SAFETY & RISK MANUAL

Office of Risk Management
Okaloosa County, Florida

FINAL DRAFT - 2008

OKALOOSA COUNTY BOARD OF COMMISSIONERS
RISK MANAGEMENT POLICY STATEMENT

OKALOOSA COUNTY is extremely conscious of the safety of our employees and the citizens of our community. As an employer, we recognize our obligation to ensure the safest possible work place for our employees. As a governmental entity, we recognize our responsibility to provide a safe environment for the public we serve.

It is our belief that most accidents are preventable. In accordance with this belief, we have allocated resources to administer an aggressive loss control program in our county.

Each director is responsible and will be held accountable for the loss control performance within his or her department. Our risk management director is responsible to coordinate our overall loss control program however, is not responsible for the line functions which are that of directors and supervisors. It is expected that directors will complement the effort of the risk management director to reduce accidents and provide for the safety of the public. These loss control responsibilities are continuous and equal in importance with all other operational considerations.

All employees are responsible for cooperating with and supporting our loss control program activities and objectives. All employees are expected to adopt the concept that the safe way to perform a task is the most efficient and only acceptable way to complete the task.

Loss control is every employee's responsibility. Only with your help can we continue to maintain a safe environment for both our employees and the citizens we serve.

James Campbell, Chairman

Sherry Campbell, Commissioner – District 1

John Jannazo, Commissioner – District 2

Bill Roberts, Commissioner – District 3

Don Amunds, Commissioner – District 4

James D. Curry, County Administrator

Safety & Risk Manual

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SAFETY PROGRAM ORGANIZATION AND RESPONSIBILITIES

Every Okaloosa County employee shall be fully responsible for implementing the provisions of this safety program as it pertains to the operations under their position. The responsibilities listed below are a minimum and shall in no way be construed to limit individual initiative or to implement more comprehensive procedures to reduce losses.

SAFETY RESPONSIBILITIES FOR MANAGEMENT, SUPERVISORS, AND EMPLOYEES

The success of the safety and accident prevention program depends upon the degree to which a safety attitude is instilled within each county employee. Management must consider itself largely responsible for the development of this mental attitude. Accident prevention starts at the top; it is essential that department managers and supervisors take the initiative. Members of management in all departments must demonstrate by their behavior and actions they are guided by the desire to operate safely. To accomplish this, each manager must consider safety or accident prevention in all aspects of decision making.

1. MANAGEMENT

All members of County management will fully support the safety program and ensure its success. Management shall:

1.1. Prescribe safe work practices and prepare written procedures.

1.2. Provide a safe workplace and environment.

1.3. Require adequate training and education.

1.4. Review the safety program periodically and amend it when necessary.

1.5. Fully enforce all safety rules and procedures.

1.6. Require that only qualified and authorized personnel perform all electrical and mechanical repairs.

1.7. Coordinate with the Risk Management Director on any specific safety or training issues.

2. SUPERVISORS

The full potential of an effective safety program can only be realized when supervisors cooperate in all phases of the program. The following is a list of responsibilities:

2.1. Ensure that their employees implement all management policies for maximum efficiency of each job to prevent injuries, collisions, and liabilities.

2.2. Provide continuing safety instruction while issuing daily work assignments to focus attention upon potential hazards, changes in work conditions or procedures, and handling hazardous chemicals.

2.3. Ensure that all employees have the necessary safety equipment and protective devices, are instructed and fully understand the use of protective equipment in specific hazardous jobs, and properly maintain the equipment.

2.4. Continually observe and inspect work conditions and work practices to detect and correct unsafe conditions and practices.

2.5. Promptly report and investigate accidents and make certain that the recommended corrective actions are completed.

2.6. Hold employee safety meetings to review accidents, analyze their causes, and encourage safety suggestions and written comments from employees.

2.7. Consider an employee's safety record and safe working habits in performance appraisals.

2.8. Maintain records of all injuries.

3. EMPLOYEES

All employees are required as a condition of employment to develop and exercise safe work habits in the course of their employment to prevent injuries to themselves, their fellow workers and conserve material resources. All employees shall:

3.1. Immediately report to their supervisors all accidents and injuries occurring within the scope of their employment.

3.2. Make themselves familiar with and observe all prescribed work practices and obey all safety rules.

3.3. Promptly report to their supervisor all unsafe actions, practices or conditions observed while working.

3.4. Implement principles of accident prevention in daily work.

3.5. Recognize that loose clothing, jewelry, long hair, and beards are potential hazards around machinery and equipment.

3.6. Keep work areas clean and orderly at all times.

3.7. Avoid engaging in any horseplay and refrain from distracting others.

3.8. Wear required protective equipment when working in hazardous operation areas.

3.9. Accept the responsibility and refuse to use unsafe equipment or unsafe work practices until such time as necessary corrections have been made to assure employee safety.

3.10. Arrive at work suitably attired for the job(s) they are to perform.

4. RISK MANAGEMENT DIRECTOR

4.1. The Risk Management Director is responsible for the development, organization, coordination and implementation of the overall Okaloosa County safety program and safety education. These responsibilities also include work-site inspections, hazard reduction and/or elimination and accident/injury investigation, reporting and management.

4.2. The Risk Management Director is responsible for the implementation of the risk management process and the selection of the risk management techniques to be utilized in effectively preserving the County's assets.

4.3. The Risk Management Director will coordinate the safety and risk management program and serve as a resource to advise operating departments in all safety related matters.

4.4. The Risk Management Director will advise department heads, supervisors and employees of unsafe conditions, problems related to accident prevention and recommendations for loss control.

4.5. The Risk Management Director will work with the County's attorney in collecting information pertinent to the settlement of liability and Workers' Compensation claims.

5. DISCIPLINARY PROCEDURES

5.1. Employees within each department of Okaloosa County are expected and required to comply with all applicable safety rules and procedures while at work.

5.2. All disciplinary procedures and actions implemented and enforced with regards to safety violations will fully comply with Okaloosa County's Human Resources Policy Manual.

5.3. Policies contained in this manual may have sections concerning disciplinary procedures for specific safety violations. For any of those disciplinary procedures where the violation may result in disciplinary issues, this manual will not supersede personnel policies contained in Okaloosa County's Human Resources Policy

Manual to include accumulation of sick leave, annual leave, and grievance procedures.

SAFETY RULES

The program includes general safety rules which all employees are required to follow. General safety rules are those which apply to employees in all work areas as it is impossible to provide an exhaustive list of rules for every situation.

The rules listed are intended to illustrate expectations for safety compliance. Employees must observe specific rules of conduct in all County operations to control the potential for loss. Violations of the rules may result in immediate termination.

GENERAL SAFETY RULES

1. Employees must know and observe safety rules applicable to their job. Each employee's compliance with the safety rules is a requisite for employment.

2. Any injury, no matter how slight, including exposure to hazardous fumes and contact with hazardous chemicals, must be promptly reported to management.

3. The following activities are strictly prohibited and will not be permitted: horseplay, practical jokes, fighting, throwing of objects, running except in extreme emergencies, alcohol, unauthorized use of drugs, firearms, tampering with equipment, use of equipment without authorization or proper training.

4. Equipment requiring guards should not be operated unless all guards are in place. Guards should never be removed from a machine. They are there for your protection.

5. Smoking is not permitted in the workplace except in designated areas only.

6. All personal protective equipment must be worn when and where required, including safety glasses, hardhats, shoes, gloves, etc.

7. Electrical or mechanical lockout/tagout procedures for equipment must be followed at all times.

8. Flammable and/or corrosive liquids (materials) must be contained and transported in approved containers. All liquids and/or materials that are hazardous should also be stored in locations designated for this purpose.

9. Forklift drivers are responsible for safe operations. Lifts may be operated only by authorized forklift drivers. Forklifts must be driven at a slow, safe speed (maximum 5 MPH) and heavy loads carried low to the ground. No riders are permitted to accompany the forklift operator.

10. Access to emergency equipment (fire extinguishers, first aid kits, etc.) should not be blocked or restricted for any reason.

11. Good housekeeping practices must be maintained at all times. Employees must keep their work areas orderly and clean in the interest of safety. There are many days when floors and walkways are slippery due to spills or weather changes, be extremely careful when walking. Clean up spills immediately.

12. All unsafe acts and conditions must be corrected promptly or reported to management for further action.

13. All containers of liquid materials must be clearly identified with the name of the contents. Do not use unidentified materials.

14. Established safety procedures must be followed at all times.

15. Damaged or malfunctioning equipment must be reported to management.

16. Only authorized, qualified personnel may perform maintenance or repair work.

17. Any person present in, or passing through a work area, must observe the safety requirements of that area.

18. Building exits or escape routes must be identified and known by all personnel assigned to the facility.

19. Personal items such as rings, bracelets, necklaces and loose clothing, are not to be worn when working around electrical or mechanical equipment.

20. Broken, worn or defective hand tools will be immediately removed from service and reported to management for repair or replacement.

21. Clothing and hair must be kept neat, trimmed and worn in a manner that does not become a potential safety hazard.

22. All equipment operators must be at least 18 years old.

23. Always turn off equipment when it is being cleaned or serviced. This is for the safety of you and your equipment. (Follow proper procedures for exposures to unprotected energy sources.)

24. Do not remove or alter safety devices on equipment.

25. Approved protective goggles of the proper shade (color) must be worn when welding or working in close proximity to a welding operation.

26. No employee may operate a piece of equipment unless authorized by their supervisor.

27. Do not use compressed air to clean yourself or your clothing.

28. Employees performing maintenance on motor driven machines or other power activated equipment must make sure that switches, valves and starting devices are turned off, locked and tagged out.

29. Any mechanical safeguards removed during equipment repair or maintenance, must be replaced before the equipment is returned to operation.

30. Do not leave oily rags or open cans of flammable liquids in work areas.

31. Know where fire extinguishers are located and how to use them. Tampering with fire extinguishers may be cause for immediate dismissal.

32. Do not look into the heli-arc area when welding is being performed; serious eye damage will result.

33. When lifting heavy loads use your legs and not your back.

34. Never use any power equipment unless there is a ground plug. Report any loose wiring to your supervisor immediately.

35. Caution should be adhered to in parking lots. Maximum allowable speed - 10 MPH.

36. Keep stored objects or equipment away from electrical panel boxes; they must remain accessible in case an emergency shut off is required.

37. Ladders must be maintained in good condition and equipped with safety feet. Assistance must be obtained prior to using ladders when a slipping potential exists. Do not use makeshift scaffolding, rigging or staging.

38. Do not raise employees on makeshift platforms with forklifts. Use only a secured, safety platform.

39. No one should be allowed near a load or lift truck while the operator is lifting, lowering or repositioning a load.

40. Insure that work areas are adequately illuminated for the job to be performed.

41. All unsafe conditions should be brought to your supervisor's attention.

42. All employees are required to wear seat belts in county vehicles.

RISK MANAGEMENT AND LOSS CONTROL

1. POLICY

To preserve safety in the workplace and minimize the frequency and severity of losses, the County has committed to a very aggressive safety and loss control program. It is comprised of committees, special programs, special training, and a commitment to safety in the workplace and the public in general. The following will provide some insight to the functions of each component of the safety and risk management program.

2. SAFETY COMMITTEE

The County Safety Committee has been developed to assist the Risk Management Director in relaying valuable legislative and regulatory information relating to safety to all departments within the County. The Committee is composed of representatives selected by their director, which gather information discussed at the meeting, and disseminate that information to all department employees.

3. SAFETY ORIENTATION AND TRAINING PROGRAM

3.1. Each department will develop a safety orientation and training program for their new hires and present employees. This training will better assimilate new hires into County employment, specifically addressing safety and health hazards found in respective departments or work areas, and the protection from those hazards. The training program will provide ongoing required safety training for all employees.

3.2. The training program does not have to be an all encompassing, in-depth procedure. New employees should only be trained to the hazards they may encounter within the scope of their job tasks.

3.3. To assist supervisors in the training requirements, a Safety Training Record has been developed in orienting new employees. The checklist can also be used to reinforce safe work habits to existing staff. A copy of the checklist has been placed in Section 4 of this manual.

3.3.1. **Employee Safety Training Record**

3.3.1.1. The Employee Safety Training Record should be used to orient all new employees. The new employee and the supervisor will sign it.

3.3.1.2. The original copy of the checklist will be kept in the department and a copy sent to the Human Resources Department to be filed in the employee's personnel file.

3.3.1.3. The supervisor will thoroughly instruct each employee in the safety requirements of the job. This checklist provides guidance in areas to discuss; however, the safety instruction should be specific to the employee's job.

4. SAFETY EQUIPMENT

4.1. It is the County's intent to make available all necessary personal protective equipment required in performing routine operations and for specific positions. Those items include, but are not limited to:

Rain Gear
Gloves
Boots
Protective Headgear
Eye Protection
Hearing Protection
Visibility Vests
Gas Monitoring Devices
Welding Clothing and Shields
Breathing Apparatus
Protective Clothing
Special Application Tools

4.2. Supervision in each county department will determine what personal protective equipment is needed within the tasks performed by employees of that department through work study and hazard analysis.

4.3. Requests for needed equipment not immediately available should be directed to the supervisor. Failure to use available personal protective equipment is the employee's responsibility and may be cause for disciplinary action by the supervisor according to department and personnel policies.

5. ADDITIONAL SAFETY EQUIPMENT

Other protective equipment is provided in order to protect employees from unnecessary exposures. This includes barricades, cones, warning signs, warning lights and many other specialty items. Consult with a supervisor or the Risk

Management Director for more information. The supervisor and employee share equal responsibility in providing and using required safety equipment deemed necessary for employee and public safety.

6. RESPONSIBILITY FOR EMPLOYEE'S PERSONAL PROPERTY

6.1. The County assumes no responsibility for personal property belonging to employees when kept or left on County premises or in County-owned vehicles unless such property is required to perform job related duties. Personal items of County employees such as radios, clocks, pictures and desk ornaments are examples of items for which the County will assume no responsibility for loss.

6.2. Occasionally, employees will be authorized or in some cases required to use personal equipment in the performance of their duties, but the County will assume no responsibility for loss or damage to the property unless the personal equipment use is authorized by the Director in writing in advance of any loss with copy on file with the Risk Management Director.

7. CLAIMS MANAGEMENT

7.1. Notification and Reporting of Claims

7.1.1. All claims against Okaloosa County, or involving losses or damage to property, should be reported to Risk Management. The Risk Management Office will in turn notify the insurance carrier if required and assist in the investigation of all claims.

7.1.2. The Risk Management Director should be notified of any accident involving County vehicles with bodily injury or property damage.

7.1.3. The Risk Management Director shall ascertain that all reports and investigations regarding accidents are properly completed and submitted.

8. FACILITY INSPECTIONS

8.1. Facility inspections will be conducted periodically throughout the County as directed by the County Risk Management Director.

8.2. The County Risk Management Director will work closely with the Facilities Maintenance Director to ensure any discrepancies from the inspections are promptly addressed and corrected. For those discrepancies that require time to order parts or complete another project, the Facilities Maintenance Director will provide adequate protection for employees and the visiting public until the discrepancy is repaired, replaced or removed.

8.3. Directors will continue to be responsible for the safety of the work areas within their control and notify the Facilities Maintenance Director or the Risk Management Director of all safety hazards that develop.

SAFETY TRAINING REQUIREMENTS

1. POLICY

1.1. Safety of all employees at Okaloosa County while at work cannot be accomplished adequately without training. To reduce employee injury and reduce insurance costs, directors and supervisors should ensure their employees are adequately trained to work safely.

1.2. As such, this policy acts as an outline for recommended training as it relates to employee work hazards. Directors and supervisors should make themselves familiar with this policy and consult the County Risk Management Director should special training needs develop or further understanding is needed.

2. RESPONSIBILITIES FOR TRAINING

2.1. **Directors** are ultimately responsible for ensuring all applicable safety training occurs within their area(s) of responsibility. Reviewing the following table, Directors should understand they don't have to possess the expertise in training each employee within their department, but instead are to manage and maintain current that required training. Directors may schedule with outside vendors, train subordinate employees as instructors or contact other resources to ensure compliance.

2.2. **Supervisors** must provide all tools necessary for employees to safely perform their jobs. Included in that supervisors may be required to act as trainers to their subordinate employees. Supervisors are given this responsibility because in their capacity, supervisors work closely with the working employee and at times, expected to work in place of that employee. Given this, the supervisor must know as experts the physical and chemical hazards that occur within the workplace. As with the Director, supervisors may also schedule with outside vendors, train subordinate employees as instructors or contact other resources to ensure compliance.

2.3. **Risk Management Director** will act as a resource in safety & health issues and assist departments in complying with all applicable safety & health standards and laws. The risk management director is also available to conduct required safety & health training.

2.4. **County Employee's** may be used as instructors provided they have been trained through an industry recognized training course and/or possess the skills and knowledge to adequately instruct fellow employees to the level of compliance with

applicable safety & health standards. Documentation of successfully completed "train the trainer" or other course instruction shall be kept on file for reference.

3. SAFETY TRAINING

3.1. Safety topics are required to be presented on at least an annual if not a more frequent basis, depending on the operational aspects of each department.

3.2. The following topics are required to be presented annually to all or selected employees and may need to be presented more frequently as operations change.

3.2.1. Hazardous communication (Florida "Right to Know").

3.2.2. Forklift operator certification (selected employees).

3.2.3. Confined space (selected employees).

3.2.4. Employee emergency plan/fire protection.

3.2.5. Vehicle driver training (selected employees).

3.2.6. Lock and tag out program (selected employees).

3.2.7. Welding/cutting (selected employees).

3.2.8. Respirator training (selected employees).

3.2.9. First aid/CPR (selected employees).

3.2.10. Asbestos health effects and controls (selected employees).

3.2.11. Servicing single and multi piece rim wheels (selected employees).

3.2.12. General principles of fire extinguisher use.

3.2.13. Bloodborne pathogens (selected employees).

3.2.14. Trenching/shoring (selected employees).

3.2.15. Traffic control (selected employees).

3.3. When new job tasks, new equipment or new hazardous materials are introduced and changes in regulatory requirements occur employee safety training must be updated.

4. TRAINING FREQUENCY TABLE

4.1. The table below is provided as a quick reference guide on how often specifically titled safety training is to be performed.

Type Training	Frequency	Person Responsible	Training Conducted by
Safety Orientation	I	Director	Supervisor
Safety Rules	I	Director	Supervisor
Bloodborne Pathogens Infection Control Plan	I, A, B, E	Director	Supervisor, Contractor
CPR/AED - First Aid -	I, A I, D	Director	Outside Contractor, Vendor (ARC)
Control of Hazardous Energy (Lockout/Tagout)	I, B	Director	Supervisor
Emergency Action Plan	I, B	Director	Supervisor
Fire Prevention Plan	I, B	Director	Supervisor
Hazard Communication	I, B	Director	Supervisor
Permit-Required Confined Space Program	I, B, E	Director	Supervisor, Outside Contractor, Vendor
Electrical Safety-related Work Practices	I, B, E	Director	Supervisor
Hand Tools, Power Tools	I, B	Director	Supervisor
Industrial Lift Truck	I, D	Director	Supervisor, Outside Contractor, Vendor, Risk Manager
Vehicle Mounted Work Platforms	I, D	Director	Supervisor, Outside Contractor, Vendor
Personal Protective Equipment	I, B	Director	Supervisor
Portable Fire Extinguisher	I, A	Director	Supervisor, County Fire, Outside Contractor, Vendor
Welding, Cutting – Hot Work	I, B, E	Director	Supervisor, Outside Contractor, Vendor
Workplace Violence Policy	I	Director	Supervisor
Work Zone Safety/Traffic Control	I	Director	Supervisor, Outside Contractor, Vendor

FREQUENCY CODES DEFINED

I – INITIALLY means the employee must be trained upon hiring; to include prior to performing task exposing employee. It is against safety & health standards to expose an employee to job hazards without first training the employee in all expected chemical and physical hazards found within that job.

A - ANNUALLY. (refresher).

B – means when machinery, procedures, hazards or work task has changed. Directors must continually review their work areas and ensure employees are kept current with new hazards from recently acquired machinery, safety equipment, updated procedures, or any new hazards that may be produced.

C - Every 2 years.

D - Every 3 years.

E - Required by specific job or work position.

P - PHYSICAL is required. Employee must be physically qualified (medically evaluated) prior to use. (This training requirement is almost exclusively aimed toward the use of respirators by County employees).

5. TRAINING CRITERIA

Supervision must refer back to appropriate chapters found within this manual for specific topics to be covered in each type of training listed here. If a chapter found within the table does not have specific criteria noted in the corresponding chapter, then a review of the entire chapter is to be accomplished to successfully comply with standards. For example, use of hand tools - supervision is to review relevant contents found in Hand & Power Tools chapter to the employee prior to initial use of tools.

6. TRAINING DOCUMENTATION

Supervision is to maintain training documentation on all employees throughout employment or until termination of employment or documented training is no longer required.

6. TRAINER CAPABILITY

6.1. Not all employees, supervisors or managers are capable of being a "trainer". Patience, knowledge and a desire to train others is needed for the training to be effective.

6.2. Management carries the main responsibility for employee safety training. Managers and supervisors need to be prepared and, if necessary, evaluated for

their training ability as most training is completed either one-on-one or in small groups.

6.3. If a manager or supervisor cannot provide effective safety (or other job related) training, it will be necessary to provide alternative trainers. Each department may want to consider identifying two, three or four individuals who can conduct safety training.

Employee Safety Training Record

Okaloosa County

Employee Name _____ Hire Date _____
Last First Middle Initial

Department _____ Supervisor _____

The following list of topics is to be reviewed with each newly hired Hall County employee by their immediate supervisor. Supervision within each department will determine which are applicable. The first eight are mandatory for all newly hired Hall County employees.

GENERAL	DATE COMPLETED	EMPLOYEE INITIALS
1. Safety rules were reviewed with the employee, both County-wide and workplace specific.		
2. Reviewed injury reporting procedures.		
3. Reviewed personal protective equipment, use, limitations and inspection.		
4. Reviewed Hazard Communication Program, specific chemical hazards, employee right to know.		
5. Reviewed specific job hazards.		
6. Reviewed evacuation/emergency procedures and duties.		
7. Reviewed location of first aid kits/other emergency equipment.		
8. Reviewed disciplinary program and grievance procedures.		
AS APPLICABLE Enter N/A on all non-applicable training in the Date Completed column.	**DATE COMPLETED**	**EMPLOYEE INITIALS**
9. Confined space program and procedures.		
10. Vehicle accident reporting procedures.		
11. Powered industrial lift truck policy and procedures.		
12. Hearing Conservation Program requirements.		
13. Lockout/Tagout procedures specific to workplace.		
14. Electrical Safety/Safety Related Work Practices.		
15. Bloodborne pathogens/Infection control.		
16. Material Handling/Proper Lifting Techniques.		
OTHER SPECIFIC EQUIPMENT/PROCEDURES/HAZARDS	**DATE COMPLETED**	**EMPLOYEE INITIALS**
17.		
18.		
19.		
20.		

ACKNOWLEDGMENTS

I acknowledge that I received the information initialed on this sheet and will abide by all Hall County safety rules and regulations.

Employee Signature: **Date:**

I have instructed/informed the above named employee on all topics applicable to his/her workplace as listed on this checklist.

Supervisor Signature: **Date:**

Recurring Training Covered on Back

Employee Safety Training Checklist
continued

Recurring Training

Course Title:	Period	Dates Conducted: (N/A if not applicable)									
CPR/ First Aid/AED	Annual										
Bloodborne Pathogens	Annual										
Fire Extinguisher	Annual										
Respiratory Protection	Annual										
Industrial Lift Truck	3 yrs.										

Personal Protective Equipment

Issued to Employee

Circle all that apply:

Hard Hat
Safety Glasses
Goggles
Face Shield
Ear
Plugs/Muffs

Reflective vest
Safety shoes
Leather gloves
Welding - goggles/face shield
apron, leather coat

Other:
_____
_____
_____
_____

Respiratory Equipment:

Equipment	Brand Name	Type / Model	Size	Cannister Used (If applicable)
Respirator				
Respirator				
Respirator				
SCBA				
Dust Mask				
Riot Control Mask				

Instructions:

1. Employee must be presented with safety orientation at hire.
2. Both employee and supervisor must sign.
3. Original form will be kept in department.
4. All recurring training is to be documented on this form.

INJURY REPORTING POLICY

1. OVERVIEW

This policy provides procedures on the reporting of a work-related injury by County employees engaged in County business. This policy coincides with Florida's Workers' Compensation statutes.

2. DEFINITIONS

2.1. **County Physician** means the physician(s) agreeing to perform workers' compensation medical service for Okaloosa County and its employees.

2.2. **Compensable Injury** (generally) means an injury *by accident* arising out of and in the course of employment.

2.3. **Workers' Compensation Carrier** (a.k.a TPA or "Third Party Administrator") means the carrier agreeing to administer workers' compensation claims for Okaloosa County.

3. REPORTING

3.1. ***Employees will report all injuries, no matter how small or insignificant to their supervisor immediately.***

3.2. The supervisor shall be responsible for getting the injured employee appropriate medical attention.

3.3. The Medical Authorization for Treatment form authorizing medical treatment shall be filled out by the supervisor and taken by the employee to the medical facility.

3.4. Once the physician has seen the employee, the supervisor will forward the completed First Report of Injury or Illness form to the Risk Management office within 24 hours or one shift whichever is sooner.

4. AFTER HOURS REPORTING

4.1. The employee shall notify his supervisor as soon as practicable that he received medical attention after work hours.

4.2. Supervisor shall complete Medical Authorization for Treatment form and state that the employee visited the hospital emergency room after hours.

4.3. Once the physician has seen the employee, the Supervisor will forward the completed First Report of Injury or Illness form to the Risk Management office within 24 hours or one shift whichever is sooner.

IMPORTANT!

All work-related injuries that involve:

- hospital admission and/or fatality, or

- more than one employee injured at any one incident,

Will require immediate notification of the County Risk Management Director regardless of time of day. If the Risk Management Director cannot be contacted at their work phone, then Okaloosa County Communications (911) will be contacted and have them paged.

5. FOLLOW-UP REQUIREMENTS

5.1. The County physician will see all injuries that are deemed work-related and covered by the Florida's Workers' Compensation law.

5.2. Injured employees must continue to see the County physician for any follow-up visits unless referred out to a specialist by the County physician or a claims management specialist from the County's TPA.

5.3. If the employee desires a second opinion, permission must be obtained by the Risk Management office or the TPA claims management specialist before visiting another physician.

5.4. Employees are to provide copies of doctor's notes after appointments to the Risk Management office and are to keep the Risk Management office appraised of any changes that may occur with care or the injury.

NOTE

Failure to adhere to procedures may result in denial and/or discontinuance of workers' compensation benefits and the employee having to pay all medical treatment costs out of pocket. Payment of personal physician services for a workers compensation injury will be denied.

NOTE

It is important that department heads/supervisors maintain contact with the Risk Management office throughout the injured employee's recovery as information such as days away from work, restricted days, and/or any vacation days must be reported not only to the TPA, but also tracked by the Risk Management Office.

6. USE OF EMERGENCY ROOM

6.1. Employees may utilize the Hospital emergency room for injuries ***only*** for the following:

6.1.1. After work hours, and when County physician is closed, or

6.1.2. Injuries that require hospital admittance, or

6.1.3. Life-threatening emergencies.

6.2. Failure to adhere to this Emergency Room policy may result in the employee paying for the cost of the visit.

6. USE OF EMS

If the injury is a life-threatening situation, or will require hospital admittance, EMS shall be the primary carrier for the employee to the emergency room.

7. INJURY INVESTIGATION

7.1. The employee will complete an employee First Report of Injury or Illness Form, describing in detail how the injury happened, the extent and location of injury, what unsafe act, condition, or combination of any, caused the injury, and a list of any witnesses.

7.2. The supervisor will investigate the accident and review the completed First Report of Injury or Illness Form with the employee, certifying through their signatures that the information given is accurate.

7.3. The supervisor will then forward the First Report of Injury or Illness Form and Supervisor's Accident/Incident Investigation Report to the Risk Management office within 24 hours.

8. TRANSITIONAL EMPLOYMENT

8.1. If the department is unable to accommodate work restrictions for an injured employee, the employee will be temporarily assigned to the Risk Management Department for a transitional work assignment.

8.2. Salary will be adjusted while employee is assigned to transitional employment.

FIRST REPORT OF INJURY OR ILLNESS

FLORIDA DEPTARTMENT OF FINANCIAL SERVICES
DIVISION OF WORKERS' COMPENSATION

For assistance call 1-800-342-1741
or contact your local EAO Office
Report all deaths within 24 hours 1-800-219-8953 or (850) 922-8953

RECEIVED BY CLAIMS-HANDLING ENTITY	SENT TO DIVISION DATE	DIVISION RECEIVED DATE

PLEASE PRINT OR TYPE

EMPLOYEE INFORMATION

NAME (First, Middle, Last)

Social Security Number | Date of Accident (Month-Day-Year) | Time of Accident ☐ AM ☐ PM

HOME ADDRESS
Street/Apt #: _____
City: _____ State: _____ Zip: _____
TELEPHONE Area Code Number

EMPLOYEE'S DESCRIPTION OF ACCIDENT (Include Cause of Injury)

OCCUPATION

INJURY/ILLNESS THAT OCCURRED

PART OF BODY AFFECTED

DATE OF BIRTH / /

SEX ☐ M ☐ F

EMPLOYER INFORMATION

COMPANY NAME: _____
D.B.A.: _____
Street: _____
City: _____ State: _____ Zip: _____
TELEPHONE Area Code Number

FEDERAL I.D. NUMBER (FEIN)

DATE FIRST REPORTED (Month/Day/Year) / /

NATURE OF BUSINESS

POLICY/MEMBER NUMBER

DATE EMPLOYED / /

PAID FOR DATE OF INJURY ☐ YES ☐ NO

EMPLOYER'S LOCATION ADDRESS (If different)
Street: _____
City: _____ State: _____ Zip: _____
LOCATION # (If applicable) _____

LAST DATE EMPLOYEE WORKED / /

WILL YOU CONTINUE TO PAY WAGES INSTEAD OF WORKERS' COMP? ☐ YES

RETURNED TO WORK ☐ YES ☐ NO
IF YES, GIVE DATE / /

LAST DAY WAGES WILL BE PAID INSTEAD OF WORKERS' COMP / /

PLACE OF ACCIDENT (Street, City, State, Zip)
Street: _____
City: _____ State: _____ Zip: _____
COUNTY OF ACCIDENT _____

DATE OF DEATH (If applicable) / /

AGREE WITH DESCRIPTION OF ACCIDENT? ☐ YES ☐ NO

RATE OF PAY ☐ HR ☐ WK
$_____ PER ☐ DAY ☐ MO

Number of hours per day _____
Number of hours per week _____
Number of days per week _____

Any person who, knowingly and with intent to injure, defraud, or deceive any employer or employee, insurance company, or self-insured program, files a statement of claim containing any false or misleading information commits insurance fraud, punishable as provided in s. 817-234. Section 440.105(7), F.S.
I have reviewed, understand and acknowledge the above statement.

EMPLOYEE SIGNATURE (If available to sign) _____ DATE _____

EMPLOYER SIGNATURE _____ DATE _____

NAME, ADDRESS AND TELEPHONE OF PHYSICIAN OR HOSPITAL

AUTHORIZED BY EMPLOYER ☐ YES ☐ NO

CLAIM-HANDLING ENTITY INFORMATION

☐ 1(a) Denied Case – DWC-12, Notice of Denial Attached

☐ 1(b) Indemnity Only Denied Case – DWC 12, Notice of Denial Attached

☐ 2. Medical Only which became Lost Time Case (Complete all information in #3)
Employee's 8th Day of Disability / /
Entity's Knowledge of 8th Day of Disability / /

☐ 3. Lost Time Case – 1st day of disability / / Full Salary in lieu of comp? ☐ YES Full Salary End Date / /
Date First Payment Mailed / / AWW _____ Comp Rate _____

☐ T.T. ☐ T.T. - 80% ☐ T.P. ☐ I.B. ☐ P.T. ☐ DEATH ☐ SETTLEMENT ONLY

Penalty Amount Paid in 1st Payment $ _____ Interest Amount Paid in 1st Payment $ _____

REMARKS:

INSURER NAME

CLAIMS-HANDLING ENTITY NAME, ADDRESS & TELEPHONE

INSURER CODE # | **EMPLOYEE'S CLASS CODE** | **EMPLOYER'S NAICS CODE**

SERVICE CO/TPA CODE # | **CLAIMS-HANDLING ENTITY** FILE #

Form DFS-F2-DWC-1 (08/2004)

RETURN TO WORK POLICY

1. PURPOSE

To establish guidelines for restricted/modified duty assignment which can be made available to employees who are recovering from disabilities related to injury/illness and who are presumed to be able to return to full unrestricted duty within six months of the date the original modification is made.

2. POLICY

It is the policy of the Okaloosa County to arrange whenever possible for placement of employees that are temporarily mentally or physically disabled into alternate work assignments and to advise employees that are permanently disabled of the options available to them. It is also the policy of the Okaloosa County to administer these procedures in a fair, consistent, and equitable manner.

3. DEFINITIONS

3.1. **County Physician (aka Authorized Treating Physician)** means the physician(s) agreeing to perform workers' compensation medical service for Okaloosa County and its employees.

3.2. **Compensable Injury** means an injury/illness that is confirmed as resulting from an accident arising out of and in the course of the employee's employment.

3.3. **Off-The-Job Injury** means an injury/illness that occurred off-the-job and is not related to the employee's employment.

3.4. **On-The-Job Injury** means a disability resulting from an accident that arises out of and in the course of the employee's job.

3.5. **Restricted/Modified Duty** means modified job requirements to meet short-term disabilities as prescribed by the County contract physician.

4. ELIGIBILITY

Any full time, part-time or temporary employee who is unable to perform their regular and normal job duties due to a work related injury or illness. Inability to perform normal job duties is determined only by the authorized treating physician.

5. PROCEDURES

5.1. Injury -
Employee sustains an injury by accident, or illness arising out of and in the course of employment.

5.2. Report -
Employee reports incident causing injury to supervisor who promptly completes appropriate forms. Employee also completes First Report of Injury or Illness Form. All forms are immediately sent to Risk Management office who promptly reports claim to carrier.

5.3. Treatment -
Employee receives treatment from the County's physician as required by Florida Workers' Compensation Law. If injury occurs after hours, employee may seek medical attention at the closest emergency room.

6. RETURN TO WORK OPTIONS

Transitional Employment via Coordination with Treating Physician

The treating physician may determine that the employee is:

6.1. **Able to return to normal and regular duties with no restrictions**
If the employee is instructed by the physician to return to regular duties with no restrictions, the employee should return to work and complete the scheduled shift.

6.2. **Able to return to work with limitations**
If the authorized treating physician deems the employee able to return to work but with limitations, the employee will receive a physician's statement to this effect. This disability statement will list the employee's "restricted/modified duty restrictions".

6.3. **Unable to return to normal and regular duties, temporarily**
The authorized treating physician may determine that the employee should stay out of work for a limited period. The physician will give the employee a disability statement to this effect.

6.4. **Unable to return to normal and regular duties, permanently**
If possible, Okaloosa County, will make a reasonable accommodation for those employees unable to return to their normal duties.

7. RESPONSIBILITIES

7.1. Employee's Responsibility:

Employee should immediately forward disability statement to supervisor.

7.2. Supervisor's Responsibility:

Supervisor will forward disability statement to Risk Management.

7.3. Risk Management Office Responsibility:

The Risk Management Office will work together with supervisor & director as necessary to place employee in a job that suits the restrictions given by the physician at the need of the department. In the case where the physician takes the employee out of work for a limited period, Risk Management office will contact physician and ask – "what is employee capable of doing." Risk Management office will coordinate with employee's supervisor as necessary to identify a job that suits the physician's description of employee's job capabilities.

8. JOB AVAILABILITY

Jobs for Transitional Employment will be identified and employee placed and in the following order:

8.1. Modify current job to accommodate the restrictions given by physician.

8.2. Identify another job within the department.

8.3. Identify job within another division of the employee's department.

8.4. Identify job within any other department within Okaloosa County.

9. WORK STANDARDS

9.1. An employee on transitional employment is subject to all rules, regulations, work standards, policies and procedures of Okaloosa County.

9.2. Employees on restricted/modified duty are required to follow the policies and procedures of the department to which they are assigned.

9.3. If the employee is placed on restricted/modified duty outside his/her normal work area, the reporting supervisor is responsible for assuring that actual hours worked, leave taken, etc., are reported to the employee's supervisor.

9.4. Work assigned on transitional employment must be done in an acceptable manner and meet the requirements of the job.

9.5. Unsatisfactory performance during transitional employment will be addressed as any other type of performance problem.

10. EMPLOYEE AVAILABILITY

Employees on restricted duty must hold themselves available for any and all work fitting their medical restrictions. This includes jobs in another department or division, and hours that may vary from their regular work schedule.

11. EMPLOYEE REFUSAL OF TRANSITIONAL EMPLOYMENT

In the event an employee refuses to return to transitional employment in response to a written, bona fide job offer which is approved by the authorized treating physician, the rights to workers' compensation income benefits will be suspended.

12. EMPLOYEE REFUSAL TO RETURN TO REGULAR AND NORMAL DUTY

In the event an employee refuses to return to regular duty after being approved by the authorized treating physician to do so, employee will be referred to the department director and Human Resources Director for disciplinary actions in accordance with Okaloosa County's Human Resources rules and regulations.

13. RESTRICTED/MODIFIED DUTY PLACEMENT FOR OFF-THE-JOB INJURIES

13.1. At the discretion of the director, requests for restricted/modified duty assignments for employees who receive off-the-job injuries/illnesses can be arranged within their work center. The director will determine if there is acceptable vacancies available meeting the posted restriction criteria of the injured/ill employee and comply accordingly. If none are available, the injured/ill employee must use sick leave, vacation leave, or leave without pay until such time the employee has been released to full duty by his/her attending physician.

NOTE

There is no mandatory requirement to place employees recovering from off-the-job injuries/illnesses into any restricted/modified duty program. Due to the limited available positions in each department, restricted/modified duty assignments will not always be available. The County reserves the right to make the final determination as to the conditions under which such positions are made available and for how long a person may occupy such as position.

13.2. If the director does not approve the restricted/modified duty request, employees must use sick leave, vacation leave, compensation leave, or leave without pay if no other leave exists.

ACCIDENT INVESTIGATION

1. PURPOSE

The principal purpose of accident investigation is to obtain information that will be of help in preventing future accidents. Nearly every investigation offers the possibility of preventing future accidents. For this reason it is advantageous to examine each accident, to establish the cause and to correct the situation as soon as possible. Accident investigations are not intended to assign blame or fix fault, but to prevent the reoccurrence of injuries and property damage.

Most accidents, unsafe acts, and conditions that lead to accidents are only symptoms of underlying causes. Identifying the basic cause (the unsafe act and/or unsafe condition) is only the starting point in learning why the accident/incident occurred. Identifying the primary causes of an accident will assist in determining the underlying cause, which enables effective changes and corrections. Proper action reduces the possibility of recurrence.

2. WHAT ACCIDENTS SHOULD BE INVESTIGATED

It is important to investigate all accidents/incidents regardless of whether or not they resulted in significant injury and/or property damage.

3. WHO SHOULD INVESTIGATE

3.1. Employee Injury/County Property Damage

Ideally the immediate supervisor and/or manager should be responsible for conducting the accident investigation.

3.2. Third Party Liability

All incidents involving bodily injury or property damage to individuals other than Okaloosa County employees must be reported by telephone to the Risk Management Department prior to being investigated. The Risk Management Department will provide instructions on how to proceed.

4. WHEN SHOULD THE INVESTIGATION BE MADE

Accident investigations should begin the moment it is known that an accident has occurred. The passage of time tends to erase and color the facts surrounding an accident and key witnesses may leave the scene. A delay of only a few hours may permit evidence to be removed, destroyed or forgotten.

5. HOW TO CONDUCT THE INVESTIGATION

How we approach people in during the investigation will often determine the amount of information we receive and its success or failure. Giving the impression of fault finding or trying to fix blame will accomplish very little toward obtaining the information that a thorough investigation requires. Although many types of accident investigation report forms are available, it is important that the form used does not limit the investigation but that the required facts (the accident, basic and primary cause(s) and the necessary corrective action) are covered.

One of the most important and over-used words in the fact finding process of accident investigation is the word "Why?" Thoroughly determining the answer to "why" an unsafe act and/or "why" an unsafe condition occurred, and "why" it existed will assist in your accident analysis and help to pinpoint the issues requiring corrective action.

6. CORRECTIVE ACTIONS

The benefits of accident investigations are numerous. Primary is the development of actions to correct the unsafe act or condition that will prevent future loss. Completed accident investigation reports should be routed to a person in the organization who has the authority and responsibility to see that the necessary changes are made.

7. INVESTIGATION PROCEDURES

Accident investigations should be conducted systematically to identify underlying and contributory causes and to determine an effective course of corrective action. When and where possible secure or control the accident scene to reduce any potential for further injury or damage and to maintain conditions as they existed at the time of the accident.

7.1. What form do I use - Who do I send it to?

7.1.1. Supervisor's Accident/Incident Investigation Forms supplied by the Risk Management Department.

7.1.2. Completed forms along with any additional information (photos, etc.) should be sent to department manager for review, evaluation and forwarding to Risk Management Department.

7.2. Who do I talk to - What do I ask?

7.2.1. The injured employee or those directly involved in the accident/ incident.

7.2.2. Eye witnesses to the accident.

7.2.3. Co-workers, if they can provide meaningful information or insight.

7.2.4. Ask why! Record factual information - if opinions are provided they should be indicated as such.

7.3. How do I analyze and find the underlying cause(s)?

7.3.1. An evaluation of all the information should be made and compared with your personal knowledge and insight as a supervisor of the operations/personnel involved.

7.3.2. Look beyond the immediate or direct cause to determine why or what lead to the unsafe act or condition and learn to address these types of issues with a prevention attitude.

7.4. What are the benefits?

7.4.1. Obviously the prevention of future accidents and their related cost is the primary benefit of effective accident investigations.

7.4.2. An awareness or attitude of safety will also be established as part of daily operations allowing work to be accomplished without the disruption that results when accidents and/or injuries occur.

All completed reports need to be sent to Risk Management. A Claim number will be assigned by Risk Management.

Claim#_____ **Date of Accident/Incident** _____ **Department** _____

SUPERVISOR'S ACCIDENT / INCIDENT INVESTIGATION REPORT

Employee Name	Number of Previous Work Injuries	How Long In Present Job?

Job Title	Date And Time Of Accident	Did The Employee Use Safety Devices As Provide By The Employer?

Injury Sustained	Type of Medical Treatment Required

Environmental Conditions (Weather, Visibility, ETC.)

Describe Clearly How The Accident Occurred, Including Equipment, Property or Material Involved...All Details

_____

_____

_____

_____

_____

_____ Estimated Damage _____

List All Eyewitness

_____

_____

Cause:

Was Accident caused by an unsafe act? Yes_____ No _____ If Yes, Please List Causes: _____

_____

Was Accident caused by unsafe Conditions? Yes_____ No _____ If Yes, Please List Causes: _____

_____

What Action Has or Will Be Taken To Prevent Recurrence?

_____

_____

_____

Investigated By (Immediate Supervisor)	Date	Reviewed By (Department Director)	Date

Okaloosa County RM-A01 (2/98)

Original Copy to Risk Management
Make a Copy for your Department

RM/2003/Workerscomp

CONTRACTOR MANAGEMENT

1. POLICY

All contractors performing or providing services for or on behalf of Okaloosa County shall comply through contract agreement and during all performance of work, with all relevant Federal and State safety, health, and environmental regulations while performing or providing such services. These regulations shall include, but shall not be limited to, those promulgated by the Florida Department of Labor Division of Occupational Safety and Health, the U.S. and Florida Department of Transportation, the Florida Department of Natural Resources and Community Development, and the U.S. Environmental Protection Agency. All contractors performing or providing services for or on behalf of Okaloosa County shall also maintain insurance in the types and quantities specified by the County, throughout the duration of the contract.

Exception: Contractors hired to perform one-time repairs or services not requiring a contract but purchase order for services, may only be required to comply with some provisions of this policy. One-time repairs may include, but not limited to, changing out a light fixture, replacing a door, repairing a County vehicle windshield, etc. When in doubt, contact the Risk Management Director to determine which provisions apply.

1. CONTRACTOR SAFETY PROGRAM REQUIREMENTS

2.1. Contractors awarded bids or contacted by management of Okaloosa County must conform to, or exceed, a written safety program as prescribed by Federal OSHA and the Florida Department of Labor. Project Supervisors, Engineers, or Directors will ensure this requirement has been satisfied prior to the beginning of the project.

2.2. Contractors must also be familiar with the County's Safety & Risk Manual for those hazards/safety policies that may apply to the work area under contract for work to be performed.

2.3. County supervision will make available copies of the County's Safety & Risk Manual to all contractors before and throughout the completion of the project.

3. CONTRACTOR EXPERIENCE REVIEW

All contractors shall submit as part of their formal or informal bid, the following information for evaluation:

3.1. OSHA citations for the past five years.

3.2. Insurance certificates stating coverage amounts equal to what is required in the bid package.

3.3. Contractor's written safety program.

3.4. Contractor's written drug and alcohol misuse prevention program.

4. INSURANCE REQUIREMENTS

4.1. General Liability - $1,000,000 per incident, $3,000,000 aggregate. Okaloosa County shall be listed on these policies as an additional insured.

4.2. Auto Liability - $1,000,000 per incident. Okaloosa County shall be listed on these policies as an additional insured.

4.3. Workers Compensation and Employers Liability – Statutory limits. Employee liability - $1,000,000.

4.4. Further information may be found in Okaloosa County's Purchasing Manual.

5. PROCEDURES

5.1. Notification

Departments of Okaloosa County should notify the Risk Management Director of any major services to be contracted prior to the bid for the services and prior to the commencement of the services.

5.2. Contract Review

The County Attorney and Risk Management Director shall review all contracts and bids for service to be completed for or on behalf of Okaloosa County to ensure that the County's interests are adequately protected.

5.3. Contractor Review

All contractors shall submit as part of their formal or informal bid, the following information found in Section 3 above.

5.4. Pre-Job Safety Review

Prior to the commencement of any services to be performed by a contractor for Okaloosa County, the Director, Engineer or Project Supervisor will conduct a safety review with the contractor's personnel to explain all the requirements of this policy and how they will be implemented.

5.5. Certificates of Insurance

The Purchasing Office is responsible for maintaining certificates of insurance for all contractors performing services for Okaloosa County. All such certificates and notifications from insurance companies, (notifications of cancellation or non-renewal, reduction of policy limits, or restriction of coverage, etc.) received by other departments shall immediately forward them to the Purchasing Office.

2

Occupational Safety & Health Programs and Plans

BLOODBORNE PATHOGEN INFECTION CONTROL PROGRAM

1. PURPOSE

This exposure control program has been established in order to minimize and to prevent, when possible, the exposure of Okaloosa County employees to disease-causing microorganisms transmitted through human blood or other potentially infectious materials.

2. DEFINITIONS

2.1. **Blood** means human blood, human blood components, and products made from human blood.

2.2. **Bloodborne Pathogens** means 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).

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

2.4. **Contaminated Laundry** means laundry, which has been soiled with blood or other potentially infectious materials or may contain sharps.

2.5. **Contaminated Sharps** means 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.

2.6. **Decontamination** means the use of physical or chemical means 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.

2.7. **Engineering Controls** means 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.

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

2.9. **Hand washing Facilities** means a facility providing an adequate supply of running potable water, soap and single use towels or hot air drying machines.

2.10. **HBV** means hepatitis B virus.

2.11. **HIV** means human immunodeficiency virus.

2.12. **Needleless Systems** means a device that does not use needles for:

2.13.1. the collection of bodily fluids or withdrawal of body fluids after initial venous or arterial access is established;

2.13.2. the administration of medication or fluids; or

2.13.3. any other procedure involving the potential for occupational exposure to bloodborne pathogens due to percutaneous injuries from contaminated sharps.

2.14. **Occupational Exposure** means 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.

2.15. **Other Potentially Infectious Materials (OPIM)** means:

2.15.1. 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;

2.15.2. Any unfixed tissue or organ (other than intact skin) from a human (living or dead); and

2.15.3. 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.

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

2.16. **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.

2.17. **Regulated Waste** means 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.

2.18. **Sharps with Engineered Sharps Injury Protections** means 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.

2.19. **Source Individual** means 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 facilities; human remains; and individuals who donate or sell blood or blood components.

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

2.21. **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.

2.22. **Work Practice Controls** means controls that reduce the likelihood of exposure by altering the manner in which a task is performed.

3. EXPOSURE DETERMINATION

3.1. Job categories in which it is reasonable to anticipate that an employee will have skin, eye, mucous membrane, or outside the body contact with blood or other potentially infectious materials will be trained to this exposure control program.

3.2. Employee positions of Okaloosa County, as part of their job duties, which have a higher risk of coming into contact with blood or other infectious materials, are listed below:

DEPARTMENT/POSITIONS
Facility Maintenance – All maintenance technicians
Jail Staff - All
Emergency Medical Services – All EMT's, Paramedics, Lifeguards
Emergency Management Staff - All
Janitorial Staff - All
Water & Sewer - All maintenance employees

4. METHODS OF COMPLIANCE

4.1. Universal Precautions

All blood or other potentially infectious materials shall be handled as if contaminated by a bloodborne pathogen. Under circumstances in which differentiation between body fluid types is difficult or impossible, ***all body fluids shall be considered potentially infectious materials***.

