevent operation when operators are inside the room.

Class IA.: a special designation that is based upon a 1000-second exposure and applies only to lasers that are "not intended for viewing" such as a supermarket laser scanner. The upper power limit of Class I.A. is 4.0 mW. The emission from a Class I.A. laser is defined such that the emission does not exceed the Class I limit for an emission duration of 1000 seconds.

Class II: low-power visible lasers that emit above Class I levels but at a radiant power not above 1 mW. The concept is that the human aversion reaction to bright light will protect a person. Only limited controls are specified.

Class IIIA: intermediate power lasers (cw: 1-5 mW). Only hazardous for intrabeam viewing. Some limited controls are usually recommended.

NOTE: There are different logotype labeling requirements for Class IIIA lasers with a beam irradiance that does not exceed 2.5 mW/cm^2 (Caution logotype):

and those where the beam irradiance does exceed 2.5 mW/cm^2 (Danger logotype):

Appropriate laser warning placards will be posted during laser operations

(Operator’s Name)

Has demonstrated, this date, the skills & knowledge necessary to operate a Class II or Class IIIA laser and is deemed qualified and is

AUTHORIZED TO OPERATE

the below
ServiceBoss International, Inc.
Lasers

[Make(s)] [Model(s)]

(Date)

Safety Program Administrator

(Operator’s Name)

Has demonstrated, this date, the skills & knowledge necessary to operate a Class II or Class IIIA laser and is deemed qualified and is

AUTHORIZED TO OPERATE

the below
ServiceBoss International, Inc.
Lasers

[Make(s)] [Model(s)]

(Date)

Safety Program Administrator

(Operator’s Name)

Has demonstrated, this date, the skills & knowledge necessary to operate a Class II or Class IIIA laser and is deemed qualified and is

AUTHORIZED TO OPERATE

the below
ServiceBoss International, Inc.
Lasers

[Make(s)] [Model(s)]

(Date)

Safety Program Administrator

(Operator’s Name)

Has demonstrated, this date, the skills & knowledge necessary to operate a Class II or Class IIIA laser and is deemed qualified and is

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the below
ServiceBoss International, Inc.
Lasers

[Make(s)] [Model(s)]

(Date)

Safety Program Administrator

(Operator’s Name)

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ServiceBoss International, Inc.
Lasers

[Make(s)] [Model(s)]

(Date)

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(Operator’s Name)

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the below
ServiceBoss International, Inc.
Lasers

[Make(s)] [Model(s)]

(Date)

Safety Program Administrator

(Operator’s Name)

Has demonstrated, this date, the skills & knowledge necessary to operate a Class II or Class IIIA laser and is deemed qualified and is

AUTHORIZED TO OPERATE

the below
ServiceBoss International, Inc.
Lasers

[Make(s)] [Model(s)]

(Date)

Safety Program Administrator

(Operator’s Name)

Has demonstrated, this date, the skills & knowledge necessary to operate a Class II or Class IIIA laser and is deemed qualified and is

AUTHORIZED TO OPERATE

the below
ServiceBoss International, Inc.
Lasers

[Make(s)] [Model(s)]

(Date)

Safety Program Administrator

ServiceBoss International, Inc.
Environmental, Health & Safety Program

Policy Statement

Securing the Work Area

Our safety program is designed to protect our employees from job site hazards through hazard assessment, established policies and procedures, physical and administrative controls, personal protective equipment, training, inspection, and enforcement.

Beyond employee safety, yet important in a broader sense, is the need to protect our interests while a project is on-going and **all our employees are away from the work area**.

The other contractors [and the general public] will be protected by:

a. policing the area to the extent possible and removing all fire hazards.

b. ensuring our equipment is secure by locks, fencing, suspending in the air, or other appropriate means.

c. ensuring flammable liquids and all other job site chemicals are properly secured.

d. ensuring all holes are covered and all tripping or falling hazards are removed.

e. ensuring all appropriate hazard warning signs are in place.

At the end of the work day, as a matter of policy, the supervisor will ensure the above is accomplished or designate a specific employee to perform this task.

Safety Director

ServiceBoss International, Inc.

Policy Statement

Floor Maintenance Procedures and Signage

During floor mopping, stripping, or waxing operations, only authorized persons will be allowed in the work area.

Appropriate signage will be utilized. At a minimum, a caution sign reading: “Slippery When Wet” will be in place and remain in place until the floor is dry and ready for traffic.

Safety Director

ServiceBoss International, Inc.

Environmental, Health & Safety Program

Safety Committee

We have established a joint labor-management safety committee as an integral part of our safety effort. The initial safety committee formation is required when we exceed 10 employees. When our employees number 11-20, the safety committee will consist of at least one management person and at least one employee. When our employees number over 20, the committee will consist of at least 4 members, 2 from management and 2 from labor. The employee members will be elected by the employees and serve for at least one year. Regular wages will be paid for attendance at our meetings..

The Safety Committee will convene at least monthly at a time and place to be announced.

1. The Safety Committee will review the following:
2. All citations.
3. All Enforcement Procedures.
4. All accidents, injuries, and near-misses.
5. The effectiveness of our safety effort.

