Safety Program Policy

September 24, 2010
Human Resources
Title revised 8/15/17

Revised Policy approved and adopted by the Board of Supervisors 2/3/09
Revised and approved on 9/28/10; Title revised 8/15/17

(This page intentionally left blank)

BLACK HAWK COUNTY
HEALTH AND SAFETY PROGRAM

Black Hawk County has developed an extensive health and safety program as it is committed to protecting the health and safety of all county employees. This program consists of the following policies:

Revised Policy approved and adopted by the Board of Supervisors 2/3/09
Revised and approved on 9/28/10; Title revised 8/15/17

(This page intentionally left blank)

BLACK HAWK COUNTY
HEALTH AND SAFETY PROGRAM

Purpose:

Black Hawk County depends upon efficient use of its resources to provide high quality services to the citizens of Black Hawk County. The most important resource is county employees. To protect this resource, the county is committed to providing a safe and healthy workplace. Safety is considered a core value of county operations.

The purpose of the health and safety program is to provide general guidelines to Black Hawk County employees regarding their safety and health. Safety and health guidelines in this policy as well as all other safety policies were prepared in accordance with Federal Code of Regulations 54:3904-3916.

Policy:

It shall be the policy of Black Hawk County to provide a healthy and safe workplace for employees through guidelines presented in this health and safety program. Guidelines are provided to aid in reduction or elimination of hazardous working situations, work-related illnesses and injuries, and to provide health and safety training to employees. This policy has been designed to partner with other safety programs developed by the county.

Copies of this program shall be located at each work site and/or department. A copy of this program is also in the human resources department.

Annual Review:

This program shall be reviewed annually to evaluate its successfulness, and shall be modified when changes in laws or regulations occur. Incidents involving health and safety due to violations of the program, and any other applicable information shall be documented and included in the program evaluation.

Employer Responsibilities:

The Human Resources Director shall administer the county's health and safety program, which shall include:

- Develop, revise and recommend general safety policies, practices and work rules to comply with current health and safety regulations and standards;
- Provide leadership and direction concerning safety activities;
- Work with health and safety standards as prescribed by the Federal Occupational Safety and Health Act, the Iowa Occupational Safety and Health Act, and other applicable laws and regulations;
- Maintain the accident and illness record system, prepare necessary reports, investigate serious accidents, and check corrective action taken by supervisors to reduce injuries.

Management and Department Head Safety Responsibilities:

Department heads and/or designee shall be responsible for providing a workplace free from recognized hazards that may result in employee injuries or accidents. They are also responsible for competently trained supervisors regarding their safety responsibilities. Other responsibilities include:

- Provide leadership and direction concerning safety activities;
- Provide and document applicable training of policy;
- Participate actively in the continuous evaluation of the safety program in the department;

- Enforce applicable safety policies and rules;
- Review losses for potential trends;
- Participate in monthly facility and work site safety audits and accident investigation activities;
- Analyze planned and new facilities, processes, materials, and equipment;
- Review accident and incident reports and recommend corrective action.

Supervisor Safety Responsibilities:

Supervisors' safety responsibilities in connection with the employees they supervise include:

- Employee awareness of Black Hawk County's safety policies and rules;
- Perform routine job hazard analyses:
- Employees are properly trained to perform job duties and proper operation of power tools, machinery, and equipment in the workplace;
- New or inexperienced employees not operating equipment until adequate instruction and training has been received, and have personal knowledge employee is able to perform tasks safely and correctly;
- Tools, equipment and machinery used in the workplace are in proper working order; unsafe tools and equipment are removed from service. Non-working or unsafe tools, equipment and machinery shall be replaced or repaired immediately;
- Proper personal protective equipment (PPE) is readily available for selection and use by employees when required and/or necessary;
- Reported hazards are corrected;
- Set good safety examples in following and enforcing safety policies and procedures; wear proper safety equipment; and treat safety matters with the utmost importance;
- Know and enforce local, state and federal safety policies, rules and regulations;
- Make available to all employees Black Hawk County's health and safety program.
- Consistent in enforcement of the health and safety program and other applicable policies and rules;
- Encourage safety suggestions from employees under their supervision and respond to employees' suggestions;
- Participate in monthly safety audits of work areas and facilities to improve housekeeping, eliminate unsafe conditions, and encourage safe work practices of all employees;
- Promptly investigate all workplace incidents, accidents and illnesses and identify causes;
- Obtain prompt first aid or medical treatment for injured employees. Report all workplace injuries and incidents as directed by OSHA;
- Plan and prepare for emergencies and conduct training and drills as needed;
- Aid employees when calling Company Nurse.