4.2. Hand washing And Other General Hygiene Measures

4.2.1. Employees will wash hands thoroughly using soap and water whenever hands become contaminated and as soon as possible after removing gloves or other personal protective equipment. When other skin areas or mucous membranes come in contact with blood or other potentially infectious materials, the skin shall be washed with soap and water, and the mucous membranes shall be flushed with water, as soon as possible.

4.2.2. Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are prohibited in work areas where there is a reasonable likelihood of exposure to blood or other potentially infectious material. Likewise, employees should not engage in any of these activities until proper washing with soap and water is performed.

4.2.3. Employees shall use practices to minimize splashing, spraying, spattering, and generation of droplets during procedures involving blood or other potentially infectious materials.

4.3. Sharps Management

4.3.1. Contaminated needles or other contaminated sharps shall not be bent, recapped or removed. Shearing or breaking of contaminated needles is prohibited.

4.3.2. Contaminated disposable sharps shall be discarded, as soon as possible after use, in the disposable sharps containers. Contaminated broken glass is also to be placed in disposable sharps containers.

NOTE

Employees should also be aware that a nail soaked with blood that has recently been stepped on or even exposed broken glass, qualifies as a contaminated sharp and should be protected and disposed of in accordance with this program.

4.4. Personal Protective Equipment

4.4.1. All personal protective equipment will be provided, repaired, cleaned, and disposed of by the employer at no cost to employees. Employees shall wear personal protective equipment when performing procedures in which exposure to the skin, eyes, mouth, or other mucous membranes is anticipated. The

articles to be worn will depend on the expected exposure. Gloves, gowns, laboratory coats, face shields, masks, eye protection, mouthpieces, resuscitation bags and pocket masks are available. Employees who have allergies to regular gloves may obtain hypoallergenic gloves.

4.4.2. All personal protective equipment shall be removed before leaving the work area and placed in an assigned container for storage, washing, decontamination or disposal.

4.4.3. If a garment is penetrated (soaked through) by blood or other potentially infectious material, the garment shall be removed as soon as possible and placed in a designated container for disposal. Garments which only are lightly splashed or dripped on where the blood or other potentially infectious material have not soaked through, are to be removed as soon as possible and placed in an appropriate container for cleaning. Cleaning will be performed at the expense of the employer.

4.5. Protection For Hands

4.5.1. **Gloves** shall be worn in the following situations:

4.5.1.1. When it can be reasonably anticipated that hands will contact blood or other potentially infectious materials, mucous membranes, and non-intact skin;

4.5.1.2. When performing vascular access procedures; and

4.5.1.3. When handling or touching contaminated items or surfaces.

4.6. Disposable Gloves

4.6.1. Replace as soon as feasible when gloves are contaminated, torn, punctured, or when their ability to function as a barrier is compromised.

4.6.2. Do not wash or decontaminate single use gloves for re-use.

4.7. Utility Gloves

4.7.1. Decontaminate for re-use if the gloves are in good condition.

4.7.2. Discard when gloves are cracked, peeling, torn, punctured or shows other signs of deterioration (whenever their ability to act as a barrier is compromised).

4.8. Protection For Eyes/Nose/Mouth

4.8.1. Employees shall wear masks in combination with eye protection devices (goggles or glasses with solid side shields) or chin-length face shields whenever splashes, spray, spatter, or droplets of blood or other potentially infectious materials may be generated and eye, nose, mouth contamination can be reasonably anticipated.

4.9. Equipment, Environmental And Working Surfaces

4.9.1. Clean contaminated work surfaces with appropriate disinfectant after completing procedures and immediately or as soon as feasible when overtly contaminated or after any spill of blood or other potentially infectious material.

4.9.2. Regularly inspect/decontaminate all reusable bins, pails, cans, and similar receptacles which may become contaminated with blood or other potentially infectious material. If these articles become visibly contaminated, they should be decontaminated immediately or as soon as feasible.

4.10. Special Sharps Precautions

4.10.1. Clean up broken glass that may be contaminated using mechanical means such as a brush and dustpan, tongs, or forceps. **DO NOT pick up directly with the hands.**

4.10.2. Reusable containers are not to be opened, emptied, or cleaned manually or in any other manner which will expose employees to the risk of percutaneous injury. **DO NOT reach by hand** into a container that stores reusable contaminated sharps.

5. HEPATITIS B VACCINATION

5.1. General Statement of Policy

5.1.1. All Okaloosa County employees who have been identified as having exposure to bloodborne pathogens (listed in this policy) will be offered the Hepatitis B vaccination series at no cost to them. In addition, these employees will be offered post-exposure evaluation and follow-up at no cost should they experience an exposure incident on the job.

5.1.2. All medical evaluations and procedures including the Hepatitis B vaccination series, whether prophylactic or post-exposure, will be made available to the employee at a reasonable time and place. This medical care will be performed by or under the supervision of a licensed physician, physician's assistant, or nurse practitioner. Medical care and vaccination series will be according to the most current recommendations of the Centers for Disease Control and the U.S. Public Health Service.

5.2. Hepatitis B Vaccination

5.2.1. The vaccination is a series of three injections. They are as follows:

- initial injection,
- second injection - thirty (30) days following the initial injection; and
- third injection - five (5) months following the second injection.

5.2.2. For maximum benefit from the vaccine, the second injection should be given within a seven (7) day period before or after due date (30 days following the first injection). In the event the employee does not take the initiative to have the second injection from 30 to 60 days following their first injection, ***the series must be restarted and the employee will be required to pay the cost of the injection(s)***.

5.2.3. The vaccination will be made available to employees after they have attended training on bloodborne pathogens and within 10 working days of initial assignment to a job category with exposure.

5.2.4. The vaccination series will not be made available to employees who have previously received the complete Hepatitis B vaccination series or to any employee for whom the vaccine is medically contraindicated.

5.2.5. An employee who is required the Hepatitis B vaccine but chooses not to will be required to sign a declination statement. If an employee has declined the Hepatitis B vaccination, but later changes their mind and wishes to have the shots, the County will proceed with the vaccination series at no cost to the employee.

6. REPORTING AND TREATMENT OF EXPOSURE INCIDENTS

6.1. Employees who experience an exposure incident must immediately report their exposure to their immediate supervisor.

6.2. The employee and the supervisor must complete the Employee First Report of Injury form answering all questions accurately and thoroughly. (Note: Any information concerning exposure is to be noted on form).

6.3. The employee's supervisor should contact the County's Physician or Emergency Room. The employee will be evaluated according to the established protocol for accidental exposure to Hepatitis Virus B; and treatment will be rendered as necessary.

6.4. A copy of the report form must be forwarded to the Risk Management Office.

6.5. If the employee has chosen to receive the Hepatitis B vaccine, the County Physician will administer the second and third injections at the appropriate time.

6.6. Any exposed employee who chooses not to take the Hepatitis B vaccination will be required to sign a declination statement. If an employee has declined the Hepatitis B vaccination, but later changes their mind and wishes to have the shots, the County will proceed with the vaccination series at no cost to the employee.

7. PROCEDURES FOR EVALUATION AND FOLLOW-UP OF EXPOSURE INCIDENTS

7.1. When an employee reports an exposure incident, he/she will immediately be offered a confidential medical evaluation and follow-up including the following elements:

7.1.2. documentation of the route(s) of exposure, and the circumstances under which the exposure incident occurred;

7.1.3. identification and documentation of the source individual unless identification is infeasible.

7.2. If the infectivity status of the source individual is unknown, the source individual's blood will be tested as soon as feasible after consent is obtained. If the source individual's blood is available, and law does not require the individual's consent, the blood shall be tested and the results documented. The exposed employee will be informed of the results of the source individual's testing.

7.3. The exposed employee will be offered post-exposure prophylaxis, when medically indicated, as recommended by the U.S. Public Health Service. The exposed employee will be offered counseling and medical evaluation of any reported illness.

7.4. The following information will be provided to the healthcare professional evaluating an employee after an exposure:

7.4.1. a description of the exposed employee's duties as they relate to the exposure incident;

7.4.2. the documentation of the route(s) of exposure and circumstances under which exposure occurred;

7.4.3. results of the source individual's blood testing, if available;

7.4.4. all medical records relevant to the appropriate treatment of the employee including vaccination status.

7.5. Okaloosa County Risk Management Office shall obtain a copy and a panel physician will provide the employee with a copy of the evaluating healthcare professional's written opinion within 15 days of the completion of the evaluation. The written opinion ***will be limited*** to the following information:

7.5.1. the employee has been informed of the results of the evaluation;

7.5.2. the employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials that require further evaluation or treatment.

NOTE: All other findings shall remain confidential and shall not be included in the written report.

8. EMPLOYEE TRAINING

8.1. Employees will be trained regarding bloodborne pathogens at the time of initial assignment to tasks where exposure may occur and annually thereafter.

8.2. Additional training will be provided whenever there are changes in tasks or procedures that affect employee's occupational exposure. This training will be limited to the new exposure situation.

8.3. The training approach will be tailored to the educational level, literacy, and language of the employees. Training plan will include an opportunity for employees to have their questions answered by the trainer. The department head is responsible for arranging and/or conducting training.

8.4. The following content will be included:

8.4.1. explanation of the bloodborne pathogens standard;

8.4.2. general explanation of the epidemiology, modes of transmission and symptoms of bloodborne diseases;

8.4.3. explanation of this exposure control plan and how it will be implemented,

8.4.4. procedures which may expose employees to blood or other potentially infectious materials,

8.4.5. control methods that will be used at this facility to prevent/reduce the risk of exposure to blood or other potentially infectious materials,

8.4.6. explanation of the basis for selection, proper use, location, handling, decontamination, and disposal of personal protective equipment,

8.4.7. information on the Hepatitis B vaccination program including the benefits and safety of vaccination,

8.4.8. information on procedures to use in an emergency involving blood or other potentially infectious materials,

8.4.9. what procedure to follow if an exposure incident occurs,

8.4.10. explanation of post-exposure evaluation and follow-up procedures,

8.4.11. an explanation of warning labels and/or color-coding.

9. RECORDKEEPING PROCEDURES

9.1. Medical Recordkeeping

9.1.1. A workers' compensation record will be established and maintained for each employee with exposure by the Risk Management Office. The record shall be maintained for the duration of employment plus 30 years. The following information will be maintained:

9.1.1.1. name and social security number of the employee;

9.1.1.2. a copy of the employee's hepatitis B vaccination status with dates of hepatitis B vaccinations and any medical records relative to the employee's ability to receive vaccination;

9.1.1.3. a copy of examination results, medical testing, and any follow-up procedures;

9.1.1.4. a copy of the healthcare professional's written opinion;

9.1.1.5. a copy of the information provided to the healthcare professional that evaluates the employee for suitability to receive hepatitis B vaccination prophylactically before or after an exposure incident.

9.2. Confidentiality Of Medical Records

The record will be kept confidential. The contents will not be disclosed or reported to any person within or outside the workplace without the employee's express written consent, except as required by law or regulation.

9.3. Training Records

9.3.1. Training records shall be maintained for 3 years from the date on which the training occurred.

9.3.2. The following information shall be included:

9.3.2.1. dates of training sessions;

9.3.2.2. contents or a summary of training sessions;

9.3.2.3. names and qualifications of trainer(s); and

9.3.2.4. names and job titles of all persons attending.

9.3.3. Training records shall be provided upon request for examination and copying to employees, to employee representatives, and to the Florida Commissioner of Labor.

9.4. Sharps Injury Log

9.4.1. Each department having employees affected by this program shall establish and maintain a sharps injury log for the recording of percutaneous injuries from contaminated sharps. The information in the sharps injury log shall be recorded and maintained in such manner as to protect the confidentiality of the injured employee. The sharps injury log shall contain, at a minimum:

9.4.1.1. the type and brand of device involved in the incident,

9.4.1.2. the department or work area where the exposure incident occurred, and

9.4.1.3. an explanation of how the incident occurred.

9.4.2. The sharps injury log shall be maintained for the period of 5 years.

10. BLOODBORNE PATHOGEN PROGRAM REVIEW

10.1. This program shall be reviewed and updated at least annually and whenever necessary to reflect new or modified tasks, and procedures which affect occupational exposure, and to reflect new or revised employee positions with occupational exposure. The review and update of such plans shall also:

10.1.1. Reflect changes in technology that eliminate or reduce exposure to bloodborne pathogens; and

10.1.2. Document annually consideration and implementation of appropriate commercially available and effective safer medical devices designed to eliminate or minimize occupational exposure.

10.2. County management should solicit input from non-managerial employees responsible for direct patient care who are potentially exposed to injuries from contaminated sharps in the identification, evaluation, and selection of effective engineering and work practice controls and shall document the solicitation in this program.

Okaloosa County

HEPATITIS B VACCINE FORM

I understand that due to my occupational exposure to blood or other potentially infectious materials that I may be at risk of acquiring Hepatitis B Virus (HBV) infection. I have been given the opportunity to be vaccinated with Hepatitis B Vaccine at no charge to myself.

I accept the offer for the Hepatitis B Vaccination.

Name _____

Signature _____

Date _____

Witness _____

Date _____

I decline the offer for the 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.

Name _____

Signature _____

Date _____

Witness _____

Date _____

CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT)

1. PURPOSE

The purpose of this program is to establish policy, rules and procedures for the protection of employees against the unexpected energizing, start-up, or release of stored energy from any machine or equipment located in all work places throughout Okaloosa County. This will be accomplished by affixing appropriate lockout and tagout devices to energy isolating devices.

2. APPLICATION

2.1. This program applies to the control of energy in the following cases:

2.1.1. Service and/or maintenance of machines and equipment.

2.1.2. Service and/or maintenance which takes place during normal production operation is covered only if:

2.1.2.1. An employee is required to remove or bypass a guard or other safety device.

2.1.2.2. An employee is required to place any part of his/her body into an area of a machine or piece of equipment where work is actually performed upon the material at the point of operation or where an associated danger zone exists during a machine operating cycle.

NOTE:
Minor tool changes, adjustments and other minor servicing activities which take place during normal production operations *are not covered* if they are routine, repetitive, and integral to the use of the equipment for production purposes, provided that approval has been granted by the director. If permission is granted, these alternate procedures must be in writing, kept on file and communicated to the employees who are involved.

2.2. This program ***does not apply*** in the following cases:

2.2.1. Installations under the exclusive control of electric utilities for the purpose of power generation, transmission, and distributing, including related equipment for communication or metering.

2.2.2. Exposure to electrical hazards from work on, near, or with conductors or equipment in electric utilization installations.

2.2.3. 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 the unplugging of the equipment from the energy source and by the plug being under the exclusive control of the employee performing the servicing or maintenance.

2.2.4. Hot tap operations involving transmission and distribution systems for substances such as: gas, steam, water, or petroleum products when they are performed on pressurized pipelines provided that it can be proven that:

2.2.4.1. Continuity of service is essential.

2.2.4.2. Shut down of the system is impractical, and

2.2.4.3. Documented procedures are followed and special equipment is used which will provide proven effective protection for employees and contractors.

3. DEFINITIONS

3.1. **Authorized Employee** means a person who locks or implements a tagout system procedure on machines or equipment to perform the servicing or maintenance on that machine or equipment.

3.2. **Energized** means connected to an energy source or containing residual or stored energy.

3.3. **Energy Isolating Device** means 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 slide gate
- A slip blind
- A line valve
- A block
- Any similar device used to block or isolate energy. The term does not include a push button, selector switch, and other control circuit type devices.

3.4. **Energy Source** means any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.

3.5. **Hot Tap** means a procedure used in the repair, maintenance, and service activities that involves welding on a piece of equipment (pipelines, vessels, or tanks) under pressure, in order to install connections or appurtenances.

3.6. **Lockout (LOTO)** means the placement of a lockout device on an energy-isolating device in accordance with an established procedure. This will ensure that the energy isolating device and the equipment being controlled cannot be operated until the lockout device is removed.

3.7. **Lockout Device** means a device that utilizes a positive means such as a lock to hold an energy-isolating device in the safe position and prevent the energizing of a machine or equipment.

3.8. **Normal Production Operations** means the utilization of a machine or equipment to perform its intended production function.

3.9. **Servicing And/Or Maintenance** means 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 energizing or start-up of the equipment or release of hazardous energy.

3.10. **Tagout Device** means a prominent warning device, such as a tag and means of attachment, which can be securely fastened to an energy-isolating device in accordance with an established procedure. This is to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.

4. ASSIGNMENT OF LOCKS AND TAGS

4.1. The Control of Hazardous Energy (Lock Out/Tagout) Program for Okaloosa County may utilize two specific methods of lock and tag control. Directors have the responsibility for the determination of which program they wish to apply to their work place. Other methods of LOTO compliance not listed here will only be used after approval from the County Risk Management Director.

4.1.1. **Method One**: will have a bin of locks designated specifically for LOTO and will be maintained at a central site within that department or shop. Employees may check out these locks for jobs requiring LOTO and return them once the maintenance LOTO activity is completed. A lock control log will be utilized, having as a minimum, the name of the employee, lock number, equipment being locked out, and date the lock will be returned to the checkout bin. Tags will be handed out to employees as needed.

4.1.2. **Method Two**: requires each County employee responsible for maintenance tasks to be assigned a specific lock or locks, assigned exclusively for that employee, to be kept in their possession until either the lock is in use, damaged, or cut off and destroyed. Again, tags will be handed out to employees as needed.

4.2. Each method above must abide by the following rules:

4.2.1. Only trained employees will receive locks and keys. Each standardized lock will be identified to the person using it (if applicable). No duplicate keys will be retained or made.

4.2.2. Master keys will only be authorized with Method One listed above and must be checked out just as if it were a lock; stating in the checkout log where and why the master key was checked out and by what employee. Locks utilizing master key availability will not be used in Method Two. Supervision must order locks having only one key opening the lock and the spare destroyed.

4.2.3. All locks and tags will be of durable construction to withstand the environment in which they are to be used. Locks will be substantial enough to prevent removal without the use of excessive force or unusual techniques. Tag attachment for tagout procedures only will consist of the use of a plastic self-locking cable tie; capable of withstanding 50 pounds pull.

4.2.4. Locks assigned to employees for the Control of Hazardous Energy Program will only be used for lockout/tagout. No personal locks will be brought into work for that use or likewise, LOTO locks used for personal items (i.e. personal lockers, securing bikes).

4.3. A list of employees authorized to use the lockout/tagout devices and/or their corresponding lock numbers will be kept on file in a well-known location (i.e., superintendent's office).

5. LIMITATIONS AND USES OF TAGS

5.1. For those situations where the use of a tag device only is appropriate, the authorized employee will understand the following limitations:

5.2. Tags are warning devices **only**. They do not provide physical restraint.

5.3. Only the authorized employee who installed the tag will make the removal of tag devices.

5.4. Tags must be legible and easily understood by all employees. Damaged tags will be immediately taken out of service and replaced with new.

5.5. Tags and their means of attachment must be made of materials that will withstand the environment conditions encountered in the work place.

5.6. Tags may evoke a false sense of security and their meaning needs to be understood as part of the overall energy control program.

5.7. Tags must be securely attached to energy isolating devices so that they cannot be inadvertently or accidentally detached during use.

6. REMOVAL OF LOCKOUT/TAGOUT DEVICES

6.1. Each lockout/tagout device will be removed from each energy-isolating device by the employee who applied the device.

6.2. There will be only one case in which someone else other than the authorized employee, who put on the lockout/tagout device, will be allowed to remove someone else's lockout/tagout device. **This is only if the employee left the facility to go home and forgot to remove the lock.**

6.3. **The Following Procedure Must Be Followed Before Removal Of The Lock:**

6.3.1. Call the employee at home and have him come in and remove his lock.

6.3.2. If employee cannot be reached, verify again that the employee is not at the facility (i.e. grounds, building facility).

6.3.3. The supervisor will then authorize the removal of the lock.

6.3.4. Management shall ensure that the authorized employee has this knowledge before he/she resumes work at the facility.

6.3.5. Documentation should be kept on file and in writing describing the persons called and what was done to prevent accidental start up prior to removing the lock.

7. LOCKOUT/TAGOUT PROCEDURES

The following procedures will be followed in all cases of lockout/tagout:

7.1. The machine to be locked out is designated and a survey is conducted to locate all isolating devices to be certain which switches valves, or other energy isolating devices apply.

7.2. Notify all affected employees that a lockout/tagout system is going to be utilized and the reasons for it.

7.3. If the equipment is operating, shut it down by normal stopping procedure (depress stop button etc.)

7.4. Turn off the main disconnect switch, valve, and other energy isolating devices. Stored energy such as that in springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, steam, or water pressure, must be dissipated or restrained by methods such as repositioning, blocking, bleeding down of lines, etc.

7.5. Lock the padlock on the disconnect switch, or on the chain for closing the valves. Retain the key and attach a "Danger- Do Not Operate" tag.

NOTE

Each employee working on the equipment must place his/her own lock and tag on the disconnect switch, etc. (use a hasp). Test the disconnect switch to make sure it cannot be moved to the "ON" position.

7.6. After ensuring that no employees are exposed, and as a check on having disconnected the energy sources, operate the push button or other normal operating controls to make certain that the equipment will not operate.

CAUTION

Return the operating controls to the "OFF" position before beginning the servicing and/or maintenance.

7.7. After all tools have been removed from the machine or equipment, guards have been reinstalled and employees are in the clear, remove the lockout/tagout device. If more than one employee has a lock and tag on the hasp, wait until all locks and tags are removed before continuing.

7.8. After all locks and tags are removed, check the area around the machines or equipment to ensure that no one is exposed. Turn the disconnect switch, etc., to the "ON" position to restore energy.

WARNING

Do not attempt to operate any switch, valve, or other energy-isolating device when it is locked or tagged out.

8. LOCKOUT DOCUMENTATION

8.1. The Specific Lockout/Tagout Procedures format found at the end of this policy will be used for more complex systems or systems which are not capable of being locked out by standard means (lock and tag). Procedural steps will be developed and documented and kept in the director/supervisor's office.

8.2. Documentation of procedures for machines and/or equipment is not required provided <u>all</u> of the following elements exist:

8.2.1. the machine or equipment has no potential for stored or residual energy after shut down which could endanger employees,

8.2.2. the machine or equipment has a single energy source that can be readily identified and isolated,

8.2.3. the isolation and locking out of that energy source will completely de-energize and deactivate the machine or equipment,

8.2.4. the machine or equipment is isolated from that energy source and locked out during servicing or maintenance,

8.2.5. a single lockout device will achieve a locked out condition,

8.2.6. the lockout device is under the exclusive control of the authorized employee performing the servicing or maintenance,

8.2.7. the servicing or maintenance does not create hazards for other employees, and,

8.2.8. Okaloosa County, in utilizing this exception, has had no accidents involving the unexpected activation or re-energizing of the machine or equipment during servicing or maintenance.

9. TRAINING

9.1. The supervisor will train, or ensure training is performed for all authorized employees in the purpose and function of the lockout/tagout procedures so that the knowledge and skills required for the safe application, usage, and removal of energy controls are understood.

9.2. The training will include but will not be limited to:

9.2.1. Recognition of applicable hazardous energy sources, the type and magnitude of the energy available in the workplace, and the methods and means necessary for energy isolation and control.

9.2.2. Purpose and use of the lockout/tagout procedures.

9.2.3. Instruction regarding the procedure and disciplinary action relating to attempts to restart or re-energize machines or equipment which are locked and tagged out by other employees.

9.2.4. Limitations and uses of tags in the lockout/tagout procedures.

9.3. Retraining will also be conducted with all authorized employees in the following cases:

9.3.1. Whenever changes are made in job assignments, machines, equipment, or processes that present a new hazard.

9.3.2. Changes in the lockout/tagout procedure.

9.3.3. Whenever a periodic inspection is made as outlined in Section 12.0 of these procedures, or whenever a County representative believes that there are deviations from or inadequacies in the employee's knowledge or use of the lockout/tagout procedures.

9.4. Documentation of training will be kept in the office of the director/supervisor.

10. CONTRACTOR REVIEW

All contractors will be familiar with Okaloosa County's Control of Hazardous Energy (Lockout / Tagout) program. It will be the responsibility of the project engineer, contracting coordinator, or director to review this with the contractor under his/her supervision.

11. PERIODIC PROGRAM INSPECTION

11.1. A periodic inspection will be conducted at least annually to ensure that the lockout/tagout policy is in compliance with all federal and state standards. If any deficiencies are found, they will be corrected immediately. The director, supervisor, or County Risk Management Director will conduct the inspection.

11.2. A review will be conducted with each authorized and affected employee on his or her responsibilities under the lockout/tagout procedure. In addition, whenever a tagout procedure is being used, the review will also include the tag only limitation requirements of this program.

12. DISCIPLINARY ACTION

12.1. All Okaloosa County employees required to use lockout / tagout procedures are subject to the disciplinary procedures found in this section. Employees must be made aware of the importance that circumvention of these procedures may lead to ***permanent injury or death*** of fellow employees or themselves.

12.2. The following actions may result in disciplinary action to include oral reprimand, written reprimand, suspension, and/or termination:

12.2.1. Failure to lock and tag a machine or a piece of equipment prior to working on it.

12.2.2. Use of a personal (unregistered) lock for LOTO.

12.2.3. Failure to obey LOTO procedures listed in this policy.

12.2.4. Removing or installing another employee's lock.

12.2.5. Failing to <u>strictly</u> obey LOTO procedures of this policy to remove another employee's lock after they have gone home and forgotten to remove their lock.

12.2.6. Failing to remove your lock and going home.

12.2.7. Failure to obey all other procedures set forth in this policy.

OKALOOSA COUNTY, FLORIDA

LOCKOUT/TAGOUT TRAINING CERTIFICATION

I, _____, affirm that I have received training in Okaloosa County's Lockout/Tagout Procedures. The training included, but was not limited to the following:

1. Purpose and use of the lockout/tagout procedures.
2. Methods for energy isolation and control.
3. Types and magnitude of energy in the workplace.
4. Limitations and uses of tags.
5. Disciplinary actions for failure to comply with the lockout/tagout policy.

NAME _____

DATE _____

TRAINER_____

EMERGENCY ACTION PLAN

The purpose of an Emergency Action Plan is to outline the procedures and guidelines for employees at Okaloosa County to follow in case of an emergency. An emergency is defined as any situation where the health and safety of an employee is in danger, such as fire, smoke, acid, gas leak, bomb threat, etc.

1. EMPLOYEE TRAINING

1.1. General

All employees are to be trained and become familiar with the Emergency Action Plan. It is the responsibility of each director to ensure this training is conducted for their particular area. All new hires will be trained on their initial assignment into their areas. If at any time the Emergency Action Plan, or any of the facilities responsibilities or designate actions under this plan change, all associated are to be notified.

1.2. Types of Training

All employees will be trained in various aspects of the Emergency Action Plan. This training will include:

- Emergency Procedures.
- Location of Hazardous Chemicals Stored on Site.
- Location of Overhead Hazardous Chemical Lines.
- Primary Means of Egress (from work areas within buildings).
- Gathering Points Outside After Evacuation.
- Written Emergency Action Plan.

2. EMERGENCY REPORTING/EVACUATION PROCEDURE

2.1. Reporting Procedures:

Any employee who believes an emergency exists will first call 911 (9-911 for those using a County office phone) and report the emergency. The employee will then notify his/her supervisor as soon as possible. A list of names and telephone numbers of employees will be located in designated areas.

2.2. **Evacuation Decision:**

Once notified of a potential emergency, the director/supervisor will determine if an emergency exists and when to evacuate. If a potential emergency arises after normal hours, the highest level of management present will make the decision. Once the evacuation decision is made, evacuation procedures will take place as outlined below.

2.3. **Emergency Evacuation Procedures:**

2.3.1. The director or designated personnel will notify all employees of an emergency through the use of the site fire alarm system, telephone, or verbal alert. All employees will evacuate according to the posted evacuation routes in each area.

2.3.2. The director or designated personnel will asses the situation and forward assessment information to Okaloosa County Emergency Communications by calling 911 (9-911, if applicable).

2.3.3. After all employees are outside and in no risk of any danger, each supervisor will account for all employees in their area by performing a roll call and determine if employees are present and/or accountable.

2.3.4. If the head count is short of what is believed to be actually present at work, the supervisor will immediately notify the officials in charge (Fire Captain, Police, EMT, etc.). This will enable proper rescue procedures to take place. **In no case will an employee re-enter any building to perform ANY rescue duties.**

2.3.5. **Employees will stay in their respective groups until told to leave by a member of management or supervisor. AT NO TIME WILL ANY EMPLOYEE LEAVE or GO HOME WITHOUT PERMISSION.**

2.3.6. Once the threat of an emergency is over, management, supervision, and/or emergency personnel will give permission to reenter the building.

2.4. **Response Procedures in Remote Locations:**

2.4.1. The reporting and evacuation procedures listed in this policy apply.

2.4.2. Employees will notify emergency response by calling 911 (9-911, if applicable) to that remote location and notify their supervisor immediately afterwards.

2.4.3. For locations with possible flammable atmospheres, employees will withdraw to a safe distance for safety. Employees will also alert bystanders and clear area to a safe distance.

2.5. Emergency Response Team:

2.5.1. Employee emergency response teams are not authorized due to the minimal availability of resources and the fast response time of both city and county fire departments and county EMS.

3. MEDICAL TREATMENT

Selected employees working at Okaloosa County will be trained in CPR/First Aid. Only qualified personnel will provide treatment until the Emergency Medical Service (EMS) arrives.

4. RESPONSIBILITIES

4.1. Employee Responsibilities

The following procedure shall be followed to evacuate the building. At the activation of an alarm, all employees are to:

4.1.1. Immediately stop activities, "log-off" computers,

4.1.2. Secure important documents, money and other valuables,

4.1.3. Simultaneously examine the work area to note the presence and location of any suspicious packages or items (depending on the emergency). Collect purses, briefcases, etc. and bring these items with you before exiting the building, and

4.1.4. Evacuate the building, using the designated or the shortest, safe exit route to the designated assembly areas. Make sure that all visitors and customers accompany County personnel.

NOTE:
Corridors, stairways, and other passageways containing heavy smoke, fire or other blockage should be avoided.

4.1.5. Elevators should not be used.

4.1.6. Handicapped individuals shall be helped by others, as needed.

4.2. Supervisor Responsibilities

At the activation of an alarm, each supervisor shall:

4.2.1. Immediately stop activities, "log-off" computers,

4.2.2. Secure important documents, money, and other valuables,

4.2.3. Ensure that everyone within the work area has exited the building and close all doors as you leave to ensure the integrity of the building,

4.2.4. Simultaneously examine the work area to note the presence and location of any suspicious packages or items. Collect purses, briefcases, etc. and bring these items with you before exiting the building, and

4.2.5. Check all unoccupied areas to include designated rest rooms, closets, etc.

4.3. **Additionally Supervisors will:**

4.3.1. Direct employees in their work area to the safe evacuation routes.

4.3.2. Maintain a head count of all employees at designated meeting locations.

4.3.3. Train all employees in their work area of the primary and secondary routes of evacuation.

4.4. **Directors**

4.4.1. Ensure that supervisors train their employees on this plan.

4.4.2. Communicating with supervisors at the meeting areas and determine if any employees are not accounted for after evacuation.

4.4.3. Develop and implement a plan describing the primary and secondary emergency evacuation routes for their immediate work place and work sites throughout the County under their control.

4.4.4. Develop a primary and secondary evacuation meeting place keeping in mind the overall safety of employees once removed from their department office area.

5. FIRE DRILLS

5.1. Fire drills for Okaloosa County facilities should be performed periodically as determined by the director's having employees within the facility in conjunction with the building manager using the fire alarm in conjunction with any other alarm sounding system.

5.2. Personnel will be trained in the recognition of tone alarm soundings and alarm indicators throughout the building.

6. BOMB THREAT CALLS

6.1. Bomb Threat Response

If a bomb threat is received by telephone, the recipient should, if possible:

6.1.1. Obtain from the individual, and record information including:

- Location of device.
- Description of device.
- Predicted time of explosion.
- Type of device.
- Detonation method.
- Name, address, and pertinent information of the caller; voice accent, sex, age, location of call, emotional state, and any background noise.

6.1.2. Contact Okaloosa County Emergency Communications Center by dialing **911** (9-911, if applicable). They will, in turn, notify the appropriate Public Safety personnel. Do not make additional calls to Okaloosa County Emergency Communications (911) unless you have more information to provide.

6.1.3. Notify your immediate, on-site supervisor of the situation. Do not inform other employees or the public of the situation. Do not panic, it is the number one cause of injuries in emergency situations.

6.1.4. The appropriate authorities will act upon the information you provide and will evaluate the situation. Do not initiate any type of evacuation unless instructed to do so by supervision and/or appropriate authorities.

6.1.5. When alarms activate, follow normal evacuation procedures outlined in this plan under Employee and Supervisor Responsibilities. This does not mean a bomb or a hazardous device has been located or that you are in immediate danger. It only means that management personnel have decided to evacuate in an effort to facilitate a more effective search of the premises and for your safety.

6.1.6. If there is no alarm, the situation has been resolved by the appropriate personnel.

6.2. Locating a Suspicious Package

6.2.1. Should a suspicious package be located, the Sheriff's Office or local law enforcement should be contacted immediately from a phone not located in the immediate area, by dialing 911 (9-911, if applicable) and provided with the following information if possible:

- Location of the device.
- Physical description.
- Any noise/sound coming from device.

6.2.2. Do not touch or examine the device in any way.

6.2.3. Immediately evacuate the area.

6.2.4. *Leave lights, doors, computers and everything just as they are.*

6.2.5. Again, *under no circumstances* should the devices be approached or handled. Explosive devices will only be handled, moved and/or transported by personnel trained as EOD Technicians.

6.2.6. If nothing suspicious is found and all personnel have departed:

6.2.6.1. Join your employees and customers in the designated assembly areas, and,

6.2.6.2. Do not allow anyone to reenter the building until instructed by Public Safety personnel.

7. SEVERE WEATHER

In the event of a severe weather warning, the following procedure will be followed. The objective will be to ensure the safety of all employees with a minimal amount of confusion and panic. The following steps are to be taken when severe weather occurs:

7.1. When threatening weather is suspected, an employee will be designated to monitor the radio for any weather reports.

7.2. Employees will be directed to stay inside buildings or seek shelter when outside.

7.3. If threatening weather exists, get all employees away from windows, stairwells, etc. and into the centermost part of buildings. Also seek the lower levels of buildings.

7.4. Severe weather reports will be monitored by management.

7.5. In the event of personal injury or damage, appropriate police, fire, or medical emergency services will be notified by calling **911** (9-911, if applicable).

7.6. All employees will stay within shelter until notified by management through intercom, telephone or runner.

BOMB THREAT AID

Okaloosa County

(Place this card under your telephone)

NUMBER AT WHICH CALL IS RECEIVED	TIME OF CALL
CALL ORIGINATED FROM: (Caller ID, If applicable)	
LENGTH OF CALL	TIME OF CALL

QUESTIONS TO ASK

1. When is the bomb going to explode?
2. Where is it right now?
3. What does it look like?
4. What kind of bomb is it?
5. What will cause it to explode?
6. Did you place the bomb?
7. Why?
8. Where are you?
9. What is your name?

EXACT WORDING OF THE THREAT

EMERGENCY PROCEDURES:

CALL 911

FOLLOW FIRE EVACUATION PLAN WHEN DIRECTED

BOMB THREAT

CALLER'S SEX	AGE	ACCENT

CALLER'S VOICE

☐ Calm	☐ Crying	☐ Deep
☐ Angry	☐ Normal	☐ Ragged
☐ Excited	☐ Distinct	☐ Clearing Throat
☐ Slow	☐ Slurred	☐ Deep Breathing
☐ Rapid	☐ Nasal	☐ Crackling voice
☐ Soft	☐ Stutter	☐ Disguised
☐ Loud	☐ Lisp	☐ Foreign
☐ Laughing	☐ Raspy	☐ Familiar

If voice sounded familiar, whose voice did it sound like?

BACKGROUND SOUNDS

☐ Street (cars, buses, etc.)	☐ Animal noises
☐ Airplanes	☐ Clear
☐ Voices	☐ Static
☐ PA System	☐ Local call
☐ Music	☐ Long distance call
☐ Houses (Dishes, TV, etc.)	☐ Phone booth
☐ Motor (Fan, Air Conditioner, etc.)	☐ Other (specify) _____
☐ Office Machinery	_____
☐ Factory Machinery	

LANGUAGE

☐ Well spoken (educated)	☐ Irrational	☐ Taped message
☐ Foul	☐ Incoherent	☐ Message read by threat maker

REMARKS

NAME

JOB TITLE/ OFFICE

PHONE NUMBER	DATE

Additional Office/Section Requirements)

RISK MANAGEMENT DEPARTMENT

RECOMMENDED PROTOCOL FOR HANDLING SUSPICIOUS MAIL

1. HANDLE WITH CARE

- Do Not Shake, bump or empty the contents of any suspicious envelope or package
- Do not open, smell or taste contents
- Do not open letters with your hands – use a letter opener
- Open letters and packages with minimum movement to avoid spilling of any contents

2. ISOLATE AND EVACUATE

- Isolate the suspicious letter or package
- Place the envelope or package in a container; preferably a plastic bag to prevent leakage of contents OR
- COVER the envelope or package with anything (paper, trash can, etc) and DO NOT REMOVE COVER
- Leave the room and close the door
- Section off the area to prevent others from entering

IF CONTENTS IS SPILLED

- DO NOT TRY TO CLEAN UP SPILLED CONTENTS
- COVER the spilled contents immediately with anything (paper, trash can, etc)
- Do not remove the cover
- Leave the room and close the door to prevent others from entering

3. WASH YOUR HANDS WITH SOAP AND WATER

4. IMMEDIATELY CALL 911 AND YOUR SUPERVISOR

5. MAKE A LIST OF EVERYONE WHO WAS IN THE ROOM WHEN THE SUSPICIOUS LETTER OR PACKAGE WAS RECOGNIZED

FIRE PROTECTION PROGRAM

1. PURPOSE

1.1. The purpose of the Fire Prevention Plan is to make every Okaloosa County employee aware of the need to properly plan and observe conditions in the workplace for the prevention of fires that could threaten the safety of employees.

1.2. A Fire Prevention Plan is designed to reduce the risk of workplace fires through active participation of all employees. Each employee should feel free to report any condition that they feel could be a fire hazard to their supervisor.

2. POLICY

2.1. This policy is to provide guidelines and overall general procedures countywide. Directors are required to develop within their respective work centers, fire prevention plans addressing specific hazards found in their work areas and convey them to their employees.

2.2. All department fire prevention plans will have each component as a minimum:

- A list of the major workplace fire hazards and their proper handling storage procedures,
- Potential ignition sources (such as welding, smoking etc.), and their control procedures,
- The type of fire protection equipment or systems which can control a fire involving them;
- Names or regular job titles of those personnel responsible for maintenance of equipment and systems installed to prevent or control ignitions or fires; and
- Names or regular job titles of those personnel responsible for control of fuel source hazards.

2.3. If applicable, the director should coordinate their efforts with the Facility Maintenance Director, or the Risk Management Director to ensure compliance with this policy.

2.4. The work center specific fire prevention plans are to be maintained in each director's office or in a conspicuous place within the work area.

3. GENERAL FIRE PREVENTION RULES

3.1. Emergency numbers shall be placed conspicuously throughout the work area i.e., on phones, bulletin boards, and break rooms.

3.2. Directors will ensure all employees within their respective responsibilities are familiar with escape routes, placement of fire extinguishers & fire alarms throughout the work place.

3.3. Exit doors, exit signs, passageways, and means of emergency exit shall be inspected periodically to ensure their proper working condition and unobstructed access. **Locking from inside or padlocking of a designated fire exit door during building occupancy is prohibited.**

3.4. Interior fire doors located in hallways or throughout buildings will not be held open by chocks, door wedges, or similar means. Hallway fire doors are to be kept closed at all times. Exception: Those fire doors having automatic release mechanisms may be kept open.

3.5. Sprinkler system control valves shall be chained in the open position. All riser valve locations shall be maintained free of storage and protected against damage by barrier or enclosures.

4. EQUIPMENT SYSTEMS - MAINTENANCE/MANAGEMENT

4.1. Maintenance of the fire sprinkler systems will be performed through the Facilities Maintenance department. The Facility Maintenance Director will ensure all sprinkler and fire suppression systems are maintained and operational.

NOTE:

Any repair or renovation of work spaces that requires sprinkler systems to be drained, deactivated, or partially impaired will require approval from the Facilities Maintenance Director *before* repair or renovation/shut-down can occur.

4.2. Maintenance of fire extinguishers located in buildings and on equipment operated by each section will be maintained in a serviceable condition. Directors will ensure all fire extinguishers within their respective work areas are maintained and operational. If any portable fire extinguishers are defective, the director will coordinate replacement or repair with the Facility Maintenance Office or property owner, if in a leased space.

4.3. Further information on proper fire extinguisher requirements can be obtained in the Portable Fire Extinguisher policy contained within this manual.

5. HOUSEKEEPING

5.1. In addition to the Housekeeping Policy listed in this Safety Manual, this policy requires that all flammable materials be properly stored and discarded on a timely basis in the interest of preventing workplace fires.

5.2. All trash consisting of paper products will be removed from inside containers and placed in exterior receptacles on a daily basis.

5.3. All oil soaked rags or other materials containing oil or other flammable materials will be stored in metal containers with covers and identified until they can be disposed of properly.

5.4. Flammable materials will not be stored near open flames or ignition sources and where applicable, will be stored in metal fireproof cabinets.

6. WORKPLACE FIRE HAZARDS, COUNTYWIDE, GENERAL

6.1. Administration Facilities

6.1.1. Smoking permitted only in designated smoking areas.

6.1.2. Accumulation of paper, cardboard boxes or full trash cans will not be permitted.

6.2. Maintenance Facilities

6.2.1. Welding & burning within work areas and other areas on site.

6.2.2. Flammable petroleum products stored in selected work areas throughout the maintenance facility.

6.2.3. Oil soaked rags and absorbent material.

7. CONTROL PROCEDURES

7.1. Hot Work permits with "Fire Watch" protection.

7.2. Strict enforcement of "NO SMOKING" policy within all areas posted.

7.3. All paper trash will be removed from office wastebaskets daily

8. FIRE PROTECTION EQUIPMENT

8.1. Equipment

8.1.1. Fire extinguishers ABC and Halon type (located throughout facilities).

8.1.2. Sprinkler systems.

8.1.3. Audible Tone alarm system throughout buildings.

8.2. Maintenance Of Equipment

8.2.1. All fire extinguishers will be visually inspected **monthly** and maintenance inspected **yearly.**

8.2.2. Emergency lighting will be inspected and tested for serviceability at least **semi-annually**.

8.2.3. Fire suppression systems protecting kitchen equipment shall be inspected every **6 months**.

8.2.4. Fire alarm systems will be tested at least **quarterly**.

8.2.5. Main Drain Flow tests will be performed on all sprinkler systems at least **annually**.

8.2.6. Inspectors Test Valves will be opened at least every **two years.**

8.2.7. Documentation will be kept in the Facility Maintenance Office for the above tests performed at the government offices, maintenance facilities or other sites throughout the County.

HAZARD COMMUNICATION PROGRAM

1. OVERVIEW

1.1. OSHA has promulgated an Occupational Safety and Health standard entitled "Hazard Communication" (29CFR 1910.1200). This standard requires employers to provide information to their employees regarding the hazardous chemicals in the workplace, by means of a hazard communication program.

1.2. The Right-To-Know/Hazard Communication standard establishes uniform requirements to assure that the hazards of all chemicals imported into, produced or used in U. S. workplaces are evaluated, and that the resultant hazard information and employed protective measures are transmitted to affected employers and potentially exposed employees.

1.3. Chemical manufacturers and importers must convey the hazard information they learn from their evaluations to downstream employers by means of labels on containers and material Safety Data Sheets (MSDS's). In addition, all covered employers must have a hazard communication program to get this information to their employees through labels on containers, MSDS's, and training.

1.4. This program will mirror the OHSA HAZCOM program and is designed to ensure that all employers receive the information they need to inform and train their employees properly and to design and put in place employee protection programs. It also provides necessary hazard information to employees, so they can participate in, and support, the protective measures in place at their workplaces.

2. EMPLOYEE RIGHTS UNDER RIGHT-TO-KNOW

2.1. Employees or their representatives may request, and must receive upon request, all information concerning the hazards of toxic substances in the workplace.

2.2. An employee may refuse to work with a toxic substance if he has requested information about it and has not received a written reply.

2.3. An employee may exercise any right pursuant to, or directly related to this policy without fear of any discrimination.

2.4. An employee must not be required to waive any rights listed in this policy as a condition of employment.

2.5. An employee may file a complaint with the Florida Department of Labor if he or she has been discriminated against in violation of this policy.

3. DEFINITIONS

3.1. **Chemical** means any element, chemical compound or mixture of elements and/or compounds.

3.2. **Exposure** means to subject an employee to hazardous chemicals in the course of employment through any route of entry (inhalation, ingestion, skin contact, or absorption, etc.) and includes potential (e.g.,

3.3. **Hazardous Chemical** means any chemical which is a physical hazard or health hazard.

3.4. **Hazard Warning** means any words, pictures, symbols or combination thereof appearing on a label or other appropriate form of chemical(s) in the container(s).

3.5. **Health Hazard** includes chemicals which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents which act on the hematopoietic system, and agents which damage the lungs, skin, eyes or mucous membranes.

3.6. **Label** means any written, printed or graphic material displayed on or affixed to containers of hazardous chemicals.

3.7. **Material Safety Data Sheet (MSDS)** means written or printed material concerning a hazardous chemical which is prepared according to established guidelines.

3.8. **Physical Hazard** means a chemical for which there is scientifically valid evidence that it is a combustible liquid, a compressed gas, explosive, flammable, an organic peroxide, and oxidizer, pyrophoric, unstable (reactive) or water reactive.

4. HAZARD DETERMINATION

4.1. Purchased Materials

4.1.1. All purchased chemical materials will be considered "hazardous" for the purpose of training, labeling, and MSDS availability required by the standard. Each department will rely on hazard information provided by the supplier's MSDS and label as the primary source of hazard information for purchased chemical materials.

4.1.2. No purchased chemical will be allowed on any work site operated by Okaloosa County without the appropriate MSDS and label as required by this policy.

4.1.3. Chemicals purchased from retail stores are not exempt from this policy and will require a MSDS kept on site. Purchasing employees may find available MSDS's from store personnel or on line at an MSDS internet webpage.

4.2. Receipt Of Purchased Materials

4.2.1. The purchasing employee who initially orders a product must request a data sheet on each product. For each department of Okaloosa County, a responsible employee will be tasked with the primary responsibility in ordering chemicals. The list of those employees will be kept in the director's office.

4.2.2. It is the purchasing employee's responsibility, to be sure that an MSDS is received. If the purchasing employee receives no MSDS within this time, the employee is to repeat the request for a data sheet. If the MSDS is not received within five (5) working days from the time of the second request, the employee is to immediately inform the director who, will in turn, notify the company and seek resolution.

4.2.3. The purchasing employee or designees should inform the vendor /manufacturer at the time of initial order that these regulations exist.

4.2.4. It is also the purchasing employee's responsibility to inform vendors of their duty to provide the director with a revised Material Safety Data Sheet on any products they provide to us that are altered in any way.

5. LABELS AND OTHER FORMS OF WARNING

5.1. Hazard Warnings

5.1.1. Hazard warnings are meant to convey to employees working with or near chemical substances the nature of the most significant hazard or hazards associated with the chemical in use. Hazard warnings are intended to be concise and understandable statements and are not intended to convey all hazard information on the chemical in use.

5.1.2. Each chemical entering the workplace will be labeled, tagged, or marked by the chemical manufacturer, importer, or distributor with the following information:

- **Identity** of the hazardous chemical(s).
- **Appropriate Hazard Warnings**.
- **Name And Address** of the chemical manufacturer, importer, or other responsible parties.

5.2. Containers In The Workplace

5.2.1. Each purchased container of hazardous materials from a supplier will carry the supplier's identity or hazard warning label.

5.2.2. Okaloosa County employees will not modify the supplier's identity or hazard warning statements.

5.2.3. The identity will also be indicated on the corresponding MSDS. For chemicals not in supplier containers, employee will affix a label to the container.

5.3. The following portable container types will be labeled with the appropriate hazard warning when they contain chemicals.

- Metal, fiber and plastic drums of all sizes.
- Metal and plastic buckets, pails, and cans of all sizes.
- Paper, cloth, and plastic bags of all sizes.
- Metal, plastic, and glass tanks of all sizes.
- Fiber, cardboard, and metal boxes.

5.4. Labeling Exceptions

Portable containers do not need to be labeled as long as the chemical *is for immediate use and used only by the same employee who transferred the chemical.*

5.5. Label Changes

Old labels, which do not meet the requirements of this Hazard Communication program, will be removed when they do not adequately describe container contents and replaced with new. A label meeting these requirements will not be removed or defaced for any reason.

6. MATERIAL SAFETY DATA SHEETS (MSDS)

6.1. MSDS Files And Contents

6.1.1. Departments will maintain a file of MSDS's on each hazardous chemical used by their employees.

6.1.2. Each MSDS will be in English and will contain the information as specified in 29 CFR Part 1910.1200 (g).

6.1.3. Every MSDS will be in binders and located in a conspicuous place within the work area. For those departments with multiple work sites, the director should make every effort to have MSDS binders made for each work site and have binders containing MSDS's of those chemicals specific to that work site. This may include but not limited to, having MSDS binders on each truck, placing binders in every office, or having a binder available to be carried by employee-if practical.