Employees are to bring to their representatives safety concerns for discussion.

The minutes of the Safety Committee will be recorded on the attached form and will be posted or otherwise conveyed to the employees.

Minutes will be retained for three years.

ServiceBoss International, Inc.
Safety Committee Minutes

Date: _____

Time: _____

Location: _____

Chairperson: _____

Recorder: _____

Members Present: _____
_____

Members Absent: _____
_____

Subject/Speaker	Key Items/Recommendations	Action/Follow-up

The above minutes are approved.

_____
Chairperson

COLD ILLNESS PREVENTION PROGRAM

ServiceBoss International, Inc.

Cold Illness Prevention Program

Prevention of Cold Stress

Cold related work illness is a real threat to our employees who work outside during months of cold weather. In order to lessen this threat, this program has been prepared.

All current employees will be given instruction in this program prior to working outside where the possibility of frostbite and hypothermia exist.

On days when applicable environmental conditions exist (**temperatures or wind chill factors equal to or less than 30 degrees F**), the site supervisor will, before the morning shift starts, remind workers of the danger of frostbite and hypothermia, the procedures to lessen its impact, and, in the worst case, the procedure for medical response.

All persons should recognize the symptoms of cold related illness.

FROSTBITE
(Sensations of coldness; tingling, stinging or aching feeling of the exposed area followed by numbness of ears, fingers, toes, cheeks, and noses. Frostbitten areas appear white and cold to the touch)

Seek medical assistance immediately.
Frostbitten parts should be covered with dry, sterile gauze or soft, clean cloth bandages.
DO NOT massage frostbitten tissue
Take measures to prevent further cold injury.

GENERAL HYPOTHERMIA
(Shivering, an inability to do complex motor functions, lethargy, and mild confusion)

Conserving remaining body heat.
Providing additional heat sources.
Seek medical assistance for persons.

SEVERE HYPOTHERMIA
(Unresponsive and not shivering)

Seek medical attention immediately.

Reduce heat loss by:

1. obtaining shelter.
2. removal of wet clothing.
3. adding layers of dry clothing, blankets, or using a pre-warmed sleeping bag.

The four environmental conditions that cause cold-related stress are low temperatures, high/cool winds, dampness and cold water. Wind chill, a combination of temperature and velocity, is a crucial factor to evaluate when working outside. For example, when the actual air temperature of the wind is 40°F (4°C) and its velocity is 35 mph, the exposed skin receives conditions equivalent to the still-air temperature being 11°F. A dangerous situation of rapid heat loss may arise for any individual exposed to high winds and cold temperatures.

The purpose of this program is to take definitive measures prior to the onset of cold related illnesses so that medical response will not be necessary. If the above conditions do present themselves, the supervisor, who will always have access to a mobile phone, will follow our standard emergency procedures.

Definitive measures to prevent cold related illness include:

1. **Personal Protective Clothing**

   Personal Protective Clothing is the most important step in fighting the elements is providing adequate layers of insulation from them. Wear at least three layers of clothing:

   1. An outer layer to break the wind and allow some ventilation (like Gore-Tex® or nylon);
   2. A middle layer of wool or synthetic fabric (Qualofil or Pile) to absorb sweat and retain insulation in a damp environment. Down is a useful lightweight insulator; however, it is ineffective once it becomes wet.
   3. An inner layer of cotton or synthetic weave to allow ventilation.

   Pay special attention to protecting feet, hands, face and head. Up to 40% of body heat can be lost when the head is exposed. Footgear should be insulated to protect against cold and dampness. Keep a change of clothing available in case work garments become wet.

2. **Engineering Controls**

   Engineering Controls help reduce the risk of cold-related injuries.

   1. Use an on-site source of heat, such as air jets, radiant heaters, or contact warm plates.

   Note: The use of space heaters for comfort must comply with applicable fire codes. For comfort heating, only electric space heaters are be permitted.

   Note: If working for a General Contractor, prior to the use of space heaters for comfort, we will submit to the GC the following for review and acceptance:

   1. **A description of the proposed application for heater use;**
   2. **Identification of the locations where the heater will be used, and duration of use;**
   3. **A description as to the type of heater, size, emergency cut-off, and method of installation.**

2. Shield work areas from drafty or windy conditions.
3. Provide a heated shelter for employees who experience prolonged exposure to equivalent wind-chill temperatures of 20°F or less.
4. Use thermal insulating material on equipment handles when temperatures drop below 30°F.

3 **Safe Work Practices**

Safe Work Practices, such as changes in work schedules and practices, are necessary to combat the effects of exceedingly cold weather. Possible workable safe practices include:

1. Allowing a period of adjustment to the cold before embarking on a full work schedule.
2. Permitting employees to set their own pace and take extra work breaks when needed.
3. Reducing, as much as possible, the number of activities performed outdoors. When employees must brave the cold, selecting the warmest hours of the day and minimize activities that reduce circulation.
4. Ensuring that employees remain hydrated.
5. Establishing a buddy system for working outdoors.
6. Educating employees to the symptoms of cold-related stresses -- heavy shivering, uncomfortable coldness, severe fatigue, drowsiness, or euphoria.