Employee Safety Responsibilities:

Employees shall be responsible for performing tasks and operating equipment to the best of their ability and in a manner that is safe for self and others. Responsibilities include:

- Knowledge of the job; following instructions given; think before acting; work in accordance with good safety practices;
- Perform job as instructed; refrain from unsafe acts that endanger self and others;
- Use safety devices and protective equipment as required by the job;
- Operate machinery and equipment in accordance with training received;
- Report to supervisor, tools, equipment or machinery that are defective or in need of repair immediately; and only use equipment that is safe operating condition;
- Follow all policies, procedures and rules associated with all county programs;
- Make safety suggestions to supervisors;
- Report all accidents/incidents to supervisor as soon as they occur (failure to report injury or incident may be cause for disciplinary action);
- Call Company Nurse at 1-877-740-5017 when work-related incident, illness or injury occurs.

Safety Committee:

The Black Hawk County-wide safety committee shall meet on a regular basis as determined by the committee. It shall be chaired by Human Resources Manager and consist of representatives from each county department.

Committee responsibilities include:

- Review accident/injury investigation reports; recommend corrective measures;
- Monthly safety audit inspections; identification of safety hazards; follow up on corrective measures implemented;
- Health and safety hazards found to exist on county property or vehicles shall be corrected in a timely manner; State and Federal OSHA regulations shall be the basis for corrective action(s);
- Conduct activities for stimulating and maintaining employees' interest in the health and safety program; coordinate safety training between departments as possible;
- Assist with development and revision of safety policies and work rules in compliance with OSHA health and safety regulations and standards;
- Help in investigation of recordable accidents, review corrective actions recommended to prevent similar incidents;
- Aid in compliance with health and safety standards as prescribed by the Federal Occupational Safety and Health Act, the Iowa Occupational Safety and Health Act, and any other applicable laws and regulations.

Small group safety committees have been established which include Conservation, Secondary Roads, Unit 2 – Nursing, and Unit 3 – Maintenance. Others may be created as needed.

Workers' Compensation:

When work-related injury/illnesses occur, the following procedure shall be followed:

- Employee shall immediately report injury to supervisor and/or department head;
- When incident results in an emergency, 911 shall be called immediately to transport the employee for treatment;
- The supervisor/injured employee shall call Company Nurse at 1-877-740-5017. Company Nurse shall fill out and email first report of injury to human resources department and IMWCA;
- Human resources shall email first report of injury to department head;
- When emergency treatment is not required, Company Nurse shall fax notification to Occupational Health. Employee will then need to call to schedule an appointment to be examined and/or treated by the occupational health physician; Allen 235-3885 and Wheaton 575-5600);
- Injured employee's supervisor shall complete Supervisor's Illness/Injury Investigation Report. The report form is located on Black Hawk County Intranet, under human resources and forms tabs;
- Supervisor's Illness/Injury Investigation Report may be filled out and saved under Supervisor's directory and emailed to human resources or printed copy may be filled out and sent through company mail within twenty-four (24) hours following the incident;
- Human resources department shall forward copies of follow-up visits to Black Hawk County's workers' compensation insurance carrier in a timely fashion.

Medical Services:

Black Hawk County has established occupational health service physicians to provide work-related medical services for county employees. Services provided by occupational health include, but are not limited to: pre-employment and CDL-required drug testing, pre-placement physicals, emergency medical treatment, medical and surgical management of all cases of work-related injury or illness, hearing conservation program, respiratory program, and promotion of the county health and safety program.