6.1.4. The ordering employee will add to the MSDS any significant information regarding:

6.1.5. The hazards of a chemical, and

6.1.6. Ways to protect against the hazards immediately when the information becomes known.

6.2. Access To Material Safety Data Sheets

All MSDS's kept on file as described in section 4.1, will be accessible to all employees during their regular duty shift. Any employee, upon verbal request to his or her supervisor, will be granted access to the MSDS files during regular business hours and on the day the request is made. A copy of the MSDS will be made if so requested. At no time will MSDS sheets be removed from the workplace without director's consent.

6.3. Alphabetized List

Each department will keep all hazardous chemical information filed, with the appropriate MSDS in alphabetical order by common name.

7. EMPLOYEE INFORMATION AND TRAINING

7.1. Training Program Contents

7.1.1. Each director or designee will conduct training programs for all employees working in areas containing hazardous substances at the time of initial assignment and whenever a new hazard is introduced into the work area.

7.1.2. The training will include all items specified in this program.

7.1.3. The training will be custom-made specifically for each department and will accurately and clearly present the hazards of chemicals used and all other associated information.

7.1.4. Employees will also be encouraged to access the MSDS file to obtain information on individual chemicals.

7.1.5. An outline of the training program from each department will be drawn up and added to the end of this policy.

7.2. Training Program Format And Records

7.2.1. Directors will ensure all employees within their respective control are trained in this Hazard Communication program. The program may consist of a video presentation that will be followed by in-depth coverage of the hazardous chemicals used in each department. Each supervisor will review with each individual employee any hazardous materials that are unique to his/her particular department will complete this part of the training.

7.2.2. A record of training will be kept and maintained in a place as directed by the director.

7.3. Employees To Be Trained

All Okaloosa County employees will be trained in the materials found in this program.

6. CONTRACTOR EMPLOYEES

6.1. General

Employees of contractors working in work areas maintained by Okaloosa County may come in contact with hazardous chemicals normally used at the work area or brought to the site by the contractor. These employees will be informed of the presence of hazardous chemicals in the work area and will be informed of appropriate protective measures. Also, contractors will inform Okaloosa County; specifically that Director, Engineer or Project Supervisor of their intent to use a hazardous chemical substance prior to bringing that substance on site.

6.2. Management's Responsibility To Contractors

6.2.1. A Project Supervisor will be designated for any work being performed by contractors in an area where hazardous chemicals are used. That project supervisor (Project Engineer, Director) will do the following:

6.2.2. Provide the contractor with a copy of Okaloosa County's written Hazard Communication Program.

6.2.3. Review the essential points from that program with the contractor.

6.3. Contractors Responsibility to the County

6.3.1. All contractors having employees working in areas maintained by Okaloosa County employees where hazardous chemicals are used will:

- Thoroughly review the County's written Hazard Communication Program.
- Educate and train their employees in the nature of hazardous chemicals.
- Provide their employees with appropriate protective devices and techniques, educate and train those employees in the use of these, and ensure that those employees properly use protective equipment to prevent injury from hazardous chemicals.
- Provide the project supervisor/director with a copy of the MSDS for any hazardous chemical that the contractor intends to bring or generate on site.

PERMIT REQUIRED CONFINED SPACE PROGRAM

1. PURPOSE

The purpose of this policy is to establish mandatory practices and procedures for entry and working in confined space areas. All employees subject to work around confined spaces must understand the seriousness and potential hazards that confined spaces present, up to and including fatal. Employees must read and understand this policy before any work can be performed around or within confined spaces.

2. DEFINITIONS

The following words and terms shall have the following meaning, unless the context clearly indicates otherwise.

2.1. **Acceptable Entry Conditions** means those 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 safely enter into and work within the space.

2.2. **Attendant** means an individual with no other duties except assigned to remain immediately outside the entrance to the confined space and who may render assistance as needed to employees inside the space.

2.3. **Authorized Entrant** means an employee who is authorized by the employer to enter a permit space.

2.4. **Blanking Or Blinding** means 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 that is capable of withstanding the maximum pressure of the pipe, line, or duct with no leakage beyond the plate.

2.5. **Confined Space** means any space not intended for continuous employee occupancy, having a limited means of egress, and which is also large enough and so configured that an employee can bodily enter and perform assigned work.

2.6. **Engulfment** means the surrounding and effective capture of a person by finely divided (flammable) 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.

2.7. **Entrant** means any employee who enters a confined space.

2.8. **Entry** means the action by which *any part of a person* passing through an opening into a permit required confined space. Entry includes subsequent 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.

2.9. **Entry Permit** means a written or printed document that is provided by the employer to allow and control entry into a permit space.

2.10. **Entry Supervisor** means the person (such as the superintendent, foreman, or crew chief) 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 by this policy. ***Note:*** an entry supervisor also may serve as an attendant or as an authorized entrant, as long as that person is trained and equipped as required by this policy for each role he or she fills. Also, the duties of entry supervisor may be passed from one individual to another during the course of an entry operation.

2.11. **Ground-Fault Circuit Interrupter** means a device whose function is to interrupt the electric circuit to the load when a fault current to ground exceeds a predetermined value that is less than that required to operate the overcurrent protective device of the supply current.

2.12. **Hazardous Atmosphere** means an atmosphere that may be expose employees to the risk of death, incapacitation, impairment of ability to self-rescue (that is, 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 (LFL);

- Airborne combustible dust at a concentration that meets or exceeds its LFL;

Note: This concentration may be approximated as a condition in which the dust obscures vision at a distance of five feet (1.52m) or less.

- An oxygen deficient atmosphere containing less than 19.5% oxygen by volume or an oxygen enriched atmosphere containing more than 23.5% oxygen by volume;

- An atmosphere concentration of any substance for which a dose or a permissible exposure limit is published in 29 CFR 1910 Subpart G, Occupational Health and Environmental Control, or in Subpart Z, Toxic and Hazardous Substances, of this part and which could result in employee exposure in excess of its dose or permissible exposure limit;

Note: An atmospheric concentration of any substance that is not capable of causing death, incapacitation, impairment of ability to self-rescue, injury, or acute illness due to its health effects is not covered by this provision.

- Any other atmospheric condition that is immediately dangerous to life or heath.

2.13. **Hot Work Permit** means the employer's written authorization to perform operations (for example, riveting, welding, cutting, burning, and heating) capable of providing a source of ignition.

2.14. **Immediately Dangerous to Life or Health (IDLH)** means any condition that poses an immediate or delayed threat to life, or that would cause irreversible adverse health effects or that would interfere with an individual's ability to escape unaided from a permit space.

2.15. **Immediate Severe Health Effects** means that an acute clinical sign of serious, exposure reaction is manifested within 72 hours of exposure.

2.16. **Isolation** means the process by which a permit space is removed from service and completely protected against the release of energy and materials into the space by such means as blanking or blinding; misaligning or removing sections of lines, pipes, or ducts; a double block and bleed system; lockout or tagout of all sources of energy; or blocking or disconnecting all mechanical linkages.

2.17. **Lockout or Tagging** means placing locks or tags on the energy isolating device in accordance with this standard. Tags shall indicate that the energy isolating device shall not be operated until the removal of the tag or lock.

2.18. **Non-Permit Confined Space** means 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.

2.19. **Oxygen Deficient Atmosphere** means an atmosphere containing less than 19.5 percent oxygen by volume.

2.20. **Oxygen Enriched Atmosphere** means an atmosphere containing more than 23.5% percent oxygen by volume.

2.21. **Permit-Required Confined Space (permit space)** means a confined space that has one or more of the following characteristics:

- Contains or has a potential to contain a hazardous atmosphere;
- Contains a material that has the potential for engulfing an entrant;
- 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; or
- Contains any other recognized serious safety or health hazard.

2.22. **Prohibited Condition** means any condition in a permit space that is not allowed by the permit during the period when entry is authorized.

2.23. **Qualified Person** means a person who is trained to recognize the hazard(s) of the confined space and how to evaluate those anticipated hazards and shall be capable of specifying necessary control measures to assure worker safety. The employer may designate an employee as employer representative for the purpose of assuring safe confined space entry procedures and practices at a specific site. The qualified person may also be the entrant.

2.24. **Rescue Team** means those persons whom the employer has designated prior to any confined space entry to perform rescues from confined spaces. A rescue team may consist of outside emergence personnel, provided the training requirements of this standard have been met. (i.e. Okaloosa County Fire).

2.25. **Retrieval System** means 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. A line or rope will be secured at one end to a worker's chest or body harness, or wristlets and the other end secured to anchor point or lifting device located outside the entry portal. The anchor point shall not be a motor vehicle. Retrieval lines must be of sufficient strength to remove an entrant when necessary.

2.26. **Zero Mechanical State** means that the mechanical potential energy of all portions of the machine or equipment is set so that the opening of the pipe(s), tube(s), hose(s), or actuation of any valve, lever, or button, will not produce a movement which could cause injury.

3. GENERAL INFORMATION

3.1. Confined Space Defined

3.2. A confined space is:

- large enough and so configured that an employee can bodily enter and perform assigned work, and,
- having limited means of entry and egress, and,
- is not designed for continuous employee occupancy.

3.3. Confined spaces generally include by are not limited to the following:

Storage tanks	Boilers	Sewers
Digesters	Wet wells	Dry Wells
Manholes	Open Top Pits	Underground Vaults
Tunnels	Lagoons	Ventilation or Exhaust Ducts

Vats and Vessels that are more than four feet in depth and meet the above criteria.

3.4. Confined spaces located throughout the Okaloosa County area are identified into two categories; Permit Required Confined Spaces and Non-permit Required Confined Spaces.

3.5. **Permit Required Confined Spaces:**

3.6. Are confined spaces that:

- contain or have the potential to contain a hazardous atmosphere;
- contains a material that has the potential for the engulfment of an entrant;
- 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; or
- contains any other recognized serious safety or health hazard.

3.7. **Non-permit Required Confined Spaces:**

These spaces do not contain or, with respect to atmospheric hazards, have the potential to contain any hazard capable of causing death or serious physical harm.

5. POLICY FOR SPECIFIC LOCATIONS AND HAZARDS

5.1. **All** manholes, water storage tanks, electrical and meter vaults deeper than four feet are considered confined spaces as it relates to this program.

5.2. **All** Permit-Required Confined Space entries will be *attendant required* and must have an attendant present.

5.3. Fall restraint devices and/or lifelines & body harnesses will be used when entering all Permit-required Confined Spaces.

5.4. Continuous gas monitoring will be performed at all times while working in all confined spaces. (This includes non-permit required confined spaces).

5.5. For sewer wet wells, dry wells, and vaults having ventilation fans; fans must run at least 10 minutes *after* air sampling has been performed and *prior* to entry.

6. ENTRY REQUIREMENTS

6.1. **Entry** is considered as any action resulting in *any part of the employee* breaking the plane of any opening of the confined space and includes any resulting work activities performed inside the confined space. Generally, there are two types of entry into a confined space, attendant and non-attendant.

NOTE

Due to the seriousness of unknown hazards, County employees will not be allowed to make entry into a confined space under the following conditions:

- Immediately Dangerous to Life and Health (IDLH) atmosphere,

- Hazardous atmosphere, or
- Potential for engulfment.

6.3. Additionally, entry into a posted permit-required confined space will not be allowed without securing an Entry Permit signed by a qualified person.

6.4. **Attendant Entry**

6.4.1. Attendant entry is an entry that requires an attendant present at all times when an entrant is inside a confined space. Attendant entry will be allowed when the following conditions are met:

6.4.1.1. The entrant secures an Entry Permit from a qualified person;

6.4.1.2. Continuous monitoring is performed with a device equipped with an alarm capable of evaluating oxygen, combustible gas, and toxic gas concentrations;

6.4.1.3. Provide general continuous ventilation with a mechanical blower before entry when a toxic atmosphere is indicated, and during entry to maintain minimum acceptable atmospheric conditions; and

6.4.1.4. The entrant wears a harness fall restraint system secured by a tripod or other approved method (i.e., lifeline).

6.5. **Non-Attendant Entry**

Will be allowed for any entry into *non-permit required confined spaces* by Okaloosa County employees. Employees should seek assistance from other workers to provide attendant services, even when not required by this policy, when working in remote locations throughout the County.

7. RESPONSIBILITIES AND DUTIES

7.3. Qualified individuals in Confined Space Entry will perform one of three roles:

- Authorized Entrant
- Attendant
- Entry Supervisors

7.4. **Authorized Entrant** will:

7.4.1. Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.

7.4.2. Properly use appropriate personal protective equipment (e.g., face and eye protection, and other forms of barrier protection such as gloves, aprons, and coveralls);

7.4.3. Maintain communication with the attendant as necessary to enable the attendant to alert entrants of the need to evacuate the spaces if a dangerous condition arises.

7.4.4. Shall alert the attendant whenever a warning sign or symptom of exposure to a dangerous situation or detects a prohibited condition.

7.4.5. The entrant will exit from the space whenever:

7.4.5.1. an order to evacuate is given by the attendant or the entry supervisor,

7.4.5.2. the entrant recognizes any warning sign or symptom of exposure to a dangerous situation,

7.4.5.3. the entrant detects a prohibited condition, or

7.4.5.4. an evacuation alarm is activated.

7.5. **Attendant** will:

7.5.1. Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure,

7.5.2. Be stationed immediately outside every confined space during entry operations unless relieved by another attendant,

7.5.3. Be within sight or call of the entrant at all times and have the means available to summon assistance (i.e. Walkie-talkie, cell phone).

7.5.4. Maintain an accurate count of employees working within the space,

7.5.5. Not go into any posted confined space to aid the entrant or perform any rescue. The practice of handing down tools, equipment, and/or supplies will be avoided when possible. Should entrant need items, the entrant will exit the space and retrieve those items.

NOTE

If visual or verbal communication is lost with the entrant because of engulfment, asphyxiation, or an accident, the attendant will radio, call, or seek rescue at once by calling 911 for Fire and Rescue or have a fellow employee call. **The Attendant Will Not Enter The Confined Space At Any Time For Any Rescue!**

7.5.6. Monitor activities inside and outside the space to determine if it is safe for entrants to remain in the space and orders the authorized entrants to evacuate the permit space immediately under any of the following conditions:

7.5.6.1. if the attendant detects a prohibited condition;

7.5.6.2. if the attendant detects the behavioral effects of hazard exposure in an authorized entrant;

7.5.6.3. if the attendant detects a situation outside the space that could endanger the authorized entrants; or

7.5.6.4. if the attendant cannot effectively and safely perform all the duties required in this section.

7.5.7. **Take the following actions when unauthorized persons approach or enter a permit space while entry is underway:**

7.5.7.1. warn the unauthorized persons that they must stay away from the permit space;

7.5.7.2. advise the unauthorized persons that they must exit immediately if they have entered the permit space; and

7.5.7.3. inform the authorized entrants and the entry supervisor if unauthorized person has entered the permit space.

7.6. **Entry Supervisor** will:

7.6.1. Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure;

7.6.2. Verify, by checking that the appropriate entries have been made on the Confined Space permit, that all tests specified by the permit have been conducted and that all procedures and equipment are in place before endorsing the permit and allowing entry to begin;

7.6.3. Terminate the entry and cancel the permit as required;

7.6.4. Verify that rescue services are available on entries found in remote locations or as required by potential or existing hazards;

7.6.5. Remove unauthorized individuals who enter or who attempt to enter to permit space during entry operations; and

7.6.6. Determine that entry operations remain consistent with terms of the entry permit and that acceptable entry conditions are maintained.

7.6.7. A list of qualified personnel will be kept in each department head's office and updated accordingly.

8. INSTRUMENTATION

8.3. Atmospheric testing instruments accepted for use by the County under this standard will have the following features as a minimum:

8.3.1. Capable of monitoring oxygen, combustible and toxic gas concentrations;

8.3.2. Capable of remote sampling by either hand aspirator, mechanical pump, or electronic cable;

8.3.3. Capable of self diagnosis;

8.3.4. Numerical digital display;

8.3.5. Alkaline or rechargeable Nicad power supply;

8.3.6. User replaceable sensors;

8.3.7. User calibrated; and

8.3.8. Have alarm points set at:

19.5% - 23.5% Oxygen
10% LFL for Combustible
10 PPM for H_2S
10 PPM for CO (if appl.)

9. ENTRY PROCEDURES

Entry into a posted confined space shall not be made unless the qualified person has assured that the following procedures have first been completed:

9.1. Any conditions making it unsafe to remove an entrance cover shall be eliminated before the cover is removed.

9.2. When entrance covers are moved, the opening shall be guarded by a railing, temporary cover, or other barrier that will prevent an accidental fall through the opening and that will protect each employee working in the space from foreign objects entering the space.

9.3. **Before** an employee enters the space, the internal atmosphere shall be tested, with a calibrated direct-reading instrument, for the following conditions in the order given:

Between 19.5% - 23.5% Oxygen
Less than 10% LFL for Combustible
Less than 10 PPM for H_2S
Less than 10 PPM for CO (if appl.)

9.7. If atmosphere inside a confined space fails to meet any of the three above criteria, space will be ventilated either through the act of opening doors or using continuous forced air ventilation.

WARNING

No employee will enter a permitted space until the Oxygen, Combustibles, and Toxic gas readings are below or within required settings (see above caption).

NOTE

Self-contained Breathing Apparatus will not be worn while working within any posted confined space at any time for any reason to include atmosphere testing.

9.8. Atmosphere within the confined space will be tested **hourly** and results noted on the Confined Space Permit. If an entrant exits the confined space for more than **15 minutes**, the confined space will be **re-tested prior to re-entry**.

9.9. Continuous gas monitoring will be performed at all times.

9.10. If a hazardous atmosphere is detected or a dangerous situation develops:

9.10.1. Each entrant shall leave the space immediately;

9.10.2. The space shall be evaluated to determine how the hazardous atmosphere developed; and

9.10.3. Measures shall be implemented to protect employees from the hazardous atmosphere before any subsequent entry takes place.

NOTE

If the atmosphere inside a Non-Permit required confined space exceeds any of the three criteria, and/or another potential physical hazard develops (i.e. engulfment), the space will immediately become a *Permit-Required* confined space and the above procedures in section 9 will apply. Additionally, authorized employees MUST obtain a Confined Space Permit and attendant before work continues.

9.11. Certification that a confined space is safe for entry will be done using a Confined Space Entry Permit. These permits will be filled out by the entry supervisor, shift supervisor, or immediate supervisor with no less than:

- Date of the entry and monitoring,
- Location of the confined space,
- the Signature of the person providing the certification, and
- reason for entry.

9.12. Also, the signed permit will be posted by the confined space while work is being performed (if attachment is possible) and maintained until the entry has been completed.

9.13. Permits will be maintained and stored as directed by the director upon completion of the work. Permits will be kept on file for one (1) year.

9.14. All safety equipment, special tools (to include harnesses, tripods, and lifelines) are to be present prior to beginning work.

9.15. For any form of cutting, welding or burning while inside the permit-required confined space, in addition to a confined space entry permit a Hot Work permit must also be obtained prior to work being performed.

11. RESCUE TEAMS

11.1. "Rescue teams" will not be authorized for the general employee population of Okaloosa County as County employees will not be allowed entry into any confined space under the following conditions: (IDLH) atmosphere, hazardous atmosphere, or a potential for engulfment. However, qualified persons will be trained in basic CPR/first aid techniques.

11.2. City/County fire and rescue will be called by dialing 911 or by County radio.

11.3. Supervisors should coordinate their actions with the local fire department by notifying in advance for those entries lasting longer than one shift or involving multiple entrants. Although they do not have to be present during the entry, this information will be invaluable to fire personnel should a rescue situation develop.

12. HOT WORK PERMITS (WELDING, CUTTING & BRAZING)

The "Welding and Cutting Program" of Okaloosa County Safety Manual regulates *all* welding, cutting, and brazing being performed in posted Confined Spaces. Employees performing any kind of hot work must first comply with the safety procedures in this policy and then secure a Hot Work Permit before performing any welding or cutting in Confined Spaces.

13. TRAINING

13.1. Training will be provided to employees required to enter into confined spaces and to those persons identified as qualified persons. The following areas will be included in the instruction:

Hazard Recognition
- Purging
- Ventilation Techniques
- Isolation Procedures (LOTO)

Use of Atmospheric Testing Equipment
- Test Procedures
- Flammable Gases and Vapors
- Toxic Gases and Vapors

First Aid Procedures

Safe Work Practices
Performing Hot Work
Controlling ignition Sources
Personal Protective Equipment

Use of Fall Arrest Systems
Demonstration and Performance Evaluation (actual hands-on)

13.2. Training for employees will occur:

13.2.1. Initially, before new employees are assigned work in confined spaces throughout the County,

13.2.2. Before there is a change in assigned duties,

13.2.3. Whenever there is a change in permit space operations that presents a hazard about which an employee has not previously been trained,

13.2.4. Whenever the employer has reason to believe either that there are deviations from the permit space entry procedures or that there are inadequacies in the employee's knowledge of use of these procedures.

14. DISCIPLINARY PROCEDURES

14.2. Because of the dangerous nature of entering confined spaces, this policy must be adhered to fully. For this reason, the following acts will result in disciplinary action up to and including termination:

14.2.1. Entering a posted confined space or performing any procedure within this policy and not first having confined space entry training.

14.2.2. Failing to perform an atmosphere test prior to entering a posted confined space.

14.2.3. Failing to provide an "Attendant" while performing work within a posted confined space.

14.2.4. Working within a posted confined space without both continuous monitoring with a device set to mandatory settings and use of a harness fall restraint or lifeline.

14.2.5. Failing to first secure a "Confined Space Permit" before beginning work within a posted permit-required confined space.

14.2.6. While acting as the "Attendant" abandoning your position either to enter the confined space in performing first aid or leaving permanently.

14.2.7. Failing to obey any of the procedures or any other directive within this policy.

CONFINED SPACE ENTRY PERMIT

Okaloosa County, Florida

PRE-ENTRY CHECKLIST

YES	N/A		YES	N/A	
		Entry area is free from debris and objects			Non-sparking tools
		Warning barriers and signs are in place			Low voltage (less than 25v) lighting used
		Atmospheric monitoring conducted			Electrical equipment rated for explosive atmospheres
		All hazardous lines have been isolated			No compressed gas cylinders present in confined space
		Hot work permitted (welding, cutting, grinding, etc.)			Host employer and/or contractor notified
		All energy sources have been neutralized/locked out			Entry and emergency procedures have been reviewed
		Confined space has been drained and flushed			All personnel have been trained in confined space entry
		Forced air or exhaust ventilation is provided			All personnel have been informed of potential hazards
		Electrical equipment is grounded or bonded			Attendant stationed at entrance and properly instructed
		Ground Fault Circuit Interrupters (GFCI) provided			Rescue equipment on location and readily accessible

PROTECTIVE EQUIPMENT

YES	NO		YES	NO		YES	NO	
		Hard Hat			Protective Clothing			Communications Equipment
		Eye/Face Protection			Hearing Protection			Respirator (type):
		Boots			Retrieval Device			Fire Extinguisher (type) :
		Gloves			Harness & Lifeline			Other:

TESTING EQUIPMENT

Instrument Type:	Instrument Name:
Instrument Number (if available):	Name of Person Performing Test:
Calibration Date:	

AUTHORIZATION

Entry Supervisor's Signature:	**Date:**

	Print Name	Initials	Date
Attendant			
Attendant			
Entrant			
Entrant			
Entrant			
Entrant			

Air sampling results recorded on back of this sheet

Return permit to supervisor when work is complete

(Front Page)

AIR SAMPLING RESULTS

Use of this permit is mandatory for any entry into permit required confined spaces. Failure to follow outlined procedures in Okaloosa County's Safety & Risk Manual concerning permit required confined space procedures could result in disciplinary action up to termination.

PERMIT EXPIRES 12 HOURS FROM INITIAL ENTRY

Confined Space Location:	**Entry Purpose:**	**Date:**

Hour	Atmospheric Check Time	Atmospheric Conditions Oxygen	Combustible	Toxic	Ventilation Yes	No	Entry Time	Exit Time	Signature Qualified Person
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									

NOTE:
Opposite side of page must be filled out for permit to be valid.
Data must be reentered (minimum) each hour the confined space is occupied.

Minimum atmospheric entry conditions are:

Oxygen – between 19.5% - 23.5%
Combustible – less than 10% LEL
Toxic – less than 10 ppm

(Back)

RESPIRATORY PROTECTION PROGRAM

1. PURPOSE

This policy will establish requirements for Okaloosa County employees and visiting contractors in the selection, use, and maintenance of respiratory protective equipment as determined necessary to reduce employee exposure to toxic chemical agents, occupational diseases, atmospheric contamination and allow employees to work safely in hazardous work environments.

2. DEFINITIONS

2.1. **Air-Purifying Respirator** means a respirator with an air-purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through the air-purifying element.

2.2. **Atmosphere-Supplying Respirator** means a respirator that supplies the respirator user with breathing air from a source independent of the ambient atmosphere, ad includes supplied-air respirators (SARs) and self-contained breathing apparatus (SCBA) units.

2.3. **Demand Respirator** means an atmosphere-supplying respirator that admits breathing air to the facepiece only when a negative pressure is created inside the facepiece by inhalation.

2.4. **Emergency Situation** means 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.

2.5. **End-Of-Service-Life Indicator (ESLI)** means 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.

2.6. **Filtering Facepiece** (dust mask) means 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.

2.7. **Fit Factor** means 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.

2.8. **Fit Test** means the use of a protocol to qualitatively or quantitatively evaluate the fit of a respirator on an individual. (See also Qualitative fit test QLFT and Quantitative fit test QNFT.)

2.9. **Hazardous Area** means any department, laboratory, work area where toxic materials are used, and through a spill, mechanical malfunction, process upset, or explosion could release concentrations of vapors, dust, or fumes that could be harmful to health.

2.10. **High Efficiency Particulate Air (HEPA) Filter** means 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.

2.11. **Immediately Dangerous To Life And Health (IDLH)** means 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.

2.12. **Loose-Fitting Facepiece (Respirator)** means a respiratory inlet covering that is designed to form a partial seal with the face (i.e., dust mask).

2.13. **Oxygen Deficient Atmosphere** means an atmosphere with oxygen content below 19.5% by volume.

2.14. **Physician Or Other Licensed Health Care Professional (PLHCP)** means an individual whose legally permitted scope of practice (i.e., license, registration, or certification) allows him or her to independently provide, or be delegated the responsibility to provide, some or all of the health care services required by paragraph (e) of this section.

2.15. **Qualitative Fit Test (QLFT)** means a pass/fail fit test to assess the adequacy of respirator fit that relies on the individual's response to the test agent.

2.16. **Quantitative Fit Test (QNFT)** means an assessment of the adequacy of respirator fit by numerically measuring the amount of leakage into the respirator.

2.17. **Self-Contained Breathing Apparatus (SCBA)** means an atmosphere-supplying respirator for which the breathing air source is designed to be carried by the user.

2.18. **Supplied-Air Respirator (Airline Respirator, SAR)** means an atmosphere-supplying respirator for which the source of breathing air is not designed to be carried by the user.

2.19. **Tight-Fitting Facepiece (Respirator)** means a respiratory inlet covering that forms a complete seal with the face.

2.20. **User Seal Check** means an action conducted by the respirator user to determine if the respirator is properly seated tot he face.

3. RESPONSIBILITIES

3.1. Each director is responsible for identifying the hazardous areas of their operations and ensuring that the provisions of this policy are carried out.

3.2. Employees will use the respiratory protective equipment provided in accordance with instructions provided in training and under the conditions outlined in this policy.

3.3. The Risk Management Director will develop and revise the necessary training program and assist the affected sections in the initial employee training. The Risk Management Director will also monitor the overall compliance with the provisions of this policy.

3.4. A list of qualified employees in the use of respirators and/or SCBA's will be maintained in each director's office.

4. POLICY

4.1. Employees expected to use respiratory protective equipment, on either a routine or emergency basis, will be trained in its use at initial hire, with refresher training provided on an annual basis. Likewise, prior to be assigned tasks requiring the use of respiratory equipment, supervisors will schedule employees for a medical evaluation by the Safety and Health Office for physical fitness in the use of respirators.

4.2. Respiratory protective equipment should not be stored within a hazardous area. It should be placed at stations outside of hazard area for emergency use where it is quickly accessible at all times. It should be stored in water-proof/dust-proof compartments and clearly marked.

4.3. Respiratory protective equipment and associated equipment must provide adequate respiratory protection against the particular hazard to be expected as approved by the Risk Management Director.

4.4. Employees will not be assigned to tasks requiring the use of respiratory equipment unless it has been determined that they are physically able to perform the work while using the equipment. (Physical evaluations will be scheduled and funded by the employee's department).

4.5. Persons using respiratory equipment cannot wear corrective lenses with frames unless an approved fitting has been provided for the respiratory equipment.

4.6. Persons using respiratory equipment should not have extra facial hair. Facial hair can affect the seal rendering the respiratory equipment ineffective.

NOTE

Due to the potential of improper seal, beards and/or bushy sideburns should not be worn by any employee required to be qualified in respirators or SCBA's.

4.7. Okaloosa County will provide respirators, training, and medical evaluations for respirator usage at no cost to the employee.

5. PROCEDURES FOR SELECTING RESPIRATORS

5.1. Supervisors shall review the work areas under their direction for all respiratory hazards their employees may encounter.

5.2. The supervisor will match the type of respirator to the actual or potential hazard present. For those hazardous areas where Immediately Dangerous to Life and Health (IDLH) atmospheres are not present, the supervisor may wish to choose the negative pressure respirators. The employee is only authorized the use of atmosphere-supplying respirators (SCBA & SAR) in those areas with an IDLH atmosphere.

NOTE

Where the respiratory hazard cannot be identified or the employee's exposure cannot be reasonably estimated, the atmosphere shall be considered to be IDLH.

5.3. The director is responsible in making the brand, type, and size of respirator available to the employee. For cost reasons, the purchase of one brand and type of respirator is acceptable provided that brand and type can correctly fit all employees within that workplace. Those employees who cannot properly pass the fit test and check seal the chosen brand masks, are entitled to have other respirator brands made available at no cost to the employee.

NOTE

All respirators used by County employees must be NIOSH approved. If the supervisor or employee has any doubt as to the certification, contact the supplier or the Risk Management Director before use.

5.4. Once the respirator size, style, model and make has been properly fitted to the employee, that employee may not wear any other respirator having a different size, model or make without again being properly evaluated and fitted to that new additional respirator.

5.5. The director will maintain files on employees and the respirator mask(s) they are qualified to wear. Those files will be kept in the director's office.

6. TYPES OF RESPIRATORS

6.1. **Filtering facepiece (also includes dust mask):** can be used to protect against nuisance dusts and mists that are free of oil. Filtering facepieces rated as high efficiency particulate air filters (HEPA) must be used to protect against TB exposures.

6.2. **Negative pressure respirator (half facepiece/full facepiece masks w/filter canisters):** used to protect against specific fumes, vapors, and chemicals.

NOTE

Items 6.1 and 6.2 above can only be used in non-IDLH atmospheres containing *at least 19.5% and no more than 23.5% oxygen*! Filtering and negative pressure masks are not to be used in IDLH atmospheres.

NOTE

Negative pressure respirators can only be used against specific hazards. Employees must read the labels marked and/or match the color on the respirator filter canister to determine applicability to protect against a hazard.

6.3. **Self-Contained Breathing Apparatus (SCBA):** to be used when work is to be performed in an IDLH atmosphere. The SCBA must have a 30 minute or greater air bottle supply to comply with this program.

6.4. **Supplied-Air Respirators (SAR):** is to be used in an IDLH atmosphere, when the employee must have freedom of movement and dexterity or, when the wearing of an SCBA may cause an ignition hazard.

7. TYPES OF FILTERS

7.1. Filter elements have now been classified into nine classes of filters (three levels of filter efficiency, with three categories of resistance to filter efficiency degradation). The following may assist the employee in determining the proper class filter.

- Filter Efficiency: 95%, 99%, and 99.97%
- Filter Efficiency Degradation:

  N- Not resistant to oil
  R- Resistant to oil
  P- Oil proof

7.2. Extreme care should be exercised in the selection of the proper canisters for respirators. In addition to the color-coding, labels should be affixed to the canister by the manufacturer that specifies the type of protection afforded. The Risk Management Director may be contacted to assist in the selection the proper

canister for the job. To assist the employee, a copy of the color table has been placed at the end of this program.

8. PROCEDURES FOR PROPER USE

8.2. Respiratory equipment used on a routine basis will be cleaned and disinfected after each use. Respirator equipment maintained for emergency use will be cleaned and disinfected after each use or as often as conditions may warrant. Employees will be instructed in cleaning procedures during the training program.

8.3. Under no circumstances are negative-pressure respirators or gas masks to be used in fire fighting operations or in dense smoke.

8.4. Before using a respirator, it should be inspected for the tightness of fittings and connections, conduction of face piece, headband, valves, connecting tube, and canister.

8.5. When using abrasive blasting agents, a continuous flow air line respirator constructed so it will cover the wearer's head, neck and shoulders to protect him/her from rebounding abrasive will be worn.

8.6. Whenever a County employee using an SCBA or SAR respirator is in atmospheres immediately dangerous to life or health (IDLH), one or more standby persons with an SCBA will be positioned at the nearest location where fresh air is available for emergency rescue. Employees must use the "buddy system" and have visual, voice, or walkie-talkies. **No one will enter a hazardous environment alone.**

8.7. Breathing air for SCBA's and SAR's will be of high purity. Compressed and liquid oxygen shall meet the US Pharmacopoeia requirements medical or breathing air and compressed breathing air shall meet at least the requirements of Grade D breathing air described in ANSI/Compressed Gas Association Commodity Specifications for Air, G-7.1-1989 to include:

8.7.1. Oxygen content (v/v) of 19.5-23.5%;

8.7.2. Hydrocarbon (condensed) content of 5 milligrams per cubic meter of air or less;

8.7.3. Carbon monoxide (CO) content of 10 ppm or less;

8.7.4. Carbon dioxide content of 1,000 ppm or less; and

8.7.5. Lack of noticeable odor.

NOTE

A fire department having the support equipment available to do so, or a qualified distributor/supplier capable of meeting the requirements set forth in #8.7 above, will be the only entities allowed to refill SCBA or SAR bottles/air supplies.

8.8. Cylinders used to supply breathing air to respirators meet the following requirements:

8.8.1. Cylinders are tested and maintained as prescribed in the Shipping Container Specification Regulations of the DOT 49 CFR part 173 and part 178;

8.8.2. Cylinders purchased breathing air have a certificate of analysis from the supplier that the breathing air meets the requirements for Grade D breathing air; and

8.8.3. The moisture content in the cylinder does not exceed a dew point of -50 deg.F (-45.6 deg.C) at 1 atmosphere.

9. MEDICAL CRITERIA FOR USE OF RESPIRATORS

9.2. County employees will be medically evaluated prior to wearing any respirator. As part of the County's health and wellness program, employees whose positions require the use of a respirator will have an initial evaluation in the hiring process. Additional medical evaluations will occur during the following:

9.2.1. an employee reports medical signs or symptoms that are related to ability to use a respirator;

9.2.2. a PLHCP, supervisor, or the Risk Management Director determines that an employee needs to be reevaluated;

9.2.3. information from the respiratory protection program, including observations made during fit testing and program evaluation, indicates a need for employee reevaluation; or

9.2.4. 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 the employee.

9.3. Employees will be given a written medical questionnaire at each evaluation. A follow-up medical examination will be provided for an employee who gives a positive response to any question among questions 1 through 8 in Section 2 of Part A of Okaloosa County Respirator Medical Evaluation Questionnaire or, whose initial medical examination demonstrates the need for a follow-up medical examination.

9.4. In addition to the medical evaluation, the following information must be provided to the PLHCP before the PLHCP can make a recommendation concerning the employee's ability to use a respirator:

9.4.1. the type and weight of the respirator to be used;

9.4.2. the duration and frequency of respirator use;

9.4.3. the expected physical work effort;

9.4.4. additional protective clothing and equipment to be worn; and,

9.4.5. temperature and humidity extremes that may be encountered.

9.5. A copy of the County's medical questionnaire has been placed at the end of this policy titled, "*Appendix C Okaloosa County Respirator Medical Evaluation Questionnaire (Mandatory).*"

10. FIT TESTING

10.1. Fit testing will be performed for all employees prior to wearing any respirator. Employees must be fit tested to the same make, model, style, and size of respirator that will be used.

10.2. The preferred method Countywide will be the qualitative test method. Employees using SCBA and/or SAR equipment are also to use the Qualitative fit test and accomplish this by temporarily converting the SCBA facepiece to a negative pressure respirator.

10.3. Fit tests must be performed ***annually*** and when changes occur in the employee's physical condition that could affect respirator fit. Such conditions include, but not limited to, facial scarring, dental changes, cosmetic surgery, or an obvious change in body.

NOTE

Employees must be fit tested to *each* respirator of size, style, model and make they may wear within their work place. It is permissible to be qualified and fit tested to multiple respirators.

10.4. A copy of the fit testing procedures as prescribed by Federal OSHA has been placed at the end of this policy titled, "Appendix A to 29 CFR 1910:134; *ADDITIONAL GUIDELINES AND INFORMATION, Fit Testing Procedures (Mandatory).*"

11. MAINTENANCE, STORAGE, INSPECTION AND DISPOSAL OF RESPIRATORS

11.1. Only a qualified person will repair respirators and SCBA's. A qualified person is an employee who has been trained by the manufacturer, the distributor (vendor) trained by the manufacturer, or the manufacturer itself. Respiratory equipment is not to be tampered with or modified in any form from the original manufacturer's specifications and design.

11.2. Each county department utilizing respiratory equipment will select a representative to monitor and track all repairs of SCBA and SAR systems within their department. The cost of replacement and/or repair will come from the owning organization. All SCBA and SAR equipment will be properly marked for maintenance tracking prior to being put into use.

11.3. Respirators shall be stored to protect them from damage, contamination, dust, sunlight, extreme temperatures, excessive moisture, and damaging chemicals, and they shall be packed or stored to prevent deformation of the facepiece and exhalation valve.

11.4. Damaged respirators will be immediately taken out of service and repaired, if possible. If not possible, the respirator will be labeled and destroyed. Dust masks can be placed in a trash receptacle or biohazard bag, if applicable. Rubberized face fitting respirators in addition to the above requirement must be cut up or mangled so as not to provide a proper seal. SCBA tanks will be labeled and taken out of service.

11.5. Filtering elements failing a visual inspection or expired past the service life will be immediately taken out of service and destroyed.

11.6. Respirators and SCBA's maintained for emergency use will be inspected on a **monthly** basis. A record of these inspections, along with an inspection checklist, will be kept inside the respirator storage area or SCBA carrying case. (if appl.) These checklists can be obtained from the distributor.

11.7. Respirators frequently used on a day-to-day basis will be inspected **prior to use** as well as on a monthly basis.

11.8. Respirators will be inspected as required in accordance with Appendix B-2 *Cleaning Procedures (Mandatory)*, located at the end of this policy. Directors may develop their own specific inspection checklist provided it meets or exceeds criteria in Appendix B-2.

12. TRAINING FOR RESPIRATOR USE

12.1. For all training involving respirator use by County employees, the training will include instruction on:

- Why the respirator is necessary;
- How improper fit, usage, or maintenance can compromise the protective effect of the respirator;
- Limitations and capabilities of the respirator;
- Proper use in emergency situations and during malfunctions;
- Inspection, installation, removal, and proper seal checks;
- Proper maintenance and storage;
- Recognition of medical signs and symptoms that may limit or prevent the effective use of respirators; and
- General requirements of this program.

12.2. ***Retraining*** will be administered annually and when the following situations occur:

- Changes in the workplace or type of respirator render previous training obsolete;
- Inadequacies in the employee's knowledge or use of the respirator indicate that the employee has not retained the required understanding or skill;
- Any other situation arises in which retraining appears necessary to ensure safe respirator use.

12.3. All training will be documented and kept in a place as determined by the Director.

13. VOLUNTARY USE OF RESPIRATORY EQUIPMENT (not required by this policy)

13.1. Employees wishing to use respiratory equipment where hazards exist at lower levels below permissible exposure limits are encouraged to do so, but must adhere to the following requirements. Employees must:

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

13.3. Choose respirators certified by NIOSH for use to protect against the contaminant of concern.

13.4. Not wear respirators into atmospheres containing contaminants for which their respirator is not designed to protect against.

13.5. Keep track of individual respirator and do not mistakenly use someone else's respirator.

13.6. Employees using *tight fitting* respiratory equipment not mandated by this standard procedure *must be medically able* to use that respirator. Therefore, even with voluntary use, employees must be scheduled for and satisfactorily pass a medical review prior to use of any tight fitting respiratory equipment.

NOTE

Those employees whose only use of respirators involve the voluntary use of filtering facepieces (dust masks), within an atmosphere having exposure limits set below OSHA standards, are not required to be included in this written respiratory program. This includes fit test or medical evaluation.

13.7. Employees must ensure that the respirator is cleaned, stored, and maintained so that its use does not present a health hazard to the user.

14. PROGRAM EVALUATION

This program will be reviewed on an annual basis for overall effectiveness. Directors and supervisors will review this program with their employees and determine if changes are needed. Items to review are: changes in hazards found in the workplace, changes in procedures which require respirator protection, changes in procedures which affect employee exposure or stress, and changes in operations which affect emergency procedures.

Appendix A
FIT TESTING PROCEDURES

A. FIT TEST PROCEDURES-GENERAL REQUIREMENTS

The employer shall conduct fit testing using the following procedures. The requirements in this appendix apply to all OSHA- accepted fit test methods, both QLFT and QNFT.

1. The test subject shall be allowed to pick the most acceptable respirator from a sufficient number of respirator models and sizes so that the respirator is acceptable to, and correctly fits, the user.

2. Prior to the selection process, the test subject shall be shown how to put on a respirator, how it should be positioned on the face, how to set strap tension and how to determine an acceptable fit. A mirror shall be available to assist the subject in evaluating the fit and positioning of the respirator. This instruction may not constitute the subject's formal training on respirator use, because it is only a review.

3. The test subject shall be informed that he/she is being asked to select the respirator that provides the most acceptable fit. Each respirator represents a different size and shape, and if fitted and used properly, will provide adequate protection.

4. The test subject shall be instructed to hold each chosen facepiece up to the face and eliminate those that obviously do not give an acceptable fit.

5. The more acceptable facepieces are noted in case the one selected proves unacceptable; the most comfortable mask is donned and worn at least five minutes to assess comfort. Assistance in assessing comfort can be given by discussing the points in the following item A.6. If the test subject is not familiar with using a particular respirator, the test subject shall be directed to don the mask several times and to adjust the straps each time to become adept at setting proper tension on the straps.

6. Assessment of comfort shall include a review of the following points with the test subject and allowing the test subject adequate time to determine the comfort of the respirator:

   (a) Position of the mask on the nose

   (b) Room for eye protection

   (c) Room to talk

   (d) Position of mask on face and cheeks

7. The following criteria shall be used to help determine the adequacy of the respirator fit:

   (a) Chin properly placed;

   (b) Adequate strap tension, not overly tightened;

   (c) Fit across nose bridge;

   (d) Respirator of proper size to span distance from nose to chin;

   (e) Tendency of respirator to slip;

   (f) Self-observation in mirror to evaluate fit and respirator position.

8. The test subject shall conduct a user seal check, either the negative and positive pressure seal checks described in Appendix B-1 of this section or those recommended by the respirator manufacturer which provide equivalent protection to the procedures in Appendix B- 1. Before conducting the negative and positive pressure checks, the subject shall be told to seat the mask on the face by moving the head from side-to-side and up and down slowly while taking in a few slow deep breaths. Another facepiece shall be selected and retested if the test subject fails the user seal check tests.

9. The test shall not be conducted if there is any hair growth between the skin and the facepiece sealing surface, such as stubble beard growth, beard, mustache or sideburns which cross the respirator sealing surface. Any type of apparel which interferes with a satisfactory fit shall be altered or removed.

10. If a test subject exhibits difficulty in breathing during the tests, she or he shall be referred to a physician or other licensed health care professional, as appropriate, to determine whether the test subject can wear a respirator while performing her or his duties.

11. If the employee finds the fit of the respirator unacceptable, the test subject shall be given the opportunity to select a different respirator and to be retested.

12. **Exercise regimen**. Prior to the commencement of the fit test, the test subject shall be given a description of the fit test and the test subject's responsibilities during the test procedure. The description of the process shall include a description of the test exercises that the subject will be performing. The respirator to be tested shall be worn for at least 5 minutes before the start of the fit test.

13. The fit test shall be performed while the test subject is wearing any applicable safety equipment that may be worn during actual respirator use which could interfere with respirator fit.

14. **Test Exercises**. The following test exercises are to be performed for all fit testing methods prescribed in this appendix, except for the CNP method. A separate fit testing exercise regimen is contained in the CNP protocol. The test subject shall perform exercises, in the test environment, in the following manner:

    (a) Normal breathing. In a normal standing position, without talking, the subject shall breathe normally.

    (b) Deep breathing. In a normal standing position, the subject shall breathe slowly and deeply, taking caution so as not to hyperventilate.

    (c) Turning head side to side. Standing in place, the subject shall slowly turn his/her head from side to side between the extreme positions on each side. The head shall be held at each extreme momentarily so the subject can inhale at each side.

    (d) Moving head up and down. Standing in place, the subject shall slowly move his/her head up and down. The subject shall be instructed to inhale in the up position (i.e., when looking toward the ceiling).

    (e) Talking. The subject shall talk out loud slowly and loud enough so as to be heard clearly by the test conductor. The subject can read from a prepared text such as the Rainbow Passage, count backward from 100, or recite a memorized poem or song.

Rainbow Passage

When the sunlight strikes raindrops in the air, they act like a prism and form a rainbow. The rainbow is a division of white light into many beautiful colors.

These take the shape of a long round arch, with its path high above, and its two ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look, but no one ever finds it. When a man looks for something beyond reach, his friends say he is looking for the pot of gold at the end of the rainbow.

(f) Grimace. The test subject shall grimace by smiling or frowning. (This applies only to QNFT testing; it is not performed for QLFT)

(g) Bending over. The test subject shall bend at the waist as if he/she were to touch his/her toes. Jogging in place shall be substituted for this exercise in those test environments such as shroud type QNFT or QLFT units that do not permit bending over at the waist.

(h) Normal breathing. Same as exercise (1).

Each test exercise shall be performed for one minute except for the grimace exercise which shall be performed for 15 seconds. The test subject shall be questioned by the test conductor regarding the comfort of the respirator upon completion of the protocol. If it has become unacceptable, another model of respirator shall be tried. The respirator shall not be adjusted once the fit test exercises begin. Any adjustment voids the test, and the fit test must be repeated.

B. QUALITATIVE FIT TEST (QLFT) PROTOCOLS

1. General

(a) The employer shall ensure that persons administering QLFT are able to prepare test solutions, calibrate equipment and perform tests properly, recognize invalid tests, and ensure that test equipment is in proper working order.

(b) The employer shall ensure that QLFT equipment is kept clean and well maintained so as to operate within the parameters for which it was designed.

2. Isoamyl Acetate Protocol

Note: This protocol is not appropriate to use for the fit testing of particulate respirators. If used to fit test particulate respirators, the respirator must be equipped with an organic vapor filter.

(a) **Odor Threshold Screening**

Odor threshold screening, performed without wearing a respirator, is intended to determine if the individual tested can detect the odor of isoamyl acetate at low levels.

(1) Three 1 liter glass jars with metal lids are required.

(2) Odor-free water (e.g., distilled or spring water) at approximately 25 deg. C (77 deg. F) shall be used for the solutions.

(3) The isoamyl acetate (IAA) (also known at isopentyl acetate) stock solution is prepared by adding 1 ml of pure IAA to 800 ml of odor-free water in a 1 liter jar, closing the lid and shaking for 30 seconds. A new solution shall be prepared at least weekly.

(4) The screening test shall be conducted in a room separate from the room used for actual fit testing. The two rooms shall be well ventilated to prevent the odor of IAA from becoming evident in the general room air where testing takes place.

(5) The odor test solution is prepared in a second jar by placing 0.4 ml of the stock solution into 500 ml of odor-free water using a clean dropper or pipette. The solution shall be shaken for 30 seconds and allowed to stand for two to three minutes so that the IAA concentration above the liquid may reach equilibrium. This solution shall be used for only one day.

(6) A test blank shall be prepared in a third jar by adding 500 cc of odor-free water.

(7) The odor test and test blank jar lids shall be labeled (e.g., 1 and 2) for jar identification. Labels shall be placed on the lids so that they can be peeled off periodically and switched to maintain the integrity of the test.

(8) The following instruction shall be typed on a card and placed on the table in front of the two test jars (i.e., 1 and 2): "The purpose of this test is to determine if you can smell banana oil at a low concentration. The two bottles in front of you contain water. One of these bottles also contains a small amount of banana oil. Be sure the covers are on tight, then shake each bottle for two seconds. Unscrew the lid of each bottle, one at a time, and sniff at the mouth of the bottle. Indicate to the test conductor which bottle contains banana oil."

(9) The mixtures used in the IAA odor detection test shall be prepared in an area separate from where the test is performed, in order to prevent olfactory fatigue in the subject.

(10) If the test subject is unable to correctly identify the jar containing the odor test solution, the IAA qualitative fit test shall not be performed.

(11) If the test subject correctly identifies the jar containing the odor test solution, the test subject may proceed to respirator selection and fit testing.

(b) **Isoamyl Acetate Fit Test**

(1) The fit test chamber shall be a clear 55-gallon drum liner suspended inverted over a 2-foot diameter frame so that the top of the chamber is about 6 inches above the test subject's head. If no drum liner is available, a similar chamber shall be constructed using plastic sheeting. The inside top center of the chamber shall have a small hook attached.