Provision of water

Employees will have access to adequate quantities of potable drinking water.

Where the supply of water is not plumbed or otherwise continuously supplied, water will be provided in sufficient quantity.

Supervisor will provide frequent reminders to employees to drink frequently, and, if needed, more water breaks will be provided.

Drinking water will be dispensed in containers with a tight sealing lid and labeled as Drinking Water. Drinking water containers are to be cleaned daily. Water containers will be placed as close as possible to the workers.

Supervisors will monitor water consumption and water supply and ensure adequate levels are available to last the whole shift

Disposable/single use drinking cups will be provided to employees

Supervisors will remind employees that personal military style canteens may be worn containing water. In cold weather conditions, employees are encouraged to drink warm, sweet beverages (sugar water, sports-type drinks. They should avoid drinks with caffeine (coffee, tea, or hot chocolate). Employees are cautioned, however, that sharing water from a personal canteen is forbidden and, because of the health hazard to the user and the person with whom it is shared, disciplinary action will be taken against both employees if they drink out of the same container. This disciplinary action will be documented using our disciplinary enforcement form.

Training

All employees will read this program and be given interactive training in its provisions. A copy of this program will be kept on the job site during applicable periods of cold weather.

All supervisors will read the below informational items prior to utilization of this program and have an opportunity for discussion and clarification with our Safety Director.

OSHA Cold Stress QuickCard 3156

HEAT ILLNESS PREVENTION PROGRAM

ServiceBoss International, Inc.

Heat Illness Prevention Program

Prevention of Heat Stress

Heat related work illness is a real threat to our employees who work outside during months of high heat and humidity. In order to lessen this threat, this program has been prepared.

Our Contact Person/Program Administrator is:

All current employees will be given instruction in this program prior to working in heat illness inducing environments or other severe environmental conditions. All new hires will be given this instruction prior to performing any job task.

On days when applicable environmental conditions exist - periods of hot weather (equal to or greater than 85ºF and 40% Relative Humidity), supervisors will, before the morning shift starts, remind workers of the danger of heat illness, the procedures to lessen its impact, and, in the worst case, the procedure for medical response.

All persons should recognize the symptoms of heat related illness. As noted in Section I of our Safety Program, symptoms and first aid procedures are:

HEAT EXHAUSTION

(Fatigue; weakness; profuse sweating; normal temperature; pale clammy skin; headache; cramps; vomiting; fainting)

Remove from hot area.
Have victim lay down and raise feet.
Apply cool wet cloths.
Loosen or remove clothing.
Allow small sips of water if victim is not vomiting.

HEAT STROKE

(Dizziness; nausea; severe headache; hot dry skin; confusion; collapse; delirium; coma and death)

Call for immediate medical assistance.
Remove victim from hot area.
Remove clothing.
Have victim lay down.
Cool the body (shower, cool wet cloths)
Do not give stimulants.

The purpose of this program is to take definitive measures prior to the onset of heat exhaustion and heat stroke so that medical response will not be necessary. If the above conditions do present themselves, the

supervisor, who will always have access to a mobile phone, will follow our standard emergency procedures listed below:

1. Call 911 or the emergency response number posted on the job site.
2. Provide any medical assistance he/she is trained and certified to do.
3 **NOT** provide any medical assistance he/she not trained to do.

Definitive measures to prevent heat related illness include:

1. Provision of water
2. Provision of shade
3. Provision of rest (recovery period)
4. Modified work procedures

Provision of water

Water is a key preventive measure to minimize the risk of heat related illnesses. Employees will have access to adequate quantities of potable drinking water.

Where the supply of water is not plumbed or otherwise continuously supplied, water will be provided in sufficient quantity at the beginning of the work shift to provide one quart per employee per hour for drinking for the entire shift.

Supervisors will encourage the frequent drinking of water. The supervisor or a designated person will monitor water consumption every 30 minutes. Employees are encouraged to report bad tasting water or low levels of water immediately so the situation can be corrected.

Supervisor will provide frequent reminders to employees to drink frequently, and, if needed, more water breaks will be provided.

Every morning during conditions where this program is applicable, there will be short tailgate meetings to remind workers about the importance of frequent consumption of water throughout the shift.

Water containers will be placed as close as possible to the workers. Supervisors will monitor water consumption and water supply and ensure adequate levels are available to last the whole shift

Disposable/single use drinking cups will be provided to employees

During extreme conditions, the supervisor will blow an air horn to remind workers to take a water break.

Supervisors will remind employees that personal military style canteens may be worn containing water. Employees are cautioned, however, that sharing water from a personal canteen is forbidden and, because of the health hazard to the user and the person with whom it is shared,

disciplinary action will be taken against both employees if they drink out of the same container. This disciplinary action will be documented using our disciplinary enforcement form.

As a reminder of the importance of water to the human system, the following information is supplied which was extracted from one of our safety meetings:

FLUIDS

If you heard in advance that this safety meeting was on job site fluids, you may well have thought that the meeting would focus on the storage, use, clean-up, and possible emergency procedures involved with the liquid chemical products used on or job sites. You'd be wrong. While the above are important topics and questions related to them should be addressed to the competent person, this safety meeting is about **your** bodily fluids.