- It shall be a condition of employment for certain designated county positions that applicants complete pre-employment drug screening, PPD testing and pre-placement physical screening prior to beginning work. The testing and physical will be given by an occupational health services' physician at county expense;
- When employee is terminated or leaves the position within 60 days of start, employee shall be charged with the cost of the physical;
- Pursuant to Code of Iowa, chapter 85.39, employees with work-related injuries or illnesses must be evaluated/treated by occupational health services' physician selected by the county. With prior approval from the county's workers' compensation provider, occupational health services' physician may make referrals to specialists;
- If employee elects treatment by another care provider without referral from the County's occupational health services physician, employee shall be responsible for all expenses related to that treatment. No workers' compensation benefits will be paid unless the employee was referred by the county's occupational health services' physician.

Pursuant to the Black Hawk County Employee Handbook, Section 206, Return to Work Policy For Employees with Work-Related Injuries, department head shall provide modified or alternate work when feasible, for employees with temporary work restrictions due to a work-related injury or illness as determined by Black Hawk County's occupational health services' physician. The employee shall remain off work only if ordered by the health services' physician or if the county is unable to accommodate medical restrictions placed upon the employee.

BLACK HAWK COUNTY
AED (Automated External Defibrillator) Program

Purpose:

The purpose of the automated external defibrillator (AED) program is to provide general guidelines for trained employees during the use of an AED as a medical assistance tool in an emergency involving sudden cardiac arrest (SCA). The purpose is to enhance and supplement the local emergency medical service (EMS) with nontraditional early defibrillation agencies.

Policy:

An automated external defibrillator (AED) should be used to treat victims who experience sudden cardiac arrest (SCA) while in a county building. It is only to be applied to victims who are unconscious, not breathing normally and showing no signs of circulation, such as pulse, coughing and movement. The AED will analyze the heart rhythm and advise the operator if a shockable rhythm is detected. If a shockable rhythm is detected, the AED will charge to the appropriate energy level and advise the operator to deliver a shock.

Copies of this program shall be located in each affected AED storage area and made available to employees affected by this policy. A copy will also be maintained in the human resources department.

Annual Review:

This program shall be evaluated at least annually and shall be updated when laws or regulations requiring modification of the program occur, or when new rulings are introduced. Incidents which occur due to violations of the program, and any other applicable information shall be included in the program evaluation.

Definitions:

Emergency medical service – Waterloo Fire Rescue provides patient transportation in conjunction with this program.

AED Use Report – AED use report and post event check list will be completed following each use. Once completed, the report will be forwarded to Allen Occupational Health Center for review.

Protocol – Iowa Statewide Automated External Defibrillator (AED) protocol contained in the enclosure of AED will be followed when using the AED. (Appendix A)

Employer Responsibility:

The employer will be responsible for:

- Developing the volunteer medical emergency response team (MERT) members and the distribution of MERT member lists as required;
- Provide annual training for volunteer employees in county buildings where AED are placed;
- Coordination of equipment and accessory maintenance;

  - including appropriate inspections;
  - checking batteries for proper charge;
  - starting AED unit to ensure proper operation;
  - checking pads/batteries for expiration;
  - checking for broken wires, cracks, or other damage, including ensuring the unit is clean and the connectors securely engage.
- Communication with medical advisor on issues related to medical emergency response program including post event reviews.

Medical Control:

The medical advisor of the AED program is Dr. Kenneth McMains from Allen Occupational Health Center. The medical advisor is responsible for:

- Providing medical direction for use of AED's;
- Writing needed prescriptions for AED's;
- Reviewing and approving guidelines for emergency procedures related to use of AED's and CPR;
- Evaluation of post-event review forms and digital files downloaded from the AED.