(2) Each respirator used for the fitting and fit testing shall be equipped with organic vapor cartridges or offer protection against organic vapors.

(3) After selecting, donning, and properly adjusting a respirator, the test subject shall wear it to the fit testing room. This room shall be separate from the room used for odor threshold screening and respirator selection, and shall be well-ventilated, as by an exhaust fan or lab hood, to prevent general room contamination.

(4) A copy of the test exercises and any prepared text from which the subject is to read shall be taped to the inside of the test chamber.

(5) Upon entering the test chamber, the test subject shall be given a 6-inch by 5-inch piece of paper towel, or other porous, absorbent, single-ply material, folded in half and wetted with 0.75 ml of pure IAA. The test subject shall hang the wet towel on the hook at the top of the chamber. An IAA test swab or ampule may be substituted for the IAA wetted paper towel provided it has been demonstrated that

the alternative IAA source will generate an IAA test atmosphere with a concentration equivalent to that generated by the paper towel method.

(6) Allow two minutes for the IAA test concentration to stabilize before starting the fit test exercises. This would be an appropriate time to talk with the test subject; to explain the fit test, the importance of his/her cooperation, and the purpose for the test exercises; or to demonstrate some of the exercises.

(7) If at any time during the test, the subject detects the banana-like odor of IAA, the test is failed. The subject shall quickly exit from the test chamber and leave the test area to avoid olfactory fatigue.

(8) If the test is failed, the subject shall return to the selection room and remove the respirator. The test subject shall repeat the odor sensitivity test, select and put on another respirator, return to the test area and again begin the fit test procedure described in (b) (1) through (7) above. The process continues until a respirator that fits well has been found. Should the odor sensitivity test be failed, the subject shall wait at least 5 minutes before retesting. Odor sensitivity will usually have returned by this time.

(9) If the subject passes the test, the efficiency of the test procedure shall be demonstrated by having the subject break the respirator face seal and take a breath before exiting the chamber.

(10) When the test subject leaves the chamber, the subject shall remove the saturated towel and return it to the person conducting the test, so that there is no significant IAA concentration buildup in the chamber during subsequent tests. The used towels shall be kept in a self-sealing plastic bag to keep the test area from being contaminated.

3. **Saccharin Solution Aerosol Protocol**

The entire screening and testing procedure shall be explained to the test subject prior to the conduct of the screening test.

(a) **Taste threshold screening**. The saccharin taste threshold screening, performed without wearing a respirator, is intended to determine whether the individual being tested can detect the taste of saccharin.

(1) During threshold screening as well as during fit testing, subjects shall wear an enclosure about the head and shoulders that is approximately 12 inches in diameter by 14 inches tall with at least the front portion clear and that allows free movements of the head when a respirator is worn. An enclosure substantially similar to the 3M hood assembly, parts # FT 14 and # FT 15 combined, is adequate.

(2) The test enclosure shall have a 3/4-inch (1.9 cm) hole in front of the test subject's nose and mouth area to accommodate the nebulizer nozzle.

(3) The test subject shall don the test enclosure. Throughout the threshold screening test, the test subject shall breathe through his/her slightly open mouth with tongue extended. The subject is instructed to report when he/she detects a sweet taste.

(4) Using a DeVilbiss Model 40 Inhalation Medication Nebulizer or equivalent, the test conductor shall spray the threshold check solution into the enclosure. The nozzle is directed away from the nose and mouth of the person. This nebulizer shall be clearly marked to distinguish it from the fit test solution nebulizer.

(5) The threshold check solution is prepared by dissolving 0.83 gram of sodium saccharin USP in 100 ml of warm water. It can be prepared by putting 1 ml of the fit test solution (see (b)(5) below) in 100 ml of distilled water.

(6) To produce the aerosol, the nebulizer bulb is firmly squeezed so that it collapses completely, then released and allowed to fully expand.

(7) Ten squeezes are repeated rapidly and then the test subject is asked whether the saccharin can be tasted. If the test subject reports tasting the sweet taste during the ten squeezes, the screening test is completed. The taste threshold is noted as ten regardless of the number of squeezes actually completed.

(8) If the first response is negative, ten more squeezes are repeated rapidly and the test subject is again asked whether the saccharin is tasted. If the test subject reports tasting the sweet taste during the second ten squeezes, the screening test is completed. The taste threshold is noted as twenty regardless of the number of squeezes actually completed.

(9) If the second response is negative, ten more squeezes are repeated rapidly and the test subject is again asked whether the saccharin is tasted. If the test subject reports tasting the sweet taste during the third set of ten squeezes, the screening test is completed. The taste threshold is noted as thirty regardless of the number of squeezes actually completed.

(10) The test conductor will take note of the number of squeezes required to solicit a taste response.

(11) If the saccharin is not tasted after 30 squeezes (step 10), the test subject is unable to taste saccharin and may not perform the saccharin fit test.

Note to paragraph 3. (a): If the test subject eats or drinks something sweet before the screening test, he/she may be unable to taste the weak saccharin solution.

(12) If a taste response is elicited, the test subject shall be asked to take note of the taste for reference in the fit test.

(13) Correct use of the nebulizer means that approximately 1 ml of liquid is used at a time in the nebulizer body.

(14) The nebulizer shall be thoroughly rinsed in water, shaken dry, and refilled at least each morning and afternoon or at least every four hours.

(b) **Saccharin solution aerosol fit test procedure.**

(1) The test subject may not eat, drink (except plain water), smoke, or chew gum for 15 minutes before the test.

(2) The fit test uses the same enclosure described in 3. (a) above.

(3) The test subject shall don the enclosure while wearing the respirator selected in section I. A. of this appendix. The respirator shall be properly adjusted and equipped with a particulate filter(s).

(4) A second DeVilbiss Model 40 Inhalation Medication Nebulizer or equivalent is used to spray the fit test solution into the enclosure. This nebulizer shall be clearly marked to distinguish it from the screening test solution nebulizer.

(5) The fit test solution is prepared by adding 83 grams of sodium saccharin to 100 ml of warm water.

(6) As before, the test subject shall breathe through the slightly open mouth with tongue extended, and report if he/she tastes the sweet taste of saccharin.

(7) The nebulizer is inserted into the hole in the front of the enclosure and an initial concentration of saccharin fit test solution is sprayed into the enclosure using the same number of squeezes (either 10, 20 or 30 squeezes) based on the number of squeezes required to elicit a taste response as noted during the screening test. A minimum of 10 squeezes is required.

(8) After generating the aerosol, the test subject shall be instructed to perform the exercises in section I. A. 14. of this appendix.

(9) Every 30 seconds the aerosol concentration shall be replenished using one half the original number of squeezes used initially (e.g., 5, 10 or 15).

(10) The test subject shall indicate to the test conductor if at any time during the fit test the taste of saccharin is detected. If the test subject does not report tasting the saccharin, the test is passed.

(11) If the taste of saccharin is detected, the fit is deemed unsatisfactory and the test is failed. A different respirator shall be tried and the entire test procedure is repeated (taste threshold screening and fit testing).

(12) Since the nebulizer has a tendency to clog during use, the test operator must make periodic checks of the nebulizer to ensure that it is not clogged. If clogging is found at the end of the test session, the test is invalid.

4. **BitrexTM (Denatonium Benzoate) Solution Aerosol Qualitative Fit Test Protocol**

The BitrexTM (Denatonium benzoate) solution aerosol QLFT protocol uses the published saccharin test protocol because that protocol is widely accepted. Bitrex is routinely used as a taste aversion agent in household liquids which children should not be drinking and is endorsed by the American Medical Association, the National Safety Council, and the American Association of Poison Control Centers. The entire screening and testing procedure shall be explained to the test subject prior to the conduct of the screening test.

(a) **Taste Threshold Screening.**

The Bitrex taste threshold screening, performed without wearing a respirator, is intended to determine whether the individual being tested can detect the taste of Bitrex.

(1) During threshold screening as well as during fit testing, subjects shall wear an enclosure about the head and shoulders that is approximately 12 inches (30.5 cm) in diameter by 14 inches (35.6 cm) tall. The front portion of the enclosure shall be clear from the respirator and allow free movement of the head when a respirator is worn. An enclosure substantially similar to the 3M hood assembly, parts # FT 14 and # FT 15 combined, is adequate.

(2) The test enclosure shall have a \3/4\ inch (1.9 cm) hole in front of the test subject's nose and mouth area to accommodate the nebulizer nozzle.

(3) The test subject shall don the test enclosure. Throughout the threshold screening test, the test subject shall breathe through his or her slightly open mouth with

tongue extended. The subject is instructed to report when he/she detects a bitter taste.

(4) Using a DeVilbiss Model 40 Inhalation Medication Nebulizer or equivalent, the test conductor shall spray the Threshold Check Solution into the enclosure. This Nebulizer shall be clearly marked to distinguish it from the fit test solution nebulizer.

(5) The Threshold Check Solution is prepared by adding 13.5 milligrams of Bitrex to 100 ml of 5% salt (NaCl) solution in distilled water.

(6) To produce the aerosol, the nebulizer bulb is firmly squeezed so that the bulb collapses completely, and is then released and allowed to fully expand.

(7) An initial ten squeezes are repeated rapidly and then the test subject is asked whether the Bitrex can be tasted. If the test subject reports tasting the bitter taste during the ten squeezes, the screening test is completed. The taste threshold is noted as ten regardless of the number of squeezes actually completed.

(8) If the first response is negative, ten more squeezes are repeated rapidly and the test subject is again asked whether the Bitrex is tasted. If the test subject reports tasting the bitter taste during the second ten squeezes, the screening test is completed. The taste threshold is noted as twenty regardless of the number of squeezes actually completed.

(9) If the second response is negative, ten more squeezes are repeated rapidly and the test subject is again asked whether the Bitrex is tasted. If the test subject reports tasting the bitter taste during the third set of ten squeezes, the screening test is completed. The taste threshold is noted as thirty regardless of the number of squeezes actually completed.

(10) The test conductor will take note of the number of squeezes required to solicit a taste response.

(11) If the Bitrex is not tasted after 30 squeezes (step 10), the test subject is unable to taste Bitrex and may not perform the Bitrex fit test.

(12) If a taste response is elicited, the test subject shall be asked to take note of the taste for reference in the fit test.

(13) Correct use of the nebulizer means that approximately 1 ml of liquid is used at a time in the nebulizer body.

(14) The nebulizer shall be thoroughly rinsed in water, shaken to dry, and refilled at least each morning and afternoon or at least every four hours.

(b) **Bitrex Solution Aerosol Fit Test Procedure.**

(1) The test subject may not eat, drink (except plain water), smoke, or chew gum for 15 minutes before the test.

(2) The fit test uses the same enclosure as that described in 4. (a) above.

(3) The test subject shall don the enclosure while wearing the respirator selected according to section I. A. of this appendix. The respirator shall be properly adjusted and equipped with any type particulate filter(s).

(4) A second DeVilbiss Model 40 Inhalation Medication Nebulizer or equivalent is used to spray the fit test solution into the enclosure. This nebulizer shall be clearly marked to distinguish it from the screening test solution nebulizer.

(5) The fit test solution is prepared by adding 337.5 mg of Bitrex to 200 ml of a 5% salt (NaCl) solution in warm water.

(6) As before, the test subject shall breathe through his or her slightly open mouth with tongue extended, and be instructed to report if he/she tastes the bitter taste of Bitrex.

(7) The nebulizer is inserted into the hole in the front of the enclosure and an initial concentration of the fit test solution is sprayed into the enclosure using the same number of squeezes (either 10, 20 or 30 squeezes) based on the number of squeezes required to elicit a taste response as noted during the screening test.

(8) After generating the aerosol, the test subject shall be instructed to perform the exercises in section I. A. 14. of this appendix.

(9) Every 30 seconds the aerosol concentration shall be replenished using one half the number of squeezes used initially (e.g., 5, 10 or 15).

(10) The test subject shall indicate to the test conductor if at any time during the fit test the taste of Bitrex is detected. If the test subject does not report tasting the Bitrex, the test is passed.

(11) If the taste of Bitrex is detected, the fit is deemed unsatisfactory and the test is failed. A different respirator shall be tried and the entire test procedure is repeated (taste threshold screening and fit testing).

5. **Irritant Smoke (Stannic Chloride) Protocol**

This qualitative fit test uses a person's response to the irritating chemicals released in the "smoke" produced by a stannic chloride ventilation smoke tube to detect leakage into the respirator.

(a) **General Requirements and Precautions**

(1) The respirator to be tested shall be equipped with high efficiency particulate air (HEPA) or P100 series filter(s).

(2) Only stannic chloride smoke tubes shall be used for this protocol.

(3) No form of test enclosure or hood for the test subject shall be used.

(4) The smoke can be irritating to the eyes, lungs, and nasal passages. The test conductor shall take precautions to minimize the test subject's exposure to irritant smoke. Sensitivity varies, and certain individuals may respond to a greater degree to irritant smoke. Care shall be taken when performing the sensitivity screening checks that determine whether the test subject can detect irritant smoke to use only the minimum amount of smoke necessary to elicit a response from the test subject.

(5) The fit test shall be performed in an area with adequate ventilation to prevent exposure of the person conducting the fit test or the build-up of irritant smoke in the general atmosphere.

(b) **Sensitivity Screening Check**

The person to be tested must demonstrate his or her ability to detect a weak concentration of the irritant smoke.

(1) The test operator shall break both ends of a ventilation smoke tube containing stannic chloride, and attach one end of the smoke tube to a low flow air pump set to deliver 200 milliliters per minute, or an aspirator squeeze bulb. The test operator shall cover the other end of the smoke tube with a short piece of tubing to prevent potential injury from the jagged end of the smoke tube.

(2) The test operator shall advise the test subject that the smoke can be irritating to the eyes, lungs, and nasal passages and instruct the subject to keep his/her eyes closed while the test is performed.

(3) The test subject shall be allowed to smell a weak concentration of the irritant smoke before the respirator is donned to become familiar with its irritating properties and to determine if he/she can detect the irritating properties of the smoke. The test operator shall carefully direct a small amount of the irritant smoke in the test subject's direction to determine that he/she can detect it.

(c) **Irritant Smoke Fit Test Procedure**

(1) The person being fit tested shall don the respirator without assistance, and perform the required user seal check(s).

(2) The test subject shall be instructed to keep his/her eyes closed.

(3) The test operator shall direct the stream of irritant smoke from the smoke tube toward the faceseal area of the test subject, using the low flow pump or the squeeze bulb. The test operator shall begin at least 12 inches from the facepiece and move the smoke stream around the whole perimeter of the mask. The operator shall gradually make two more passes around the perimeter of the mask, moving to within six inches of the respirator.

(4) If the person being tested has not had an involuntary response and/or detected the irritant smoke, proceed with the test exercises.

(5) The exercises identified in section I.A. 14. of this appendix shall be performed by the test subject while the respirator seal is being continually challenged by the smoke, directed around the perimeter of the respirator at a distance of six inches.

(6) If the person being fit tested reports detecting the irritant smoke at any time, the test is failed. The person being retested must repeat the entire sensitivity check and fit test procedure.

(7) Each test subject passing the irritant smoke test without evidence of a response (involuntary cough, irritation) shall be given a second sensitivity screening check, with the smoke from the same smoke tube used during the fit test, once the respirator has been removed, to determine whether he/she still reacts to the smoke. Failure to evoke a response shall void the fit test.

(8) If a response is produced during this second sensitivity check, then the fit test is passed.

C. QUANTITATIVE FIT TEST (QNFT) PROTOCOLS

The following quantitative fit testing procedures have been demonstrated to be acceptable:

- Quantitative fit testing using a non- hazardous test aerosol (such as corn oil, polyethylene glycol 400 [PEG 400], di-2-ethyl hexyl sebacate [DEHS], or sodium chloride) generated in a test chamber, and employing instrumentation to quantify the fit of the respirator;

- Quantitative fit testing using ambient aerosol as the test agent and appropriate instrumentation (condensation nuclei counter) to quantify the respirator fit;

- Quantitative fit testing using controlled negative pressure and appropriate instrumentation to measure the volumetric leak rate of a facepiece to quantify the respirator fit.

1. General

(a) The employer shall ensure that persons administering QNFT are able to calibrate equipment and perform tests properly, recognize invalid tests, calculate fit factors properly and ensure that test equipment is in proper working order.

(b) The employer shall ensure that QNFT equipment is kept clean, and is maintained and calibrated according to the manufacturer's instructions so as to operate at the parameters for which it was designed.

2. Generated Aerosol Quantitative Fit Testing Protocol

(a) **Apparatus.**

(1) Instrumentation. Aerosol generation, dilution, and measurement systems using particulates (corn oil, polyethylene glycol 400 [PEG 400], di-2-ethyl hexyl sebacate [DEHS] or sodium chloride) as test aerosols shall be used for quantitative fit testing.

(2) Test chamber. The test chamber shall be large enough to permit all test subjects to perform freely all required exercises without disturbing the test agent concentration or the measurement apparatus. The test chamber shall be equipped and constructed so that the test agent is effectively isolated from the ambient air, yet uniform in concentration throughout the chamber.

(3) When testing air-purifying respirators, the normal filter or cartridge element shall be replaced with a high efficiency particulate air (HEPA) or P100 series filter supplied by the same manufacturer.

(4) The sampling instrument shall be selected so that a computer record or strip chart record may be made of the test showing the rise and fall of the test agent concentration with each inspiration and expiration at fit factors of at least 2,000. Integrators or computers that integrate the amount of test agent penetration leakage into the respirator for each exercise may be used provided a record of the readings is made.

(5) The combination of substitute air-purifying elements, test agent and test agent concentration shall be such that the test subject is not exposed in excess of an established exposure limit for the test agent at any time during the testing process, based upon the length of the exposure and the exposure limit duration.

(6) The sampling port on the test specimen respirator shall be placed and constructed so that no leakage occurs around the port (e.g., where the respirator is probed), a

free air flow is allowed into the sampling line at all times, and there is no interference with the fit or performance of the respirator. The in-mask sampling device (probe) shall be designed and used so that the air sample is drawn from the breathing zone of the test subject, midway between the nose and mouth and with the probe extending into the facepiece cavity at least 1/4 inch.

(7) The test setup shall permit the person administering the test to observe the test subject inside the chamber during the test.

(8) The equipment generating the test atmosphere shall maintain the concentration of test agent constant to within a 10 percent variation for the duration of the test.

(9) The time lag (interval between an event and the recording of the event on the strip chart or computer or integrator) shall be kept to a minimum. There shall be a clear association between the occurrence of an event and its being recorded.

(10) The sampling line tubing for the test chamber atmosphere and for the respirator sampling port shall be of equal diameter and of the same material. The length of the two lines shall be equal.

(11)The exhaust flow from the test chamber shall pass through an appropriate filter (i.e., high efficiency particulate filter) before release.

(12)When sodium chloride aerosol is used, the relative humidity inside the test chamber shall not exceed 50 percent.

(13) The limitations of instrument detection shall be taken into account when determining the fit factor.

(14) Test respirators shall be maintained in proper working order and be inspected regularly for deficiencies such as cracks or missing valves and gaskets.

(b) **Procedural Requirements.**

(1) When performing the initial user seal check using a positive or negative pressure check, the sampling line shall be crimped closed in order to avoid air pressure leakage during either of these pressure checks.

(2) The use of an abbreviated screening QLFT test is optional. Such a test may be utilized in order to quickly identify poor fitting respirators that passed the positive and/or negative pressure test and reduce the amount of QNFT time. The use of the CNC QNFT instrument in the count mode is another optional method to obtain a quick estimate of fit and eliminate poor fitting respirators before going on to perform a full QNFT.

(3) A reasonably stable test agent concentration shall be measured in the test chamber prior to testing. For canopy or shower curtain types of test units, the determination of the test agent's stability may be established after the test subject has entered the test environment.

(4) Immediately after the subject enters the test chamber, the test agent concentration inside the respirator shall be measured to ensure that the peak penetration does not exceed 5 percent for a half mask or 1 percent for a full facepiece respirator.

(5) A stable test agent concentration shall be obtained prior to the actual start of testing.

(6) Respirator restraining straps shall not be over-tightened for testing. The straps shall be adjusted by the wearer without assistance from other persons to give a reasonably comfortable fit typical of normal use. The respirator shall not be adjusted once the fit test exercises begin.

(7) The test shall be terminated whenever any single peak penetration exceeds 5 percent for half masks and 1 percent for full facepiece respirators. The test subject shall be refitted and retested.

(8) Calculation of fit factors.

(i) The fit factor shall be determined for the quantitative fit test by taking the ratio of the average chamber concentration to the concentration measured inside the respirator for each test exercise except the grimace exercise.

(ii) The average test chamber concentration shall be calculated as the arithmetic average of the concentration measured before and after each test (i.e., 7 exercises) or the arithmetic average of the concentration measured before and after each exercise or the true average measured continuously during the respirator sample.

(iii) The concentration of the challenge agent inside the respirator shall be determined by one of the following methods:

(A) Average peak penetration method means the method of determining test agent penetration into the respirator utilizing a strip chart recorder, integrator, or computer. The agent penetration is determined by an average of the peak heights on the graph or by computer integration, for each exercise except the grimace exercise. Integrators or computers that calculate the actual test agent penetration into the respirator for each exercise will also be considered to meet the requirements of the average peak penetration method.

(B) Maximum peak penetration method means the method of determining test agent penetration in the respirator as determined by strip chart recordings of the test. The highest peak penetration for a given exercise is taken to be representative of average penetration into the respirator for that exercise.

(C) Integration by calculation of the area under the individual peak for each exercise except the grimace exercise. This includes computerized integration.

(D) The calculation of the overall fit factor using individual exercise fit factors involves first converting the exercise fit factors to penetration values, determining the average, and then converting that result back to a fit factor. This procedure is described in the following equation:

$$\text{Overall Fit Factor} = \frac{\text{Number of exercises}}{1/ff1 + 1/ff2 + 1/ff3 + 1/ff4 + 1/ff5 + 1/ff6 + 1/ff7 + 1/ff8}$$

Where ff1, ff2, ff3, etc. are the fit factors for exercises 1, 2, 3, etc.

(9) The test subject shall not be permitted to wear a half mask or quarter facepiece respirator unless a minimum fit factor of 100 is obtained, or a full facepiece respirator unless a minimum fit factor of 500 is obtained.

(10) Filters used for quantitative fit testing shall be replaced whenever increased breathing resistance is encountered, or when the test agent has altered the integrity of the filter media.

3. **Ambient aerosol condensation nuclei counter (CNC) quantitative fit testing protocol.**

The ambient aerosol condensation nuclei counter (CNC) quantitative fit testing (Portacount TM) protocol quantitatively fit tests respirators with the use of a probe. The probed respirator is only used for quantitative fit tests.

A probed respirator has a special sampling device, installed on the respirator, that allows the probe to sample the air from inside the mask. A probed respirator is required for each make, style, model, and size that the employer uses and can be obtained from the respirator manufacturer or distributor. The CNC instrument manufacturer, TSI Inc., also provides probe attachments (TSI sampling adapters) that permit fit testing in an employee's own respirator.

A minimum fit factor pass level of at least 100 is necessary for a half-mask respirator and a minimum fit factor pass level of at least 500 is required for a full facepiece negative pressure respirator. The entire screening and testing procedure shall be explained to the test subject prior to the conduct of the screening test.

(a) **Portacount Fit Test Requirements.**

(1) Check the respirator to make sure the sampling probe and line are properly attached to the facepiece and that the respirator is fitted with a particulate filter capable of preventing significant penetration by the ambient particles used for the fit test (e.g., NIOSH 42 CFR 84 series 100, series 99, or series 95 particulate filter) per manufacturer's instruction.

(2) Instruct the person to be tested to don the respirator for five minutes before the fit test starts. This purges the ambient particles trapped inside the respirator and permits the wearer to make certain the respirator is comfortable. This individual shall already have been trained on how to wear the respirator properly.

(3) Check the following conditions for the adequacy of the respirator fit: Chin properly placed; Adequate strap tension, not overly tightened; Fit across nose bridge; Respirator of proper size to span distance from nose to chin; Tendency of the respirator to slip; Self-observation in a mirror to evaluate fit and respirator position.

(4) Have the person wearing the respirator do a user seal check. If leakage is detected, determine the cause. If leakage is from a poorly fitting facepiece, try another size of the same model respirator, or another model of respirator.

(5) Follow the manufacturer's instructions for operating the Portacount and proceed with the test.

(6) The test subject shall be instructed to perform the exercises in section I. A. 14. of this appendix.

(7) After the test exercises, the test subject shall be questioned by the test conductor regarding the comfort of the respirator upon completion of the protocol. If it has become unacceptable, another model of respirator shall be tried.

(b) **Portacount Test Instrument.**

(1) The Portacount will automatically stop and calculate the overall fit factor for the entire set of exercises. The overall fit factor is what counts. The Pass or Fail message will indicate whether or not the test was successful. If the test was a Pass, the fit test is over.

(2) Since the pass or fail criterion of the Portacount is user programmable, the test operator shall ensure that the pass or fail criterion meet the requirements for minimum respirator performance in this Appendix.

(3) A record of the test needs to be kept on file, assuming the fit test was successful. The record must contain the test subject's name; overall fit factor; make, model, style, and size of respirator used; and date tested.

4. **Controlled negative pressure (CNP) quantitative fit testing protocol.**

The CNP protocol provides an alternative to aerosol fit test methods. The CNP fit test method technology is based on exhausting air from a temporarily sealed respirator facepiece to generate and then maintain a constant negative pressure inside the facepiece. The rate of air exhaust is controlled so that a constant negative pressure is maintained in the respirator during the fit test. The level of pressure is selected to replicate the mean inspiratory pressure that causes leakage into the respirator under normal use conditions. With pressure held constant, air flow out of the respirator is equal to air flow into the respirator. Therefore, measurement of the exhaust stream that is required to hold the pressure in the temporarily sealed respirator constant yields a direct measure of leakage air flow into the respirator.

The CNP fit test method measures leak rates through the facepiece as a method for determining the facepiece fit for negative pressure respirators. The CNP instrument manufacturer Dynatech Nevadas also provides attachments (sampling manifolds) that replace the filter cartridges to permit fit testing in an employee's own respirator.

To perform the test, the test subject closes his or her mouth and holds his/her breath, after which an air pump removes air from the respirator facepiece at a pre-selected constant pressure. The facepiece fit is expressed as the leak rate through the facepiece, expressed as milliliters per minute. The quality and validity of the CNP fit tests are determined by the degree to which the in-mask pressure tracks the test pressure during the system measurement time of approximately five seconds.

Instantaneous feedback in the form of a real-time pressure trace of the in-mask pressure is provided and used to determine test validity and quality. A minimum fit factor pass level of 100 is necessary for a half-mask respirator and a minimum fit factor of at least 500 is required for a full facepiece respirator. The entire screening and testing procedure shall be explained to the test subject prior to the conduct of the screening test.

(a) **CNP Fit Test Requirements.**

(1) The instrument shall have a non-adjustable test pressure of 15.0 mm water pressure.

(2) The CNP system defaults selected for test pressure shall be set at – 15 mm of water (-0.58 inches of water) and the modeled inspiratory flow rate shall be 53.8 liters per minute for performing fit tests.

(Note: CNP systems have built-in capability to conduct fit testing that is specific to unique work rate, mask, and gender situations that might apply in a specific workplace. Use of system default values, which were selected to represent respirator wear with medium cartridge resistance at a low-moderate work rate, will allow inter- test comparison of the respirator fit.)

(3) The individual who conducts the CNP fit testing shall be thoroughly trained to perform the test.

(4) The respirator filter or cartridge needs to be replaced with the CNP test manifold. The inhalation valve downstream from the manifold either needs to be temporarily removed or propped open.

(5) The test subject shall be trained to hold his or her breath for at least 20 seconds.

(6) The test subject shall don the test respirator without any assistance from the individual who conducts the CNP fit test.

(7) The QNFT protocol shall be followed according to section I. C. 1. of this appendix with an exception for the CNP test exercises.

(b) **CNP Test Exercises.**

(1) Normal breathing. In a normal standing position, without talking, the subject shall breathe normally for 1 minute. After the normal breathing exercise, the subject needs to hold head straight ahead and hold his or her breath for 10 seconds during the test measurement.

(2) Deep breathing. In a normal standing position, the subject shall breathe slowly and deeply for 1 minute, being careful not to hyperventilate. After the deep breathing exercise, the subject shall hold his or her head straight ahead and hold his or her breath for 10 seconds during test measurement.

(3) Turning head side to side. Standing in place, the subject shall slowly turn his or her head from side to side between the extreme positions on each side for 1 minute. The head shall be held at each extreme momentarily so the subject can inhale at each side. After the turning head side to side exercise, the subject needs to hold head full left and hold his or her breath for 10 seconds during test measurement. Next, the subject needs to hold head full right and hold his or her breath for 10 seconds during test measurement.

(4) Moving head up and down. Standing in place, the subject shall slowly move his or her head up and down for 1 minute. The subject shall be instructed to inhale in the up position (i.e., when looking toward the ceiling). After the moving head up and down exercise, the subject shall hold his or her head full up and hold his or her breath for 10 seconds during test measurement. Next, the subject shall hold his or her head full down and hold his or her breath for 10 seconds during test measurement.

(5) Talking. The subject shall talk out loud slowly and loud enough so as to be heard clearly by the test conductor. The subject can read from a prepared text such as the Rainbow Passage, count backward from 100, or recite a memorized poem or song for 1 minute. After the talking exercise, the subject shall hold his or her head straight ahead and hold his or her breath for 10 seconds during the test measurement.

(6) Grimace. The test subject shall grimace by smiling or frowning for 15 seconds.

(7) Bending Over. The test subject shall bend at the waist as if he or she were to touch his or her toes for 1 minute. Jogging in place shall be substituted for this exercise in those test environments such as shroud-type QNFT units that prohibit bending at the waist. After the bending over exercise, the subject shall hold his or her head

straight ahead and hold his or her breath for 10 seconds during the test measurement.

(8) Normal Breathing. The test subject shall remove and re-don the respirator within a one-minute period. Then, in a normal standing position, without talking, the subject shall breathe normally for 1 minute. After the normal breathing exercise, the subject shall hold his or her head straight ahead and hold his or her breath for 10 seconds during the test measurement. After the test exercises, the test subject shall be questioned by the test conductor regarding the comfort of the respirator upon completion of the protocol. If it has become unacceptable, another model of a respirator shall be tried.

(c) **CNP Test Instrument.**

(1) The test instrument shall have an effective audio warning device when the test subject fails to hold his or her breath during the test. The test shall be terminated whenever the test subject failed to hold his or her breath. The test subject may be refitted and retested.

(2) A record of the test shall be kept on file, assuming the fit test was successful. The record must contain the test subject's name; overall fit factor; make, model, style and size of respirator used; and date tested.

Appendix B-1
USER SEAL CHECK PROCEDURES

The individual who uses a tight-fitting respirator is to perform a user seal check to ensure that an adequate seal is achieved each time the respirator is put on. Either the positive and negative pressure checks listed in this appendix, or the respirator manufacturers recommended user seal check method shall be used.

NOTE: User seal checks are not substitutes for qualitative or quantitative fit tests.

I. Facepiece Positive and/or Negative Pressure Checks

1. **Positive pressure check.**

   Close off the exhalation valve and exhale gently into the facepiece.

   The face fit is considered satisfactory if a slight positive pressure can be built up inside the facepiece without any evidence of outward leakage of air at the seal.

   For most respirators this method of leak testing requires the wearer to first remove the exhalation valve cover before closing off the exhalation valve and then carefully replacing it after the test.

2. **Negative pressure check.**

   Close off the inlet opening of the canister or cartridge(s) by covering with the palm of the hand(s) or by replacing the filter seal(s), inhale gently so that the facepiece collapses slightly, and hold the breath for ten seconds.

   The design of the inlet opening of some cartridges cannot be effectively covered with the palm of the hand.

   The test can be performed by covering the inlet opening of the cartridge with a thin latex or nitrile glove.

   If the facepiece remains in its slightly collapsed condition and no inward leakage of air is detected, the tightness of the respirator is considered satisfactory.

II. Manufacturer's Recommended User Seal Check Procedures

The respirator manufacturer's recommended procedures for performing a user seal check may be used instead of the positive and/or negative pressure check procedures provided that the manufacturer's procedures are equally effective.

Appendix B-2
RESPIRATOR CLEANING PROCEDURES

These procedures are provided for employee use when cleaning respirators and are general in nature. Directors, as an alternative, may use the cleaning recommendations provided by the manufacturer of the respirators used by their employees, provided such procedures are as effective as those listed here in Appendix B-2. Equivalent effectiveness simply means that the procedures used must accomplish the objectives set forth in Appendix B-2, i.e., must ensure that the respirator is properly cleaned and disinfected in a manner that prevents damage to the respirator and does not cause harm to the user.

I. Procedures for Cleaning Respirators

1. Remove filters, cartridges, or canisters. Disassemble facepieces by removing speaking diaphragms, demand and pressure-demand valve assemblies, hoses, or any components recommended by the manufacturer. Discard or repair any defective parts.

2. Wash components in warm (43 deg. C [110 deg. F] maximum) water with a mild detergent or with a cleaner recommended by the manufacturer. A stiff bristle (not wire) brush may be used to facilitate the removal of dirt.

3. Rinse components thoroughly in clean, warm (43 deg. C [110 deg. F] maximum), preferably running water. Drain.

4. When the cleaner used does not contain a disinfecting agent, respirator components should be immersed for two minutes in one of the following:

   a. Hypochlorite solution (50 ppm of chlorine) made by adding approximately one milliliter of laundry bleach to one liter of water at 43 deg. C (110 deg. F); or,

   b. Aqueous solution of iodine (50 ppm iodine) made by adding approximately 0.8 milliliters of tincture of iodine (6-8 grams ammonium and/or potassium iodide/100 cc of 45% alcohol) to one liter of water at 43 deg. C (110 deg. F); or,

   c. Other commercially available cleansers of equivalent disinfectant quality when used as directed, if their use is recommended or approved by the respirator manufacturer.

5. Rinse components thoroughly in clean, warm (43 deg. C [110 deg. F] maximum), preferably running water. Drain. The importance of thorough rinsing cannot be overemphasized. Detergents or disinfectants that dry on facepieces may result in dermatitis. In addition, some disinfectants may cause deterioration of rubber or corrosion of metal parts if not completely removed.

6. Components should be hand-dried with a clean lint-free cloth or air-dried.

7. Reassemble facepiece, replacing filters, cartridges, and canisters where necessary.

8. Test the respirator to ensure that all components work properly.

Respirator Medical Evaluation Questionnaire

To the employee:
Can you read (Circle One): Yes / No

Allow employee to answer this questionnaire during normal working hours, or at a time and place that is convenient to them. To maintain confidentiality, provide employee opportunity to answer these questions without presence of supervision. Once completed, employee should safeguard their questionnaire and only provide it to the health care professional who will review it.

PART A SECTION 1: The following information must be provided by every employee who has been selected to use any type of respirator (please print).

1. Today's date: _____

2. Your name: _____

3. Your age (to nearest year): _____

4. Sex (circle one): Male / Female

5. Your height: _____ feet _____ inches

6. Your weight: _____ pounds

7. Your job title: _____

8. A phone number where you can be reached by the health care professional who reviews this questionnaire (include the Area Code): _____

9. The best time to phone you at this number: _____

10. Has your employer told you how to contact the health care professional who will review this questionnaire (circle one): Yes / No

11. Check the type of respirator you will use (you can check more than one category):

a. _____ N, R, or P disposable respirator (filter-mask, non-cartridge type only).

b. _____ Other type (for example, half- or full-facepiece type, powered-air purifying, supplied-air, self-contained breathing apparatus).

12. Have you worn a respirator (circle one): Yes / No

If "yes", what type(s): _____

PART A SECTION 2: Questions 1 through 9 below must be answered by every employee who has been selected to use any type of respirator (please circle "yes" or "no").

1. Do you *currently* smoke tobacco, or have you smoked tobacco in the last month: Yes/No

2. Have you *ever had* any of the following conditions?
   a. Seizures (fits): ..... Yes / No
   b. Diabetes (sugar disease): ..... Yes / No
   c. Allergic reactions that interfere with your breathing: .. Yes / No
   d. Claustrophobia (fear of closed-in places): ..... Yes / No
   e. Trouble smelling odors: ..... Yes / No

3. Have you *ever had* any of the following pulmonary or lung problems?
   a. Asbestosis: ..... Yes / No
   b. Asthma: ..... Yes / No
   c. Chronic bronchitis: ..... Yes / No
   d. Emphysema: ..... Yes / No
   e. Pneumonia: ..... Yes / No
   f. Tuberculosis: ..... Yes / No
   g. Silicosis: ..... Yes / No
   h. Pneumothorax (collapsed lung): ..... Yes / No
   i. Lung cancer: ..... Yes / No
   j. Broken ribs: ..... Yes / No
   k. Any chest injuries or surgeries: ..... Yes / No
   l. Any other lung problem that you've been told about: . Yes / No

4. Do you *currently* have any of the following symptoms of pulmonary or lung illness?
   a. Shortness of breath: Yes / No
   b. Shortness of breath when walking fast on level ground or walking up a slight hill or incline: Yes / No
   c. Shortness of breath when walking with other people at an ordinary pace on level ground: Yes / No
   d. Have to stop for breath when walking at your own pace on level ground: Yes / No
   e. Shortness of breath when washing or dressing yourself: Yes / No
   f. Shortness of breath that interferes with your job: Yes / No
   g. Coughing that produces phlegm (thick sputum): Yes / No
   h. Coughing that wakes you early in the morning: Yes / No
   i. Coughing that occurs mostly when you are lying down: Yes / No
   j. Coughing up blood in the last month: Yes / No
   k. Wheezing: Yes / No
   l. Wheezing that interferes with your job: Yes / No
   m. Chest pain when you breathe deeply: Yes / No
   n. Any other symptoms that you think may be related to lung problems: Yes / No

5. Have you *ever had* any of the following cardiovascular or heart problems?
   a. Heart attack: Yes / No
   b. Stroke: Yes / No
   c. Angina: Yes / No
   d. Heart failure: Yes / No

e. Swelling in your legs or feet (not caused by walking): Yes / No
f. Heart arrhythmia (heart beating irregularly): Yes / No
g. High blood pressure: Yes / No
h. Any other heart problem that you've been told about: Yes / No

6. Have you *ever had* any of the following cardiovascular or heart symptoms?
a. Frequent pain or tightness in your chest: Yes / No
b. Pain or tightness in your chest during physical activity: Yes / No
c. Pain or tightness in your chest that interferes with your job: Yes / No
d. In the past two years, have you noticed your heart skipping or missing a beat: Yes /No
e. Heartburn or indigestion that is not related to eating: Yes / No
f. Any other symptoms that you think may be related to heart or circulation problems: Yes / No

7. Do you *currently* take medication for any of the following problems?
a. Breathing or lung problems: Yes / No
b. Heart trouble: Yes / No
c. Blood pressure: Yes / No
d. Seizures (fits): Yes / No

8. If you've used a respirator, have you *ever had* any of the following problems? (If you've never used a respirator, check the following space and go to question 9). _____
a. Eye irritation: Yes / No
b. Skin allergies or rashes: Yes / No
c. Anxiety: Yes / No
d. General weakness or fatigue: Yes / No
e. Any other problem that interferes with your use of a respirator: Yes / No

9. Would you like to talk to the health care professional who will review this questionnaire about you answers to this questionnaire: Yes / No

Questions 10 - 15 below must be answered by every employee who has been selected to use either a full-facepiece respirator or a self-contained breathing apparatus (SCBA). For employees who have been selected to use other types of respirators, answering these questions is voluntary.

10. Have you *ever lost* vision in either eye (temporarily or permanently): Yes / No

11. Do you *currently* have any of the following vision problems?
a. Wear contact lenses: Yes / No
b. Wear glasses: Yes / No
c. Color blind: Yes / No
d. Any other eye or vision problem: Yes / No

12. Have you *ever had* an injury to your ears, including a broken ear drum: Yes / No

13. Do you *currently* have any of the following hearing problems?
a. Difficulty hearing: Yes / No
b. Wear a hearing aid: Yes / No
c. Any other hearing or ear problem: Yes / No

14. Have you *ever had* a back injury: Yes / No

15. Do you *currently* have any of the following musculoskeletal problems?
    a. Weakness in any of your arms, hands, legs, or feet: Yes / No
    b. Back pain: Yes / No
    c. Difficulty fully moving your arms and legs: Yes / No
    d. Pain or stiffness when you lean forward or backward at the waist: Yes / No
    e. Difficulty fully moving your head up or down: Yes / No
    f. Difficulty fully moving your head side to side: Yes / No
    g. Difficulty bending at your knees: Yes / No
    h. Difficulty squatting to the ground: Yes / No
    i. Climbing a flight of stairs or a ladder carrying more than 25 pounds: Yes / No
    j. Any other muscle or skeletal problem that interferes with using a respirator: Yes / No

PART B

1. In your present job, are you working at high altitudes (over 5,000 feet) or in a place that has lower than normal amounts of oxygen: Yes / No

If "yes", do you have feelings of dizziness, shortness of breath, pounding in your chest, or other symptoms when you're working under these conditions: Yes / No

2. At work or at home, have you ever been exposed to hazardous chemicals (e.g. gases, fumes, or dust), or have you come into skin contact with hazardous chemicals: Yes / No

If "yes", name the chemicals if you know them:

_____

_____

3. Have you ever worked with any of the materials, or under any of the conditions, listed below?
    a. Asbestos: Yes / No
    b. Silica (e.g. in sandblasting): Yes / No
    c. Tungsten / cobalt (e.g. grinding or welding this material): Yes / No
    d. Beryllium: Yes / No
    e. Aluminum: Yes / No
    f. Coal (for example, mining): Yes / No
    g. Iron: Yes / No
    h. Tin: Yes / No
    i. Dusty environments: Yes / No
    j. Any other hazardous exposures: Yes / No

If "yes" to any, describe these exposures:

_____

_____

4. List any second jobs or side businesses you have:

_____

5. List your previous occupations: _____

_____

6. List your current and previous hobbies:

_____

7. Have you been in the military services? Yes / No

8. Have you ever worked on a HAZMAT team? Yes / No

9. Other than medications for breathing and lung problems, heart trouble, blood pressure, and seizures mentioned earlier in this questionnaire, are you taking any other medications for any reason (including over-the-counter medications)? Yes / No

If "yes", name the medications if you know them: _____

_____

10. Will you be using any of the following items with your respirator(s)?
    a. HEPA filters: Yes / No
    b. Canisters (for example, gas masks): Yes / No
    c. Cartridges: Yes / No

11. How often are you expected to use the respirator(s) (circle "yes" or "no" for all answers that apply to you):
    a. Escape only (no rescue): Yes / No
    b. Emergency rescue only: Yes / No
    c. Less than 5 hours *per week*: Yes / No
    d. Less than 2 hours *per day*: Yes / No
    e. 2 to 4 hours *per day*: Yes / No
    f. over 4 hours *per day*: Yes / No

12. During the period you are using the respirator(s), is your work effort:
    a. *Light* (less than 200 kcal per hour): Yes / No
    If "yes", how long does this period last during the average shift:
    _____ hours and _____ Minutes
    Examples of light work effort are *sitting* while writing, typing, drafting, or performing light assembly work; or *standing* while operating a drill press (1-3 pounds) or controlling machines.

    b. *Moderate* (200 to 350 kcal per hour): Yes / No
    If "yes", how long does this period last during the average shift:
    _____ hours and _____ minutes
    Examples of moderate work effort are *sitting* while nailing or filing; *driving* a truck or bus in urban traffic; *standing* while drilling, nailing, performing assembly work, or transferring a moderate load (about 35 pounds) at trunk level; *walking* on a level surface about 2 mph or down a 5 degree grade about 3 mph; or *pushing* a wheelbarrow with a heavy load(about 100 pounds) on a level surface.

    c. *Heavy* (above 350 kcal per hour): Yes / No

If "yes", how long does this period last during the average shift:
_____ hours and _____ minutes
Examples of heavy work are *lifting* a heavy load (about 50 pounds) from the floor to your waist or shoulder; *working* on a loading dock; *shoveling*; *standing* while bricklaying or chipping castings; *walking* up an 8 degree grade about 2 mph; *climbing* stairs with a heavy load (about 50 pounds).

13. Will you be wearing protective clothing and/or equipment (other than the respirator) when you're using your respirator: Yes / No

If "yes", describe this protective clothing and/or equipment: _____

_____

14. Will you be working under hot conditions (temperatures exceeding 77°F): Yes / No

15. Will you be working under humid conditions: Yes / No

16. Describe the work you'll be doing while you're using your respirator(s): _____

_____

_____

17. Describe any special or hazardous conditions you might encounter when you're using your respirator(s) (for example, confined spaces, life-threatening gases): _____

_____

_____

18. Provide the following information, if you know it, for each toxic substance that you'd be exposed to when you're using your respirator(s):

a. Name of first toxic substance: _____

Estimated maximum exposure level per shift: _____

Duration of exposure per shift: _____

b. Name of second toxic substance: _____

Estimated maximum exposure level per shift: _____

Duration of exposure per shift: _____

c. The name of any other toxic substances that you'll be exposed to while using your respirator: _____

_____

_____

19. Describe any special responsibilities you'll have while using your respirator(s) that may affect the safety and well-being of others (for example, rescue, security):

_____

_____

All employee data provided by: _____

Date: _____

Has employee received training in use and limitations of respirator? Yes / No

Employee Signature: _____

Medical Evaluator's Signature: _____

Further medical examination needed? Yes / No

Medical assessment for respirator use under work conditions described in questionnaire.

_____ No restrictions

_____ Specific restrictions (see below)

_____ No use permitted

Comments/Restrictions

Medical Evaluation by (Physician): _____

Date: _____

Physician's Signature: _____

Appendix D
Information for Employees Using Respirators When Not Required Under the Standard

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker.

Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by OSHA standards. If your employer provides respirators for your voluntary use, of if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard.

You should do the following:

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

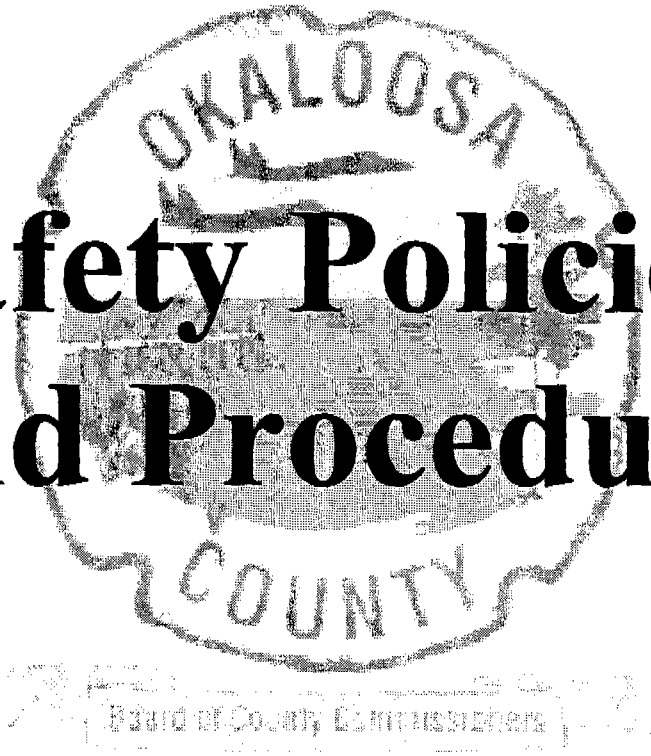
2. Choose respirators certified for use to protect against the contaminant of concern. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. A label or statement of certification should appear on the respirator or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

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

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

3

Safety Policies and Procedures



COMPRESSED GAS CYLINDER HANDLING

1. PURPOSE

1.1. The purpose of this policy is to ensure that all empty and full compressed gas cylinders are handled and stored in accordance with all applicable industry standards by Okaloosa County employees.

1.2. This policy applies to all Okaloosa County employees and contracting employees who, in their normal course of business, transport, receive, or utilize compressed gas cylinders containing oxygen, argon, acetylene, or other gasses. This policy's primary focus is on the proper use of gas cylinders in welding or cutting operations, but will also be applied to other operations utilizing compressed gas cylinders (i.e., EMS).

2. PROCEDURES FOR PROPER HANDLING

2.1. Storage

2.1.1. Cylinders will be kept away from radiators and other heat sources.

2.1.2. Inside of buildings, cylinders will be stored in a well-protected, well-ventilated, dry location, at least 20 feet from highly combustible materials, such as oil or excelsior. Cylinders should be stored in definite assigned places away from elevators, stairs or gangways. Assigned storage spaces will be located where cylinders will not be knocked over or damaged by passing or falling objects. They will also not be subject to tampering by unauthorized persons. Cylinders will not be kept in unventilated enclosures such as lockers and cupboards.

2.1.3. Empty cylinders will be stored with their valves closed.

2.1.4. Valve protection caps, where cylinders are designed to accept a cap, will always be in place, and hand-tightened, except when they are in use or connected.

2.1.5. Acetylene cylinders will be stored valve end up.

2.1.6. Oxygen cylinders will not be stored near highly combustible materials, such as:

2.1.6.1. Oil and Grease;

2.1.6.2. Reserved stocks of carbide and acetylene or other fuel-gas cylinders;

2.1.6.3. Other substance likely to cause or accelerate fire, or in an acetylene generator compartment.

2.1.7. Oxygen cylinders in storage will be separated from fuel gas cylinders or combustible materials (especially oil and grease), a minimum distance of 20 feet, or by a non-combustible barrier at least five (5) feet high having a fire resistance rating of at least one-half hour.