From a safety standpoint, you must not neglect your need for potable (drinkable) fluids. Water is not only the most abundant of all compounds found on the earth, it is the most abundant part of you -- actually about 65% of you is water.

On construction sites, exertion and heat dictate the need for plenty of water.

Drink fluids! From a life process standpoint, what fluid intake is doing is keeping you healthy by allowing your body to maintain its core body temperature at its appropriate level. When your brain senses that cooling action is needed, your body circulates blood to your skin to allow it to cool with the outside temperature. If the water used for sweat is not replaced, a water deficit starts to occur. The millions of chemical reactions taking place in your body at every moment can only occur in the presence of water. The fluids in your body transport nourishment, gases, and waste.

Imagine your body as a water based chemical factory that functions only within a narrow temperature range. An average, healthy person, at rest, has an oral temperature of between 98.6ºF and 100.4ºF. If your body temperature reaches 105.8ºF, convulsions may occur. Your whole central nervous system is impaired when your body temperature rises 9ºF above normal. At 106.0ºF, the thermoregulatory center in your brain fails and, because of damage to your central nervous system, the sweating (cooling) mechanism cuts off when you need it most. It is a vicious circle -- the hotter you get, the more heat you generate through metabolism. In fact, at 107.6ºF, cellular metabolism is 50% higher than at normal temperatures.

Without getting too graphic, here are some of the problems associated with extreme water loss: cells will shrink; the skin will lose its elasticity; skin and mucous membrane cells will dry out; eyeballs will become soft; weight loss will occur; the body temperature will rise; apprehension, restlessness, and even coma may occur; urine will become concentrated; renal shutdown will occur; red blood cells will shrink; death.

Stay healthy! Drink water!

Water is truly the stuff of life.

Provision of shade

The supervisor will ensure that employees have access to shade to minimize the risk of heat related illnesses. If natural shade is not available, the supervisor will ensure that sun umbrellas or portable canopies are provide in adequate number. These umbrellas or canopies will be place in close proximity to the work activity (i.e., no more than 50-100 yards).

Ideally, if available, employees will be allowed to get out of the sun by entering an air conditioned structure such as a building or job trailer. This not only provides shade, it provides a cool, less humid. atmosphere. Any employee who feels the need for shade will protect himself/herself from the sun for a period of not less than 5 minutes.

Lastly, but importantly, persons must provide personal shade in the form of shirts (preferably light colored to reflect the sun). Shirts are required to prevent sunburn, another health hazard.

Provision of rest (recovery period)

While shade and rest often go hand in hand. they are two distinct activities. Any employee who, due to heat, humidity, or exertion under the provisions of this program, may rest for a period of not less than 5 minutes if that employee believes a preventative recovery period is required.

Modified work procedures

The supervisor will make every effort, consistent with our effort to properly perform our job tasks, to modify work procedures. Example would include performing work requiring heavy exertion during the cooler hours of the day, assigning more persons to a job task to lessen the effort required of each, and the use of machinery in lieu of physical effort.

All employees, but new employees in particular, should be allowed to acclimate to hotter weather. It takes a body four to fourteen days to acclimate to hotter weather. Reduced work loads and careful attention to new employees may be required.

Training

All employees will read this program and be given interactive training in its provisions. A copy of this program will be kept in our project manual during applicable periods of heat and humidity.

All supervisors will read the below informational items prior to utilization of this program and have an opportunity for discussion and clarification with the program administrator.

FLC Protecting Workers from Heat Stress

The American Red Cross Health & Safety Tips, Heat Related Illness

ANHYDROUS AMMONIA

ServiceBoss International, Inc.

ANHYDROUS AMMONIA

29 CFR 1910.111, *Storage and handling of anhydrous ammonia*

The term “anhydrous ammonia”, as used in OSHA standards, refers to the compound formed by a combination of two gaseous elements, nitrogen and hydrogen, in the proportion of one part nitrogen to three parts hydrogen by volume. Other names for anhydrous ammonia are nitrogen trihydride and trihydrogen nitride, however, these names are not normally used. Persons who work with anhydrous ammonia must know its physical properties:

Molecular symbol:	**NH^3**
Molecular weight:	**17.032**
Boiling point at one atmosphere:	**-28°F**
Melting point at one atmosphere:	**-107.9°F**
Critical temperature:	**271.4°F**
Critical pressure:	**1657 psia**
Latent heat at -28°F and one atmosphere:	**589.3 BTU per pound**
Relative density of vapor compared to dry air at 32°F and one atmosphere:	**0.5970**
Vapor density at -28°F and one atmosphere:	**0.0555 lb./cu. ft.**
Specific gravity of liquid at -28°F compared to water at 39.2°F:	**0.6819**
Liquid density at 28°F and one atmosphere:	**42.57 lb./cu. ft.**
Specific volume of vapor at 32°F and one atmosphere:	**20.78 cu. ft./pound**
Flammable limits by volume in air at atmospheric pressure:	**16% to 25%**
Ignition temperature (in a standard quartz container):	**1562°F**
Specific heat, gas, 15 c, one atm at constant pressure, C_p:	**0.5232 Btu/lb. degree °F**
at constant volume, C_v:	**0.3995 Btu/lb. degree °F**

The material safety data sheet for anhydrous ammonia will be readily available and it must be reviewed by all affected personnel.