Procedures:

Dispatch responsibilities:

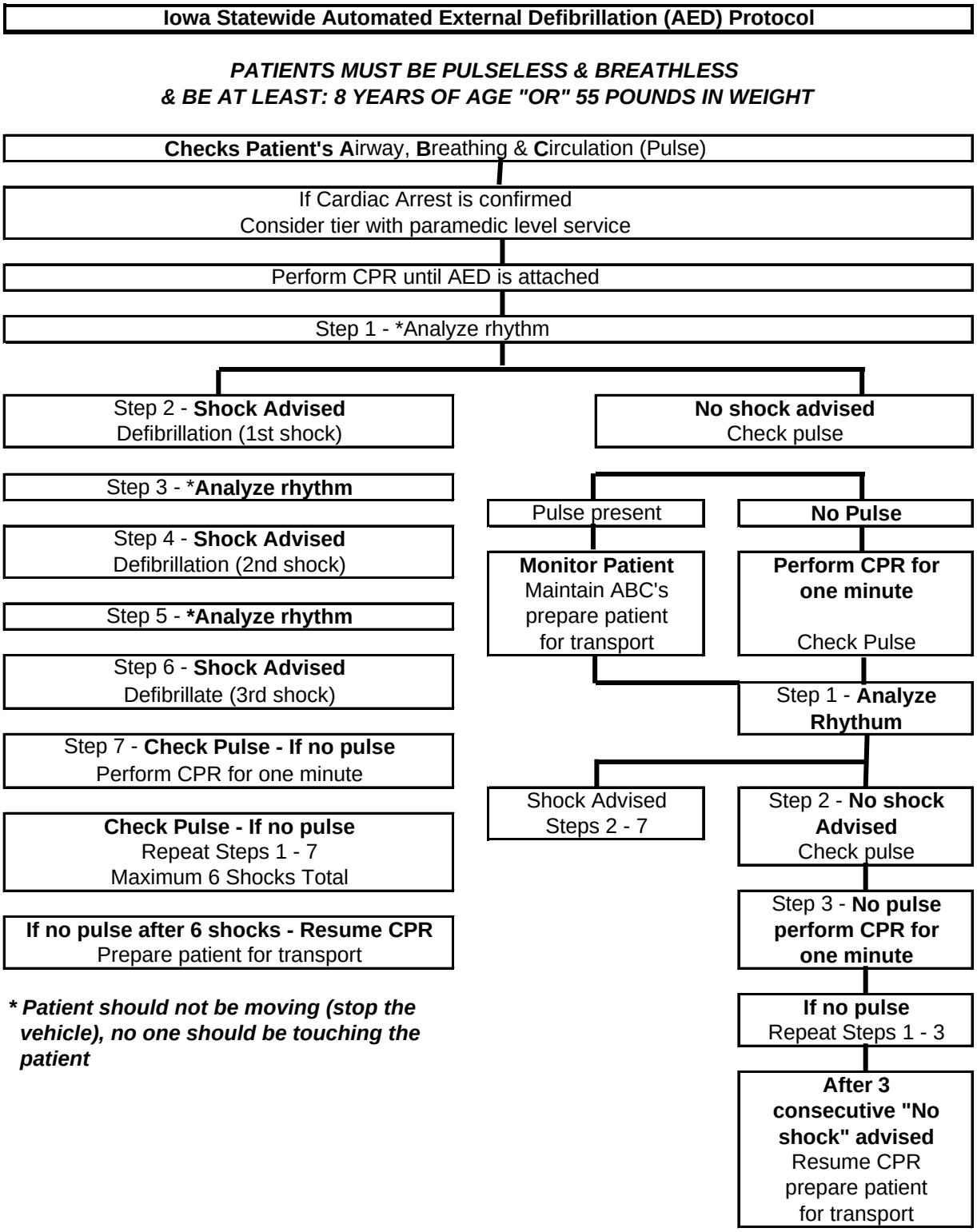
- Receive emergency medical calls from internal locations;
- Contact external community 911 response team (EMS);

Trained AED volunteer responsibilities:

When a victim is found unconscious, not breathing normally and showing no signs of circulation, such as no pulse, coughing and movement, trained volunteers should:

- Call 911 dispatch for local EMS;
- Bring a first aid kit along to location of victim;
- Work in pairs – one performing tasks instructed by AED, the other performing CPR movements;
- Follow instructions given by AED (chart located in appendix A);
- Prepare victim for transport;
- Send AED use report to Allen Occupational Health Center for review;
- Send AED use report copy to human resources department.