2.2. Operating Procedures

2.2.1. Cylinders, cylinder valves, couplings, regulators, hoses and apparatus will not be handled with oily hands or gloves.

2.2.2. A jet of oxygen must never be permitted to strike an oily surface, greasy clothes, or enter a fuel oil or other storage tank.

2.2.3. When transporting cylinders, valve protection caps will be in place.

2.2.4. Valve protection caps will not be used for lifting cylinders from one vertical position to another.

2.2.5. Unless cylinders are secured on a special truck, regulators will be removed and a valve protection cap will be put in place before cylinders are moved.

2.2.6. Cylinders not having fixed hand wheels will have keys, handles, or non-adjustable wrenches on the valve stem while these cylinders are in service.

2.2.7. Cylinder valves will be closed before moving cylinders.

2.2.8. Cylinder valves will be closed when work is finished and lines relieved of pressure.

2.2.9. Valves of empty cylinders will be closed.

2.2.10. Cylinders will be kept far enough away from the actual welding or cutting operation so that sparks, hot slag, or flames will not reach them. If this is not possible, fire resistant shields must be provided. (See the "Welding and Cutting" standard procedure).

2.2.11. Cylinders will not be placed where they might become a part of an electrical circuit.

2.2.12. Cylinders will not be dropped or roughly handled.

2.2.13. A hammer or wrench will not be used to open cylinder valves. If valves cannot be opened by hand, the supplier will be notified.

2.2.14. Cylinders will be secured by chains or cylinder supports while being used or stored.

2.2.15. Cylinders not in use will have regulator removed and protective cap installed.

ELECTRICAL SAFETY-RELATED WORK PRACTICES

1. PURPOSE

This policy implements proper safety-related work practices for all Okaloosa County employees that as part of their jobs must perform electrical work. It sets forth the safety-related work practices to prevent electric shock or other injuries resulting from either direct or indirect electrical contacts when work is performed near or on equipment or circuits, which are or may be energized.

2. SCOPE

2.1. This policy covers electrical safety-related work practices for both Qualified persons and Unqualified persons (see the definitions below) who are working on, near, or with the following installations:

2.1.1. *Premises Wiring.* Installations of electrical conductors and equipment within or on buildings or other structures, and on other premises such as yards, carnival, parking and other lots and industrial substations;

2.1.2. *Wiring For Connection to Supply.* Installations of conductors that connect to the supply of electricity;

2.1.3. *Other Wiring.* Installations of other outside conductors on the premises

2.1.4. *Optical Fiber Cable.* Installations of optical fiber cable where such installations are made along with electrical conductors; and

2.1.5. *Exposed Energized Parts.* Installations that involve work performed by unqualified person on or near exposed energized parts.

2.2. This policy does not apply to work performed by qualified persons on or directly associated with the following installations:

2.2.1. *Communications Installations.* Installations of communication equipment to the extent that the work is covered under the OSHA standard in 29 CFR 1910.268 (telecommunications).

2.2.2. *Installations In Vehicles.* Installations in ships, watercraft, railway rolling stock, aircraft, or automotive vehicles other than mobile home and recreational vehicles.

2.2.3. *Railway Installations.* Installations of railways for generation, transformation, transmission, or distribution of power used exclusively for operation of rolling stock or installations of railways used exclusively for signaling and communication purposes.

2.2.4. *Generation, Transmission and Distribution Installations.* Installations for the generation, control, transformation, transmission, and distribution of electrical energy (including communication and metering) located in buildings used for such purposes or located outdoors, including:

2.2.4.1. Work performed directly on such installations, such as repairing overhead or underground distribution lies or repairing a feed-water pump for the boiler in a generating plant.

2.2.4.2. Work directly associated with such installations, such as line-clearance tree trimming and replacing utility poles.

2.2.4.3. Work on electric utilization circuits in generating plants provided that a. such circuits are commingled with installations of power generation equipment or circuits, and b. the generation equipment or circuits present grater electrical hazards than those posed by the utilization equipment or circuit (such as exposures to higher voltages or lack of over-current protection).

2.3. It should be noted that work on or directly associated with installations of utilization equipment used for purposes other than generating, transmitting, or distributing electrical energy (such as installations which are in office buildings, warehouses, garages, machine shops, or recreational buildings or other utilization installations which are not an integral part of a generating installation, substation, or control center) is covered under paragraph above (premises wiring).

3. DEFINITIONS

3.1. **Qualified Person** means a person permitted to work on or near exposed energized part who has been trained in and familiar with:

3.1.1. The skills and techniques necessary to distinguish exposed live parts from other parts of electric equipment;

3.1.2. The skills and techniques necessary to determine the nominal voltage of exposed live parts;

3.1.3. The knowledge, skills and techniques to work safely on energized circuits.

3.1.4. The proper use of special precautionary techniques, personal protective equipment, insulating and shielding materials, and insulated tools; and

3.1.5. The clearance distances for work performed ear overhead lines that are specified in the OSHA standard that appears in 29 CFR 1910.333(c) and the corresponding voltages to which he will be exposed.

3.2. **Unqualified Person** means a person with little or no training in avoiding the electrical hazards of working on or near exposed energized parts.

3.3. **On or Near** means close enough to exposed line parts (by either personal contact or contact by tools or materials) for an employee to be exposed to any hazard they present.

4. BASIC ELECTRICAL SAFETY

4.1. All electrical equipment should be free from recognized hazards. This should be accomplished by assuring that the proper electrical equipment is selected and that it is maintained in good working condition.

4.2. Each electrical disconnect (circuit breaker, etc.) should be legibly marked to indicate its purpose.

4.3. All electrical wiring should have the correct polarity. This means that the "hot" and neutral wires must be correctly installed.

4.4. All electrical circuits, equipment, and enclosures should have a permanent and continuous path to ground.

4.5. Any exposed non-current carrying metal parts of fixed equipment should be grounded in any of the following conditions:

- within 8 feet vertically or 5 feet horizontally of any grounded objects.
- in a wet or damp location
- in electrical contact with metal
- in a hazardous location
- when supplied by a metal-clad, metal sheathed, or grounded raceway method
- when equipment operates at more than 150 volts to ground.

4.6. Any exposed non-current carrying metal parts of cord and plug connected equipment must be grounded in any of the following conditions:

4.6.1. in a hazardous location

4.6.2. when operated at over 150 volts to ground

4.6.3. if it is of the following types:

- refrigerators, freezers, air conditioners
- clothes washing or drying machines, dishwashing machines, sump pumps, and electrical aquarium equipment
- hand held motor operated tools

- hedge clippers, lawn mowers, snow blowers, and wet scrubbers
- if used in wet or damp locations, or by employees standing on metal floors or inside metal tanks or boilers
- portable and mobile x-ray and associated equipment
- tools likely to be used in wet and conductive locations
- portable hand lamps

NOTE

Tools that operate at no more than fifty volts and double insulated tools do not require a path to ground. If double insulated tools are used, the equipment must be distinctively marked to indicate that it is double insulated.

4.7. Flexible cords and cable should be protected against damage. Sharp corners should be avoided, and cords and cables should not block open doorways or be used where exposed to vehicle traffic.

4.8. Conductors entering electrical boxes, etc. should be protected against abrasion.

4.9. All openings into electrical boxes, whether used or unused, should be effectively closed.

4.10. All pull boxes, junction boxes, and fittings should have approved covers.

4.11. Cabinets, cutout boxes, fittings, boxes, and panelboard enclosures in damp or wet locations should be installed in a fashion to keep moisture or water from entering. In wet locations the enclosures should be weatherproof.

4.12. Switches, breakers and switchboards in wet locations should be in weatherproof enclosures.

4.13. Flexible cords and cables should not be used as a substitute for fixed wiring. Flexible cords and cables should not be run through or behind walls, ceilings, etc., or attached to building surfaces.

4.14. Cord and plug connected portable hand lamps should have a molded plastic handle and a substantial guard.

4.15. Receptacles in wet or damp locations should be UL listed for that purpose. (Listing by other testing laboratories is acceptable.)

4.16. Electrical equipment and wiring in hazardous (classified) locations shall be: intrinsically safe, approved, or safe. NOTE: Hazardous (classified) locations are locations that are subject to the accumulation of flammable or combustible gases, vapors, liquids, dusts, or fibers. These may include but are not limited to: aircraft hangars, gasoline dispensing and service stations, automotive and truck service shops, and health care facilities.

5. ELECTRICAL SAFETY-RELATED WORK PRACTICES OVERVIEW

5.1. All employees who face the risk of electrical shock should be trained in electrical safety.

NOTE: This does not apply to employees whose only risk of electrical shock comes from equipment that meets all requirements of the OSHA electrical standards.

5.2. In addition to the above training, all qualified persons should be trained in:

5.2.1. the skills needed to distinguish exposed live parts from other electrical equipment

5.2.2. the skills needed to determine the nominal voltage of exposed live parts

5.2.3. clearance distances when working near exposed live parts

NOTE: Training may be in a classroom or on the job, as needed.

5.3. Live parts should be deenergized before employees work on or near them. Exceptions are allowed if deenergizing introduces increased hazards or if it is infeasible due to equipment design or operational limitations (see section 7.1).

5.4. If the exposed parts are not deenergized for the above reasons, other work practices should be used of protect employees.

5.5. Deenergized circuits should be locked and tagged.

5.6. The employer should have a written lockout procedure for electrical equipment.

5.7. A qualified person should check circuits to ensure deenergization.

5.8. Only a qualified person should work on equipment that has not been deenergized.

5.9. Portable ladders should have nonconductive siderails where the ladder or the employee could contact live parts.

5.10. Conductive apparel should not be worn if it might contact exposed live parts. (This may include watch bands, bracelets, rings, key chains, necklaces, metalized aprons, cloth with conductive thread, or metal headwear.)

5.11. Only a qualified person should be allowed to defeat an interlock, and then only temporarily.

5.12. Flexible electric cords should not be used to raise or lower tools or equipment.

5.13. Portable cord and plug connected tools and extension cords should be visually inspected before use on each shift.

5.14. Damaged tools or cord sets should be taken out of service until repair or replacement.

5.15. Employees' hands should not be wet when plugging and unplugging tools and cords.

5.16. Employees working in areas where there are potential electrical hazards should be provided with, and use, appropriate electrical protective equipment for the work to be performed.

6. ELECTRICAL WORK IN GENERAL

Appropriate safety-related work practices should be employed to prevent electric shock or other injuries resulting from either direct or indirect electrical contact, when work is performed near or on equipment or circuits that are or may be energized. Those specific work practices should be consistent with nature and extent of the associated electrical hazards.

7. WORK ON OR NEAR EXPOSED DEENERGIZED PARTS

7.1. Live parts to which an employee may be exposed should be deenergized before any employee works on or near them, unless deenergizing would introduce **additional or increased hazards** or is **infeasible due to equipment design or operational limitations**. See below for example.

7.1.1.1. 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.

7.1.1.2. Examples of **increased or additional hazards** include interruption of life support equipment, deactivation of emergency alarm systems, shutdown of hazardous location ventilation equipment, or removal of illumination for an area.

7.1.1.3. Examples of work that may be performed on or near energized circuit parts because of **unfeasibility due to equipment design or operational limitations** include testing of electric circuits that can only be performed with the circuit energized and work on circuits that form an integral part of a continuous industrial process in a chemical plant that would otherwise need to completely shutdown in order to permit work on one circuit or piece of equipment.

7.2. Whenever any employee is exposed to contact with parts of fixed electric equipment or circuits that have been deenergized, the circuits energizing the parts should be locked out, or tagged out, or both in accordance with the requirements

of our Energy Control (Lockout/Tagout) Program as supplemented by the requirements of this Policy.

7.3. Safe procedures for deenergizing circuits and equipment should be determined before circuits or equipment are deenergized.

7.4. The circuits and equipment to be worked on should be disconnected from all electric energy sources. Control circuit devices, such as push buttons, selector switches, and interlocks, should not be used as the sole means for deenergizing circuits or equipment. Interlocks for electric equipment should not be used as a substitute for lockout and tagging procedures.

7.5. Stored electric energy that might endanger personnel should be released. Capacitors should be discharged and high capacitance elements should be short-circuited and grounded, if the stored electric energy might endanger personnel.

7.6. If the capacitors or associated equipment are handled in meeting the foregoing rule, they should be treated as energized.

7.7. Stored non-electrical energy in devices that could reenergize electric circuit parts should be blocked or relieved to the extent that the circuit parts could not be accidentally energized by the device.

7.8. A lock and tag should be placed on each disconnecting means used to deenergize circuits and equipment on which work is to be performed, except:

7.8.1. If a lock cannot be applied, or if the tagging procedures will provide a level of safety equivalent to that obtained by the use of a lock, a tag may be used without a lock.

7.8.2. A lock without a tag is permissible if all three of the following exist: (i) only one circuit or piece of equipment is energized, (ii) the lockout period does not extend beyond the workshift, and (iii) employees exposed to the hazards associated with reenergizing the circuit or equipment are familiar with the procedure.

7.9. Whenever a tag is used without a lock as permitted by section 7.8.1 above, it should be supplemented by 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 the removal of an isolating circuit element, blocking of a controlling switch, or opening of an extra disconnecting device.

7.10. Each lock should be attached so as to prevent persons from operating the disconnecting means unless they resort to undue force or the use of tools.

7.11. Each tag should contain a statement prohibiting unauthorized operation of the disconnection means and removal of the tag.

7.12. No work should be performed on or near deenergized live parts, circuit or equipment until their deenergized condition has been verified.

7.13. Verification of the deenergized condition should be made as follows:

7.13.1. A qualified person should operate the equipment operating controls or otherwise verify that the equipment cannot be restarted.

7.13.2. A qualified person should use test equipment to test the circuit elements and electrical parts of equipment to which employees will be exposed and should verify that the circuit elements and equipment part are deenergized.

7.13.3. The test should also determine if any energized condition exists as a result of inadvertently induced voltage or unrelated voltage backfield even though specific parts of the circuit have been deenergized and presumed to be safe.

7.14. Before any circuit or equipment is reenergized - even temporarily - the following requirements should be met in the order listed below:

7.14.1. A qualified person should 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 circuits and equipment can be safely energized.

7.14.2. Employees exposed to the hazards associated with reenergizing the circuit or equipment should be warned to stay clear of circuits and equipment.

7.14.3. Each lock and tag should be removed by the employee who applied it or under his or her direct supervision.

7.14.4. If that employee is absent from the workplace, then the lock or tag may be removed by a qualified person designated to perform such task provided that:

7.14.4.1. It is certain that the employee who applied the lock or tag is not available at the workplace, and

7.14.4.2. That employee is made aware that the lock or tag has been removed before he or she resumes work.

7.14.5. There should be a visual determination that all employees are clear of the circuits and equipment.

7.15. Conductors and parts of electric equipment that have been deenergized but have not been locked out or tagged in accordance with the foregoing rules should be treated as energized parts, and the requirements listed in the next section of this policy apply to work on or near them.

8. WORK ON OR NEAR EXPOSED ENERGIZED PARTS

8.1. In those cases where the exposed live parts are not deenergized – either because of increased or additional hazards or because of unfeasibility due to equipment design or operational limitations (see Section 7.1), other safety-related work

practices should be used to protect employees who may be exposed to the electrical hazards involved.

8.2. Those work practices should protect employees against contact with energized circuit parts directly with any part of their body or indirectly through some other conductive object or where employees are near enough to be exposed to any hazard they present.

8.3. The work practices that are used should be suitable for the conditions under which the work is to be performed and for the voltage level of the exposed electrical conductors or circuit parts in accordance with the requirements detailed below.

8.4. Only qualified persons should work on electric circuit parts or equipment that has not been deenergized under the procedures listed in the preceding section of this Policy.

8.5. Such persons should be capable of working safely on energized circuits and should be familiar with the proper use of special precautionary techniques, personal protective equipment, insulating and shielding materials, and insulated tools.

8.6. Whenever work is to be performed near overhead lines, the lines should be deenergized and grounded, or other protective measures should be provided before work is started.

8.7. When overhead lines are to be deenergized, arrangements to deenergize and ground them should be made with the person or organization that operates or controls the electrical circuits involved.

8.8. When protective measures are provided such as guarding, isolating, or insulating, those precautions should prevent employees from contacting such lines directly with any part of their body or indirectly through conductive materials, tools, or equipment.

8.9. No person except a qualified person as defined in this Policy should be permitted to install insulating devices on overhead power transmission or distribution lines.

8.10. Whenever an unqualified person is working in an elevated position near overhead lines, the location should be such that the person and the longest conductive object he or she may contact cannot come closer to any unguarded, energized overhead line than the following distances:

8.10.1. For voltages to ground 50 kV or below – 10 ft. (305 cm);

8.10.2. For voltages to ground over 50 kV – 10 ft. (305 cm) plus 4 in. (10 cm) for every 10 kV over 50 kV.

8.11. Whenever an unqualified person is working on the ground in the vicinity of overhead lines, the person should not bring any conductive object closer to

unguarded, energized overhead lines, than the distances given in paragraph 10, above.

8.12. For voltages normally encountered with overhead power lines, objects which do not have an insulating rating for the voltage involved are considered to be conductive.

8.13. Whenever a qualified person is working in the vicinity of overhead lines, whether in an elevated position or on the ground, the person should not approach or take any conductive object without an approved insulating handle closer to exposed energized parts than that shown in Tables S-5 of 29 CFR 1910.333 (c) (3) [see paragraph 8.14, below], unless:

8.13.1. The person is insulated from the energized part. Gloves, with sleeves if necessary, rated for the voltage involved, are considered to be insulation of the person from the energized part on which work is performed.

8.13.2. The energized part is insulated both from all other conductive objects at a different potential and from the person, or

8.13.3. The person is insulated from all conductive objects at a potential different from that of the energized part.

8.14. The minimum approach distances specified in the said Table S-5 are as follows:

Voltage Range (Phase to Phase)	Minimum Approach Distance
300 V or less	Avoid Contact
Over 300V, not over 750V	1 ft. 0 in. (30.5 cm)
Over 750V, not over 2kV	1 ft. 6 in. (46 cm)
Over 2kV, not over 15kV	2 ft. 0 in. (61 cm)
Over 15kV, not over 37kV	3 ft. 0 in. (91 cm)
Over 37kV, not over 87.5kV	3 ft. 6 in. (107 cm)
Over 87.5kV, not over 121kV	4 ft. 0 in. (122 cm)
Over 121kV, not over 140kV	4 ft. 6 in. (137 cm)

8.15. Any vehicle or mechanical equipment capable of having parts of its structure elevated near energized overhead lines should be operated so that a clearance of 10 ft. (305 cm) is maintained. IF the voltage is higher than 50kV, the clearance shall be increased 4 in. (10 cm) for every 10kV over that voltage. However, under any of the following conditions the clearance may be reduced:

8.15.1. If the vehicle is in transit with its structure lowered, the clearance may be reduced to 4 ft. (122 cm). If the voltage is higher than 50kV, the clearance should be increased 4 in. (10 cm) for every 10kV over that voltage.

8.15.2. If insulating barriers are installed to prevent contact with the lines, and if the barriers are rated for the voltage of the line being guarded and are not a part of or an attachment to the vehicle or its raised structure, the clearance may be reduced to a distance within the designed working dimensions of the insulating barrier.

8.15.3. If the equipment is an aerial lift insulated for the voltage involved, and if the work is performed by a qualified person, the clearance (between the uninsulated portion of the aerial lift and the power line) may be reduced to the distance given in said Table S-5 (see paragraph 8.14, above).

8.15.4. Employees standing on the ground should not contact the vehicle or mechanical equipment or any of its attachments, unless:

8.15.4.1. The employee is using protective equipment rated for the voltage; or

8.15.4.2. The equipment is located so that no uninsulated part of its structure (that portion of the structure that provides a conductive path to employees on the ground) can come closer to the line than permitted in paragraph number 8.15 above.

8.16. If any vehicle or mechanical equipment capable of having parts of its structure elevated near energized overhead lines is intentionally grounded, employees working on the ground near the point of grounding should not stand at the grounding location whenever there is a possibility of overhead line contact.

8.17. Additional precautions, such as the use of barricades or insulation, should be taken to protect employees from hazardous ground potentials, depending on earth resistivity and fault currents that can develop within the first few feet or more outward from the grounding point.

8.18. Employees should not enter spaces containing exposed energized parts, unless illumination is provided that enables the employees to perform the work safely.

8.19. Where lack of illumination or an obstruction precludes observation of the work to be performed, employees should not perform tasks near exposed energized parts.

8.20. Employees must not reach blindly into areas which may contain energized parts.

8.21. Whenever an employee works in a confined or enclosed space (such as a manhole or vault) that contains exposed energized parts, he must be provided with, and he should use, protective shields, protective barriers, or insulating materials as necessary to avoid inadvertent contact with those parts.

8.22. Doors, hinged panels, and the like that are present in any confined or enclosed space should be secured to prevent their swinging into an employee and causing the employee to contact exposed energized parts.

8.23. Conductive materials and equipment that are in contact with any part of any employee's body should be handled in a manner that will prevent them from contacting exposed energized conductors or circuit parts.

8.24. Whenever an employee must handle long dimensional conductive objects (such as ducts and pipes) in areas with exposed live parts, appropriate work practices (such as the use of insulation, guarding and material handling techniques) should be instituted which will minimize the hazard.

8.25. Portable ladders should have nonconductive siderails if they are used where the employee or the ladder could contact exposed energized parts.

8.26. Conductive articles of jewelry and clothing (such as watch bands, bracelets, rings, key chains, necklaces, metalized aprons, cloth with conductive thread, or metal headgear) should not be worn if they might contact exposed energized parts. However, such articles may be worn if they are rendered nonconductive by covering, wrapping, or other insulating means.

8.27. Where live parts present an electrical contact hazard, employees should not perform housekeeping duties at such close distances to the parts that there is a possibility of contact, unless adequate safeguards (such as insulating equipment or barriers) are provided.

8.28. Electrically conductive cleaning materials (including conductive solids such as steel wool, metalized cloth, and silicon carbide, as well as conductive liquid solutions) should not be used in proximity to energized parts unless appropriate procedures are followed that will prevent electrical contact.

8.29. Only a qualified person following the requirements of the procedures set forth in this section of the Policy should defeat an electrical safety interlock and then only temporarily while he or she is working on the equipment.

8.30. The interlock system should be returned to its operable condition when such work is completed.

9. USE OF PORTABLE ELECTRIC EQUIPMENT

9.1. All cord- and plug- connected electric equipment, flexible cord sets (extension cords), and portable electric equipment should be handled in a manner that will not cause damage.

9.2. Flexible electric cords connected to equipment should not be used for raising or lowering the equipment.

9.3. Flexible cords should not be fastened with staples or otherwise hung in such a fashion as could damage the outer jacket or insulation.

9.4. Portable cord- and plug- connected equipment and flexible cord sets (extension cords) should be visually inspected before use on any shift for external defects (such as loose parts, deformed and missing pins, or damage to outer jacket or insulation) and for evidence of possible internal damage (such as pinched or crushed outer jackets). However, cord- and plug- connected equipment and flexible cord sets (extension cords) which remain connected once they are put in place and are not exposed to damage need not be visually inspected until they are relocated.

9.5. If there is a defect or evidence of damage that might expose an employee to injury, the defective or damaged item should be removed from service, and no

employee should use it until necessary repair and tests have been made to render the equipment safe.

9.6. Whenever an attachment plug is to be connected to a receptacle (including any on a cord set), the relationship of the plug and receptacle contacts should first be checked to ensure that they are proper mating configurations.

9.7. A flexible cord used with grounding-type equipment should contain an equipment grounding conductor.

9.8. Attachment plugs and receptacles should not be connected or altered in a manner that would prevent proper continuity of the equipment grounding conductor at the point where plugs are attached to receptacles. Additionally, those devices should not be altered to allow the grounding pole of a plug to be inserted into slots intended for connection to the current-carrying conductors.

9.9. Adapters that interrupt the continuity of the equipment grounding connection may should be used.

9.10. Portable electric equipment and flexible cords used in highly conductive work locations (such as those inundated with water or other conductive liquids), or in job locations where employees are likely to contact water or conductive liquids, should be approved for those locations.

9.11. Employees' hands should not be wet when plugging and unplugging flexible cords and cord- and plug- connected equipment, if energized equipment is involved.

9.12. Energized plug- and receptacle connections should be handled only with insulating protective equipment if the condition of the connection could provide a conducting path to the employee's hand (if, for example, a cord connector is wet from being immersed in water).

9.13. Locking-type connectors should be properly secured after connection.

10. ELECTRIC POWER AND LIGHTING CIRCUITS

10.1. Load rated switches, circuit breakers, or other devices specifically designed as disconnecting means should be used for the routine opening, reversing, or closing of circuits under load conditions.

10.2. Cable connectors not of the load-break type, fuses, terminal lugs, and cable splice connections should not be used for such purposes, except in an emergency.

10.3. After a circuit is deenergized by a circuit protective device, the circuit should not be manually reenergized until it has been determined that the equipment and circuit can be safely energized. However, when it can be determined from the design of the circuit and the overcurrent devices involved that the automatic operating of a device was caused by an overload rather than a fault condition, no examination of the circuit or connected equipment is needed before the circuit is reenergized.

10.4. Circuit breakers or fuses should not be repetitively reclosed or replaced to reenergize circuits.

10.5. Overcurrent protection of circuits and conductors should not be modified, even on a temporary basis, beyond that allowed by the OSHA standard regulating installation safety requirements for overcurrent protection: 29 CFR 1910.304(e).

11. TEST INSTRUMENTS AND EQUIPMENT

11.1. Only qualified persons should perform testing work on electric circuits or equipment.

11.2. Test instruments and equipment and all associated test leads, cables, power cords, probes, and connectors should be visually inspected for external defects and damage before the equipment is used. If there is a defect or evidence of damage that might expose an employee to injury, the defective or damaged item should be removed from service, and no employee may use it until necessary repairs and tests to render the equipment safe have been made.

11.3. Test instruments and equipment and their accessories should be rated for the circuits and equipment to which they will be connected and should be designed for the environment in which they will be used.

12. USE OF FLAMMABLE OR IGNITABLE MATERIALS

12.1. In those situations where flammable materials are present only occasionally, electric equipment capable of igniting them should not be used, unless measures are taken to prevent hazardous conditions from developing.

12.2. Such materials include, but are not limited to: flammable gases, vapors, or liquids; combustible dust; and ignitable fibers or flyings.

12.3. In those situations where flammable vapors, liquids, or gases, or combustible dusts or fibers are (or may be) present on a regular bases, the electrical installation requirements contained in the OSHA standard regulating hazardous (classified) locations should be observed. 29 CFR 1910.307.

13. PERSONAL PROTECTION SAFEGUARDS

13.1. Employees working in areas where they are potential electrical hazards should be provided with, and should use, electrical protective equipment that is appropriated for the specific parts of the body to be protected and for the work to be performed. Such equipment includes rubber protective equipment such as insulating gloves, blankets, hoods, line hoses, sleeves, and matting for use around electric apparatus. See the OSHA standard on electrical protective devices, 29 CFR 1910.137.

13.2. Protective equipment should be maintained in a safe, reliable condition and should be periodically inspected or tested, as required by 1910.137.

13.3. If the insulating capability of protective equipment may be subject to damage during use, the insulating material should be protected. (For example, an outer covering of leather when it is used for the protection of rubber insulating material.)

13.4. Employees should wear nonconductive head protection wherever there is a danger of head injury from electric shock or burns due to contact with exposed energized parts.

13.5. Employees should wear protective equipment for the eyes or face wherever there is danger or injury to the eyes or face from electric arcs or flashes or from flying objects resulting from electrical explosion.

13.6. When working near exposed energized conductors or circuit parts, each employee should use insulated tools or handling equipment if the tools or handling equipment might make contact with such conductors or parts. If the insulating capability of insulated tools or handling equipment is subject to damage, the insulating material shall be protected.

13.7. Fuse handling equipment, insulated for the circuit voltage, should be used to remove or install fuses when the fuse terminals are energized.

13.8. Ropes and handlines used near exposed energized parts should be nonconductive.

13.9. Protective shields, protective barriers, or insulating materials should be used to protect each employee from shock, burns, or other electrically related injuries while that employee is working near exposed energized parts which might be accidentally contacted or where dangerous electric heating or arcing might occur.

13.10. When normally enclosed live parts are exposed for maintenance or repair, they should be guarded to protect unqualified persons from contact with the live parts.

13.11. Alerting techniques should be used to warn and protect employees from hazards which could cause injury due to electric shock, burns, or failure of electric equipment parts as follows:

13.11.1. Safety Signs and Tags. Safety signs, safety symbols, or accident prevention tags should be used where necessary to warn employees about electrical hazards which may endanger them, as required by the OSHA standard on accident prevention signs and tags, 29 CFR 1910.145.

13.11.2. Barricades. Barricades should be used in conjunction with safety signs where it is necessary to prevent or limit employee access to work areas exposing employees to uninsulated energized conductors or circuit parts. Conductive barricades cannot be used where they might cause an electrical contact hazard.

13.11.3. Attendants. If signs and barricades do not provide sufficient warning and protection from electrical hazards, an attendant should be stationed to warn and protect employees.

14. TRAINING

14.1. Appropriate training will be provided for those employee who face a risk of electric shock that is not reduced to a safe level by the OSHA electrical installation requirements specified in 29 CFR 1910.303 through 1910.308.

14.2. Electricians and welders always face such a risk and must be provided with appropriate training. That is also true for blue collar supervisors, electrical and electronic engineers, electrical and electronic equipment assemblers, electrical and electronic technicians, industrial machine operators, material handling equipment operators, mechanics and repairers, painters, riggers and roustabouts, and stationary engineers unless their work or the work of those they supervise does not bring them or the employees they supervise close enough to exposed parts of electric circuits operating at 50 volts or more to ground for a hazard to exist.

14.3. Each employee required to be trained should be trained in, and should become familiar with, the safety-related work practices required by this Policy or by the OSHA standards in 29 CFR 1910.331 through 1910.335, that pertain to their respective job assignments.

14.4. Employees who are covered by paragraph 14.1 of this section (training), but who are not qualified persons should also be trained in and familiar with any electrically related safety practices not specifically addressed by the 1910.331 through 1910.335 OSHA standards but which are necessary for their safety.

14.5. Qualified persons (i.e. those permitted to work on or near exposed energized parts) should, at a minimum, be trained in and familiar with the following:

14.5.1. The skills and techniques necessary to distinguish exposed live parts from other parts of electric equipment,

14.5.2. The skills and techniques necessary to determine the nominal voltage of exposed parts, and

14.5.3. The clearance distances specified in Table S-5 of 29 CFR 1910.333 (c) [see paragraph 8.14, above] and the corresponding voltages to which the qualified person will be exposed.

14.6. The training shall be either classroom, on-the-job, or both.

14.7. The degree of training should be determined by the risk likely to be encountered by the employee.

EXCAVATION (TRENCHING & SHORING) POLICY

1. PURPOSE

The purpose of this policy is to establish requirements and procedures for safe operations around excavation work throughout Okaloosa County. Due to the seriousness of the potential for injury up to and including death, employees should review and become familiar with this policy and procedures before beginning work in any excavation.

2. DEFINITIONS

2.1. **Acceptable Engineering Practices** means those requirements that are compatible with standards of practice required by a registered professional engineer.

2.2. **Benching** (benching system) means a method of protecting employees from cave-ins by excavating the sides of an excavation to form one or a series of horizontal levels of steps, usually with vertical or near-vertical surfaces between levels.

2.3. **Cave-In** means the separation of a mass of soil or rock material from the side of an excavation, or the loss of soil from under a trench shield or support system, and its sudden movement into the excavation, either by falling or sliding, in sufficient quantity so that it could entrap, bury, or otherwise injure and immobilize a person.

2.4. **Competent Person** means one who is capable of identifying existing and predictable hazards in the surroundings, or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

2.5. **Cross Braces** means the horizontal members of a shoring system installed perpendicular to the sides of the excavation, the ends of which bear against either upright or wales.

2.6. **Excavation** means any man-made cut, cavity, trench, or depression in an earth surface, formed by earth removal.

2.7. **Faces** or sides mean the vertical or inclined earth surfaces formed as a result of excavation work.

2.8. **Failure** means the breakage, displacement, or permanent deformation of a structure member or connection so as to reduce its structural integrity and its supportive capabilities.

2.9. **Hazardous Atmosphere** means an atmosphere which by reason of being explosive, flammable, poisonous, corrosive, oxidizing, irritating, oxygen deficient, toxic, or otherwise harmful may cause death, illness, or injury.

2.10. **Kickout** means the accidental release or failure of a cross brace.

2.11. **Protective System** means a method of protecting employees from cave-ins, from material that could fall or roll from an excavation face or into an excavation, or from the collapse of adjacent structures. Protective systems include support systems, sloping and benching systems, shield systems, and other systems that provide the necessary protection.

2.12. **Registered Professional Engineer** means a person who is registered as a professional engineer in the state where the work is to be performed. However, a professional engineer, registered in any state is deemed to be a "registered professional engineer" within the meaning of this standard when approving designs for "manufactured protective systems" or "tabulated data" to be used in interstate commerce.

2.13. **Shield** (Trench Box) means a structure that is able to withstand the forces imposed on it by a cave-in and thereby protect employees within the structure. Shields can be permanent structures or can be designed to be portable and moved along as work progresses. Additionally, shields can be either pre-manufactured or job-built in accordance with 1926.652 (c)(3) or (c) (4). Shields used in trenches are usually referred to as "trench boxes" or "trench shields."

2.14. **Shoring** means a structure such as a metal hydraulic, mechanical or timber shoring system that supports the sides of an excavation and which is designed to prevent cave-ins.

2.15. **Sloping** means a method of protecting employees from cave-ins by excavating to form sides of an excavation that are inclined away from the excavation so as to prevent cave-ins. The angle of incline required to prevent a cave-in varies with differences in such factors as the soil type, environmental conditions of exposure, and application of surcharge loads.

2.16. **Trench** means a narrow excavation (in relation to its length) made below the surface of the ground. In general, the depth is greater than the width, but the width of a trench (measured at the bottom) is not greater than 15 feet (4.6 m). If forms or other structures are installed or constructed in an excavation so as to reduce the dimensions measured from the forms or structure to the side of the excavation to 15 feet (4.6m) or less (measured at the bottom of the excavation), the excavation is also considered to be a trench.

3. RESPONSIBILITIES

3.1. **Directors**: shall implement and enforce these guidelines.

3.2. **Superintendents/supervisors**: will ensure that affected employees are aware of the requirements of these guidelines; ensure that trenching/excavation activities

comply with these guidelines; monitor for hazardous atmospheres in trenches/excavations where they could accumulate; completes trenching/excavation permits, maintains permanent filing system for retaining Trenching/Excavation Permits generated on site.

3.3. **Competent Person**: classify and document soil type(s) and assist crew supervisor in determining protection requirements. Soil classifications must be made; upon starting work, per 100 feet of trenching/excavation work or when soil conditions change. Maintain a copy of the OSHA excavation standard on site while trenching/shoring work is performed. Daily, inspect all trenching/shoring work to ensure compliance with these guidelines and document these inspections.

3.4. **Employees**: Be aware of the warning signs of failure. Notify the Competent Person of any concerns. Do not enter any trench/excavation determined or suspected to be unsafe.

4. GENERAL REQUIREMENTS

The following are requirements necessary for all excavations:

4.1. All surface encumbrances that are located so as to create a hazard to employees shall be removed or supported, as necessary, to safeguard employees.

4.2. The estimated location of all utility installations, such as sewer, telephone, gas, electric, water lines, or any other underground installations that reasonably may be expected to be encountered during excavation work, shall be determined prior to opening an excavation.

4.3. Utility companies, electric, gas or property owners shall be contacted within established or customary local response times, advised of the proposed work, and asked to establish the location of the utility underground installations prior to the start of the actual excavation.

NOTE

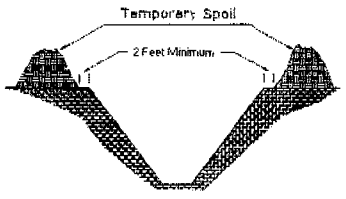
When utilities or owners cannot respond to a request to locate underground utility installations within 48 hours, or cannot establish the exact location of these installations, the Supervisor on site may proceed, provided the supervisor does so with caution, and provided detection equipment or other acceptable means to locate utility installations are used.

4.4. The estimated location of all utility installations will be determined by a safe and acceptable means.

4.5. While excavation is open, underground installations shall be protected, supported, or removed as necessary to safeguard employees.

NOTE

All excavated spoil and/or equipment shall be placed at least 2 feet from the edge of the excavation. For large spoil or equipment having the possibility of rolling or falling into the excavation, retaining devices will be used to prevent falling into



the excavation. If this is not possible, spoil will be placed in dump truck.

4.6. Trench boxes will be visually inspected for stress cracks or wear on welds of cross braces prior to installation in excavation.

4.7. A stairway, ladder, ramp or other safe means of egress shall be located in trench excavations that are 4 feet or more in depth.

4.8. All ladders will be tied off at the top as to prevent movement and extend at least 36 inches from top of excavation while being used in excavation activity.

4.9. In addition to hard hats and other necessary personal protective equipment, all employees will wear reflectorized warning vests while working in excavations that are exposed to traffic and its hazards.

4.10. Inspection of the excavation will be made by the superintendent/supervisor before employees enter, prior to the start of work, and throughout the job. If superintendent/supervisor finds evidence that could result in possible cave-ins, failure of protective equipment, hazardous atmospheres, or other hazardous conditions, exposed employees will be removed from the hazardous area until the necessary precautions have been taken to ensure their safety.

4.11. Excavations will not be left unattended and unprotected. When it is necessary to leave an unattended excavation open during lunch or brief periods, it shall be protected with a safety fence, and/or barricades and tape. Excavations requiring to be left unattended overnight or long periods of time must be backfilled before employees leave work area. No unattended overnight excavations are permitted.

4.12. The majority of excavations dug by the County employees will be shallow (10 feet or less). However, for excavations deeper than 10 feet, but less than 20 feet or, special situations where a vertical wall excavation with shoring box is not possible, supervisors will refer to 29 CFR 1926, OSHA Standards for the Construction Industry; Appendix B and C to 1926 Subpart P- Shoring and Benching illustrations for further assistance.

NOTE

Excavations *20 feet or greater* will require the approval and supervision of a registered engineer throughout the dig.

4.13. Trench boxes shall be the primary means of protection for all excavations requiring protective support. For all excavations not able to accommodate the use of trench boxes and requiring the use of shoring and/or sloping, the supervisor will perform a soil manipulation test to determine the type of soil composition. After the supervisor has determined the type and cohesiveness of soil, Type A, Type B, Type C, Cohesive or non-cohesive, supervisors should refer to 29 CFR 1926, OSHA Standards for the Construction Industry; Appendix B and C to 1926 Subpart P-Shoring and Benching illustrations for further assistance.

5. ATMOSPHERIC TESTING

5.1. Atmospheric testing will be performed in all excavations employing shoring and greater than 4 feet in depth and where there is a possibility of a hazardous or toxic atmosphere present (i.e., maintenance on all sewer lines, working around natural gas lines, near landfills). Testing will begin prior to entry and shall be continuous while employees are working within the excavation.

5.2. Before an employee enters the excavation where hazardous atmospheres may be present, the internal atmosphere shall be tested, with a calibrated direct-reading instrument, for the following conditions in the order given:

Between 19.5% - 23.5% Oxygen
Less than 10% LFL for Combustible
Less than 10 PPM for Toxic (H_2S)

5.3. If atmosphere inside an excavation fails to meet any of the three above criteria, space will be ventilated using continuous forced air ventilation. At this time, the excavation will be classified as a permit-required confined space and require a County confined space permit to be filled out and posted at the excavation.

NOTE

No employee will enter a permitted excavation space until the Oxygen, Combustibles, and Toxic gas readings are below or within required settings.

NOTE

The use of gas powered equipment (i.e., pipe saw) within excavations will require the use of ventilation equipment to prevent carbon monoxide build-up.

NOTE

Self-contained Breathing Apparatus will not be worn while working within any permit required excavation for any reason; to include atmosphere testing.

5.4. Atmosphere within the permit required excavation will be tested **hourly** and results noted on the Confined Space Permit. If entrants exit the confined space for more than **15 minutes**, the excavation will be **re-tested prior to re-entry**.

5.5. If a hazardous atmosphere is detected or a dangerous situation develops:

5.5.1. Each entrant shall leave the excavation immediately;

5.5.2. The space shall be evaluated to determine how the hazardous atmosphere developed; and

5.5.3. Measures shall be implemented to protect employees from the hazardous atmosphere before any subsequent entry takes place.

6. PROTECTION FROM WATER ACCUMULATION

6.1. All excavations producing the hazard of water accumulation will be closely monitored by superintendent/supervisor while work is being performed.

6.2. Employees will not be allowed into any excavation where there is an accumulation of water (either from water mains or rainwater run off) unless a de-watering pump and an employee proficient in the operation of the pump are on site.

NOTE

All pumps will be continuously monitored by an employee proficient in its operation throughout the excavation activity.

6.3. If necessary, employees working within excavations may be required to wear harnesses and lifelines for added protection. (i.e. deep pits).

6.4. Excavations across streams, drainage ditches, or into areas where water accumulates through the natural process of gravity, shall be avoided. If no alternative exists, diversion ditches, dikes, or other suitable means shall be used where needed to prevent surface water from entering the excavation and to provide adequate drainage of the area adjacent to the excavation.

7. STABILITY OF ADJACENT STRUCTURES

7.1. Excavations around adjoining buildings, walls, or other structures will be avoided. If no alternative exists, where needed, support systems such as shoring, bracing, or underpinning shall be provided to ensure the stability of such structures for the protection of employees.

NOTE

Excavations around adjoining buildings, walls, or other structures will require the authorization and presence of a registered professional engineer throughout the excavation activity.

7.2. Excavations below the level of the base or footing of any foundation or retaining wall that could be reasonably expected to pose a hazard shall not be permitted except when:

7.2.1. A support system such as underpinning, is provided to ensure the safety of employees and the stability of the structure; or

7.2.2. The excavation is in stable rock; or

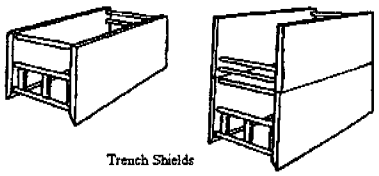
7.2.3. A registered engineer has approved the determination that the structure is sufficiently removed from the excavation so as to be unaffected by the excavation activity; or

7.2.4. A registered professional engineer has approved the determination that such excavation work will not pose a hazard to employees.

7.3. The registered professional engineer who approves either the above two exceptions will put that authorization in writing and keep that writing near the site throughout the excavation activity.

7.4. Sidewalks, pavements, or other structures will not be undermined unless a support system or another method of protection is provided to protect employees from the possible collapse of such structures.

8. **SHIELD SYSTEMS** (Trench Boxes/Shields)



Trench Shields

8.1. Trench boxes shall be the primary means of protection for all excavations requiring protective support. **For those excavations deeper than 20 feet or, are difficult to properly use trench boxes, work crews must get permission from the supervisor who will in turn refer to the next section 9 for assistance**. Also refer to 29 CFR 1926, OSHA Standards for the Construction Industry; Appendix B and C to 1926 Subpart P- Shoring and Benching illustrations if applicable.

8.2. Trench boxes shall not be subjected to loads exceeding those that the system was designed to withstand.

8.3. A copy of "Manufacturers Tabulated Data" for each trench box will be present and readily available at each excavation work site where the trench boxes are being used.

8.4. Employees shall not be allowed in shields when shields are being installed, removed, or moved vertically.

8.5. Trench boxes may be permitted to rest no greater than 2 feet above the floor of the excavation provided the box rests snug into the excavation where the walls of the excavation meet the sides providing no space between the side of the box and the excavation wall.

9. **INSTALLATION AND REMOVAL OF SUPPORT**

NOTE

This section applies to excavation activities that require protection beyond the trench boxes normally used by County work crews. *The use of trench boxes shall be the primary means of protecting employees during excavation activities.* If trench boxes are not possible, supervisors should refer to 29 CFR 1926, OSHA Standards for the Construction Industry; Appendix B and C to 1926 Subpart P- Shoring and Benching illustrations for further assistance.

9.1. Members of support systems shall be securely connected in a manner that protects employees from cave-ins, structural collapses, or from being struck by members of the support system.

9.2. Individual members of support systems shall not be subjected to loads exceeding those that those members were designed to withstand.

9.3. Before temporary removal of individual members begins, additional precautions shall be taken to ensure the safety of employees, such as installing other structural members to carry the loads imposed on the support system.

9.4. Removal shall begin at, and progress from, the bottom of the excavation. Members shall be released slowly so as to note any indication of possible failure of the remaining members of the structure or possible cave-in of the sides of the excavation.

9.5. Backfilling shall progress together with the removal of support systems from excavations.

SOIL CLASSIFICATION
Appendix A to §1926 Subpart P

(a) Scope and application -

(1) Scope. This appendix describes a method of classifying soil and rock deposits based on site and environmental conditions, and on the structure and composition of the earth deposits. The appendix contains definitions, sets forth requirements, and describes acceptable visual and manual tests for use in classifying soils.

(2) Application. This appendix applies when a sloping or benching system is designed in accordance with the requirements set forth in 1926.652(b)(2) as a method of protection for employees from cave-ins. This appendix also applies when timber shoring for excavations is designed as a method of protection from cave-ins in accordance with appendix C to subpart P of part 1926, and when aluminum hydraulic shoring is designed in accordance with appendix D. This Appendix also applies if other protective systems are designed and selected for use from data prepared in accordance with the requirements set forth in 1926.652(c), and the use of the data is predicated on the use of the soil classification system set forth in this appendix.

(b) Definitions. The definitions and examples given below are based on, in whole or in part, the following; American Society for Testing Materials (ASTM) Standards D653-85 and D2488; The Unified Soils Classification System; The U.S. Department of Agriculture (USDA) Textural Classification Scheme; and The National Bureau of Standards Report BSS-121.

"Cemented soil" means a soil in which the particles are held together by a chemical agent, such as calcium carbonate, such that a hand-size sample cannot be crushed into powder or individual soil particles by finger pressure.

"Cohesive soil" means clay (fine grained soil), or soil with a high clay content, which has cohesive strength. Cohesive soil does not crumble, can be excavated with vertical sideslopes, and is plastic when moist. Cohesive soil is hard to break up when dry, and exhibits significant cohesion when submerged. Cohesive soils include clayey silt, sandy clay, silty clay, clay and organic clay.

"Dry soil" means soil that does not exhibit visible signs of moisture content.

"Fissured" means a soil material that has a tendency to break along definite planes of fracture with little resistance, or a material that exhibits open cracks, such as tension cracks, in an exposed surface.

"Granular soil" means gravel, sand, or silt (coarse grained soil) with little or no clay content. Granular soil has no cohesive strength. Some moist granular soils exhibit apparent cohesion. Granular soil cannot be molded when moist and crumbles easily when dry.

"Layered system" means two or more distinctly different soil or rock types arranged in layers. Micaceous seams or weakened planes in rock or shale are considered layered.

"Moist soil" means a condition in which a soil looks and feels damp. Moist cohesive soil can easily be shaped into a ball and rolled into small diameter threads before crumbling.

Moist granular soil that contains some cohesive material will exhibit signs of cohesion between particles.

"Plastic" means a property of a soil which allows the soil to be deformed or molded without cracking, or appreciable volume change.

"Saturated soil" means a soil in which the voids are filled with water. Saturation does not require flow. Saturation, or near saturation, is necessary for the proper use of instruments such as a pocket penetrometer or sheer vane.

"Soil classification system" means, for the purpose of this subpart, a method of categorizing soil and rock deposits in a hierarchy of Stable Rock, Type A, Type B, and Type C, in decreasing order of stability. The categories are determined based on an analysis of the properties and performance characteristics of the deposits and the characteristics of the deposits and the environmental conditions of exposure.

"Stable rock" means natural solid mineral matter that can be excavated with vertical sides and remain intact while exposed.

"Submerged soil" means soil which is underwater or is free seeping.

"Type A" means cohesive soils with an unconfined, compressive strength of 1.5 ton per square foot (tsf) (144 kPa) or greater. Examples of cohesive soils are: clay, silty clay, sandy clay, clay loam and, in some cases, silty clay loam and sandy clay loam. Cemented soils such as caliche and hardpan are also considered Type A. However, no soil is Type A if:

(i) The soil is fissured; or

(ii) The soil is subject to vibration from heavy traffic, pile driving, or similar effects; or

(iii) The soil has been previously disturbed; or

(iv) The soil is part of a sloped, layered system where the layers dip into the excavation on a slope of four horizontal to one vertical (4H:1V) or greater; or

(v) The material is subject to other factors that would require it to be classified as a less stable material.

"Type B" means:

(i) Cohesive soil with an unconfined compressive strength greater than 0.5 tsf (48 kPa) but less than 1.5 tsf (144 kPa); or

(ii) Granular cohesionless soils including: angular gravel (similar to crushed rock), silt, silt loam, sandy loam and, in some cases, silty clay loam and sandy clay loam.

(iii) Previously disturbed soils except those which would otherwise be classed as Type C soil.

(iv) Soil that meets the unconfined compressive strength or cementation requirements for Type A, but is fissured or subject to vibration; or

(v) Dry rock that is not stable; or

(vi) Material that is part of a sloped, layered system where the layers dip into the excavation on a slope less steep than four horizontal to one vertical (4H:1V), but only if the material would otherwise be classified as Type B.