Ammonia gas irritates the skin and mucous membrane and should be handled only by trained personnel. The maximum allowable concentration for an 8 hour working exposure is 50 ppm. Fortunately, at 50 ppm, ammonia serves as its own warning agent due to its odor. At 5000 ppm, ammonia is rapidly fatal. Because ammonia is lighter than air, adequate ventilation will prevent accumulation.

The common metals are not attacked by dry ammonia. Zinc, copper and copper base alloys such as brass are subject to rapid destructive action by ammonia in the presence of water.

Anhydrous ammonia is a very stable compound under normal conditions and is hard to ignite. The US Department of Transportation classifies it as a nonflammable compressed gas for the purpose of transportation.

The concentration of ammonia vapor in air can effective be reduced by the use of adequate volumes of water applied through spray or fog nozzles. Water should be used on liquid ammonia spills only if sufficient water is available, specifically: 100 parts of water to one (1) part of ammonia. Care should be taken to avoid warming an ammonia container and aggravating a leak.

From the physical properties, you will note that ammonia can be shipped and stored under pressure as a liquid. If ammonia is refrigerated to or below is normal boiling point (-28°F), it may be stored as a liquid at atmospheric pressure.

Only trained personnel will deal ammonia emergencies. If a leak occurs in an ammonia system, personnel not required to deal with the emergency will be evacuated.

Those dealing with the emergency will put on suitable respiratory protection, as well as gauntlet type plastic or rubber gloves and suits in heavily contaminated atmospheres. The appropriate valves will be shut off. Storage systems will have at a minimum:

1 - full face gas mask with anhydrous ammonia refill canisters

1 - pair of protective gloves.

1 - protective slicker and/or protective pants and jacket.

1 - easily accessible shower and/or at least fifty gallons of clean water in an open top container.

1 - pair of tight fitting vented goggles **or** one full face shield.

All protective equipment must be impervious to ammonia.

Return to Work Policy and Procedures

ServiceBoss International, Inc.

Return to Work Policy and Procedures
Restricted Work – Light Duty Work

In the event of an occupational injury or illness, the first priority is to ensure our employees are presented to a healthcare provider in a timely manner so that the healing process may begin.

If the healing process of the employee who has suffered an occupational injury or illness is such that he/she is not capable of performing his/her regularly assigned duties, but may perform restricted or light duty work, every effort will be made to allow this to take place.

Specific procedures:

The physician or healthcare facility case manager will be provided a detailed description of the employees assigned duties including the physical demands of the job as well as the environmental conditions such as heat, cold, atmospheres that require respirator wear, etc., so that the physician or case manager may make reasonable recommendations as to what duties the employee may or may not perform consistent with his/hers medical condition.

Technically, an employee's assigned duties (which will be provided to the physician or case manager) are defined as, "the duties he or she would have performed at least once per week before the injury or illness."

If work is available that meets the criteria of the physician or case manager, the employee will be permitted to perform that work.

If the physician or case manager approves restricted work and no such work is available, no work will be provided.

Our policy is consistent with Part 1904, *Recording and Reporting Occupational Injuries and Illnesses*.

The downside to this policy is that the employee may not be able to return to work sooner. The upside to this policy is that if an employee does return to work, he/she will know that his/her services are required.

It should be noted that if the work restriction is limited to the day of the injury or illness, and none of the other recording criteria are met, the case is not recordable on the OSHA 300 Log. The time away from work starts the day after the injury or illness.

_____

Safety Director

Weapons Policy Statement

ServiceBoss International, Inc.

Weapons Policy Statement

We are committed to providing a workplace that is free from recognized hazards.

Weapons and firearms are clearly recognized hazards.

As a matter of policy, weapons and firearms are strictly forbidden on all our job sites.

This policy applies to all employees even if they are legally authorized to carry a weapon.

Firearms include, but are not limited to: guns, air guns, dart guns, pistols, revolvers, rifles, and shot guns as well as ammunition for these devices.

Weapons include, but are not limited to, any device that is designed to inflict harm such as: slingshots, switchblades, daggers, blackjacks, brass knuckles, bows and arrows, hunting knives, etc..

Employees who violate this policy will be immediately removed from the job site and subject to disciplinary action up to and including termination.

This Policy Statement will be conspicuously posted.

_____

Safety Director

Fill-In Forms

Note: When Using Adobe® Acrobat 9®, Fill-in Forms may be printed AND saved.

When using Adobe Reader or Adobe Acrobat at a version lower than 9, the Fill-in Forms may be printed, but not saved.

Safety Program Addendum

Project Emergency Phone Numbers

Designation of Competent Persons

Safety Program Addendum

ServiceBoss International, Inc.

Safety Program Addendum

The below checked items are incorporated into our Safety Program. This Addendum will be conspicuously posted at the job site.

☐ Program Addendum

☐ All personnel will wear hard hats at all times on the job site.

☐ All personnel will wear eye protection at all times on the job site.

☐ All personnel will wear steel toes boots at all times on the job site.