APPENDIX A – AED Program



(This page intentionally left blank)

BLACK HAWK COUNTY
BACK SAFETY PROGRAM

Purpose:

The purpose of the Back Safety Program is to provide general guidelines, practices and procedures to implement and sustain a Back Injury Reduction Program for Black Hawk County employees involved in lifting. Back safety and lifting guidelines in this policy were prepared in accordance with National Institute of Occupational Safety and Health (NIOSH) regulations.

Policy:

It shall be the policy of Black Hawk County to provide a healthy and safe workplace for employees that is free from recognized hazards that cause or are likely to cause physical harm to employees or the public. Guidelines are provided to aid in reduction or elimination of hazardous lifting and back injury working situations in the workplace. This policy emphasizes the program management aspects of preventing back injuries. It emphasizes proper lifting techniques, augmented with appropriate mechanical aids to prevent back injuries. This policy shall also emphasize training provisions for employee lifting techniques and discussion on work-related risk factors for back injury.

Copies of this program shall be located in departments with the risk of lifting hazards. A copy of this program is also in the human resources department.

Annual Review:

This program shall be reviewed annually to evaluate its successfulness, and shall be modified when changes in laws or regulations occur. Incidents involving health and safety due to violations of the program, and any other applicable information shall be documented and included in the program evaluation.

Responsibilities:

It is the responsibility of each department head, supervisor, and employee to ensure implementation of this safety policy on back injury protection. It is also the employee's responsibility employee to immediately report any unsafe act or condition to his or her supervisor.

Department head responsibilities shall include:

- Adequate funds are budgeted for purchase of equipment and supplies to minimize lift-related injuries;
- Identify employees affected by this policy;
- Training is obtained for affected employees;
- Work with supervisor to identify and list jobs with frequent reports of back injuries:
    - Note jobs that require lifting;
    - Note which jobs are more stressful;
    - Solicit input from employees.

Supervisor responsibilities shall include:

- Communication of appropriate needs to department head, including equipment and/or service to minimize injury;
- Equipment necessary to move loads consistent with employee capabilities and job requirements is provided;
- No employee is required to lift beyond his or her capacity;
- Provide assistance to employees in lifting as needed.

Employee responsibilities shall include:

- Reporting any injury immediately to supervisor;
- Attend training and read materials provided by supervisor;
- Use safe lifting techniques and/or obtain assistance as needed.

Risk Factors:

Manual material handling tasks may expose workers to physical risk factors. If these tasks are performed repeatedly or over long periods of time, they can lead to fatigue and injury. There are major differences in the ability of individuals to withstand lifting and other demanding physical labor. Because back pain results from different circumstances, an individual's exposure and personal characteristics affect his or her chances of experiencing lifting-related back injuries. Work related risk factors shall be identified at the job site and shall include:

- Handling heavy loads;
- Heavy lifting and heavy work (forceful exertions);
- Repetitive and frequent lifting;
- Lifting loads near one's strength capacity;
- Occasional very stressful load handling;
- Sudden unforeseen events (accidents);
- Awkward or extreme postures of the back (twisting, bending, stretching, and reaching);
- Prolonged or static postures, standing or sitting;
- Other suspected risk factors, including whole body vibration, pushing, pulling, carrying, twisting and bending;
- Pressure points (grasping [or contact from] loads, leaning against parts or surfaces that are hard or have sharp edges);
- The employee's physical condition.

In addition, poor environmental conditions, such as extreme heat, cold, noise, and poor lighting, may increase workers' chances of developing other types of problems.