"Type C" means:

(i) Cohesive soil with an unconfined compressive strength of 0.5 tsf (48 kPa) or less; or

(ii) Granular soils including gravel, sand, and loamy sand; or

(iii) Submerged soil or soil from which water is freely seeping; or

(iv) Submerged rock that is not stable, or

(v) Material in a sloped, layered system where the layers dip into the excavation or a slope of four horizontal to one vertical (4H:1V) or steeper.

"Unconfined compressive strength" means the load per unit area at which a soil will fail in compression. It can be determined by laboratory testing, or estimated in the field using a pocket penetrometer, by thumb penetration tests, and other methods.

"Wet soil" means soil that contains significantly more moisture than moist soil, but in such a range of values that cohesive material will slump or begin to flow when vibrated. Granular material that would exhibit cohesive properties when moist will lose those cohesive properties when wet.

(c) Requirements -

(1) Classification of soil and rock deposits. Each soil and rock deposit shall be classified by a competent person as Stable Rock, Type A, Type B, or Type C in accordance with the definitions set forth in paragraph (b) of this appendix.

(2) Basis of classification. The classification of the deposits shall be made based on the results of at least one visual and at least one manual analysis. Such analyses shall be conducted by a competent person using tests described in paragraph (d) below, or in other recognized methods of soil classification and testing such as those adopted by the American Society for Testing Materials, or the U.S. Department of Agriculture textural classification system.

(3) Visual and manual analyses. The visual and manual analyses, such as those noted as being acceptable in paragraph (d) of this appendix, shall be designed and conducted to provide sufficient quantitative and qualitative information as may be necessary to identify properly the properties, factors, and conditions affecting the classification of the deposits.

(4) Layered systems. In a layered system, the system shall be classified in accordance with its weakest layer. However, each layer may be classified individually where a more stable layer lies under a less stable layer.

(5) Reclassification. If, after classifying a deposit, the properties, factors, or conditions affecting its classification change in any way, the changes shall be evaluated by a

competent person. The deposit shall be reclassified as necessary to reflect the changed circumstances.

(d) **Acceptable visual and manual tests -**

(1) Visual tests. Visual analysis is conducted to determine qualitative information regarding the excavation site in general, the soil adjacent to the excavation, the soil forming the sides of the open excavation, and the soil taken as samples from excavated material.

(i) Observe samples of soil that are excavated and soil in the sides of the excavation. Estimate the range of particle sizes and the relative amounts of the particle sizes. Soil that is primarily composed of fine-grained material material is cohesive material. Soil composed primarily of coarse-grained sand or gravel is granular material.

(ii) Observe soil as it is excavated. Soil that remains in clumps when excavated is cohesive. Soil that breaks up easily and does not stay in clumps is granular.

(iii) Observe the side of the opened excavation and the surface area adjacent to the excavation. Crack-like openings such as tension cracks could indicate fissured material. If chunks of soil spall off a vertical side, the soil could be fissured. Small spalls are evidence of moving ground and are indications of potentially hazardous situations.

(iv) Observe the area adjacent to the excavation and the excavation itself for evidence of existing utility and other underground structures, and to identify previously disturbed soil.

(v) Observed the opened side of the excavation to identify layered systems. Examine layered systems to identify if the layers slope toward the excavation. Estimate the degree of slope of the layers.

(vi) Observe the area adjacent to the excavation and the sides of the opened excavation for evidence of surface water, water seeping from the sides of the excavation, or the location of the level of the water table.

(vii) Observe the area adjacent to the excavation and the area within the excavation for sources of vibration that may affect the stability of the excavation face.

(2) Manual tests. Manual analysis of soil samples is conducted to determine quantitative as well as qualitative properties of soil and to provide more information in order to classify soil properly.

(i) Plasticity. Mold a moist or wet sample of soil into a ball and attempt to roll it into threads as thin as 1/8-inch in diameter. Cohesive material can be successfully rolled into threads without crumbling. For example, if at least a two inch (50 mm) length of 1/8-inch thread can be held on one end without tearing, the soil is cohesive.

(ii) Dry strength. If the soil is dry and crumbles on its own or with moderate pressure into individual grains or fine powder, it is granular (any combination of gravel, sand, or silt). If the soil is dry and falls into clumps which break up into smaller clumps, but the smaller clumps can only be broken up with difficulty, it may be clay in any combination with gravel, sand or silt. If the dry

soil breaks into clumps which do not break up into small clumps and which can only be broken with difficulty, and there is no visual indication the soil is fissured, the soil may be considered unfissured.

(iii) Thumb penetration. The thumb penetration test can be used to estimate the unconfined compressive strength of cohesive soils. (This test is based on the thumb penetration test described in American Society for Testing and Materials (ASTM) Standard designation D2488 - "Standard Recommended Practice for Description of Soils (Visual - Manual Procedure).") Type A soils with an unconfined compressive strength of 1.5 tsf can be readily indented by the thumb; however, they can be penetrated by the thumb only with very great effort. Type C soils with an unconfined compressive strength of 0.5 tsf can be easily penetrated several inches by the thumb, and can be molded by light finger pressure. This test should be conducted on an undisturbed soil sample, such as a large clump of spoil, as soon as practicable after excavation to keep to a minimum the effects of exposure to drying influences. If the excavation is later exposed to wetting influences (rain, flooding), the classification of the soil must be changed accordingly.

(iv) Other strength tests. Estimates of unconfined compressive strength of soils can also be obtained by use of a pocket penetrometer or by using a hand-operated shearvane.

(v) Drying test. The basic purpose of the drying test is to differentiate between cohesive material with fissures, unfissured cohesive material, and granular material. The procedure for the drying test involves drying a sample of soil that is approximately one inch thick (2.54 cm) and six inches (15.24 cm) in diameter until it is thoroughly dry:
(A) If the sample develops cracks as it dries, significant fissures are indicated.

(B) Samples that dry without cracking are to be broken by hand. If considerable force is necessary to break a sample, the soil has significant cohesive material content. The soil can be classified as an unfissured cohesive material and the unconfined compressive strength should be determined.

(C) If a sample breaks easily by hand, it is either a fissured cohesive material or a granular material. To distinguish between the two, pulverize the dried clumps of the sample by hand or by stepping on them. If the clumps do not pulverize easily, the material is cohesive with fissures. If they pulverize easily into very small fragments, the material is granular.

SLOPING AND BENCHING

APPENDIX B to §1926 Subpart P-

(a) **Scope and application**. This appendix contains specifications for sloping and benching when used as methods of protecting employees working in excavations from cave-ins. The requirements of this appendix apply when the design of sloping and benching protective systems is to be performed in accordance with the requirements set forth in 1926.652(b)(2).

(b) **Definitions**.

"Actual slope" means the slope to which an excavation face is excavated.

"Distress" means that the soil is in a condition where a cave-in is imminent or is likely to occur. Distress is evidenced by such phenomena as the development of fissures in the face of or adjacent to an open excavation; the subsidence of the edge of an excavation; the slumping of material from the face or the bulging or heaving of material from the bottom of an excavation; the spalling of material from the face of an excavation; and raveling, i.e., small amounts of material such as pebbles or little clumps of material suddenly separating from the face of an excavation and trickling or rolling down into the excavation.

"Maximum allowable slope" means the steepest incline of an excavation face that is acceptable for the most favorable site conditions as protection against cave-ins, and is expressed as the ratio of horizontal distance to vertical rise (H:V).

"Short term exposure" means a period of time less than or equal to 24 hours that an excavation is open.

(c) **Requirements** -

(1) Soil classification. Soil and rock deposits shall be classified in accordance with appendix A to subpart P of part 1926.

(2) Maximum allowable slope. The maximum allowable slope for a soil or rock deposit shall be determined from Table B-1 of this appendix.

(3) Actual slope.

(i) The actual slope shall not be steeper than the maximum allowable slope.

(ii) The actual slope shall be less steep than the maximum allowable slope, when there are signs of distress. If that situation occurs, the slope shall be cut back to an actual slope which is at least 1/2 horizontal to one vertical (1/2H:1V) less steep than the maximum allowable slope.

(iii) When surcharge loads from stored material or equipment, operating equipment, or traffic are present, a competent person shall determine the degree to which the actual slope must be reduced below the maximum allowable slope, and shall assure that such reduction is achieved. Surcharge loads from adjacent structures shall be evaluated in accordance with 1926.651(i).

(4) Configurations. Configurations of sloping and benching systems shall be in accordance with Figure B-1.

TABLE B-1
MAXIMUM ALLOWABLE SLOPES

SOIL OR ROCK TYPE	MAXIMUM ALLOWABLE SLOPES (H:V)[1] FOR EXCAVATIONS LESS THAN 20 FEET DEEP[3]
STABLE ROCK	VERTICAL (90 Deg.)
TYPE A [2]	3/4:1 (53 Deg.)
TYPE B	1:1 (45 Deg.)
TYPE C	1 1/2:1 (34 Deg.)

Footnote(1) Numbers shown in parentheses next to maximum allowable slopes are angles expressed in degrees from the horizontal. Angles have been rounded off.

Footnote(2) A short-term maximum allowable slope of 1/2H:1V (63 degrees) is allowed in excavations in Type A soil that are 12 feed (3.67 m) or less in depth. Short-term maximum allowable slopes for excavations greater than 12 feet (3.67 m) in depth shall be 3/4H:1V (53 degrees).

Footnote(3) Sloping or benching for excavations greater than 20 feet deep shall be designed by a registered professional engineer.

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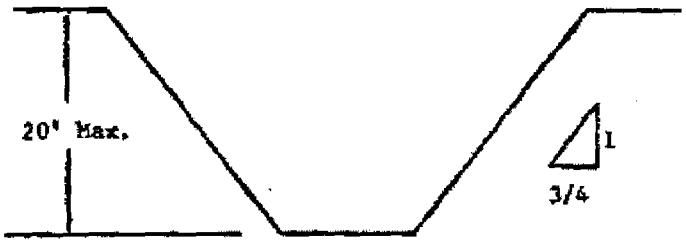
Slope Configurations

(All slopes stated below are in the horizontal to vertical ratio)

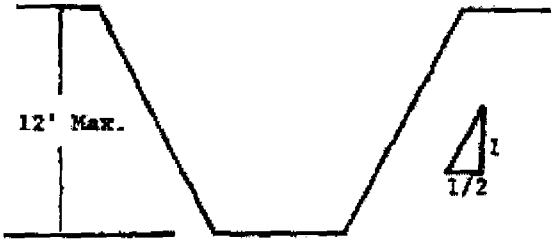
Excavations made in Type A soil

1. All simple slope excavation 20 feet or less in depth shall have a maximum allowable slope of 3/4:1.



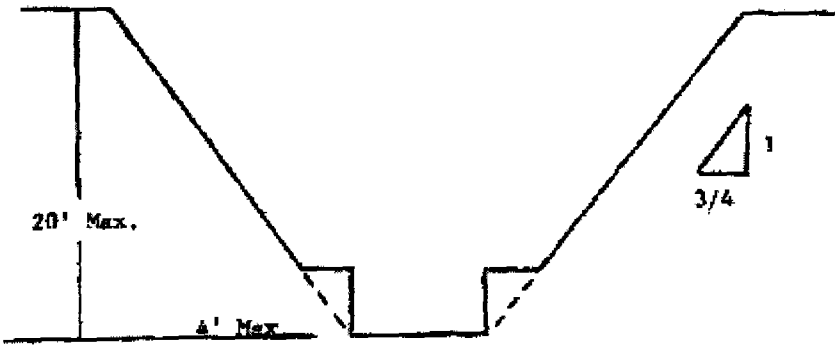
SIMPLE SLOPE - GENERAL

Exception: Simple slope excavations which are open 24 hours or less (short term) and which are 12 feet or less in depth shall have a maximum allowable slope of 1/2:1 as shown below:

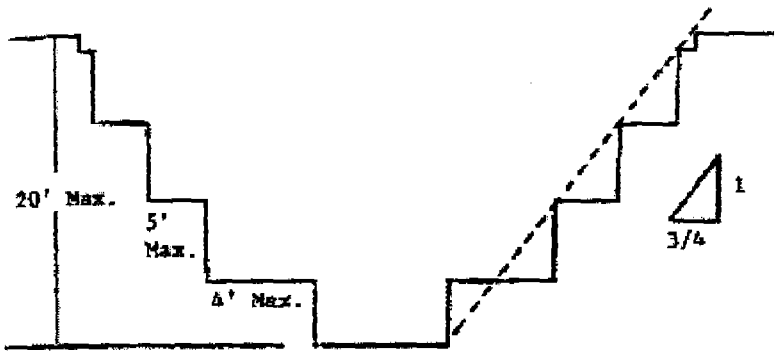


SIMPLE SLOPE - SHORT TERM

2. All benched excavations 20 feet or less in depth shall have a maximum allowable slope of 3/4 to 1 and maximum bench dimensions as follows:

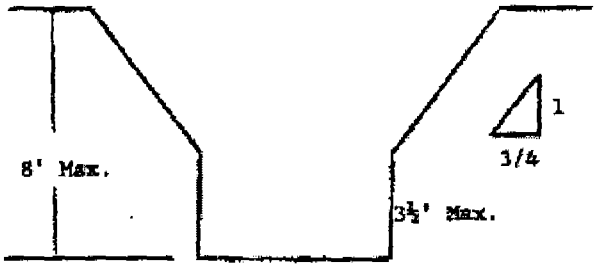


SIMPLE BENCH



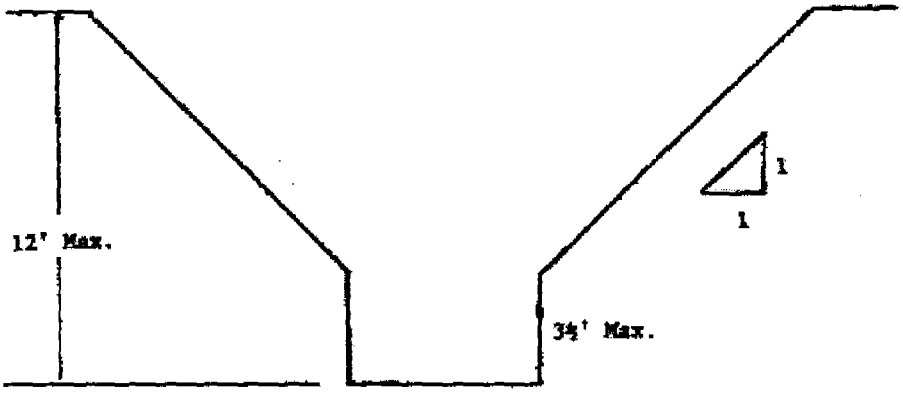
MULTIPLE BENCH

3. All excavations 8 feet or less in depth which have unsupported vertically sided lower portions shall have a maximum vertical side of 3 1/2 feet.



UNSUPPORTED VERTICALLY SIDED LOWER PORTION - MAXIMUM 8 FEET IN DEPTH)

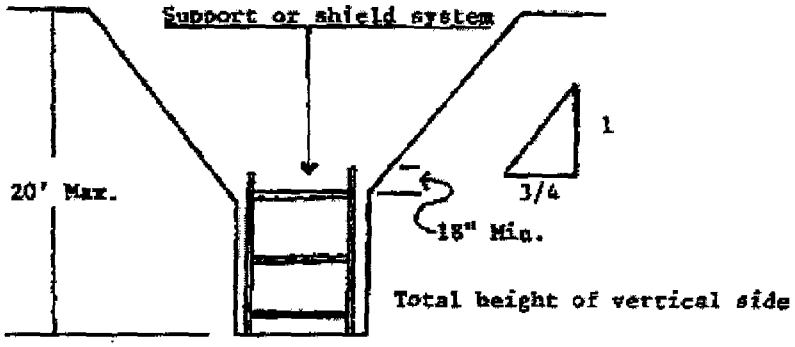
All excavations more than 8 feet but not more than 12 feet in depth with unsupported vertically sided lower portions shall have a maximum allowable slope



of 1:1 and a maximum vertical side of 3 1/2 feet.

UNSUPPORTED VERTICALLY SIDED LOWER PORTION - MAXIMUM 12 FEET IN DEPTH)

All excavations 20 feet or less in depth which have vertically sided lower portions that are supported or shielded shall have a maximum allowable slope of 3/4:1. The support or shield system must extend at least 18 inches above the top of the vertical side.



SUPPORTED OR SHIELDED VERTICALLY SIDED LOWER PORTION)

4. All other simple slope, compound slope, and vertically sided lower portion excavations shall be in accordance with the other options permitted under 1926.652(b).

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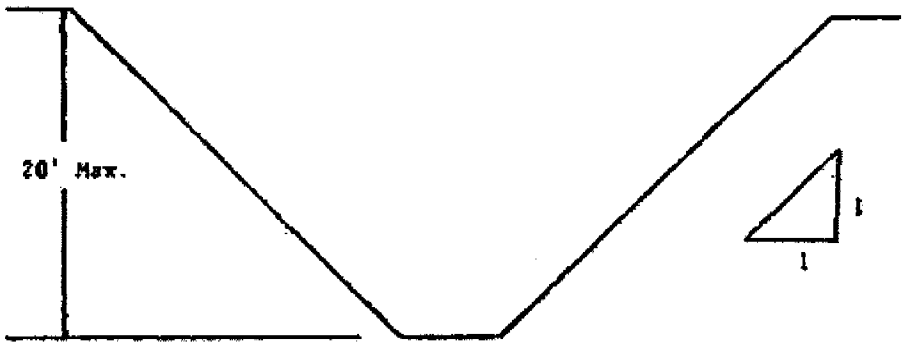
Excavations Made in Type B Soil

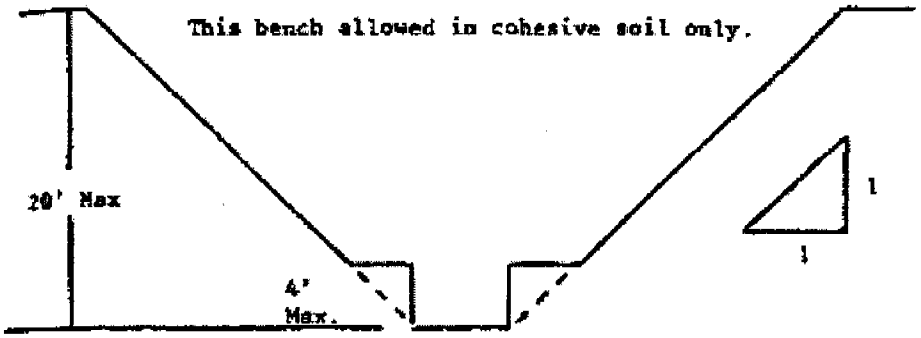
1. All simple slope excavations 20 feet or less in depth shall have a maximum



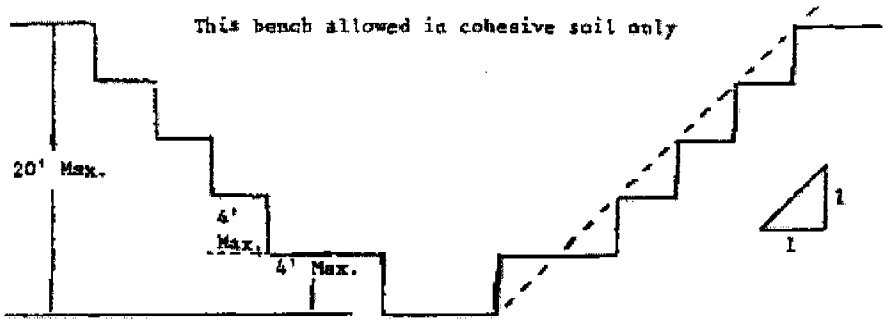
allowable slope of 1:1.

SIMPLE SLOPE

2. All benched excavations 20 feet or less in depth shall have a maximum allowable slope of 1:1 and maximum bench dimensions as follows:

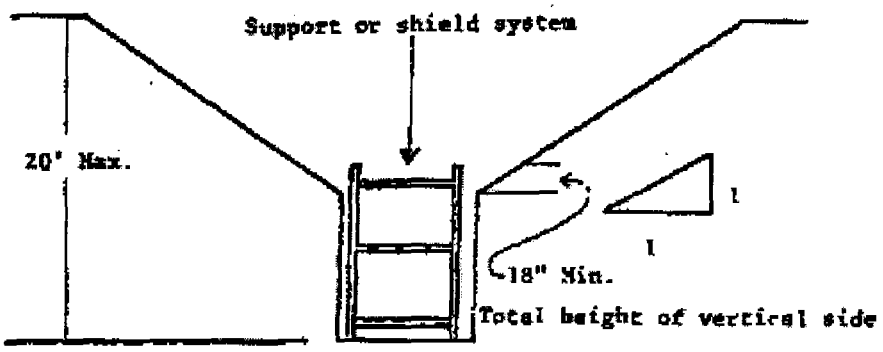


SINGLE BENCH



MULTIPLE BENCH

3. All excavations 20 feet or less in depth which have vertically sided lower portions shall be shielded or supported to a height at least 18 inches above the top of the vertical side. All such excavations shall have a maximum allowable slope of 1:1.



VERTICALLY SIDED LOWER PORTION

4. All other sloped excavations shall be in accordance with the other options permitted in 1926.652(b).

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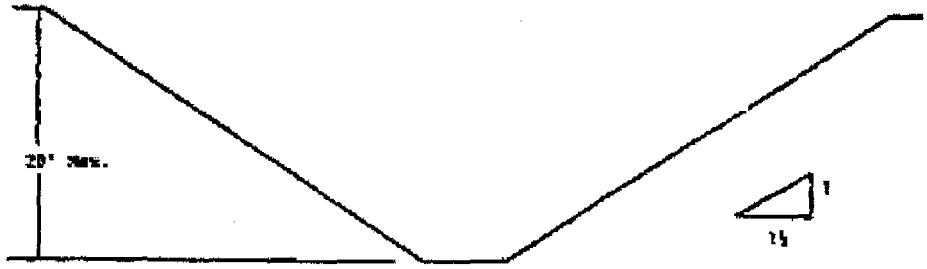
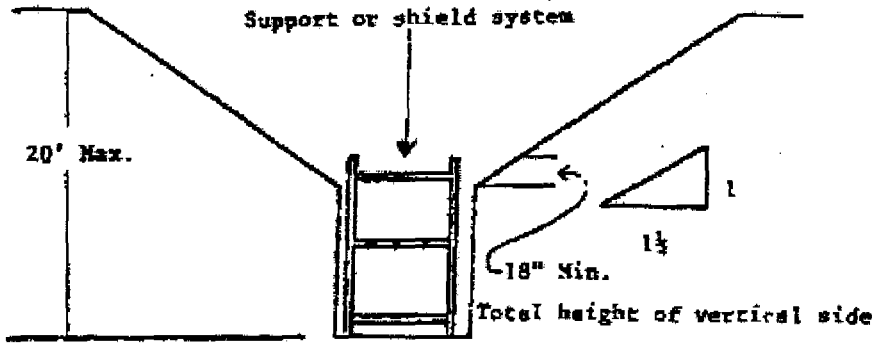
Excavations Made in Type C Soil

1. All simple slope excavations 20 feet or less in depth shall have a maximum allowable slope of 1 1/2:1.



SIMPLE SLOPE

2. All excavations 20 feet or less in depth which have vertically sided lower portions shall be shielded or supported to a height at least 18 inches above the top of the vertical side. All such excavations shall have a maximum allowable slope of 1



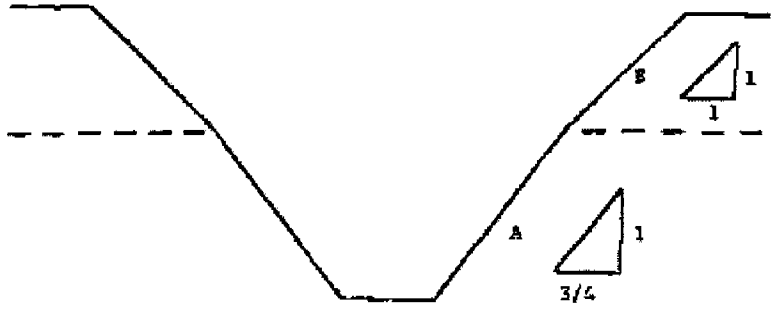
1/2:1.

VERTICAL SIDED LOWER PORTION

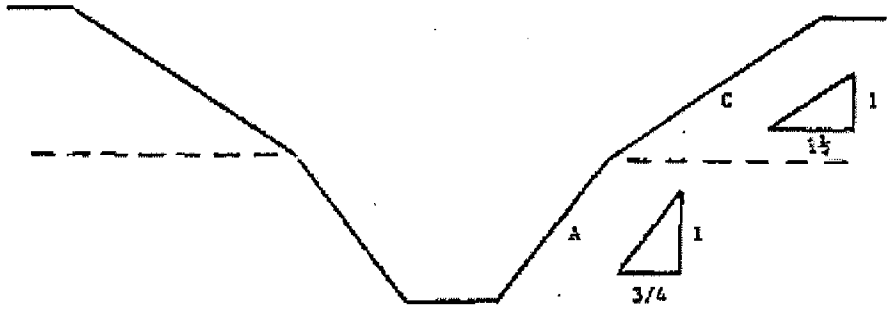
3. All other sloped excavations shall be in accordance with the other options permitted in 1926.652(b).

Excavations Made in Layered Soils

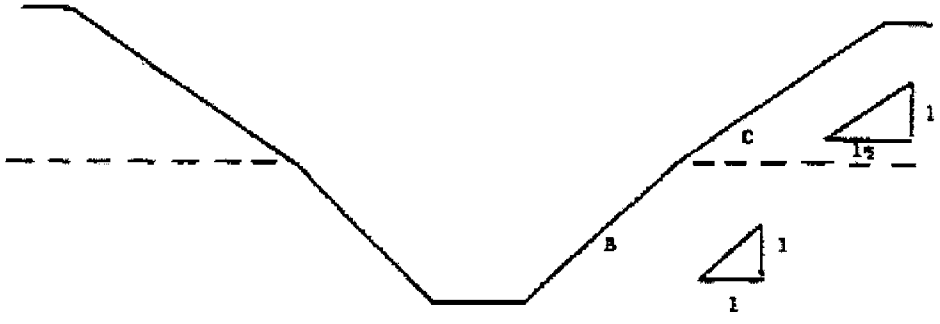
1. All excavations 20 feet or less in depth made in layered soils shall have a maximum allowable slope for each layer as set forth below.



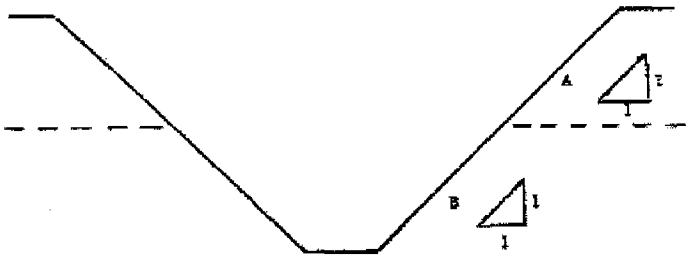
B over A



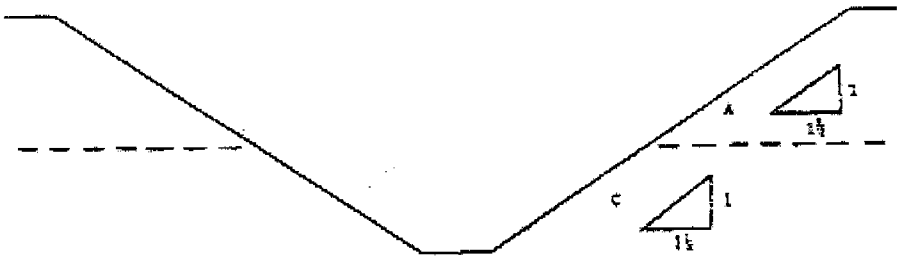
C over A



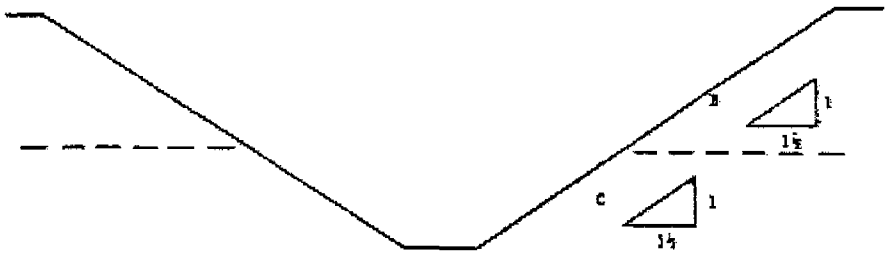
C over B



A over B



A over C



B over C

2. All other sloped excavations shall be in accordance with the other options permitted in 1926.652(b).

FALL PROTECTION

1. PURPOSE

This policy will provide Okaloosa County employees guidance on the proper application of fall protection and requirements and criteria for fall protection in construction workplaces thereof. These requirements are to be observed throughout all work areas located within County property or throughout the Okaloosa County.

2. DEFINITIONS

2.1. **Anchorage** means a secure point of attachment for lifelines, lanyards or deceleration devices.

2.2. **Body Belt (Safety Belt)** means a strap with means both for securing it about the waist and for attaching it to a lanyard, lifeline, or deceleration device.

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

2.4. **Buckle** means any device for holding the body belt or body harness closed around the employee's body.

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

2.6. **Controlled Access Zone (CAZ)** means an area in which certain work (e.g., overhand bricklaying) may take place without the use of guardrail systems, personal fall arrest systems, or safety net systems and access to the zone is controlled.

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

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

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

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

2.11. **Failure** means load refusal, breakage, or separation of component parts. Load refusal is the point where the ultimate strength is exceeded.

2.12. **Free Fall** means the act of falling before a personal fall arrest system begins to apply force to arrest the fall.

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

2.14. **Guardrail System** means a barrier erected to prevent employees from falling to lower levels.

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

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

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

2.18. **Leading Edge** means the edge of a floor, roof, or formwork for a floor or other walking/working surface (such as the deck) which changes location as additional floor, roof, decking, or formwork sections are placed, formed, or constructed. A

leading edge is considered to be an "unprotected side and edge" during periods when it is not actively and continuously under construction.

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

2.20. **Low-Slope Roof** means a roof having a slope less than or equal to 4 in 12 (vertical to horizontal).

2.21. **Lower Levels** means those areas or surfaces to which an employee can fall. Such areas or surfaces include, but are not limited to, ground levels, floors, platforms, ramps, runways, excavations, pits, tanks, material, water, equipment, structures, or portions thereof.

2.22. **Opening** means a gap or void 30 inches (76 cm) or more high and 18 inches (48 cm) or more wide, in a wall or partition, through which employees can fall to a lower level.

2.23. **Personal Fall Arrest System** means a system used to arrest an employee in a fall from a working level. It consists of an anchorage, connectors, a body belt or body harness and may include a lanyard, deceleration device, lifeline, or suitable combinations of these. As of January 1, 1998, the use of a body belt for fall arrest is prohibited.

2.24. **Positioning Device System** means a body belt or body harness system rigged to allow an employee to be supported on an elevated vertical surface, such as a wall, and work with both hands free while leaning.

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

2.26. **Roof** means the exterior surface on the top of a building. This does not include floors or formwork which, because a building has not been completed, temporarily become the top surface of a building.

2.27. **Roofing Work** means the hoisting, storage, application, and removal of roofing materials and equipment, including related insulation, sheet metal, and vapor barrier work, but not including the construction of the roof deck.

2.28. **Safety-Monitoring System** means a safety system in which a competent person is responsible for recognizing and warning employees of fall hazards.

2.29. **Self-Retracting Lifeline/Lanyard** means a deceleration device containing a drum-wound line which can be slowly extracted from, or retracted onto, the drum under slight tension during normal employee movement, and which, after onset of a fall, automatically locks the drum and arrests the fall.

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

2.30.1. The locking type with a self-closing, self-locking keeper which remains closed and locked until unlocked and pressed open for connection or disconnection; or

2.30.2. The non-locking type with a self-closing keeper which remains closed until pressed open for connection or disconnection. As of January 1, 1998, the use of a non-locking snaphook as part of personal fall arrest systems and positioning device systems is prohibited.

2.31. **Steep Roof** means a roof having a slope greater than 4 in 12 (vertical to horizontal).

2.32. **Toeboard** means a low protective barrier that will prevent the fall of materials and equipment to lower levels and provide protection from falls for personnel.

2.33. **Unprotected Sides And Edges** means any side or edge (except at entrances to points of access) of a walking/working surface, e.g., floor, roof, ramp, or runway where there is no wall or guardrail system at least 39 inches (1.0 m) high.

2.34. **Walking/Working Surface** means any surface, whether horizontal or vertical on which an employee walks or works, including, but not limited to, floors, roofs, ramps, bridges, runways, formwork and concrete reinforcing steel but not including ladders, vehicles, or trailers, on which employees must be located in order to perform their job duties.

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

2.36. **Work Area** means that portion of a walking/working surface where job duties are being performed.

3. SITUATIONS REQUIRING FALL PROTECTION

3.1. General

Before work can begin all walking/working surfaces on which employees are to work will have the surface tested to have the strength and structural integrity to support employees safely. Employees shall be allowed to work on those surfaces only when the surfaces have the requisite strength and structural integrity.

3.2. Unprotected Sides And Edges

Each employee on a walking/working surface (horizontal and vertical surface) with an unprotected side or edge which is 6 feet (1.8 m) or more above a lower level shall be protected from falling by the use of guardrail systems, safety net systems, or personal fall arrest systems.

3.3. Leading edges

3.3.1. Each employee who is constructing a leading edge 6 feet (1.8 m) or more above lower levels shall be protected from falling by guardrail systems, safety net systems, or personal fall arrest systems. Exception: When the employer can demonstrate that it is infeasible or creates a greater hazard to use these systems, the employer shall develop and implement a fall protection plan which meets the requirements of paragraph (k) of OSHA Standard 29 CFR 1926.502.

3.3.2. Note: There is a presumption that it is feasible and will not create a greater hazard to implement at least one of the above-listed fall protection systems. Accordingly, the employer has the burden of establishing that it is appropriate to implement a fall protection plan which complies with 1926.502(k) for a particular workplace situation, in lieu of implementing any of those systems.

3.3.3. Each employee on a walking/working surface 6 feet (1.8 m) or more above a lower level where leading edges are under construction, but who is not engaged in the leading edge work, shall be protected from falling by a guardrail system, safety net system, or personal fall arrest system. If a guardrail system is chosen to provide the fall protection, and a controlled access zone has already been established for leading edge work, the control line may be used in lieu of a guardrail along the edge that parallels the leading edge.

3.4. Hoist areas

Each employee in a hoist area shall be protected from falling 6 feet (1.8 m) or more to lower levels by guardrail systems or personal fall arrest systems. If guardrail systems, [or chain, gate, or guardrail] or portions thereof, are removed to facilitate the hoisting operation (e.g., during landing of materials), and an employee must lean through the access opening or out over the edge of the access opening (to receive or guide equipment and materials, for example), that employee shall be protected from fall hazards by a personal fall arrest system.

3.5. Holes

3.5.1. Each employee on walking/working surfaces shall be protected from falling through holes (including skylights) more than 6 feet (1.8 m) above lower levels, by personal fall arrest systems, covers, or guardrail systems erected around such holes.

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

3.5.3. Each employee on a walking/working surface shall be protected from objects falling through holes (including skylights) by covers.

3.6. Ramps, runways, and other walkways

Each employee on ramps, runways, and other walkways shall be protected from falling 6 feet (1.8 m) or more to lower levels by guardrail systems.

3.7. Excavations

3.7.1. Each employee at the edge of an excavation 6 feet (1.8 m) or more in depth shall be protected from falling by guardrail systems, fences, or barricades when the excavations are not readily seen because of plant growth or other visual barrier;

3.7.2. Each employee at the edge of a well, pit, shaft, and similar excavation 6 feet (1.8 m) or more in depth shall be protected from falling by guardrail systems, fences, barricades, or covers.

3.8. Dangerous equipment

3.8.1. Each employee less than 6 feet (1.8 m) above dangerous equipment shall be protected from falling into or onto the dangerous equipment by guardrail systems or by equipment guards.

3.8.2. Each employee 6 feet (1.8 m) or more above dangerous equipment shall be protected from fall hazards by guardrail systems, personal fall arrest systems, or safety net systems.

3.9. Roofing work on Low-slope roofs

Each employee engaged in roofing activities on low-slope roofs, with unprotected sides and edges 6 feet (1.8 m) or more above lower levels shall be protected from falling by guardrail systems, safety net systems, personal fall arrest systems, or a combination of warning line system and guardrail system, warning line system and safety net system, or warning line system and personal fall arrest system, or warning line system and safety monitoring system. Or, on roofs 50-feet (15.25 m) or less in width (see Appendix A to subpart M of 29 CFR 1926), the use of a safety monitoring system alone [i.e. without the warning line system] is permitted.

3.10. Steep roofs

Each employee on a steep roof with unprotected sides and edges 6 feet (1.8 m) or more above lower levels shall be protected from falling by guardrail systems with toeboards, safety net systems, or personal fall arrest systems.

3.11. Residential construction

3.11.1. Each employee engaged in residential construction activities 6 feet (1.8 m) or more above lower levels shall be protected by guardrail systems, safety net

system, or personal fall arrest system unless another provision in this section provides for an alternative fall protection measure. Exception: When the employer can demonstrate that it is infeasible or creates a greater hazard to use these systems, the employer shall develop and implement a fall protection plan which meets the requirements of paragraph (k) of OSHA Standard 29 CFR1926.502.

3.11.2. Note: There is a presumption that it is feasible and will not create a greater hazard to implement at least one of the above-listed fall protection systems. Accordingly, the employer has the burden of establishing that it is appropriate to implement a fall protection plan which complies with 29 CFR 1926.502(k) for a particular workplace situation, in lieu of implementing any of those systems.

3.12. Wall openings

Each employee working on, at, above, or near wall openings (including those with chutes attached) where the outside bottom edge of the wall opening is 6 feet (1.8 m) or more above lower levels and the inside bottom edge of the wall opening is less than 39 inches (1.0 m) above the walking/working surface, shall be protected from falling by the use of a guardrail system, a safety net system, or a personal fall arrest system.

3.13. Walking/working surfaces not otherwise addressed

Except as provided in other policies in this manual, each employee on a walking/working surface 6 feet (1.8 m) or more above lower levels shall be protected from falling by a guardrail system, safety net system, or personal fall arrest system.

4. FALL PROTECTION SYSTEMS

4.1. Prior to work the work site will be evaluated and appropriate fall protection systems will be employed. As listed in portions of this policy, the following systems are approved for use provided they meet applicable standards:

Personal Fall Arrest	Horizontal lifeline
Controlled Access Zone	Vertical lifeline
Guardrail	Positioning Device
Safety Monitoring System	
Safety Net	

4.2. For the majority of work performed at Okaloosa County the personal fall arrest system utilizing a lifeline with lanyard attached to an appropriate anchorage will be used.

4.3. Personal fall arrest systems-general

4.3.1. Personal fall arrest systems and their use shall comply with the provisions set forth below. Body belts are not acceptable as part of a personal fall arrest

system. Note: The use of a body belt in a positioning device system is acceptable.

4.3.2. Connectors shall be drop forged, pressed or formed steel, or made of equivalent materials.

4.3.3. Connectors shall have a corrosion-resistant finish, and all surfaces and edges shall be smooth to prevent damage to interfacing parts of the system.

4.3.4. Dee-rings and snaphooks shall have a minimum tensile strength of 5,000 pounds (22.2 kN).

4.3.5. Dee-rings and snaphooks shall be proof-tested to a minimum tensile load of 3,600 pounds (16 kN) without cracking, breaking, or taking permanent deformation.

4.3.6. Snaphooks shall be sized to be compatible with the member to which they are connected to prevent unintentional disengagement of the snaphook by depression of the snaphook keeper by the connected member, or shall be a locking type snaphook designed and used to prevent disengagement of the snaphook by the contact of the snaphook keeper by the connected member. Only locking type snaphooks shall be used.

4.3.7. Unless the snaphook is a locking type and designed for the following connections, snaphooks shall not be engaged:

4.3.7.1. directly to webbing, rope or wire rope;

4.3.7.2. to each other;

4.3.7.3. to a dee-ring to which another snaphook or other connector is attached;

4.3.7.4. to a horizontal lifeline; or

4.3.7.5. to any object which is incompatibly shaped or dimensioned in relation to the snaphook such that unintentional disengagement could occur by the connected object being able to depress the snaphook keeper and release itself.

4.3.8. On suspended scaffolds or similar work platforms with horizontal lifelines which may become vertical lifelines, the devices used to connect to a horizontal lifeline shall be capable of locking in both directions on the lifeline.

4.3.9. Horizontal lifelines shall be designed, installed, and used, under the supervision of a qualified person, as part of a complete personal fall arrest system, which maintains a safety factor of at least two.

4.3.10. Lanyards and vertical lifelines shall have a minimum breaking strength of 5,000 pounds (22.2 kN).

4.3.11. When vertical lifelines are used, each employee shall be attached to a separate lifeline.

4.3.12. Lifelines shall be protected against being cut or abraded.

4.3.13. Self-retracting lifelines and lanyards which automatically limit free fall distance to 2 feet (0.61 m) or less shall be capable of sustaining a minimum tensile load of 3,000 pounds (13.3 kN) applied to the device with the lifeline or lanyard in the fully extended position.

4.3.14. Self-retracting lifelines and lanyards which do not limit free fall distance to 2 feet (0.61 m) or less, ripstitch lanyards, and tearing and deforming lanyards shall be capable of sustaining a minimum tensile load of 5,000 pounds (22.2 kN) applied to the device with the lifeline or lanyard in the fully extended position.

4.3.15. Ropes and straps (webbing) used in lanyards, lifelines, and strength components of body belts and body harnesses shall be made from synthetic fibers.

4.3.16. Anchorages used for attachment of personal fall arrest equipment shall be independent of any anchorage being used to support or suspend platforms and capable of supporting at least 5,000 pounds (22.2 kN) per employee attached, or shall be designed, installed, and used as follows:

4.3.16.1. as part of a complete personal fall arrest system which maintains a safety factor of at least two; and

4.3.16.2. under the supervision of a qualified person.

4.3.17. Personal fall arrest systems, when stopping a fall, shall:

4.3.17.1. limit maximum arresting force on an employee to 900 pounds (4 kN) when used with a body belt;

4.3.17.2. limit maximum arresting force on an employee to 1,800 pounds (8 kN) when used with a body harness;

4.3.17.3. be rigged such that an employee can neither free fall more than 6 feet (1.8 m), nor contact any lower level;

4.3.17.4. bring an employee to a complete stop and limit maximum deceleration distance an employee travels to 3.5 feet (1.07 m); and,

4.3.17.5. have sufficient strength to withstand twice the potential impact energy of an employee free falling a distance of 6 feet (1.8 m), or the free fall distance permitted by the system, whichever is less.

4.3.18. The attachment point of the body belt shall be located in the center of the wearer's back. The attachment point of the body harness shall be located in

the center of the wearer's back near shoulder level, or above the wearer's head.

NOTE

Body belts, harnesses, and components shall be used only for employee protection (as part of a personal fall arrest system or positioning device system) and not to hoist materials.

4.3.19. Personal fall arrest systems and components subjected to impact loading shall be immediately removed from service and shall not be used again for employee protection until inspected and determined by a competent person to be undamaged and suitable for reuse.

4.3.20. The employer shall provide for prompt rescue of employees in the event of a fall or shall assure that employees are able to rescue themselves.

4.3.21. Personal fall arrest systems shall be inspected prior to each use for wear, damage and other deterioration, and defective components shall be removed from service.

4.3.22. Body belts shall be at least one and five-eighths (1 5/8) inches (4.1 cm) wide.

4.3.23. Personal fall arrest systems shall not be attached to guardrail systems, nor shall they be attached to hoists except as specified in other subparts of this Part.

4.3.24. When a personal fall arrest system is used at hoist areas, it shall be rigged to allow the movement of the employee only as far as the edge of the walking/working surface.

5. FALL PROTECTION REQUIREMENTS ON SPECIFIC COUNTY EQUIPMENT

5.1. Aerial Lifts – (bucket trucks, "cherry pickers")

Employees operating and/or riding on aerial lifts shall use a full body harness and 6 foot lanyard attached to appropriate anchor point when using equipment.

5.2. Articulating Boom Platforms

Employees operating and/or riding on articulating boom platforms shall use a full body harness and 6 foot lanyard attached to appropriate anchor point when using equipment.

5.3. Scaffolds

5.3.1. Each employee on a scaffold more than 10 feet (3.1 m) above a lower level shall be protected from falling to that lower level. Paragraphs 5.3.1 through 5.3.7 of this section establish the types of fall protection to be provided to the employees on each type of scaffold. Paragraph 5.3.2 of this section addresses fall protection for scaffold erectors and dismantlers.

5.3.1.1. Note to paragraph 5.3.1: The fall protection requirements for employees installing suspension scaffold support systems on floors, roofs, and other elevated surfaces are set forth in subpart M of 29 CFR 1926.

5.3.1.2. Each employee on a boatswains' chair, catenary scaffold, float scaffold, needle beam scaffold, or ladder jack scaffold shall be protected by a personal fall arrest system;

5.3.1.3. Each employee on a single-point or two-point adjustable suspension scaffold shall be protected by both a personal fall arrest system and guardrail system;

5.3.1.4. Each employee on a crawling board (chicken ladder) shall be protected by a personal fall arrest system, a guardrail system (with minimum 200 pound toprail capacity), or by a three-fourth inch (1.9 cm) diameter grabline or equivalent handhold securely fastened beside each crawling board;

5.3.1.5. Each employee on a self-contained adjustable scaffold shall be protected by a guardrail system (with minimum 200 pound toprail capacity) when the platform is supported by the frame structure, and by both a personal fall arrest system and a guardrail system (with minimum 200 pound toprail capacity) when the platform is supported by ropes;

5.3.1.6. Each employee on a walkway located within a scaffold shall be protected by a guardrail system (with minimum 200 pound toprail capacity) installed within 9 1/2 inches (24.1 cm) of and along at least one side of the walkway.

5.3.1.7. Each employee performing overhand bricklaying operations from a supported scaffold shall be protected from falling from all open sides and ends of the scaffold (except at the side next to the wall being laid) by the use of a personal fall arrest system or guardrail system (with minimum 200 pound toprail capacity).

5.3.1.8. For all scaffolds not otherwise specified in this section, each employee shall be protected by the use of personal fall arrest systems or guardrail systems meeting the requirements of paragraph 5.3.4 of this section.

5.3.2. A competent person shall determine the feasibility and safety of providing fall protection for employees erecting or dismantling supported scaffolds. Supervisors are required to provide fall protection for employees erecting or dismantling supported scaffolds where the installation and use of such protection is feasible and does not create a greater hazard.

5.3.3. In addition to meeting the requirements of section 5.1, personal fall arrest systems used on scaffolds shall be attached by lanyard to a vertical lifeline, horizontal lifeline, or scaffold structural member. Vertical lifelines shall not be used when overhead components, such as overhead protection or additional platform levels, are part of a single-point or two-point adjustable suspension scaffold.

5.3.3.1. When vertical lifelines are used, they shall be fastened to a fixed safe point of anchorage, shall be independent of the scaffold, and shall be protected from sharp edges and abrasion. Safe points of anchorage include structural members of buildings, but do not include standpipes, vents, other piping systems, electrical conduit, outrigger beams, or counterweights.

5.3.3.2. When horizontal lifelines are used, they shall be secured to two or more structural members of the scaffold, or they may be looped around both suspension and independent suspension lines (on scaffolds so equipped) above the hoist and brake attached to the end of the scaffold. Horizontal lifelines shall not be attached only to the suspension ropes.

5.3.3.3. When lanyards are connected to horizontal lifelines or structural members on a single-point or two-point adjustable suspension scaffold, the scaffold shall be equipped with additional independent support lines and automatic locking devices capable of stopping the fall of the scaffold in the event one or both of the suspension ropes fail. The independent support lines shall be equal in number and strength to the suspension ropes.

5.3.3.4. Vertical lifelines, independent support lines, and suspension ropes shall not be attached to each other, nor shall they be attached to or use the same point of anchorage, nor shall they be attached to the same point on the scaffold or personal fall arrest system.

5.3.4. Guardrail systems installed to meet the requirements of this section shall comply with the following provisions:

5.3.4.1. Guardrail systems shall be installed along all open sides and ends of platforms. Guardrail systems shall be installed before the scaffold is released for use by employees other than erection/dismantling crews.

5.3.4.2. The top edge height of toprails or equivalent member on supported scaffolds manufactured or placed in service after January 1, 2000 shall be installed between 38 inches (0.97 m) and 45 inches (1.2 m) above the platform surface. The top edge height on supported scaffolds manufactured and placed in service before January 1, 2000, and on all suspended scaffolds where both a guardrail and a personal fall arrest system are required shall be between 36 inches (0.9 m) and 45 inches (1.2 m). When conditions warrant, the height of the top edge may exceed the 45-inch height, provided the guardrail system meets all other criteria of paragraph 5.3.4.

5.3.4.3. When midrails, screens, mesh, intermediate vertical members, solid panels, or equivalent structural members are used, they shall be installed between the top edge of the guardrail system and the scaffold platform.

5.3.4.4. When midrails are used, they shall be installed at a height approximately midway between the top edge of the guardrail system and the platform surface.

5.3.4.5. When screens and mesh are used, they shall extend from the top edge of the guardrail system to the scaffold platform, and along the entire opening between the supports.

5.3.4.6. When intermediate members (such as balusters or additional rails) are used, they shall not be more than 19 inches (48 cm) apart.