☐ The 6' foot rule will be enforced at all times on this job site meaning that fall protection is required for all persons working six feet or more above a lower level.

☐ A 2-tier inspection policy is in effect meaning that senior management will conduct and document random, unannounced, inspections of our supervisors.

☐ An Assured Equipment Grounding Conductor Program is in effect on this job site.

☐ Job Task Hazard Analysis Form will be prepared for certain tasks on this job site.

☐ Smoking is not permitted on this job site.

☐ **[Other]:**

☐ **[Other]:**

_____

Safety Director

Project Emergency Phone Numbers

ServiceBoss International, Inc.

Project Emergency Phone Numbers

Main Office: **800-810-0730**

Police: **911 or** _____
(If no 911 Service Available)

Fire: **911 or** _____
(If no 911 Service Available)

Emergency Responder: **911 or** _____
(If no 911 Service Available)

Hospital:

Name: _____

Phone: _____

Street: _____

City: _____

Other Emergency Contacts:

[As appropriate, Poison Control; Call Before You dig; Persons, Hygienist, etc.]

_____ _____
[Organization/Name/Title] **[Phone Number]**

_____ _____
[Organization/Name/Title] **[Phone Number]**

_____ _____
[Organization/Name/Title] **[Phone Number]**

Telephone number of Project Facility: _____

Address of Project (To be given to emergency responders):

_____
[Street)

_____
[City)

Designation of Competent Persons

ServiceBoss International, Inc.

Designation of Copetent Person(s)

Each individual listed below, by virtue of training and/or experience, is designated a “Competent Person” as that designation relates to the area of expertise noted.

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

Name: _____ **Title:** _____

Area(s) of Expertise

Name: _____ **Title:** _____

Area(s) of Expertise

Name: _____ **Title:** _____

Area(s) of Expertise

Name: _____ **Title:** _____

Area(s) of Expertise

_____

Safety Director

ServiceBoss International, Inc.

JOB SITE FORMS

Environmental, Health & Safety Program

Prepared by:
ServiceBoss International, Inc.
in association with:
U.S. Compliance Systems, Inc.

JOB SITE FORMS

INDEX

Project Emergency Phone Numbers

ServiceBoss International, Inc.

Environmental, Health & Safety Program

PROJECT EMERGENCY PHONE NUMBERS

PROJECT NAME: _____

PROJECT ADDRESS: _____

_____

Main Office:	**800-810-0730**
Police:	**911** [_____] (If no 911 Service Available)
Fire:	**911** [_____] (If no 911 Service Available)
Ambulance:	**911** [_____] (If no 911 Service Available)
Hospital:	_____

(Name/Position)	**(Telephone Number)**
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

The telephone number of this facility is: _____

THE ADDRESS OF THIS FACILITY IS:
(To be given to emergency responders)

_____

_____

Designation of Competent Person(s)

DESIGNATION OF COMPETENT PERSON(S)

Each individual listed below, by virtue of training and/or experience, is designated a “Competent Person” as that designation relates to the area of expertise noted.

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

(Name)	(Area of Expertise)

_____

Safety Director

Job Site Checklist

General

ServiceBoss International, Inc.

Environmental, Health & Safety Program

JOB SITE CHECKLIST
[General]

Job Site Identification: _____ Date: _____

_____
(Signature of Competent Person)

Check appropriate box:	Yes	No	NA
Postings			
a. OSHA Form 3165	☐	☐	☐
b. OSHA Form 300A (February 1 to April 30)	☐	☐	☐
c. Emergency Phone Numbers (Hospital - Emergency Response - Main Office)	☐	☐	☐
Administrative			
a. MSDS readily accessible	☐	☐	☐
b. Hazard communication information "shared"	☐	☐	☐
c. Fire extinguishers accessible and inspected	☐	☐	☐
d. Employees appropriately trained	☐	☐	☐
Job Site			
a. First aid kits available and stocked	☐	☐	☐
b. General housekeeping	☐	☐	☐
c. Adequate restrooms facilities	☐	☐	☐
d. Potable water available	☐	☐	☐
e. Warning signs, tags, barricade tape in place	☐	☐	☐
Temporary Electrical Wiring			
a. Extension cords inspected & free of defects	☐	☐	☐
b. Ground fault circuit interrupters (GFCI) in use	☐	☐	☐
c. All equipment properly grounded	☐	☐	☐
d. Temporary wiring clear of employee & vehicular traffic	☐	☐	☐
Personal Protective Equipment (PPE) Required (Note: Serviceable equipment available & training received)			
a. Hard Hats	☐	☐	☐
b. Eye protection	☐	☐	☐
c. Appropriate, approved, work shoes	☐	☐	☐
d. Hearing protection	☐	☐	☐
e. Gloves	☐	☐	☐

