A2 Carved-N-Stone, Inc

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]

Cover Pages

[To be used if Company Logo contains Company Name]

Policy Statement

[Floor Maintenance Procedures and Signage]

A2 Carved-N-Stone, Inc

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]:** _____ _____

_____
Jamal Smith
Safety Director

A2 Carved-N-Stone, Inc

Assured Equipment Grounding Conductor Program

Test Log

A2 Carved-N-Stone, Inc

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

A2 Carved-N-Stone, Inc

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)

A2 Carved-N-Stone, Inc

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	

A2 Carved-N-Stone, Inc

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	
5		5	
6		6	
7		7	
8		8	

RECOMMENDED SAFE JOB PROCEDURE Step No		EQUIPMENT TO BE USED Step No	
5		5	
6		6	
7		7	
8		8	

INSPECTION REQUIREMENTS Step No		TRAINING REQUIREMENTS Step No	
5		5	
6		6	
7		7	
8		8	

A2 Carved-N-Stone, Inc

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	

A2 Carved-N-Stone, 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

A2 Carved-N-Stone, Inc

CONTROL OF HAZARDOUS ENERGY

Lockout/Tagout

A2 Carved-N-Stone, 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)

A2 Carved-N-Stone, Inc.
Program Administrator

SIGNATURE OF GROUP LEADER: _____

A2 Carved-N-Stone, Inc

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.]

A2 Carved-N-Stone, Inc

EXPOSURE CONTROL PLAN
for
BLOODBORNE PATHOGENS & OTHER INFECTIOUS MATERIALS

A2 Carved-N-Stone, 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.

A2 Carved-N-Stone, 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.

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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.

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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.

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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.

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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:

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

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Safety Program Administrator

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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
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

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

A2 Carved-N-Stone, 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.

A2 Carved-N-Stone, Inc

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		770-426-8040

Jamal Smith
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:

_____

_____

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)

_____ _____
Jamal Smith (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

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.

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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: _____

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PERSONAL PROTECTIVE EQUIPMENT (PPE)

[Hearing Conservation]

A2 Carved-N-Stone, Inc

Safety Program

SECTION III

PERSONAL PROTECTIVE EQUIPMENT (PPE)

[Hearing Conservation]

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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.

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PERSONAL PROTECTIVE EQUIPMENT (PPE)

[Respiratory Protection Program]

A2 Carved-N-Stone, 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:
A2 Carved-N-Stone, Inc
Jamal Smith
2102 Moonstation Drive, Suite 200
Kennesaw, GA 30144

MEDICAL OPINION FOR RESPIRATOR WEAR

_____
(Date)

_____
(Applicant's Name)

_____
(Applicant's SSN)

TO: A2 Carved-N-Stone, Inc
Respiratory Protection Program Administrator
2102 Moonstation Drive, Suite 200
Kennesaw, GA 30144

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)

A2 Carved-N-Stone, Inc

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.

A2 Carved-N-Stone, Inc

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
A2 Carved-N-Stone, Inc
Lasers

[Make(s)] [Model(s)]

(Date) A2 Carved-N-Stone, Inc.
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
A2 Carved-N-Stone, Inc
Lasers

[Make(s)] [Model(s)]

(Date) A2 Carved-N-Stone, Inc.
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A2 Carved-N-Stone, Inc
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(Operator's Name)

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AUTHORIZED TO OPERATE

the below
A2 Carved-N-Stone, Inc
Lasers

[Make(s)] [Model(s)]

(Date) A2 Carved-N-Stone, Inc.
Safety Program Administrator

A2 Carved-N-Stone, Inc

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.

Jamal Smith
Safety Director

Cover Pages

Safety Program

Prepared by:
A2 Carved-N-Stone, Inc
in association with:
U.S. Compliance Systems, Inc.

Project Manual

With Job Site Forms

Prepared by:
A2 Carved-N-Stone, Inc
in association with:
U.S. Compliance Systems, Inc.

Safety Program

Employee Handbook

Prepared by:
A2 Carved-N-Stone, Inc
in association with:
U.S. Compliance Systems, Inc.

Programa de Seguridad

Guía de Empleado

Preparado por:
A2 Carved-N-Stone, Inc
conjuntamente con:
U.S. Compliance Systems, Inc.

Safety Program

Forklift Operator Handbook

Prepared by:
A2 Carved-N-Stone, Inc
in association with:
U.S. Compliance Systems, Inc.

Subcontractor Handbook

Prepared by:
A2 Carved-N-Stone, Inc
in association with:
U.S. Compliance Systems, Inc.

Project Site Safety Meetings

Volume I

Sito de proyecto reuniones de seguridad

Número uno

Project Site Safety Meetings

Volume II

Project Site Safety Meetings

Volume III

A2 Carved-N-Stone, 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.

Jamal Smith
Safety Director