5.3.4.7. Each toprail or equivalent member of a guardrail system shall be capable of withstanding, without failure, a force applied in any downward or horizontal direction at any point along its top edge of at least 100 pounds (445 n) for guardrail systems installed on single-point adjustable suspension scaffolds or two-point adjustable suspension scaffolds, and at least 200 pounds (890 n) for guardrail systems installed on all other scaffolds.

5.3.4.8. When the loads specified in paragraph 5.3.4.7 of this section are applied in a downward direction, the top edge shall not drop below the height above the platform surface that is prescribed in paragraph 5.3.4.2 of this section.

5.3.4.9. Midrails, screens, mesh, intermediate vertical members, solid panels, and equivalent structural members of a guardrail system shall be capable of withstanding, without failure, a force applied in any downward or horizontal direction at any point along the midrail or other member of at least 75 pounds (333 n) for guardrail systems with a minimum 100 pound toprail capacity, and at least 150 pounds (666 n) for guardrail systems with a minimum 200 pound toprail capacity.

5.3.4.10. Suspension scaffold hoists and non-walk-through stirrups may be used as end guardrails, if the space between the hoist or stirrup and the side guardrail or structure does not allow passage of an employee to the end of the scaffold.

5.3.4.11. Guardrails shall be surfaced to prevent injury to an employee from punctures or lacerations, and to prevent snagging of clothing.

5.3.4.12. The ends of all rails shall not overhang the terminal posts except when such overhang does not constitute a projection hazard to employees.

5.3.4.13. Steel or plastic banding shall not be used as a toprail or midrail.

5.3.4.14. Manila or plastic (or other synthetic) rope being used for toprails or midrails shall be inspected by a competent person as frequently as necessary to ensure that it continues to meet the strength requirements of paragraph 5.3 of this section.

5.3.4.15. Crossbracing is acceptable in place of a midrail when the crossing point of two braces is between 20 inches (0.5 m) and 30 inches (0.8 m) above the work platform or as a toprail when the crossing point of two braces is between 38 inches (0.97 m) and 48 inches (1.3 m) above the work platform. The end points at each upright shall be no more than 48 inches (1.3 m) apart.

6. PROTECTION FROM FALLING OBJECTS

6.1. When an employee is exposed to falling objects, hard hats will be worn and one of the following measures shall be implemented:

6.1.1. Erect toeboards, screens, or guardrail systems to prevent objects from falling from higher levels; or,

6.1.2. Erect a canopy structure and keep potential fall objects far enough from the edge of the higher level so that those objects would not go over the edge if they were accidentally displaced; or,

6.1.3. Barricade the area to which objects could fall, prohibit employees from entering the barricaded area, and keep objects that may fall far enough away from the edge of a higher level so that those objects would not go over the edge if they were accidentally displaced.

7. TRAINING

7.1. Program

7.1.1. The employer shall provide a training program for each employee who might be exposed to fall hazards. The program shall enable each employee to recognize the hazards of falling and shall train each employee in the procedures to be followed in order to minimize these hazards.

7.1.2. The employer shall assure that each employee has been trained, as necessary, by a competent person qualified in the following areas:

7.1.2.1. The nature of fall hazards in the work area;

7.1.2.2. The correct procedures for erecting, maintaining, disassembling, and inspecting the fall protection systems to be used;

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

7.1.2.4. The role of each employee in the safety monitoring system when this system is used;

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

7.1.2.6. The correct procedures for the handling and storage of equipment and materials and the erection of overhead protection; and

7.1.2.7. The role of employees in fall protection plans;

7.1.2.8. The standards contained in this subpart.

7.2. Certification Of Training

7.2.1. The supervisor shall verify compliance with this section by preparing a written certification record. The written certification record shall contain the name or other identity of the employee trained, the date(s) of the training, and the signature of the person who conducted the training or the signature of the employer. If the employer relies on training conducted by another employer or completed prior to the effective date of this section, the certification record shall indicate the date the employer determined the prior training was adequate rather than the date of actual training.

7.2.2. The latest training certification shall be maintained.

7.3. Retraining

7.3.1. When the supervisor has reason to believe that any affected employee who has already been trained does not have the understanding and skill required by this section, the supervisor shall retrain each such employee. Circumstances where retraining is required include, but are not limited to, situations where:

7.3.1.1. Changes in the workplace render previous training obsolete; or

7.3.1.2. Changes in the types of fall protection systems or equipment to be used render previous training obsolete; or

7.3.1.3. Inadequacies in an affected employee's knowledge or use of fall protection systems or equipment indicate that the employee has not retained the requisite understanding or skill.

FLAMMABLE AND COMBUSTIBLE LIQUIDS

1. PURPOSE

The purpose of this chapter is to establish requirements for the proper storage, transfer, and final use of flammable and combustible liquids used by Okaloosa County employees.

2. DEFINITIONS

2.1. **Closed Container** shall mean a container as herein defined, so sealed by means of a lid or other device that neither liquid nor vapor will escape from it at ordinary temperatures.

2.2. **Combustible Liquid** means any liquid having a flashpoint at or above 100 deg. F. (37.8 deg. C.) Combustible liquids shall be divided into two classes as follows:

2.2.1. **Class II liquids** shall include those with flashpoints at or above 100 deg. F. (37.8 deg. C.) and below 140 deg. F. (60 deg. C.), except any mixture having components with flashpoints of 200 deg. F. (93.3 deg. C.) or higher, the volume of which make up 99 percent or more of the total volume of the mixture.

2.2.2. **Class III liquids** shall include those with flashpoints at or above 140 deg. F. (60 deg. C.) Class III liquids are subdivided into two subclasses:

2.2.2.1. **Class IIIA liquids** shall include those with flashpoints at or above 140 deg. F. (60 deg. C.) and below 200 deg. F. (93.3 deg. C.), except any mixture having components with flashpoints of 200 deg. F. (93.3 deg. C.), or higher, the total volume of which make up 99 percent or more of the total volume of the mixture.

2.2.2.2. **Class IIIB liquids** shall include those with flashpoints at or above 200 deg. F. (93.3 deg. C.). This section does not cover Class IIIB liquids. Where the term "Class III liquids" is used in this section, it shall mean only Class IIIA liquids.

2.2.3. When a combustible liquid is heated for use to within 30 deg. F. (16.7 deg. C.) of its flashpoint, it shall be handled in accordance with the requirements for the next lower class of liquids.

2.3. **Flammable Liquid** means any liquid having a flashpoint below 100 deg. F. (37.8 deg. C.), except any mixture having components with flashpoints of 100 deg. F.

(37.8 deg. C.) or higher, the total of which make up 99 percent or more of the total volume of the mixture. Flammable liquids shall be known as Class I liquids. Class I liquids are divided into three classes as follows:

2.3.1. **Class IA** shall include liquids having flashpoints below 73 deg. F. (22.8 deg. C.) and having a boiling point below 100 deg. F. (37.8 deg. C.).

2.3.2. **Class IB** shall include liquids having flashpoints below 73 deg. F. (22.8 deg. C.) and having a boiling point at or above 100 deg. F. (37.8 deg. C.).

2.3.3. **Class IC** shall include liquids having flashpoints at or above 73 deg. F. (22.8 deg. C.) and below 100 deg. F. (37.8 deg. C.).

2.4. **Flashpoint** means the minimum temperature at which a liquid gives off vapor within a test vessel in sufficient concentration to form an ignitable mixture with air near the surface of the liquid.

2.5. **Safety Can** shall mean an approved container, of not more than 5 gallons capacity, having a spring-closing lid and spout cover and so designed that it will safely relieve internal pressure when subjected to fire exposure.

3. GENERAL REQUIREMENTS

3.1. Only approved containers and portable tanks will be used for storage and handling of flammable liquids. Approved metal safety cans will be used for the handling and use of flammable liquids in quantities greater that one gallon, except when applied to those that are highly viscid (extremely hard to pour), which may be used and handled in original shipping containers. For quantities of one gallon or less, only the original container or approved metal safety cans will be used for storage, use, and handling of flammable liquids.

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

3.3. All flammable and combustible containers will be labeled with the name of the liquid and hazard warning.

3.4. All flammable and combustible containers and tanks will be protected against collision.

4. INSIDE STORAGE OF FLAMMABLE AND COMBUSTIBLE LIQUIDS

4.1. No more than 25 gallons will be stored in a room outside of an approved storage cabinet.

4.2. Cabinets will be labeled in conspicuous lettering "Flammable - Keep Fire Away".

4.3. Not more than 60 gallons of flammable or 120 gallons of combustible liquids will be stored in any one storage cabinet. Not more than three such cabinets may be

located in a single-storage area. Quantities in excess of this shall be stored in an approved inside storage room.

4.4. Electrical wiring and equipment located in inside storage rooms shall be approved for Class I, Division 1, Hazardous Locations.

4.5. Every inside storage room shall be provided with either a gravity or a mechanical exhaust ventilation system. Such system shall be designed to provide for a complete change of air within the room at least six times per hour. If a mechanical exhaust system is used, it shall be controlled by a switch located outside of the door. The ventilating equipment and any lighting fixtures shall be operated by the same switch. A pilot light shall be installed adjacent to the switch if Class I flammable liquids are dispensed within the room. Where gravity ventilation is provided, the fresh air intake, as well as the exhaust outlet from the room shall be on the exterior of the building in which the room is located.

4.6. **Flammable and combustible liquid containers shall be in accordance with Table H-12.**

TABLE H-12 - MAXIMUM ALLOWABLE SIZE OF CONTAINERS AND PORTABLE TANKS

	Flammable liquids			Combustible liquids	
Container type	Class IA	Class IB	Class IC	Class II	Class III
Metal (other than DOT drums)....	1 gal	5 gal	5 gal	5 gal	5 gal.
Safety cans.....	2 gal	5 gal	5 gal	5 gal	5 gal.
Metal drums (DOT specifications).	60 gal	60 gal	60 gal	60 gal	60 gal.
Approved portable tanks.....	660 gal	660 gal	660 gal	660gal	660 gal.

NOTE-1: Container exemptions: [a] Medicines, beverages, foodstuffs, cosmetics, and other common consumer items, when packaged according to commonly accepted practices, shall be exempt from the requirements of this policy.

5. HANDLING LIQUIDS AT POINT OF FINAL USE

5.1. Flammable liquids will be kept in closed containers when not actually in use.

5.2. Leakage or spillage of flammable or combustible liquids will be disposed of promptly and safely.

5.3. Flammable liquids may be used only where there are no open flames or other sources of ignition within 50 feet of the operation, unless conditions warrant greater clearance.

HAND AND POWER TOOLS

1. PURPOSE

This chapter is to set out and define the proper use, inspection, and maintenance of hand tools, powered tools, and motorized equipment used by employees working at Okaloosa County. Numerous injuries occur every year from county employees improperly using or maintaining hand tools. Supervisors and employees shall make themselves familiar with all procedures in this policy.

Supervisors can get additional information by obtaining OSHA Pamphlet 3080, "Hand and Power Tools," Revised 1998, available via the Internet on page www.osha.gov/pls/publications/pbindex.list.

2. GENERAL REQUIREMENTS

2.1. Safety glasses will be worn when using any hammer, electrical drill, saw, tool and die cutter, grinder, sander, lathe, etc. or any tool or hand operation that may emit debris into the eyes. Personnel in the immediate area of the work being performed must also abide with this rule.

2.2. Employees using hand and power tools and exposed to the hazard of falling, flying, abrasive, and splashing objects, or exposed to harmful dusts, fumes, mists, vapors or gases, will be provided with the particular personal protective equipment necessary to protect them from the hazard.

2.3. Use the right tool for the right job. Inspect tools regularly for damage and defects. Replace or turn in all defective tools.

2.4. Wrenches, including adjustable, pipe, end, and socket wrenches, will not be used when jaws are sprung to the point that slippage occurs.

2.5. Impact tools such as drift pins, wedges, and chisels, will be kept free of mushroomed heads.

2.6. The wooden handles of tools will be kept free of splinters or cracks, and will be kept tight in the tool.

2.7. Do not carry sharp hand tools in clothes pockets.

2.8. Do not leave tools on top of ledges or ladders or lying around where they may cause a hazard.

2.9. All power tool guards will be in place while in operation and when required.

2.10. Use non-sparking tools in restricted areas that may cause explosion or fires.

2.11. Compressed air and other gasses under pressure must be used only for the purpose intended.

2.12. When using tools or power tools that may create sparks of flames, a fire watch must be provided.

2.13. Only qualified or licensed personnel shall operate power activated or power tools.

3. ELECTRICAL HAND AND POWER TOOLS

3.1. Double insulated portable electrical tools are internally grounded by incorporating insulation in case or frame when so designed. The wire containing one male plug will have two prongs in the place of three. Check the data plate on the tool to ensure that it states that the tool is "double insulated" and will not require prescribed ground wire and plug.

3.2. Personnel issued electrical tools will be responsible for their safe condition and operation.

3.3. Check all electrical cords for damage before using power tools

3.4. Always protect electrical cords from damage by oil. Ensure insulation is not frayed or broken, and keep clear of aisles where they may be run over by trucks or other equipment or cause a tripping hazard. If this happens, replace all frayed or broken cords.

3.5. Do not raise or lower power tools by their cords.

4. USE OF GROUND FAULT CIRCUIT INTERRUPTERS

4.1. In-line ground fault circuit interrupters (GFCI's) will be used on all electric hand power tools utilizing a drop cord powered directly from a two socket, 120 volt AC circuit. Note: GFCI's are not required for powered hand power tools that have a cord long enough to plug directly into the wall socket for operation.

4.2. Ground fault circuit interrupters used during confined space entries shall be placed outside the confined space during the entry.

4.3. Ground fault circuit interrupters will be tested prior to use. GFCI's failing the self-test will not be used and immediately taken out of service.

5. LADDER MAINTENANCE AND USE

5.1. All ladders must be used in compliance with safety instructions provided with ladder. No ladder will be painted as to hide possible breaks or weaknesses in the rungs or uprights.

5.2. All ladders (expandable and step) will be inspected for serviceability before each use by the person using the ladder. Ladders found damaged should be tagged and taken out of service.

5.3. Ladder components shall be surfaced so as to prevent injury to an employee from punctures or lacerations, and to prevent snagging of clothing.

5.4. A metal spreader or locking device shall be provided on each stepladder to hold the front and back sections in an open position when the ladder is being used.

5.5. Ladder shall not be placed in front of doors opening toward the ladder unless the door is blocked upon, locked, or guarded.

6. CHAIN SAW USE

6.1. Operating chain saws will require the mandatory use of chain saw resistant chaps, safety glasses, hard hat, ear protection, and safety shoes/toe caps. Failure to wear these items will result in disciplinary action up to and including termination. Leather gloves are suggested to be worn to relieve vibration.

6.2. Chain saws will be started by being placed firmly on the ground. The practice of starting the saw in the air is prohibited. Exception: chain saws may be drop started outside of the bucket of an aerial lift only if the area below the lift is clear of personnel.

6.3. Chain saws that have the chain rotate while motor is in idle will not be used until adjustments can be made by a qualified person.

6.4. Chain saws will not be running when being carried up into a tree or aerial lift.

6.5. Chain saws with damaged or inoperative emergency chain stop devices will be taken out of service for repair and not used until proper repairs are made.

6.6. When carrying a chain saw any distance, the saw will be carried by the handle, with motor stopped, emergency stop engaged, and guide bar to the rear.

6.7. When carrying the chain saw from cut to cut, the operator's finger will be removed from the trigger area.

6.8. Chain saws will be operated with sharp chain blades. Dull chain blades will be removed from service and sharpened as necessary. Possible results of dull chain blades are greater potential for kick back, and employees using twice as much effort

to operate saw. Both contribute to employee fatigue which could lead to personal injury.

6.9. When feasible, employees operating chain saws should employ the "buddy system" and not work alone.

6.10. Chain saws will be refueled with motor off and cool.

7. POWER LAWN MOWERS

This section pertains to walk-behind, riding-rotary, and reel power lawn mowers used throughout Okaloosa County.

7.1. General Requirements

7.1.1. All power lawn mowers used by Okaloosa County will conform to the following requirements:

7.1.1.1. All power-driven chains, belts, and gears shall be so positioned or otherwise guarded to prevent the operator's accidental contact during normal starting, mounting, and operation of the machine.

7.1.1.2. A shutoff device shall be provided to stop operation of the motor or engine. This device shall require manual and intentional reactivation to restart the motor or engine.

7.1.1.3. All positions of the operating controls shall be clearly identified. Used, worn or illegible placards will be replaced.

7.1.1.4. The words, "Caution. Be sure the operating control(s) is in neutral before starting the engine," or similar wording shall be clearly visible at an engine starting control point on self-propelled mowers.

7.1.1.5. The mower housing and/or blade guards shall be installed and in good working condition before mower can be used.

7.1.1.6. The word "Caution." or stronger wording shall be placed on the mower at or near each discharge opening.

7.1.2. Operators of walk behind lawn mowers will wear as a minimum, steel-toed shoes, hearing protection, and eye protection during operation. If steel-toed shoes are not available, protective toe caps will be worn. Leather gloves are suggested to reduce vibration on the hands.

7.1.3. All guards, protective devices, and deadman controls which come installed at purchase, will be maintained and retained on the lawn mower during use at Okaloosa County. These safety devices will not be removed, altered, or modified after purchase.

7.1.4. Lawn mowers will be refueled with motor off and cool.

7.2. Lawn Mower Maintenance

7.2.1. Before any part of any employee becomes exposed to lawn mower blade(s), the ignition will be placed in the "off" position, spark plug wires removed from the spark plug, controls neutralized, hydraulic power to blades relieved, and the blade(s) will be physically blocked as to prevent movement or accidental start-up.

7.2.2. The use of cut-resistant gloves is mandatory when handling, sharpening or making adjustments to reels and/or bed knives on reel mowers.

7.2.3. Sharpening lawn mower blades on grinding wheels will require the use of eye protection while sharpening.

7.2.4. To prevent inadvertent rotation of reels when setting clearances for reel blades to bed knives, the practice of placing a mechanical stop such as a wooden dowel or stick between the blades, will be used. Failure to use mechanical stops can produce cut, avulsed, or amputated fingers.

8. COMPRESSED AIR (PNEUMATIC) TOOLS

8.1. Only employees specially trained in their use may operate compressed air tools.

8.2. All pneumatic tools utilizing compressed air shall have tool retainers installed during use.

8.3. Hose and hose connections used for conducting compressed air to utilization equipment shall be so designed for the pressure and service to which they are subjected.

8.4. Safety clips or retainers must be installed on all times to prevent attachments from being ejected during tool operation.

8.5. Compressed air shall not be used for cleaning purposed except where the air pressure can effectively be reduced to no more than 30 psi., and then only with effective guarding and personal protective equipment.

9. HYDRAULIC TOOLS

9.1. Fluid for hydraulic tools must be approved fire resistant fluid, capable of operating at the temperatures to which it will be exposed, and be of the insulating type.

9.2. The manufacturer's recommended safe operating pressure for hoses, valves, pipes, filters, and other fittings must not be exceeded.

10. PORTABLE ABRASIVE WHEEL TOOLS (grinders/wire wheels)

10.1. The use of protective eyewear or face shield is mandatory when using portable grinders or wire wheels.

10.2. Grinder wheels will be inspected to be free from cracks before use. Test wheels by gently tapping the wheel with a non-metallic object. If the wheel does not give off a clear metallic ring, the wheel is cracked, unserviceable and not to be used.

10.3. Grinder abrasive wheels are not to be used above their stamped maximum spin speed.

10.4. Employees are to allow grinder wheels to reach maximum speed before applying the wheel to the work. Failure to do so may cause the wheel to break, possibly throwing flying pieces into employee.

11. ROPE

11.1. Rope shall be inspected before each use and, if unsafe (for example, because of damage or defect), may not be used.

11.2. Rope shall be stored away from cutting edges and sharp tools. Rope contact with corrosive chemicals, gas, and oil shall be avoided.

11.3. When stored, rope shall be coiled and piled, or shall be suspended, so that air can circulate through the coils.

11.4. Rope ends shall be secured to prevent their unraveling.

11.5. Climbing rope may not be spliced to effect repair.

HOUSEKEEPING

1. PURPOSE

1.1. To provide a clean and sanitary place of employment which is free from recognized hazards that could cause death or serious physical harm to employees, guests, or visiting contractors working for Okaloosa County.

1.2. It will be the responsibility of all employees and contractors to ensure that all areas maintained by Okaloosa County are kept clean. This chapter also applies to all construction sites, whether on County facilities or public parks.

2. POLICY

2.1. Inside Building, Facilities, And Repair Shops

2.1.1. The floor of every area of the facility will be maintained, so far as practicable, in a dry condition. Where wet processes are used, drainage will be maintained and false floors, platforms, mats, or other dry standing places will be provided. Where practicable or appropriate, waterproof and slip proof footwear is to be worn by employees.

2.1.2. Every floor, workplace, and passageway will be kept free from protruding objects, storage of equipment, pallets of products, and uncovered openings in the floor. Parts and equipment will be placed in designated and/or marked areas so that walkways are not blocked. Ice, grease, debris, and excessive water are to be kept clear from all walking surfaces.

2.1.3. All extinguishers, eye wash stations, and showers will be kept free from obstruction or blockage by any item which could hamper or prevent someone from obtaining it in an emergency.

2.2. Storage of Spare Parts, Salvage, Debris, Etc.

The project manager, construction coordinator, building manager is to establish an area for spare parts, salvage material, debris, sand and gravel. Each site is to be neat and orderly as practicable and free from hazards to employees.

2.3. Building Roofs & Stacks

2.3.1. **Roofs** - Roof areas are to be maintained, clean, and free of material.

2.3.2. **Stacks** - No material should be evident on roof vents. If material is stored on or close to vents or stacks, the material is to be removed immediately.

2.4. **Facility Ground Areas**

2.4.1. **Roads** - All are to be kept clean and void of obstacles, in good repair and clearly marked. There should be no roadway debris.

2.4.2. **Sand and Gravel Piles** - Employees will refrain from climbing on sand or gravel piles. Possible burial could result.

2.4.3. **County Vehicle Parking Areas** - All parking areas are to be kept free from loose lumber, trash, large stones or bricks, vehicle parts, excessive vehicle fluid spills. Fluid spills are to be cleaned up using absorbent and disposed of properly.

2.4.4. **Walkways** - Should be in good repair, clean, and free of obstacles.

2.4.5. **Grounds** - Are to be free of holes and/or debris. Proper drainage that doesn't cross walkways should be provided. Snow and ice is to be removed to eliminate interruptions of safe and orderly passage for equipment and pedestrians.

2.4.6. **Illumination** - All walkways and work areas are to be free of obstacles and have adequate lighting during the evening hours.

2.4.7. **Work Sites**

2.4.7.1. All work sites occurring throughout the County must be maintained in a neat and orderly fashion. The protection of patrons and visitors from unwanted hazards will continually be the goal.

2.4.7.2. Unnecessary tools and equipment will be picked up and stored when not in use.

2.4.7.3. Work sites will be barricaded off when necessary to prevent citizens from entering congested work areas.

3. CONTRACTORS

3.1. Contractors will be required to maintain housekeeping standards consistent with our housekeeping policy. It is the responsibility of the project coordinator, construction coordinator, and/or building manager to communicate this policy and assure compliance.

3.2. Construction areas will be viewed daily for purposes of assuring compliance with this policy.

INDUSTRIAL LIFT TRUCK OPERATION

1. PURPOSE

This policy is developed to establish a uniform policy for selecting and training Industrial Powered Lift Truck operators for Okaloosa County. This policy will ensure that all operators are trained in the proper use and in the safe operations of the industrial powered lift trucks.

2. POLICY

2.1. Safety is very important in the operation of powered industrial trucks. It is management's responsibility to provide the best equipment possible.

2.2. Each employee is obligated to use forklifts as safely as possible to prevent accidents involving employees and equipment. Employees should also communicate safety to each other whenever this equipment is in use.

3. RESPONSIBILITIES

Responsibilities are as follows:

3.3. Safety Inspections

3.3.1. Inspections should be done to each powered industrial truck before use, even if someone else has already used it.

3.3.2. Any and all problems should be reported to one's supervisor immediately who will schedule to have the powered industrial truck repaired by qualified individuals.

3.3.3. All areas of operation should be checked daily for any hazards.

3.4. Accident Reporting

3.4.1. All accidents involving employees and/or equipment no matter how small the damage should be reported immediately to a supervisor.

3.5. Fork Lift Use

3.5.1. All operators must attend a safety class as prescribed in Section 4.

3.5.2. Only qualified employees will be allowed to operate industrial lift trucks.

3.5.3. All operators must become familiar with the local facility regulations and safety features of the equipment.

3.6. Inspection Policy

3.6.1. The below procedures will be used before using any industrial lift truck at the beginning of any work operation.

3.6.2. At the beginning of your shift or at the time the section needs a powered industrial truck, an employee will check all conditions informing the section supervisor of any defects.

3.6.3. If any conditions exist with the powered industrial truck that is unsafe, the forklift should be pulled from duty and taken to qualified persons for repair.

3.7. Certification

3.7.1. Every Okaloosa County employee who has completed the operator's course for industrial lift trucks will receive an Operator's Permit.

3.7.2. Operator's Permits must be kept in the possession of the qualified employee during operation of the powered industrial truck.

3.7.3. Supervisors/employees are responsible in ensuring their Operator's Permits remain current. Supervisors should re-schedule training as required.

3.7.4. The department head shall ensure that each operator has been certified, trained and evaluated as required by section 4.0. The certification shall include the name of the operator, the date of the training, the date of the evaluation, and the identity of the person(s) performing the training or evaluation

4. TRAINING

4.1. Industrial lift truck operators will follow all general safety rules and any specific safety rules set forth within their respective work area. Training will be either contracted out provided by a reputable organization (i.e. CLARK, Inc.), or selected employees may be trained by a reputable training source and be used as in-house instructors. If neither of these two alternatives is possible, notify the County Risk Management Director for assistance.

4.2. Safe operation

4.2.1. The director shall ensure that each powered industrial truck operator is competent to operate a powered industrial truck safely, as demonstrated by the successful completion of the training and evaluation specified in this section.

4.2.2. Prior to permitting an employee to operate a powered industrial truck (except for training purposes), the Supervisor shall ensure that each operator has successfully completed the training required by this section.

4.2.3. Any operator will check the industrial lift truck before use regardless of whether someone else has been using it.

4.3. **Training program implementation**

4.3.1. Trainees may operate a powered industrial truck only:

4.3.1.1. Under the direct supervision of persons who have the knowledge, training, and experience to train operators and evaluate their competence; and

4.3.1.2. Where such operation does not endanger the trainee or other employees.

4.3.2. Training shall consist of a combination of formal instruction (e.g., lecture, discussion, interactive computer learning, video tape, written material), practical training (demonstrations performed by the trainer and practical exercises performed by the trainee), and evaluation of the operator's performance in the workplace.

4.3.3. All operator training and evaluation shall be conducted by persons who have the knowledge, training, and experience to train powered industrial truck operators and evaluate their competence.

4.4. **Training program content**

Powered industrial truck operators shall receive initial training in the following topics, except in topics which it can be demonstrated that the topic is not applicable to safe operation of the truck in the employee's workplace.

4.5. **Truck-related topics**:

- Operating instructions, warnings, and precautions for the types of truck the operator will be authorized to operate
- Differences between the truck and the automobile
- Truck controls and instrumentation: where they are located, what they do, and how they work
- Engine or motor operation
- Steering and maneuvering
- Visibility (including restrictions due to loading)
- Fork and attachment adaptation, operation, and use limitations

- Vehicle capacity
- Vehicle stability
- Any vehicle inspection and maintenance that the operator will be required to perform
- Refueling and/or charging and recharging of batteries
- Operating limitations
- Any other operating instructions, warnings, or precautions listed in the operator's manual for the types of vehicle that the employee is being trained to operate.

4.6. **Workplace-related topics**:

- Surface conditions where the vehicle will be operated
- Composition of loads to be carried and load stability
- Load manipulation, stacking, and unstacking
- Pedestrian traffic in areas where the vehicle will be operated
- Narrow aisles and other restricted places where the vehicle will be operated
- Hazardous (classified) locations where the vehicle will be operated
- Ramps and other sloped surfaces that could affect the vehicle's stability
- Closed environments and other areas where insufficient ventilation or poor vehicle maintenance could cause a buildup of carbon monoxide or diesel exhaust
- Other unique or potentially hazardous environmental conditions in the workplace that could affect safe operation

4.7. **Refresher training and evaluation**

4.7.1. Refresher training, including an evaluation of the effectiveness of that training, shall be conducted as required by the following section to ensure that the operator has the knowledge and skills needed to operate the powered industrial truck safely.

4.7.2. Refresher training in relevant topics shall be provided to the operator when:

4.7.2.1. The operator has been observed to operate the vehicle in an unsafe manner

4.7.2.2. The operator has been involved in an accident or near-miss incident

4.7.2.3. The operator has received an evaluation that reveals that the operator is not operating the truck safely

4.7.2.4. The operator is assigned to drive a different type of truck; or

4.7.2.5. A condition in the workplace changes in a manner that could affect safe operation of the truck.

4.7.3. An evaluation of each powered industrial truck operator's performance shall be conducted at least once every **three years**.

4.8. Avoidance of duplicative training

If an operator has previously received training in a topic specified in section 4.3, and such training is appropriate to the truck and working conditions encountered, additional training in that topic is not required if the operator has been evaluated and found competent to operate the truck safely.

5. RULES FOR INDUSTRIAL LIFT TRUCK USE

5.1. Truck operations

5.1.1. Trucks shall not be driven up to anyone standing in front of a bench or other fixed object.

5.1.2. No person shall be allowed to stand or pass under the elevated portion of any truck, whether loaded or empty.

5.1.3. Unauthorized personnel shall not be permitted to ride on powered industrial trucks. A safe place to ride shall be provided where riding of trucks is authorized.

5.1.4. The employer shall prohibit arms or legs from being placed between the uprights of the mast or outside the running lines of the truck.

5.1.5. Employees shall abide by the following when leaving the industrial lift truck unattended and/or parked:

5.1.5.1. When a powered industrial truck is left unattended, load engaging means shall be fully lowered, controls shall be neutralized, power shall be shut off, and brakes set. Wheels shall be blocked if the truck is parked on an incline.

5.1.5.2. A powered industrial truck is unattended when the operator is 25 ft. or more away from the vehicle which remains in his view, or whenever the operator leaves the vehicle and it is not in his view.

5.1.5.3. When the operator of an industrial truck is dismounted and within 25 ft. of the truck still in his view, the load engaging means shall be fully lowered, controls neutralized, and the brakes set to prevent movement.

5.1.6. A safe distance shall be maintained from the edge of ramps or platforms while on any elevated dock, or platform or freight car. Trucks shall not be used for opening or closing freight doors.

5.1.7. Brakes shall be set and wheel blocks shall be in place to prevent movement of trucks, trailers, or railroad cars while loading or unloading. Fixed jacks may be necessary to support a semi-trailer during loading or unloading when the trailer is not coupled to a tractor. The flooring of trucks, trailers, and railroad cars shall be checked for breaks and weakness before they are driven onto.

5.1.8. There shall be sufficient headroom under overhead installations, lights, pipes, sprinkler system, etc.

5.1.9. An overhead guard shall be used as protection against falling objects. It should be noted that an overhead guard is intended to offer protection from the impact of small packages, boxes, bagged material, etc., representative of the job application, but not to withstand the impact of a falling capacity load. The overhead guard is also not to be blocked with plywood or cardboard so as to protect the driver from rain.

5.1.10. A load backrest extension shall be used whenever necessary to minimize the possibility of the load or part of it from falling rearward.

5.1.11. Only approved industrial trucks shall be used in hazardous locations.

5.1.12. Whenever a truck is equipped with vertical only, or vertical and horizontal controls elevatable with the lifting carriage or forks for lifting personnel, the following additional precautions shall be taken for the protection of personnel being elevated.

5.1.12.1. Use of a safety platform firmly secured to the lifting carriage and/or forks.

5.1.12.2. Means shall be provided whereby personnel on the platform can shut off power to the truck.

5.1.12.3. Such protection from falling objects as indicated necessary by the operating conditions shall be provided.

5.1.13. Fire aisles, access to stairways, and fire equipment shall be kept clear.

5.2. Traveling

5.2.1. All traffic regulations shall be observed, including authorized plant speed limits. A safe distance shall be maintained approximately three truck lengths from the truck ahead, and the truck shall be kept under control at all times.

5.2.2. The right of way shall be yielded to ambulances, fire trucks, or other vehicles in emergency situations.

5.2.3. Other trucks traveling in the same direction at intersections, blind spots, or other dangerous locations shall not be passed.

5.2.4. The driver shall be required to slow down and sound the horn at cross aisles and other locations where vision is obstructed. If the load being carried obstructs forward view, the driver shall be required to travel with the load trailing.

5.2.5. Railroad tracks shall be crossed diagonally wherever possible. Parking closer than 8 feet from the center of railroad tracks is prohibited.

5.2.6. The driver shall be required to look in the direction of, and keep a clear view of the path of travel.

5.2.7. Grades shall be ascended or descended slowly.

5.2.7.1. When ascending or descending grades in excess of 10 percent, loaded trucks shall be driven with the load upgrade.

5.2.7.2. On all grades the load and load engaging means shall be tilted back if applicable, and raised only as far as necessary to clear the road surface.

5.2.8. Under all travel conditions the truck shall be operated at a speed that will permit it to be brought to a stop in a safe manner.

5.2.9. Stunt driving and horseplay shall not be permitted.

5.2.10. The driver shall be required to slow down for wet and slippery floors.

5.2.11. Dockboard or bridgeplates shall be properly secured before they are driven over and shall be driven over carefully and slowly and its rated capacity never exceeded.

5.2.12. Elevators shall be approached slowly, and then entered squarely after the elevator car is properly leveled. Once on the elevator, the controls shall be neutralized, power shut off, and the brakes set.

5.2.13. Motorized hand trucks must enter elevator or other confined areas with load end forward.

5.2.14. Running over loose objects on the roadway surface shall be avoided.

5.2.15. While negotiating turns, speed shall be reduced to a safe level by means of turning the hand steering wheel in a smooth, sweeping motion. Except when maneuvering at a very low speed, the hand steering wheel shall be turned at a moderate, even rate.

5.3. Loading

5.3.1. Only stable or safely arranged loads shall be handled. Caution shall be exercised when handling off-center loads which cannot be centered.

5.3.2. Only loads within the rated capacity of the truck shall be handled.

5.3.3. The long or high (including multiple-tiered) loads which may affect capacity shall be adjusted.

5.3.4. Trucks equipped with attachments shall be operated as partially loaded trucks when not handling a load.

5.3.5. A load engaging means shall be placed under the load as far as possible; the mast shall be carefully tilted backward to stabilize the load.

5.3.6. Extreme care shall be used when tilting the load forward or backward, particularly when high tiering. Tilting forward with load engaging means elevated shall be prohibited except to pick up a load. An elevated load shall not be tilted forward except when the load is in a deposit position over a rack or stack. When stacking or tiering, only enough backward tilt to stabilize the load shall be used.

5.4. Operation of the truck

5.4.1. If at any time a powered industrial truck is found to be in need of repair, defective, or in any way unsafe, the truck shall be taken out of service until it has been restored to safe operating condition.

5.4.2. Fuel tanks shall not be filled while the engine is running. Spillage shall be avoided.

5.4.3. Spillage of oil or fuel shall be carefully washed away or completely evaporated and the fuel tank cap replaced before restarting engine.

5.4.4. No truck shall be operated with a leak in the fuel system until the leak has been corrected.

5.4.5. Open flames shall not be used for checking electrolyte level in storage batteries or gasoline level in fuel tanks.

5.5. Tip Over Procedures

5.5.1. In case of tip over, the operator should observe the following:

5.5.1.1. Operator to remain in seat and not jump.

5.5.1.2. Grip steering wheel and brace feet.

5.5.1.3. Tip with truck.

6. MAINTENANCE OF INDUSTRIAL TRUCKS

6.1. Any power-operated industrial truck not in safe operating condition shall be removed from service. All repairs shall be made by authorized personnel.

6.2. No repairs shall be made in Class I, II, and III (flammable) locations.

6.3. Those repairs to the fuel and ignition systems of industrial trucks that involve fire hazards shall be conducted only in locations designated for such repairs.

6.4. Trucks in need of repairs to the electrical system shall have the battery disconnected prior to such repairs.

6.5. All parts of any such industrial truck requiring replacement shall be replaced only by parts equivalent as to safety with those used in the original design.

6.6. Industrial trucks shall not be altered so that the relative positions of the various parts are different from what they were when originally received from the manufacturer, nor shall they be altered either by the addition of extra parts not provided by the manufacturer or by the elimination of any parts, except as provided in paragraph 6.11 of this section. Additional counter weighting of fork trucks shall not be done unless approved by the truck manufacturer.

6.7. Industrial trucks shall be examined before being placed in service, and shall not be placed in service if the examination shows any condition adversely affecting the safety of the vehicle. Such examination shall be made at least daily. Where industrial trucks are used on a round-the-clock basis, they shall be examined after each shift. Defects when found shall be immediately reported and corrected.

6.8. Water mufflers shall be filled daily or as frequently as is necessary to prevent depletion of the supply of water below 75 percent of the filled capacity. Vehicles with mufflers having screens or other parts that may become clogged shall not be operated while such screens or parts are clogged. Any vehicle that emits hazardous sparks or flames from the exhaust system shall immediately be removed from service, and not returned to service until the cause for the emission of such sparks and flames has been eliminated.

6.9. When the temperature of any part of any truck is found to be in excess of its normal operating temperature, thus creating a hazardous condition, the vehicle shall be removed from service and not returned to service until the cause for such overheating has been eliminated.

6.10. Industrial trucks shall be kept in a clean condition, free of lint, excess oil, and grease. Noncombustible agents should be used for cleaning trucks. Low flash point (below 100 deg. F.) solvents shall not be used. High flash point (at or above 100 deg. F.) solvents may be used. Precautions regarding toxicity, ventilation, and fire hazard shall be consonant with the agent or solvent used.

6.11. Industrial trucks originally approved for the use of gasoline for fuel may be converted to liquefied petroleum gas fuel provided the complete conversion

results in a truck which embodies the features specified for LP or LPS designated trucks. Such conversion equipment shall be approved. The descriptions of the component parts of this conversion system and the recommended method of installation on specific trucks are contained in the OSHA standards.

Okaloosa County
INDUSTRIAL LIFT TRUCK OPERATOR
Permit

____________________________ Has successfully completed the Industrial Lift Truck Operator safety course taught in compliance with OSHA 29 CFR Part 1910.178, Subpart N - Materials Handling and Storage, Powered Industrial Lift Truck Operations.

____________________ Operators signature ____________ Course/Evaluation Date

____________________ Instructor's Signature ____________ Expiration Date

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____________________ Operators signature ____________ Course/Evaluation Date

____________________ Instructor's Signature ____________ Expiration Date

The employee noted on the opposite side is authorized to operate the following industrial lift equipment:

6000 lb. Forklift

Copy of the training certificate for this course must be maintained on file at this employee's work area or personnel records.

This permit is invalid without both sides filled out.

The employee noted on the opposite side is authorized to operate the following industrial lift equipment:

6000 lb. Forklift

Copy of the training certificate for this course must be maintained on file at this employee's work area or personnel records.

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OFFICE SAFETY

1. PURPOSE

To provide County employees safety rules for the office setting that are general in nature and are a designed to be observed throughout all office areas located within County property. Employees must realize safety encompasses all types of work areas, and office settings are no exception.

2. POLICY

2.1. Directors are responsible for ensuring compliance with this policy in all office areas under their control.

2.2. Every employee is to keep their workstation area neat, clean and free of hazards.

2.3. All rugs at entranceways or in aisles must be kept flat. Rugs allowed to gather produce possible trip hazards.

2.4. Electrical cords will be routed under desks and out of the way as best as possible. Cords that extend across aisles or walkways will be there only for a temporary basis and taped flat.

2.5. Electrical cords are to be inspected periodically for breaks or tears in insulation. Cords found with breaks or tears are to be repaired or replaced. Wrapping breaks in insulation with electrical tape is not acceptable.

2.6. Overloading of electrical outlets will not be permitted. Two socket outlets will only have two plugs installed at a time.

2.7. File cabinets will be loaded with heavier items to the lower drawers to avoid tipping when the top drawer is opened.

2.8. Paper Jams - Copiers, printers, and typewriters requiring protective covers to be removed to clear paper jams, will be unplugged before work begins.

2.9. File cabinet and desk drawers will be pushed back in after retrieving items from within. Extended idle drawers are a trip hazard.

2.10. Trashcans will be emptied of trash ***daily***.

2.11. Empty boxes and large trash will be placed out of any aisles, walkways, or emergency exits. These items will also be removed from the office area daily.

2.12. For items to be retrieved from tall places, a proper step stool or ladder will be used. Using chairs or desks for climbing is forbidden. Likewise, store heavy items on the bottom shelves and light items at the top.

2.13. Employees are to familiarize themselves with the emergency escape routes within their areas. If in doubt, ask your supervisor.

2.14. In case of fire, do not attempt to use elevators for exit. Always use stairs to avoid being trapped should a power outage occur.

2.15. Passageways and exits will be kept clear of all items. Also, storage of items in stairwells and near exits will not be allowed.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

1. PURPOSE

The purpose of this policy is to establish standards for the use, care and maintenance of Personal Protective Equipment (PPE) by Okaloosa County employees. Supervisors should perform hazard assessments on all employees under their control and provide training on proper personal protective equipment use.

2. GENERAL INFORMATION

2.1. The supervisor involved shall specify the designation and use of protective equipment for all jobs that have an inherent injury potential.

2.2. Detailed specifications for the design, purchase and use of all protective equipment shall be coordinated among authorized department personnel, supervisors, and users.

2.3. Employees shall be fully accountable for the use of specialized protective equipment provided by the employer.

2.4. Safety shoes/slip on protective toe covers and safety glasses shall be worn by the employee when required.

2.5. When the use of personal protective equipment has been specified and required by the department for hazardous work, ***its use shall be mandatory***. Supervisors shall be held accountable for employees working out of compliance. Educating employees on the reasons for using or wearing the articles and the possible injuries that can result when the need is ignored can make enforcement easier.

2.6. All personal protective equipment shall be maintained in a sanitary reliable state wherever its use is necessary by reason of chemicals or hazards.

2.7. All personal protective equipment shall be of safe design and construction. Defective and damaged equipment will not be worn and taken out of service immediately.

2.8. Equipment listed should be worn when hazards as described exist:

2.8.1. **Hard Hats**: Protect the head against falling objects, head bumping situations or electrical conductors, and to improve the visibility of the employee.

2.8.2. **Goggles, Face Shield, Safety Glasses**: Guard against flying debris, welding sparks, and splashing.

2.8.3. **Ear Plugs & Ear Muffs**: Guard against prolonged exposure to noise exceeding sound tolerance levels as defined by law or excessive noise exposure.

2.8.4. **Respirators, Gas masks, and Self-Contained Breathing Apparatus (SCBA)**: Protect employees against toxic or abnormal atmosphere conditions and dust.

2.8.5. **Safety Shoes/steel caps**: Protect feet against possible injury from articles that can be dropped or rolled or from sharp objects from penetrating the sole.

2.8.6. **Reflective Vests, Bright Articles**: To increase workers visibility while working in or around traffic lanes.

2.8.7. **Protective Clothing such as Gloves, Sleeves, Aprons, Leggings, and Full Suits**: Protect against lacerations, abrasions, bumps, heat, or melted metals, etc.

2.9. All employees required to wear personal protective equipment listed in this chapter must be trained in the use of the equipment as it relates to the specific potential hazard encountered at the worksite, the limitations of the equipment, and all training must be documented.

3. SPECIFIC REQUIREMENTS

3.1. **Eye And Face Protection** (Goggles, Face Shields, Safety Glasses)

3.1.1. Employees will wear eye and/or face protection when there is a reasonable chance that flying debris or chemicals may be blown or splashed into the eye.

3.1.2. Goggles will be worn where there is a chance debris can fly up and either strike directly at the eye or blow under at an angle.

3.1.3. Face shields will be worn for hazards that can inflict a direct hit toward the face and eyes.

3.1.4. Face shields will be worn for hazards that require the entire face from being struck (i.e., chemical splash).

3.1.5. A combination of both goggle and face shield will be worn for any chemical hazard where the Material Safety Data Sheet (MSDS) requires such protection.

3.1.6. Eye & face protection will be kept clean and in good repair.

3.1.7. Those employees requiring prescription glasses for vision may either use goggles fitted over the prescription glasses or wear prescription safety glasses (with side shields installed) which meet ANSI Standard Z87.1-2003.

3.1.8. Eye protection against high impact hazards will meet ANSI Standard Z87.1-2003. To verify, the lens or frame will be stamped with a "+" after Z87.

3.1.9. Prescription contact lenses will not be worn when using any welder. Damage to the eyes could occur should fumes get into the eyes.

3.1.10. It is suggested that prescription contact lens not be worn when spraying and applying chemicals. Damage to the eyes could occur should spray particulate get into the eyes and under the lens.

3.1.11. High impact eye protection is required when using any grinders, saws, lathe, drill presses, using compressed air to blow away debris, and welding goggles for welding.

3.1.12. High impact safety glasses will be worn when using any electrical drill, saw, tool and die cutter, grinder, sander, lathe, etc. or any tool or hand operation that may emit debris into the eyes. Personnel in the immediate area of the work being performed must also abide with this rule.

3.1.13. Employees using hand and power tools and exposed to the hazard of falling, flying, abrasive, and splashing objects, or exposed to harmful dusts, fumes, mists, vapors or gases, will be provided with the particular personal protective equipment necessary to protect them from the hazard.

NOTE

Employees wishing to use their own personal prescription eyewear must ensure that eyewear meets ANSI Standard Z87.1-2003 for either basic or high impact depending on the hazard being protected against. If not sure, employees are to contact the Risk Management Director prior to using any prescription lens glasses to protect against hazards described in this section.

3.2. **Respiratory Protection** (Respirators, Dust Masks, Self-Contained Breathing Apparatus)

3.2.1. Canister or cartridge type respirators are not acceptable while working in toxic or oxygen deficient atmospheres (less than 19.5% oxygen present).

3.2.2. Canister and/or Cartridge type respirators are only acceptable for use to protect against dust, mists or fumes in oxygen present atmospheres (19.5% - 23.5 %).

3.2.3. Employees will use an SCBA while working in or near areas where there is a hazardous atmosphere present and that also may be oxygen deficient in nature.

3.3. Head Protection

3.3.1. Hard hats are required to be worn at all times by all employees and contractors performing work where objects falling from above or from the side could injure the employee.

3.3.2. The employee shall maintain hard hats in a serviceable state. Should a hard hat become damaged, replace it prior to starting work.

3.3.3. Hard hats shall meet the requirements and specifications established in American National Standard Safety Requirements for Industrial Head Protection, ANSI Standard Z89.1-1986.

3.4. Foot Protection

3.4.1. All employees and contractors are required to wear steel-toed shoes/steel caps while working in areas where objects may be dropped or rolled onto employee's feet or where there is a possibility of sharp objects puncturing the bottom of the foot. Footwear must meet ANSI Standard Z41-1991.

3.4.2. Purchase and selection of steel-toed shoes/steel caps will be the responsibility of the director. Likewise, directors will determine which job positions within their department are required to wear safety shoes.

3.5. Ear Protection

3.5.1. Ear plugs and/or earmuffs will be worn when performing work where noise levels cannot be effectively reduced to 85 decibels over an 8-hour time weighted average.

3.5.2. Earmuffs are to be inspected prior to use for proper fit and seal around the ears. If an earmuff is found with seal around ear broken or damaged in any way, do not use the muff and notify your supervisor for replacement.

3.5.3. Ear protection is mandatory around the following items:

lawn mowers	weed eaters	chain saws
planers	joiners	band saws
table saws	blowers	portable rotary saws
leaf blowers	edgers	turf cutters
back hoes	tractors	brush chipper
stump machine	firearms	leaf vacuums
rollers	jack-hammers	fire apparatus during high idle

NOTE: This list is not all-inclusive. Employees should be aware that any piece of machinery or tool that produces enough noise so as to require the raising of the voice to speak to another employee may require hearing protection. When in doubt, use hearing protection.

3.6. Fall Protection / Lifelines, Slings, And Lanyards

3.6.1. Employees that are exposed to falls at heights of 6 feet or more from one level to the next must use personal fall protection employing lifelines, safety (body) harnesses and lanyards.

3.6.2. The following guidelines apply to fall protective equipment:

3.6.2.1. Lifelines, safety harnesses, and lanyards specifically stated for employee safeguarding shall be used only for that purpose. **The practice of lifting or lowering mechanical equipment, toting tools, or towing of vehicles with designated lifelines or lanyards, is strictly prohibited.**

3.6.2.2. Any lifeline, safety harnesses, or lanyard subjected to in-service loading (actually has been used in the prevention of a fall), as distinguished from static loading, shall be immediately removed from service and shall not be used again for employee safeguarding.

3.6.2.3. Lifelines will be secured above the point of operation to an anchorage of structural member capable of supporting a minimum dead weight of 5400 pounds.

3.6.2.4. Lifelines used where it may be subjected to cutting or abrasion, will be a minimum of 7/8-inch wire core manila rope. For all other lifeline applications, a minimum of 3/4-inch manila or equivalent will be used.

3.6.2.5. Safety harness lanyards will be a minimum of 1/2-inch nylon, or equivalent, with a maximum length to provide for a fall of no greater that 6 feet. The rope will have a nominal breaking strength of 5400 pounds.