Equipment including PPE, Ladders & Scaffolds & Tools	Yes	No	NA
a. Inspected before use	☐	☐	☐
b. Defective items tagged and removed from service	☐	☐	☐
c. Powered Equipment operators trained and authorized	☐	☐	☐
Ladders			
a. Side rails extend at least 3' above upper landing surface	☐	☐	☐
b. Ladders tied-off to prevent displacement	☐	☐	☐
Scaffolds			
a. Guard rails, full planking, bracing & ladder access	☐	☐	☐
Fall Protection			
a. Personnel trained in fall protection	☐	☐	☐
b. Residential Construction Interim Standards used	☐	☐	☐
c. Conventional Fall Protection System Used	☐	☐	☐
1. Guardrail System	☐	☐	☐
2. Personal Fall Arrest System	☐	☐	☐
3. Warning Line System	☐	☐	☐
4. Controlled Access Zone System	☐	☐	☐
5. Safety Monitoring System: Monitor must be a competent to recognize fall hazards & know the responsibilities of the position.			
d. Fall Protection Plan used: 29 CFR 1926.502(k); is on site.	☐	☐	☐
Other			
a. _____	☐	☐	☐
b. _____	☐	☐	☐
c. _____	☐	☐	☐

Safety Enforcement

Unsafe work practices will be corrected immediately upon discovery and if total job site safety cannot be restored, job will be shut down until corrections are made. The below listed persons were working in an unsafe manner & enforcement documentation is or will be prepared at the earliest opportunity consistent with safety.

_____	_____
(Name)	(Unsafe Act & Corrective Measure)
	_____
_____	_____
(Name)	(Unsafe Act & Corrective Measure)
	_____

Enforcement Documentation

ServiceBoss International, Inc.

Environmental, Health & Safety Program

ENFORCEMENT DOCUMENTATION

Date: _____ Check One: ☐ Minor ☐ Major ☐ Willful

Employee Name: _____

Supervisor: _____

Description of violation: _____
_____
_____
_____
_____

Possible Adverse Consequences: _____
_____
_____
_____

Corrective Action: _____
_____
_____
_____

Employee Acknowledgment:

_____ _____
(Employee Signature) (Date)

Employee statement/rebuttal (optional): _____
_____
_____
_____
_____

Witnesses: (if appropriate & available. An effort should be made to obtain witnesses for willful safety violations)

_____ _____
(Print name) (Signature)

_____ _____
(Print name) (Signature)

Note: With the exception of willful violations, this form will be destroyed after a 12 month period.

Emergency Action Plan
&
Fire Prevention Plan

EMERGENCY ACTION PLAN

Events may occur which dictate the evacuation of the facility such as fire, severe inclement weather, power failure, etc.. Additionally events may occur which dictate the need for emergency medical responders. These sets of events fall under our Emergency Action Plan and a multitude of objectives must be met.

The first and foremost objective is the safety of all our personnel. To achieve this level of safety, our plan is designed to get personnel away from danger, treat injury, and provide for a thorough and accurate accounting of all employees.

There may well be situations where certain employees, trained in first aid and/or fire fighting procedures, may prevent a small emergency situation from becoming a major disaster. In these types of situations, these employees, identified in this plan, will remain on the job site to perform the function for which they are trained provided they may perform these duties, in their judgment, in a safe manner. At no time will any employee put himself/herself at risk.

All personnel will receive training on our emergency action plan during initial safety training as well as when our plan changes or the employee's responsibilities change.

If appropriate, on a job site, this emergency action plan will posted with our emergency escape route diagram and emergency telephone numbers.

When working at a client's facility, our personnel will fall under the provisions of their emergency action plan.

All exits will be identified with a sign having the word "EXIT" plainly legible. Exit signs will be suitably illuminated. Doors, passageways, stairs, etc., which appear to be an exit but are not shall be identified by a sign that reads, for example: "Not an Exit".

Aisles and passageways shall be kept clear to provide a direct, easy egress from our facility.

It is important that the actual implementation of this plan be simple, direct, and carried out without confusion. Each employee must know how to alert others, how to call for assistance, the location of fire extinguishers, the escape route, the rendezvous point (and being accounted for so that others do not put themselves at risk looking for a person who has already reached safety), and specific tasks that may be required of specific personnel during emergency procedures.

A copy of 29 CFR 1926.35, Employee Emergency Action Plans is readily available for review in our Safety Program.

The following are standard operating procedures:

EMERGENCY MEDICAL RESPONSE

Should an injury occur that requires an emergency medical responder, the below listed actions will be taken in order given:

1. Call the emergency response number posted adjacent to this plan.
2. Call the Administrative Office at: _____.
   a. Help will immediately be sent and a person will be designated to direct the emergency responders to the injured person.
   b. If appropriate, Material Safety Data Sheets will be provided the emergency responders.
3. Provide any medical assistance you are trained and certified to do. Do not provide any medical assistance you are not trained to do.

ASSIGNED FIRST AID PROVIDERS

NAME

_____
_____
_____
_____
[Note: If none, enter "None".]

FACILITY EVACUATION PLAN
(FIRE/EXPLOSION/SEVERE WEATHER/MECHANICAL FAILURE, ETC.)

THE ORDER TO EVACUATE IS GIVEN BY:

_____

(Example: Fire Bell; Three (3) Blasts of an Air Horn; Public Announcement, etc.)

TO ALERT OTHERS:

_____

(Example: Activate alarm; notify main office, Ext No:, etc.)