3.6.2.6. All safety harnesses and lanyard hardware will be drop-forged, or pressed steel, cadmium plated in accordance with federal specifications. The surface will be smooth and free of sharp edges. They will be capable of withstanding a tensile loading of 4000 pounds without cracking.

4. TRAINING

4.1. Every Okaloosa County employee required to wear PPE will be provided training on Personal Protective Equipment (PPE). Overall responsibility for the PPE program within each department will be the responsibility of the director. Responsibility for employee training will fall directly on the immediate supervisor.

4.2. Each employee shall be trained to know the following:

- When PPE is necessary,
- What PPE is necessary,
- How to properly don, doff, and wear PPE,

- The limitations of PPE, and
- The proper care, maintenance, useful life and disposal of the PPE.

4.3. Each affected employee shall demonstrate and understand the training (as listed above), and the ability to use PPE properly, before being allowed to perform work requiring the use of PPE.

4.4. Recurring or remedial training will occur when the supervisor has reason to believe that any affected employee who has already been trained, does not have the understanding and the skill required by this section. If this happens, the immediate supervisor shall retrain the employee(s).

4.5. Circumstances where retraining is required include, but are not limited to, situations where:

4.5.1. Changes in the workplace render previous training obsolete;

4.5.2. Changes in the types of PPE to be used render previous training obsolete;

4.5.3. Inadequacies in the affected employee's knowledge of use of assigned PPE indicate that the employee has not retained the understanding or skill.

4.6. Completed training will require a written certification (verification) to be kept in a place as provided by the director.

PORTABLE FIRE EXTINGUISHER USE

1. PURPOSE

This policy will provide guidance for the safe selection, use and maintenance of portable fire extinguishers by Okaloosa County employees and visiting contractors.

2. DEFINITIONS

2.1. **Aqueous Film Forming Foam (AFFF)** means a fluorinated surfactant with a foam stabilizer which is diluted with water to act as a temporary barrier to exclude air from mixing with the fuel vapor by developing an aqueous film on the fuel surface of some hydrocarbons which is capable of suppressing the generation of fuel vapors.

2.2. **Carbon Dioxide** means a colorless, odorless, electrically nonconductive inert gas (chemical formula CO_2) that is a medium for extinguishing fires by reducing the concentration of oxygen or fuel vapor in the air to the point where combustion is impossible.

2.3. **Class A Fire** means a fire involving ordinary combustible materials such as paper, wood, cloth, and some rubber and plastic materials.

2.4. **Class B Fire** means a fire involving flammable or combustible liquids, flammable gases, greases and similar materials, and some rubber and plastic materials.

2.5. **Class C Fire** means a fire involving energized electrical equipment where safety to the employee requires the use of electrically nonconductive extinguishing media.

2.6. **Class D Fire** means a fire involving combustible metals such as magnesium, titanium, zirconium, sodium, lithium and potassium.

2.7. **Dry Chemical** means an extinguishing agent composed of very small particles of chemicals such as, but not limited to, sodium bicarbonate, potassium bicarbonate, urea-based potassium bicarbonate, potassium chloride, or monoammonium phosphate supplemented by special treatment to provide resistance to packing and moisture absorption (caking) as well as to provide proper flow capabilities. Dry chemical does not include dry powders.

2.8. **Dry Powder** means a compound used to extinguish or control Class D fires.

2.9. **Education** means the process of imparting knowledge or skill through systematic instruction. It does not require formal classroom instruction.

2.10. **Extinguisher Classification** means the letter classification given an extinguisher to designate the class or classes of fire on which an extinguisher will be effective.

2.11. **Extinguisher Rating** means the numerical rating given to an extinguisher that indicates the extinguishing potential of the unit based on standardized tests developed by Underwriters' Laboratories, Inc.

2.12. **Halon 1211** means a colorless, faintly sweet smelling, electrically nonconductive liquefied gas (chemical formula $CBrC1F_2$) which is a medium for extinguishing fires by inhibiting the chemical chain reaction of fuel and oxygen. It is also known as bromochlorodifluoromethane.

2.13. **Inspection** means a visual check of fire protection systems and equipment to ensure that they are in place, charged, and ready for use in the event of a fire.

2.14. **Maintenance** means the performance of services on fire protection equipment and systems to assure that they will perform as expected in the event of a fire. Maintenance differs from inspection in that maintenance requires the checking of internal fittings, devices and agent supplies.

2.15. **Multipurpose Dry Chemical** means a dry chemical that is approved for use on Class A, Class B and Class C fires.

2.16. **Training** means the process of making proficient through instruction and hands-on practice in the operation of equipment, including respiratory protection equipment, that is expected to be used and in the performance of assigned duties.

3. GENERAL REQUIREMENTS

3.1. Portable fire extinguishers shall be provided for employee use and selected and distributed based on the classes of anticipated workplace fires on the size and degree of hazard that would affect their use.

3.2. Fire extinguishers rated for Class A fires shall be mounted so that the travel distance for employees to any extinguisher is 75 feet or less.

3.3. Fire extinguishers rated for Class B fires shall be mounted so that the travel distance for employees to any extinguisher is 50 feet or less.

3.4. Fire extinguishers rated for Class C fires shall be mounted so that the travel distance for employees to any extinguisher is 75 feet or less.

3.5. County vehicles will have fire extinguishers available mounted within the vehicle. The director will coordinate the annual inspection for extinguishers assigned to County vehicles.

4. CLASSES OF FIRES

4.1. **Class A Fires** - Fires involving ordinary combustible materials (wood, cloth, rubber, etc.)

4.2. **Class B Fires** - Fires involving flammable liquids (oils, grease, paints, etc.)

4.3. **Class C Fires** - Fires involving energized electrical equipment.

4.4. **Class D Fires** - Fires involving combustible metals (magnesium, sodium, etc.)

5. PROCEDURES

5.1. Portable fire extinguishers will be mounted, located and identified, so that they are readily accessible to employees without subjecting the employee to possible injury. Extinguishers having a gross weight not exceeding 40 lbs. will be installed so that the top of the extinguisher is no more than five (5) feet above the floor. Extinguisher having a gross weight greater than 40 lbs. will be so installed so that the top of the extinguisher is no more than three and one-half (3 1/2) feet above the floor.

5.2. Portable fire extinguishers will be maintained in a fully charged and operable condition. They should be kept in their designated place at all times, except during use.

5.3. Portable fire extinguishers will be located so as to be easily identified from a reasonable distance.

5.4. Portable fire extinguishers will have as a minimum an inspection tag attached showing an annual maintenance inspection date either punched, stamped or written. For those that have the extinguisher mounted exposed to the elements, a plastic or plastic coated card is preferred.

6. INSPECTION, MAINTENANCE AND TESTING

6.1. Portable fire extinguishers shall be visually inspected **monthly**. This inspection shall include a check of at least the following items:

- Located in a designated space
- No obstructions to access or visibility
- Operating instructions on nameplate legible and facing outward
- Seals and tamper indicators not broken or missing
- Determine fullness by weighing or "lifting"
- Examine for obvious physical damage, corrosion, leakage, or clogged nozzle

- Pressure gauge reading or indicator in the operable range or position
- Inspection tag securely attached

6.2. This inspection will be recorded on the inspection tag and kept with the extinguisher.

6.3. Extinguishers will be subject to an annual maintenance check by qualified personnel.

6.4. Stored pressure dry chemical extinguishers require a 12-year hydrostatic test, will be emptied and subjected to applicable maintenance procedures every 6 years. Dry chemical extinguishers having non-refillable disposable containers are exempt from this requirement. Non-refillable disposable containers will be discarded after 12 years. All rechargeable dry chemical fire extinguishers require hydrostatic testing every 6 years.

6.5. A replacement fire extinguisher or an equivalent protection will be provided when portable fire extinguishers are removed from service for maintenance and recharging.

7. TRAINING AND EDUCATION

7.1. Where portable fire extinguishers are provided for employee's use in the workplace, an education program to familiarize employees with the general principles of fire extinguisher use and the hazards involved with incipient stage fire fighting will be in place. Directors are responsible for coordinating instruction and ensuring training is performed.

7.2. Fire extinguisher training will be provided upon initial employment and at least annually thereafter.

7.3. Training programs will include, but are not limited to the following:

7.3.1. Classification of A, B, and C fires.

7.3.2. Types of fire extinguishers.

7.3.3. How to operate fire extinguishers.

7.3.4. How to extinguish fires.

Okaloosa County, Florida

FIRE EXTINGUISHER USE TRAINING CERTIFICATION

I, _____, affirm that I have received training in the use of portable fire extinguishers in accordance with Okaloosa County's safety policies. The training included, but was not limited to the following:

1. Classification of A, B, and C fires.
2. Types of fire extinguishers.
3. How to operate fire extinguishers.
4. How to extinguish fires.

NAME _____

DATE _____

TRAINER_____

VEHICLE MOUNTED WORK PLATFORMS

1. PURPOSE

To establish a uniform policy for selecting and training powered platform operators for Okaloosa County employees and contractors, and will ensure that all operators are trained in the proper use and in the safe operations of vehicle mounted work platforms.

2. DEFINITIONS

2.1. **Aerial Device** means any vehicle-mounted device, telescoping or articulating, or both, which is used to position personnel.

2.2. **Aerial Ladder** means an aerial device consisting of a single or multiple section extensible ladder.

2.3. **Articulating Boom Platform** means and aerial device with two or more hinged boom sections.

2.4. **Extensible Boom Platform** means an aerial device (except ladders) with a telescopic or extensible boom. Telescopic derricks with personnel platform attachments shall be considered to be extensible boom platforms when used with a personnel platform.

2.5. **Insulated Aerial Device** means an aerial device designed to work on energized lines and apparatus.

2.6. **Mobile Unit** means a combination of an aerial device, its vehicle, and related equipment.

2.7. **Platform** means any personnel-carrying device (basket or bucket) which is a component of an aerial device.

2.8. **Vehicle** means any carrier that is not manually propelled.

2.9. **Vertical Tower** means an aerial device designed to elevate a platform in a substantially vertical axis.

3. POLICY

3.1. Vehicle mounted work platform operators will follow all general safety rules and any specific safety rules set forth within their respective work area.

3.2. The manufacturers literature (i.e., operations manual, instruction manual, etc.) supplied with the vehicle mounted work platform will be kept and maintained for the life of the equipment. Departments having older equipment or not having literature should attempt to contact the manufacturer and request copies of the manuals, if possible. Operators are required to become familiar with the operating literature and understand the functions of the equipment as part of the safety training process.

3.3. Safety Inspections

3.3.1. Inspections will be performed before use, even if someone else has already used it.

3.3.2. Any time vehicle mounted work platform is found out of repair, defective, or in any way unsafe, that platform or lift will be immediately taken out of service.

3.3.3. Any and all problems should be reported to the supervisor immediately who will schedule to have the aerial lift repaired by qualified individuals.

3.3.4. All areas of operation should be checked daily for any hazards.

3.4. Accident Reporting

All accidents involving employees and/or equipment no matter how small, will be reported immediately to a supervisor.

3.5. Vehicle-mounted Work Platform Use

3.5.1. All operators must attend a safety class as prescribed in section 5.

3.5.2. Only qualified employees will be allowed to operate aerial lifts.

3.5.3. All operators must become familiar with the local facility regulations and safety features of the equipment.

4. SPECIFIC REQUIREMENTS

4.1. Operators are responsible for understanding and practicing the following safety rules and requirements.

4.2. Only those persons who have been trained in the proper use and have valid training documents will be allowed to operate an aerial lift.

4.3. All operators should read and understand the operator's manual (if available).

4.4. Any operator should check the aerial lift before use regardless of whether someone else has been using it.

4.5. Lift controls shall be tested prior to use to determine such controls are in safe working condition.

4.6. Unauthorized passengers shall not be permitted to ride on aerial lift. The manufacturer's weight limit will be adhered to at all times.

4.7. No one shall be allowed to stand or walk under elevated platforms. Possible injury could result from tools or equipment falling off elevated platform.

4.8. If at any time, an aerial lift is found to be out of repair, defective, or in any way unsafe, the matter shall be reported immediately to the supervisor.

4.9. Operators shall never put their arms or legs between the cross members of an extended aerial lift.

4.10. Articulating boom and extensible boom platforms, primarily designed as personnel carriers, shall have both platform (upper) and lower controls. Upper controls shall be in or beside the platform within easy reach of the operator. Lower controls shall provide for overriding the upper controls. Controls shall be plainly marked as to their function. Lower level controls shall not be operated unless permission has been obtained from the employee in the lift, except in case of emergency.

4.11. Belting off to an adjacent pole, structure, or equipment while working from an aerial lift shall not be permitted.

4.12. Operators shall always stand firmly on the floor of the basket, and shall not sit or climb on the edge of the basket or use planks, ladders, or other devices for a work position.

4.13. A body harness shall be worn and a lanyard attached to the boom or basket when working from an aerial lift.

4.14. The brakes shall be set and outriggers shall be positioned on pads or a solid surface. Wheel chocks shall be installed before using an aerial lift.

4.15. An aerial lift truck may not be moved when the boom is elevated in a working position with personnel in the basket, except for equipment that is specifically designed for this type of operation.

4.16. The insulation portion of an aerial lift shall not be altered in any manner that might reduce its insulating value.

4.17. Before moving an aerial lift for travel, the boom(s) shall be inspected to see that it is properly cradled and outriggers are in stowed position.

5. OPERATOR TRAINING

5.1. Work platform operators will follow all general safety rules and any specific safety rules set forth within their respective work area. Training will be either contracted out provided by a reputable organization (i.e. CLARK, Inc.), or selected employees may be trained by a reputable training source and be used as in-house instructors. If neither of these two alternatives is possible, notify the County Risk Management Director for assistance.

5.2. The training program will include as a minimum:

5.2.1. **Operator Requirements**

5.2.1.1. Must be trained in work platforms.

5.2.1.2. Have documentation showing training.

5.2.1.3. Operators will be instructed before operating equipment and **every three years** subsequent.

5.2.2. **Operator Training**

5.2.2.1. Acquaint operator with work platform.

5.2.2.2. Teach operator fundamental rules of operation.

5.2.2.3. Continued emphasis on safe operations. A visual safety inspection will be completed before operating a work platform.

5.2.3. **General Safety Rules**

Industrial work platform operation (section 3 of policy)

5.2.4. **Maintenance**

Only trained and authorized personnel to make repairs.

5.2.5. **Personal Protective Equipment**

Protective equipment to be worn as required.

WELDING & CUTTING SAFETY

1. PURPOSE

The purpose of this policy is to establish standards for welding, cutting and burning operations for Okaloosa County. This policy applies to all employees and visiting contractors while working and providing services throughout all work sites under the authority of Okaloosa County. This policy will regulate not only welding and cutting, but all forms of spark or heat producing operations occurring in work areas where the potential for ignition or combustion of materials is possible.

2. RESPONSIBILITIES

2.1. Management will be responsible for the safe usage of welding and cutting equipment.

2.2. A Hot Work Permit will be filled out when performing welding/cutting where danger may exist as set forth in this policy.

2.3. The director or designee will authorize welding and cutting operations.

2.4. The director will ensure that welders or cutters are suitably trained in the safe operation of their equipment and the safe use of the process.

2.5. The director/project coordinator will inform all contractors about flammable materials or hazardous conditions and ensure a safety briefing has been given to the main contracting manager or foreman.

2.6. The supervisor and employees will be responsible for the following:

2.6.1. Safe handling of the welding or cutting equipment and the safe use of the welding or cutting process.

2.6.2. Determining the combustible materials and hazardous areas present or likely to be present in the work location.

2.6.3. Protecting combustibles from ignition by the following:

2.6.3.1. Have the work moved to a location free from dangerous combustibles,

2.6.3.2. If the work cannot be moved, have the combustibles moved to a safe distance from the work or have the combustible properly shielded against ignition,

2.6.3.3. Monitor air and properly ventilate the working space of toxic or flammable gasses or vapors prior to work, or

2.6.3.4. See that welding and cutting are so scheduled that facility operations that might expose combustibles to ignition are not started during welding or cutting.

2.6.4. Securing authorization for welding or cutting operations from the designated management representative.

2.6.5. Ensuring that the welder secures his approval that conditions are safe before going ahead.

2.6.6. Ensuring that fire protection and extinguishing equipment are properly located at the site.

2.6.7. Ensuring that firewatchers are on the site when they are required.

2.7. All supervisors, employees, and contractors performing welding/cutting will be trained in the proper procedures. The training program will include topics covered in section 3 of this policy.

2.8. Safety procedures and hazards associated with specific areas of Okaloosa County departments will be reviewed with all employees and contractors performing welding & cutting work on site.

2.9. Welding/cutting in a posted confined space will require securing a confined space permit in addition to a hot work permit.

3. PROCEDURES

3.1. Basic Precautions

3.1.1. To prevent inadvertent fire damage, employees will provide a safe area to weld or grind in accordance to specific steps. The basic precautions for fire prevention in welding or cutting work are listed below and should be followed in the order listed.

3.1.1.1. Step 1: If the object to be worked on cannot readily be moved, all movable fire hazards such as solids, liquids, or gases in the vicinity, will be ventilated or objects taken to a safe place.

3.1.1.2. Step 2: If objects to be worked cannot be moved and if all fire or explosion hazards cannot be removed, then guards will be used to confine the heat, sparks, and slag, and protect the immovable fire hazards.

NOTE

If the requirements stated in steps 1 and 2 above cannot be followed, then welding / cutting will not be performed.

3.1.2. Wherever there are floor openings or cracks in the flooring that cannot be closed, precautions will be taken so that no readily combustible materials on the floor below will be exposed to sparks which might drop through the floor. The same precautions will be observed with regard to cracks or holes in walks, open doorways, and open or broken windows.

3.1.3. Fire extinguishing equipment will be maintained in a state of readiness for instant use.

3.2. **Fire Watchers**

3.2.1. Fire watchers will be required whenever welding/cutting is performed where any of the following conditions exist:

3.2.1.1. Appreciable combustible material in building construction or contents that is closer than 35 feet to the point of operation.

3.2.1.2. Appreciable combustible materials are more than 35 feet away but are easily ignited by sparks.

3.2.1.3. Wall or floor openings within a 35 foot radius which expose combustible material in adjacent areas concealed spaces in walls or floors, and

3.2.1.4. Combustible materials are adjacent to the opposite side of metal partitions, walls, ceilings, or roofs and are likely to be ignited by conduction or radiation.

3.2.2. Fire watchers will:

3.2.2.1. Have fire extinguishing equipment readily available and trained in its use.

3.2.2.2. Be familiar with facilities for sounding an alarm in the event of a fire.

3.2.2.3. Watch for fires in all exposed areas, try to extinguish them only when obviously within the capacity of the equipment available, or otherwise sound the alarm.

3.3. **Restrictions**

3.3.1. Welding/cutting **will not** be permitted in the following situations:

3.3.1.1. In areas not authorized by the director.

3.3.1.2. In sprinkler equipped buildings while such protection is impaired.

3.3.1.3. In the presence of explosive atmospheres (mixtures of flammable gases, vapors, liquids, or dust with air), or explosive atmospheres that may develop inside uncleaned or improperly prepared tanks or equipment which have previously contained such materials, or that may develop in areas with an accumulation of combustible dust.

3.3.1.4. In any posted confined space without first securing a confined space permit.

3.3.1.5. In areas near the storage of large quantities of exposed, readily ignitable materials.

3.4. **Protection of Personnel**

3.4.1. Personal Protective Equipment Requirements, General:

3.4.2. A welder or helper working on platforms, scaffolds, manholes, or runways will be protected against falling. This may be accomplished by the use of railings, safety belts, lifelines, or some other equally effective safeguards.

3.4.3. Helmets or hand shields will be used during all arc welding or cutting operations. Helpers or standby persons will be provided with eye protection that is approved for welding.

3.4.4. Goggles or other suitable eye protection will be used during all gas welding or oxygen cutting operations.

3.4.5. All operators and attendants of welding, cutting equipment are required to use transparent face shields or goggles, depending on their particular job. This is to protect their faces and/or eyes.

3.4.6. Employees to protect the face, neck and ears from direct radiant energy from the arc will wear helmets and hand shields.

3.4.7. Goggles will be ventilated to prevent fogging of the lens as much as practicable.

3.4.8. Employees exposed to the hazards created by welding, cutting or burning operations will be protected by personal protective equipment. Personal protective clothing is required for all welding operation and will vary with the size, nature, and location of the work to be performed.

4. SAFE WELDING AND CUTTING PRACTICES

4.1. Each operator will be acquainted with the welding equipment and its safe operation, the gases to be used, and the materials to be worked on before any welding or cutting is done.

4.2. All fittings, hose connections, regulators, valves, and safety devices must be checked for leaks and proper working condition. Soap suds (never open flame) should be used for leak detection tests.

4.3. Hose, valves, regulators and other apparatus must be kept clean. In no case should oil or grease be permitted to come in contact with any portion of the oxygen equipment.

4.4. When parallel lengths of oxygen and fuel hose are taped together for convenience, and to prevent tangling, not more than 4 inches out of 12 will be covered by tape.

4.5. Hose connections will be clamped or otherwise securely fastened in a manner that will withstand, without leaking, twice the pressure they are normally subjected to, but in no case less than 300 psi.

4.6. Hoses showing leaks, burns, worn places, or other defects must be repaired or replaced before being used.

4.7. The generally recognized colors are: red for acetylene and other fuel gas hoses, green for oxygen hoses, and black for inert gas, an air hose.

4.8. Pressure from cylinders should be reduced through regulators designed and marked for the product being used.

4.9. Matches or hot metal will not be used to light a torch. A friction lighter or pilot is the only safe method.

4.10. All torches must have flash back protection installed to prevent flash back into the torch and/or cylinders.

4.11. Acetylene will never be used at pressures in excess of 15 psi unless special job requirements dictate otherwise.

4.12. Suitable eye, face and body protection must be worn at all times.

4.13. Adequate protective clothing should be used, as the job requires.

4.14. Cylinder valves should be opened slowly and keys or handles should be left on the valve stem while in service. Operators must stand clear of the face of the regulators when cracking a cylinder valve.

4.15. Only approved wrenches will be used. Valves must not be hammered or forced open.

4.16. All cylinders will be securely fastened to a cart, or other carrier, in an upright position during and after use.

4.17. The acetylene and oxygen hose should never be left inside tanks, vessels or enclosed areas when not in use.

4.18. Proper fire extinguishing equipment must be readily available at all times. Work should be supported on non-combustible material.

4.19. Proper ventilation must be provided or respiratory equipment used when cutting or welding where toxic fume conditions are present.

4.20. Welding or cutting must never be done in an explosive or fire hazardous area. Tanks or manholes, which have contained flammable materials, should be thoroughly purged or ventilated and instrument tested before welding or cutting.

4.21. Atmospheric conditions must be checked at least hourly for combustible levels.

5. EYE PROTECTION GUIDELINES

5.1. Employees performing welding/cutting operations are required to wear the appropriate personal protective equipment (PPE) for the eyes. This policy also applies to all apprentices and helpers assisting in welding tasks.

5.2. The following table provides guidelines on the filter lens requirements as related to specific welding types:

(This area intentionally left blank)

FILTER LENSES FOR PROTECTION AGAINST RADIANT ENERGY

Operation	Electrode Size inches (mm)	Arc Current (Amps)	Minimum Protective Shade	Suggested Number Shade (Comfort)
Shielded metal arc welding	< 3 in. (< 2.5 mm) 3-5 in. (2.5-4 mm) 5-8 in. (4-6.4 mm) > 8 in. (> 6.4 mm)	< 60 amps 60-160 amps 160-250 amps 250-550 amps	7 8 10 11	7 10 12 14
Gas metal Arc welding & flux Cored arc welding		< 60 amps 60-160 amps 160-250 amps 250-550 amps	7 10 10 10	7 11 12 14
Gas tungsten arc welding		< 50 amps 50-150 amps 150-500 amps	8 8 10	10 12 14
Air carbon arc cutting	(Light) (Heavy)	< 500 amps 500-1000 amps	10 11	12 14
Plasma arc welding		< 20 amps 20-100 amps 100-400 amps 500-800 amps	6 8 10 11	8 10 12 14
Plasma arc cutting	(Light) (Medium) (Heavy)	< 300 amps 300-400 amps 400-800 amps	8 9 10	9 12 14
Torch brazing Torch soldering Carbon arc welding			3 2 14	3 2 14
Gas welding: Light Medium *Heavy*	Under1/8 1/8 to 1/2 Over 1/2	Under 3.2 3.2 to 12.7 Over 12.7	4 5 6	4 5 6
Oxygen cutting: Light Medium Heavy	Under 1 1 to 6 Over 6	Under 25 25 to 150 Over 150	3 4 5	3 4 5

6. HOT WORK PERMIT SYSTEM - RESPONSIBILITIES:

6.1. **Supervisor** will:

6.1.1. Inspect area for which permit will apply and ensure all precautions listed on permit have been performed.

6.1.2. Sign permit in "Permit Approval" block authorizing work.

6.1.3. Perform final inspection 30 minutes after last welding or cutting work was performed, examining for any signs of sparks, open flame, or combustion.

6.1.4. Retain original copy for file.

NOTE

Supervisor may authorize designees to perform the above duties. Original copy of Hot Work Permit must still be forwarded to director for file when work is completed.

6.2. **Welder/Cutter** will:

6.2.1. Obtain permit for any hot work to be performed.

6.2.2. Fill out top section of Hot Work Permit.

6.2.3. Post Hot Work Permit at work area.

6.2.4. Provides a Fire Watch individual for all work meeting requirements as set in section 3.2, "Fire Watchers."

6.2.5. Leave Hot Work Permit in work area up to 60 minutes after work has completed for fire watch notification.

6.2.6. Return Hot Work Permit to director (or designee) for final inspection of area.

6.3. **Fire Watch**

A fire watch will be provided and trained in accordance with section 3.2, "Fire Watchers."

HOT WORK PERMIT
OKALOOSA COUNTY, FLORIDA

PERMIT APPLIES TO AREA LISTED BELOW:

Permit Requested By			
Date	Start Time	Stop Time	**Permit Expires**
Location of Work			Floor
Description of Work Being Performed			

Safety Precautions

ATTENTION

Before approving any welding and cutting, the Supervisor shall inspect the work area and confirm that the below precautions have been taken to prevent fire. **(in accordance with NFPA, No.51B)**

( ) Sprinklers are in service.
( ) Cutting and welding equipment is in good repair.

Within 35 Feet of Work

( ) Floors swept clean of combustibles.
( ) Combustible floors wet down, covered with damp sand or fire resistive sheets.
( ) Flammable liquids removed; other combustibles, if not removed, protected with fire resistant tarpaulins or metal shields.
( ) Explosive atmosphere in area eliminated.
( ) All wall and floor openings covered.
( ) Fire resistive tarpaulins suspended beneath work.

Work on Walls or Ceilings

( ) Construction is noncombustible and without combustible covering or insulation.
( ) Combustibles moved away from other side of wall.

Work on Enclosed Equipment

( ) Enclosed equipment clean of all combustibles.
( ) Containers purged of flammable liquids.

Fire Watch

( ) Will be provided during and 60 minutes after operation.
( ) Supplied with extinguisher and small hose.
( ) Trained in use of equipment and activating fire alarm.

Permit Approval

The location where this work is to be done has been examined, above necessary precautions taken, and permission is granted for this work.

Signature _____ Date _____ Time _____
Supervisor

Final Inspection

After work has been completed, work area and adjacent areas where sparks and heat might have spread were inspected for at least **60 minutes,** and no signs of fire were found.

Signature _____ Time _____
Supervisor

This Permit should be completely filled out before any welding, cutting or brazing can be performed.
Permit must be returned to Supervisor/Manager when work is completed.

HOT WORK PERMIT
Air Sampling Results

This side of permit to be used for recording air sampling results when performing hot work in areas containing possible hazardous atmospheres.

Date	Atmospheric Test Check Time	Atmospheric Conditions			Ventilation Required		Signature
		Oxygen	Combustible	Toxic	Yes	No	

NOTES:
Opposite side of page must first be filled out for permit to be valid.
Data must be reentered (minimum) each hour hot work is in progress.

Minimum atmospheric entry conditions are:

Oxygen -	Between 19.5% - 23.0%
Combustible -	Less than 10% LEL
Toxic -	Less than 10 ppm

WORK ZONE SAFETY

1. PURPOSE

To provide guidance in the safe operation of work sites that are exposed to traffic hazards located throughout Okaloosa County area.

2. POLICY

2.1. All work performed on city and County traffic thoroughfares and associated workers and equipment will conform to the most recent edition of the *Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD)* published by the Federal Highway Administration and the *Work Area Protection Manual (Part 6: The Manual on Traffic Control Devices for Streets and Highways)* published by the U.S. Department of Transportation, Federal Highway Administration.

2.2. The wearing of orange/green blaze safety vests/shirts by County employees is mandatory when performing work on, or just off of, any roadway. Exceptions:

2.2.1. When the wearing of reflective vests is not necessary because other reflective wear is being worn (i.e., reflective rain gear).

2.2.2. Employees will not wear reflective vests when the wearing of the reflective safety vest promotes a safety hazard (i.e., working around running equipment where vest may become entangled and draw employee into running machinery). In this case, the hazard will be pulled off the roadway as much as possible out of traffic.

2.2.3. Standard orange or lime green t-shirts provided by the County are not acceptable in work zones. Employees must wear reflectorized apparel that meets or exceeds the ANSI standard 107-2004, and within the specific class. (See 2.4).

2.3. The use of flaggers is mandatory for all work zones under the following conditions:

- Only one lane of traffic is available.
- Traffic must be stopped intermittently.
- Equipment intermittently crosses the travel lane.

2.4. Maintenance utility work being performed during evening hours or at times of low visibility will require all employees and equipment to be reflectorized for greater

visibility. Cones, flags, signs, and personal equipment not reflectorized are not to be used.

3. PROCEDURES

3.1. The director or designee is responsible for ensuring that proper work zone signage is placed at each work zone, is properly maintained throughout the duration of the work zone, and is removed promptly when the work is complete. All signage shall be maintained in proper usable condition and conform to the guidelines of the MUTCD.

3.2. For all routine work zones with duration of less than one day and affecting only one-lane or partial lane of traffic, each work crew shall follow the MUTCD for appropriate signage and channelizing devices.

3.3. For non-routine work zones that last for more than one day or affect multiple lanes of traffic or involve the complete or partial closing of the road, departments shall submit a work zone signage plan to the Risk Manager for consultation on proper signage. If necessary, the department will also notify Georgia DOT traffic division should the work occur on a State maintained road.

3.4. Signs used on a regular basis shall be kept on each vehicle that routinely performs work requiring the use of signage.

3.5. The re-routing of traffic around work sites will be made as smooth as possible. No alterations of traffic routes will be performed that will expose motorists or County employees to undue hazards.

3.6. After signs, flagmen, cones and/or barricades have been positioned, the supervisor of the crew should drive through the work zone to ensure a safe and fluid movement of traffic.

3.7. All County maintenance vehicles remaining in the roadway for work should be positioned facing traffic with headlights on and traffic cones present so as to alert motorists of a possible hazard.

3.8. All County maintenance vehicles and equipment remaining in the roadway for work must be equipped with flashing strobes and/or yellow rotating lights.

3.9. Warning equipment i.e. signs, cones, flagman paddles/flags will be kept in a clean, legible condition. Damaged, defaced or dirty equipment will be repaired, replaced, or cleaned prior to use.

3.10. Traffic warning devices including signage will be removed immediately once work is completed. For those work areas that progress slowly, the work area supervisor will ensure signage will be managed and placed at appropriate distances from the work area as the work progresses.

3.12. The placement of signs such as BUMP AHEAD, BROKEN PAVEMENT, DETOUR is mandatory for all work zones having these hazards after repairs have been made. Failure to place these warnings may place liability on the County for vehicle damage.

3.13. Once the work is patched, paved, or all roadway hazards removed, these signs must be removed immediately.

4

Safety Forms & Permits

BOMB THREAT AID

Okaloosa County

(Place this card under your telephone)

NUMBER AT WHICH CALL IS RECEIVED	TIME OF CALL
CALL ORIGINATED FROM: (Caller ID, If applicable)	
LENGTH OF CALL	TIME OF CALL

QUESTIONS TO ASK

1. When is the bomb going to explode?
2. Where is it right now?
3. What does it look like?
4. What kind of bomb is it?
5. What will cause it to explode?
6. Did you place the bomb?
7. Why?
8. Where are you?
9. What is your name?

EXACT WORDING OF THE THREAT

EMERGENCY PROCEDURES:

CALL 911
FOLLOW FIRE EVACUATION PLAN WHEN DIRECTED

BOMB THREAT

(Front)

CALLER'S SEX	AGE	ACCENT

CALLER'S VOICE

☐ Calm	☐ Crying	☐ Deep
☐ Angry	☐ Normal	☐ Ragged
☐ Excited	☐ Distinct	☐ Clearing Throat
☐ Slow	☐ Slurred	☐ Deep Breathing
☐ Rapid	☐ Nasal	☐ Crackling voice
☐ Soft	☐ Stutter	☐ Disguised
☐ Loud	☐ Lisp	☐ Foreign
☐ Laughing	☐ Raspy	☐ Familiar

If voice sounded familiar, whose voice did it sound like?

BACKGROUND SOUNDS

☐ Street (cars, buses, etc.)	☐ Animal noises
☐ Airplanes	☐ Clear
☐ Voices	☐ Static
☐ PA System	☐ Local call
☐ Music	☐ Long distance call
☐ Houses (Dishes, TV, etc.)	☐ Phone booth
☐ Motor (Fan, Air Conditioner, etc.)	☐ Other (specify) _____
☐ Office Machinery	_____
☐ Factory Machinery	

LANGUAGE

☐ Well spoken (educated)	☐ Irrational	☐ Taped message
☐ Foul	☐ Incoherent	☐ Message read by threat maker

REMARKS

NAME

JOB TITLE/ OFFICE

PHONE NUMBER	DATE

Additional Office/Section Requirements)

(Back)

CONFINED SPACE ENTRY PERMIT

Okaloosa County, Florida

PRE-ENTRY CHECKLIST

YES	N/A		YES	N/A	
		Entry area is free from debris and objects			Non-sparking tools
		Warning barriers and signs are in place			Low voltage (less than 25v) lighting used
		Atmospheric monitoring conducted			Electrical equipment rated for explosive atmospheres
		All hazardous lines have been isolated			No compressed gas cylinders present in confined space
		Hot work permitted (welding, cutting, grinding, etc.)			Host employer and/or contractor notified
		All energy sources have been neutralized/locked out			Entry and emergency procedures have been reviewed
		Confined space has been drained and flushed			All personnel have been trained in confined space entry
		Forced air or exhaust ventilation is provided			All personnel have been informed of potential hazards
		Electrical equipment is grounded or bonded			Attendant stationed at entrance and properly instructed
		Ground Fault Circuit Interrupters (GFCI) provided			Rescue equipment on location and readily accessible

PROTECTIVE EQUIPMENT

YES	NO		YES	NO		YES	NO	
		Hard Hat			Protective Clothing			Communications Equipment
		Eye/Face Protection			Hearing Protection			Respirator (type):
		Boots			Retrieval Device			Fire Extinguisher (type) :
		Gloves			Harness & Lifeline			Other:

TESTING EQUIPMENT

Instrument Type:	Instrument Name:
Instrument Number (if available):	Name of Person Performing Test:
Calibration Date:	

AUTHORIZATION

Entry Supervisor's Signature:	**Date:**

	Print Name	Initials	Date
Attendant			
Attendant			
Entrant			
Entrant			
Entrant			
Entrant			

Air sampling results recorded on back of this sheet

Return permit to supervisor when work is complete

(Front Page)

AIR SAMPLING RESULTS

Use of this permit is mandatory for any entry into permit required confined spaces. Failure to follow outlined procedures in Okaloosa County's Safety & Risk Manual concerning permit required confined space procedures could result in disciplinary action up to termination.

PERMIT EXPIRES 12 HOURS FROM INITIAL ENTRY

Confined Space Location:	**Entry Purpose:**	**Date:**

Hour	Atmospheric Check Time	Atmospheric Conditions Oxygen	Combustible	Toxic	Ventilation Yes	No	Entry Time	Exit Time	Signature Qualified Person
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									

NOTE:
Opposite side of page must be filled out for permit to be valid.
Data must be reentered (minimum) each hour the confined space is occupied.

Minimum atmospheric entry conditions are:

Oxygen – between 19.5% - 23.5%
Combustible – less than 10% LEL
Toxic – less than 10 ppm

(Back)

FIRST REPORT OF INJURY OR ILLNESS

FLORIDA DEPTARTMENT OF FINANCIAL SERVICES
DIVISION OF WORKERS' COMPENSATION

For assistance call 1-800-342-1741
or contact your local EAO Office
Report all deaths within 24 hours 1-800-219-8953 or (850) 922-8953

RECEIVED BY CLAIMS-HANDLING ENTITY	SENT TO DIVISION DATE	DIVISION RECEIVED DATE

PLEASE PRINT OR TYPE

EMPLOYEE INFORMATION

NAME (First, Middle, Last)

Social Security Number | Date of Accident (Month-Day-Year) | Time of Accident ☐ AM ☐ PM

HOME ADDRESS
Street/Apt #: _____
City: _____ State: _____ Zip: _____
TELEPHONE Area Code Number

EMPLOYEE'S DESCRIPTION OF ACCIDENT (Include Cause of Injury)

OCCUPATION

INJURY/ILLNESS THAT OCCURRED

PART OF BODY AFFECTED

DATE OF BIRTH / /

SEX ☐ M ☐ F

EMPLOYER INFORMATION

COMPANY NAME: _____
D.B.A.: _____
Street: _____
City: _____ State: _____ Zip: _____
TELEPHONE Area Code Number

FEDERAL I.D. NUMBER (FEIN)

DATE FIRST REPORTED (Month/Day/Year) / /

NATURE OF BUSINESS

POLICY/MEMBER NUMBER

DATE EMPLOYED / /

PAID FOR DATE OF INJURY ☐ YES ☐ NO

EMPLOYER'S LOCATION ADDRESS (If different)
Street: _____
City: _____ State: _____ Zip: _____
LOCATION # (If applicable) _____

LAST DATE EMPLOYEE WORKED / /

WILL YOU CONTINUE TO PAY WAGES INSTEAD OF WORKERS' COMP? ☐ YES

RETURNED TO WORK IF YES, GIVE DATE ☐ YES ☐ NO / /

LAST DAY WAGES WILL BE PAID INSTEAD OF WORKERS' COMP / /

PLACE OF ACCIDENT (Street, City, State, Zip)
Street: _____
City: _____ State: _____ Zip: _____
COUNTY OF ACCIDENT _____

DATE OF DEATH (If applicable) / /

AGREE WITH DESCRIPTION OF ACCIDENT? ☐ YES ☐ NO

RATE OF PAY ☐ HR ☐ WK
$_____ PER ☐ DAY ☐ MO

Number of hours per day _____
Number of hours per week _____
Number of days per week _____

Any person who, knowingly and with intent to injure, defraud, or deceive any employer or employee, insurance company, or self-insured program, files a statement of claim containing any false or misleading information commits insurance fraud, punishable as provided in s. 817.234. Section 440.105(7), F.S.
I have reviewed, understand and acknowledge the above statement.

_____ EMPLOYEE SIGNATURE (If available to sign) _____ DATE

_____ EMPLOYER SIGNATURE _____ DATE

NAME, ADDRESS AND TELEPHONE OF PHYSICIAN OR HOSPITAL

AUTHORIZED BY EMPLOYER ☐ YES ☐ NO

CLAIM-HANDLING ENTITY INFORMATION

☐ 1(a) Denied Case – DWC-12, Notice of Denial Attached

☐ 1(b) Indemnity Only Denied Case – DWC 12, Notice of Denial Attached

☐ 2. Medical Only which became Lost Time Case (Complete all information in #3)
Employee's 8th Day of Disability / /
Entity's Knowledge of 8th Day of Disability / /

☐ 3. Lost Time Case – 1st day of disability / / Full Salary in lieu of comp? ☐ YES Full Salary End Date / /

Date First Payment Mailed / / AWW _____ Comp Rate _____

☐ T.T. ☐ T.T. - 80% ☐ T.P. ☐ I.B. ☐ P.T. ☐ DEATH ☐ SETTLEMENT ONLY

Penalty Amount Paid in 1st Payment $ _____ Interest Amount Paid in 1st Payment $ _____

REMARKS:

INSURER NAME

CLAIMS-HANDLING ENTITY NAME, ADDRESS & TELEPHONE

INSURER CODE #	EMPLOYEE'S CLASS CODE	EMPLOYER'S NAICS CODE
SERVICE CO/TPA CODE #	**CLAIMS-HANDLING ENTITY** FILE #	

Form DFS-F2-DWC-1 (08/2004)

Okaloosa County

HEPATITIS B VACCINE FORM

I understand that due to my occupational exposure to blood or other potentially infectious materials that I may be at risk of acquiring Hepatitis B Virus (HBV) infection. I have been given the opportunity to be vaccinated with Hepatitis B Vaccine at no charge to myself.

I accept the offer for the Hepatitis B Vaccination.

Name _____

Signature _____

Date _____

Witness _____

Date _____

I decline the offer for the 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.

Name _____

Signature _____

Date _____

Witness _____

Date _____

HOT WORK PERMIT
OKALOOSA COUNTY, FLORIDA

PERMIT APPLIES TO AREA LISTED BELOW:

Permit Requested By			
Date	Start Time	Stop Time	Permit Expires
Location of Work			Floor
Description of Work Being Performed			

Safety Precautions

ATTENTION

Before approving any welding and cutting, the Supervisor shall inspect the work area and confirm that the below precautions have been taken to prevent fire. (in accordance with NFPA, No.51B)

( ) Sprinklers are in service.
( ) Cutting and welding equipment is in good repair.

Within 35 Feet of Work

( ) Floors swept clean of combustibles.
( ) Combustible floors wet down, covered with damp sand or fire resistive sheets.
( ) Flammable liquids removed; other combustibles, if not removed, protected with fire resistant tarpaulins or metal shields.
( ) Explosive atmosphere in area eliminated.
( ) All wall and floor openings covered.
( ) Fire resistive tarpaulins suspended beneath work.

Work on Walls or Ceilings

( ) Construction is noncombustible and without combustible covering or insulation.
( ) Combustibles moved away from other side of wall.

Work on Enclosed Equipment

( ) Enclosed equipment clean of all combustibles.
( ) Containers purged of flammable liquids.

Fire Watch

( ) Will be provided during and 60 minutes after operation.
( ) Supplied with extinguisher and small hose.
( ) Trained in use of equipment and activating fire alarm.

Permit Approval

The location where this work is to be done has been examined, above necessary precautions taken, and permission is granted for this work.

Signature _____ Date _____ Time _____
Supervisor

Final Inspection

After work has been completed, work area and adjacent areas where sparks and heat might have spread were inspected for at least **60 minutes,** and no signs of fire were found.

Signature _____ Time _____
Supervisor

This Permit should be completely filled out before any welding, cutting or brazing can be performed.
Permit must be returned to Supervisor/Manager when work is completed.

HOT WORK PERMIT
Air Sampling Results

This side of permit to be used for recording air sampling results when performing hot work in areas containing possible hazardous atmospheres.

Date	Atmospheric Test Check Time	Atmospheric Conditions Oxygen	Combustible	Toxic	Ventilation Required Yes	No	Signature

NOTES:
Opposite side of page must first be filled out for permit to be valid.
Data must be reentered (minimum) each hour hot work is in progress.

Minimum atmospheric entry conditions are:

Oxygen -	Between 19.5% - 23.0%
Combustible -	Less than 10% LEL
Toxic -	Less than 10 ppm

Okaloosa County

INDUSTRIAL LIFT TRUCK OPERATOR

Permit

________________________ Has successfully completed the Industrial Lift Truck Operator safety course taught in compliance with OSHA 29 CFR Part 1910.178, Subpart N - Materials Handling and Storage, Powered Industrial Lift Truck Operations.

Operators signature   Course/Evaluation Date

Instructor's Signature   Expiration Date

Okaloosa County

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Okaloosa County

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Operators signature   Course/Evaluation Date

Instructor's Signature   Expiration Date

(Back)

The employee noted on the opposite side is authorized to operate the following industrial lift equipment:

6000 lb. Forklift

Copy of the training certificate for this course must be maintained on file at this employee's work area or personnel records.

This permit is invalid without both sides filled out.

The employee noted on the opposite side is authorized to operate the following industrial lift equipment:

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(Back)

Okaloosa County

PROPERTY DAMAGE / LOSS INVESTIGATION REPORT

PRINT OR TYPE

1. Description of Property / Equipment Involved		2. Name of Claimant 3. Phone No. & Address
4. Place of Incident:	5. Time a.m. p.m.	6. Date (Month, Day, Year)
7. Name of Employee(s) Involved, If any, and Describe What Employee(s) was doing:		
8. List any Witness		9. Cost of Damage or Loss (Estimate)
10. Describe What Happened: (How and Why)		
FOR DEPARTMENT USE ONLY		
11.Was the Incident a Result of an Unsafe Act, Equipment, or Other Property? Yes No IF YES DESCRIBE:		
12. If Number 11 was answered Yes, What Steps Have Been Taken to Prevent Future Incidents of This Type?		
DEPARTMENT SIGNATURES		
Department Head or Constitutional Officer		Risk Management Director

Note: If Vehicle Accident: Attach Copy of Florida Traffic Accident Report
Original Copy to Risk Management
Make a copy for your Department

Employee Safety Training Record

Okaloosa County

Employee Name _____ Hire Date _____
Last First Middle Initial

Department _____ Supervisor _____

The following list of topics is to be reviewed with each newly hired Okaloosa County employee by their immediate supervisor. Supervision within each department will determine which are applicable. The first eight are mandatory for all newly hired Okaloosa County employees.

GENERAL	DATE COMPLETED	EMPLOYEE INITIALS
1. Safety rules were reviewed with the employee, both County-wide and workplace specific.		
2. Reviewed injury reporting procedures.		
3. Reviewed personal protective equipment, use, limitations and inspection.		
4. Reviewed Hazard Communication Program, specific chemical hazards, employee right to know.		
5. Reviewed specific job hazards.		
6. Reviewed evacuation/emergency procedures and duties.		
7. Reviewed location of first aid kits/other emergency equipment.		
8. Reviewed disciplinary program and grievance procedures.		
AS APPLICABLE Enter N/A on all non-applicable training in the Date Completed column.	**DATE COMPLETED**	**EMPLOYEE INITIALS**
9. Confined space program and procedures.		
10. Vehicle accident reporting procedures.		
11. Powered industrial lift truck policy and procedures.		
12. Hearing Conservation Program requirements.		
13. Lockout/Tagout procedures specific to workplace.		
14. Electrical Safety/Safety Related Work Practices.		
15. Bloodborne pathogens/Infection control.		
16. Material Handling/Proper Lifting Techniques.		
OTHER SPECIFIC EQUIPMENT/PROCEDURES/HAZARDS	**DATE COMPLETED**	**EMPLOYEE INITIALS**
17.		
18.		
19.		
20.		

ACKNOWLEDGMENTS

I acknowledge that I received the information initialed on this sheet and will abide by all Okaloosa County safety rules and regulations.

Employee Signature: **Date:**

I have instructed/informed the above named employee on all topics applicable to his/her workplace as listed on this checklist.

Supervisor Signature: **Date:**

Recurring Training Covered on Back

Employee Safety Training Checklist
continued

Recurring Training

Course Title:	Period	Dates Conducted: (N/A if not applicable)									
CPR/ First Aid/AED	Annual										
Bloodborne Pathogens	Annual										
Fire Extinguisher	Annual										
Respiratory Protection	Annual										
Industrial Lift Truck	3 yrs.										

Personal Protective Equipment

Issued to Employee

Circle all that apply:

Hard Hat
Safety Glasses
Goggles
Face Shield
Ear
Plugs/Muffs

Reflective vest
Safety shoes
Leather gloves
Welding - goggles/face shield
apron, leather coat

Other:
_____
_____
_____
_____

Respiratory Equipment:

Equipment	Brand Name	Type / Model	Size	Canister Used (If applicable)
Respirator				
Respirator				
Respirator				
SCBA				
Dust Mask				
Riot Control Mask				

Instructions:

1. Employee must be presented with safety orientation at hire.
2. Both employee and supervisor must sign.
3. Original form will be kept in department.
4. All recurring training is to be documented on this form.

All completed reports need to be sent to Risk Management. A Claim number will be assigned by Risk Management.

Claim#_____ **Date of Accident/Incident** _____ **Department** _____

SUPERVISOR'S ACCIDENT / INCIDENT INVESTIGATION REPORT

Employee Name	Number of Previous Work Injuries	How Long In Present Job?

Job Title	Date And Time Of Accident	Did The Employee Use Safety Devices As Provide By The Employer?

Injury Sustained	Type of Medical Treatment Required

Environmental Conditions (Weather, Visibility, ETC.)

Describe Clearly How The Accident Occurred, Including Equipment, Property or Material Involved...All Details

_____

_____

_____

_____

_____

_____ Estimated Damage _____

List All Eyewitness

_____

_____

Cause:

Was Accident caused by an unsafe act? Yes_____ No _____ If Yes, Please List Causes: _____

_____

Was Accident caused by unsafe Conditions? Yes_____ No _____ If Yes, Please List Causes: _____

_____

What Action Has or Will Be Taken To Prevent Recurrence?

_____

_____

_____

Investigated By (Immediate Supervisor)	Date	Reviewed By (Department Director)	Date

Okaloosa County RM-A01 (2/98)

Original Copy to Risk Management
Make a Copy for your Department

RM/2003/Workerscomp