LOCATION OF FIRE EXTINGUISHERS, NEAREST LISTED FIRST:

_____	_____
(Type)	(Location)
_____	_____
(Type)	(Location)
_____	_____
(Type)	(Location)

RENDEZVOUS POINT:

_____

(Example: Parking lot; by dumpster, etc.)

SPECIFIC HAZARDS TO BE AWARE OF:

_____

(Example: List nearby hazardous chemicals. If none, enter "none")

ROSTER OF PERSONNEL WITH SPECIFIC DUTIES DURING AN EVACUATION

NAME	TITLE	DUTIES
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

NOTE: Examples of specific duties: Deenergizing certain equipment or machinery; accounting for personnel at rendezvous point; manning fire extinguishers; directing emergency responders; on alert for First Aid delivery; rescue team member; etc. If none, enter: "None".

FIRE PREVENTION PLAN

Reference the Fire Protection and Fire Prevention portions of our Safety Program. This referenced sections deal with procedures to prevent a fire, and, in the event of a fire, the various limitations of fire extinguishers. Further reference our Emergency Action Plan which deals with actions to take in the event of a fire and/or evacuation. This Fire Prevention Plan deals not with handling a fire emergency, but rather preventing a fire in the first place.

HOUSEKEEPING

One of the first rules of fire prevention is good housekeeping. Good housekeeping can prevent a fire from starting (improper storage of combustibles, for example) and should there be a fire, good housekeeping can: 1) help prevent the spread of the fire, and 2) make fighting the fire an easier task. Some specific housekeeping rules that impact directly on fire prevention are:

a. Combustible liquids must be stored and covered in approved containers.

b. All chemical spills including, of course, combustible liquids, must be cleaned up immediately.

NOTE: Care must be taken when cleaning up chemical spills. Information on appropriate personal protective equipment; proper disposal; proper cleanup procedures; required ventilation, etc. is found on the products Material Safety Data Sheet.

c. Cleanup materials and damaged containers must be properly disposed.

d. Combustible liquids and trash must be segregated and stored away from ignition sources.

e. Aisle ways will be kept free of clutter and trash.

f. Fire exits will never be blocked.

FIRE FIGHTING EQUIPMENT

One often thinks of fire fighting equipment as it relates to the workplace as fire extinguishers. This is true, yet there are other, often more important, pieces of equipment such as sprinkler systems and outside hydrants. While portable fire extinguishers may prevent a small fire from becoming a major disaster, they are not designed to handle large fires. Below listed are items included in our Fire Prevention Plan:

a. Approved fire extinguishers will be checked on at least an annual basis and they shall always be charged and ready for use.

b. Portable fire extinguishers will be mounted, located, and identified for easy accessibility.

c. Fire hydrants will be kept clear and, during the winter months, not be buried by snow.

ELIMINATION OF MAJOR WORKPLACE FIRE HAZARDS

1. Smoking is allowed only in designated areas and smoking materials will be totally extinguished and placed in the appropriate receptacles.
2. All chemical and chemical products will be handled and stored in accordance with the procedures noted on their individual MSDS.
3. Debris will not be allowed to accumulate on the Job Site.
4. Special precautions will be taken when working with an open flame (such as welding) and those areas will be made fire safe by removing or protecting combustibles from ignition.
5. Equipment installed on heat producing equipment will be regularly and properly maintained to prevent accidental ignition of combustible materials in accordance with manufactures instructions. These instructions are incorporated, by reference, in this Plan

TRAINING

Training in fire protection will be accomplished upon initial assignment and annually thereafter as part of our overall safety program. This training shall include items that deal with employee protection in the event of an emergency. All employees will be apprised of the fire hazards of the materials and processes to which they are exposed.

Accident Investigation Form

ServiceBoss International, Inc.

Environmental, Health & Safety Program

ACCIDENT INVESTIGATION FORM

Injured Employee: _____ Date: _____

Age: _____ Job Title: _____ Project/Job: _____

Date & Time of Accident/Injury: _____ _____ Injury: _____
(Date) (Time) (Yes/No)

Nature of Injury or Property Damage: _____
_____

Statement of employee involved in the injury or accident (what happened) : _____
_____
_____
_____
_____

Witness 1 statement: _____
_____
_____
_____
_____

Witness 1 Name & Job Title: _____

Witness 2 statement _____
_____
_____
_____
_____

Witness 2 Name & Job Title: _____

Supervisor/competent person statement _____
_____
_____
_____

Was there an injury? ____ Was medical treatment required? ____ Possible lost time accident? ____

Signature of Supervisor/competent person: _____

Report Investigated by: _____ Date: _____

Report review by: _____ Date: _____

Findings:

Cause of incident: _____
_____
_____

Means of preventing a reoccurrence: _____
_____
_____
_____

This record will be maintained in the Safety Program Administrator's office for a period of 2 years from the date of accident/injury unless a longer retention is required by law.

If more than 10 employees at any one time in the previous calendar year, this information will be used to complete OSHA Forms 300 and 301 which are used to record and classify occupational injuries and illnesses. Recordable injuries and illnesses must be entered on OSHA Forms 300 and 301 within seven (7) days of receiving information that a recordable injury or illness has occurred.