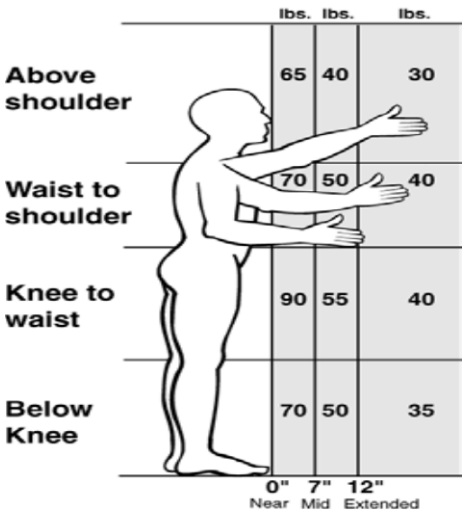
Additional personal factors that make some individuals more susceptible to back injuries are not included in the above list. Those jobs and tasks that have several or many of the above risk factors should receive a higher priority in assessing back injury risk.

Repeated or continual exposure to one or more of these factors initially may lead to fatigue and discomfort. Over time, injury to the back, shoulders, hands, wrists, or other parts of the body may occur. Injuries may include damage to muscles, tendons, ligaments, nerves, and blood vessels. Injuries of this type are known as musculoskeletal disorders, or MSDs.

Most occupational health and safety regulatory agencies have taken the position that back belts are not acceptable as personal protective equipment (PPE). Studies on the effectiveness of using back belts to lessen the risk of back injury to healthy workers remain inconclusive. Individual workers who perceive benefit from the use of back belts should consult with Occupational Health Services. Back belts do not eliminate exposure to the hazard and their use may even cause injuries and other problems. Back belts do not make people stronger.

Lifting Analysis:

A lifting task is considered to be the act of manually grasping and raising an object of definable size without mechanical aids. To help assess lift hazards, department heads and/or supervisors can use the following calculator for analyzing lifting operations.



1. Enter the weight of the object lifted: ___ # lbs.

2. Circle the number of a rectangle to the left that corresponds to the position of the person's hands when they begin to lift or lower the object:

3. Circle the number that corresponds with the times person lifts per minute and total number of hours per day spent lifting. (See chart below)

Note: For lifting done less than once every five minutes, use **1.0**

How many lifts per minute?	**How many hours per day?**		
	1 hr or less	1 to 2 hrs	2 hrs or more
1 lift every 2-5 min	1.0	0.95	0.85
1 lift every min	0.95	0.9	0.75
2-3 lifts every min	0.9	0.85	0.65
4-5 lifts every min	0.85	0.7	0.45
6-7 lifts every min	0.75	0.5	0.25
8-9 lifts every min	0.6	0.35	0.15
10+ lifts every min	0.3	0.2	0.0

4. Circle 0.85 if the person twists 45 degrees or more while lifting. 0.85
Otherwise circle 1.0. 1.0

5. Copy the numbers you have circled in steps 2, 3 and 4.

_____lbs._ x _____ x _____ = _____lbs_ (Lifting Limit)
Step 2 Step 3 Step 4

6. Is the weight lifted (No. 1) less than the lifting limit (No. 5)?
Yes = ok and No = hazard

7. Solution Principles:
To find the most appropriate solution for the job, look for the lowest number you used to do the calculations (2, 3 and 4):

HANDS POSITION (2)
* Reduce horizontal distance from the body
* Remove barriers, obstacles
* Reduce capacity of the container
* Team lift the object with two or more

FREQUENCY (3)
* Increase weight of a load so it requires mechanical assist
* Improve layout to minimize manual material handling

Workers

* Use mobile storage racks

* Design workstation with the adjustable heights to eliminate trunk bent forward
* Provide handholds
* Store objects at 30 inches off the floor

DURATION (3)

* Use mechanical assist such as overhead hoist, manipulator, vacuum lift, pneumatic balancer, forklift
* Eliminate the use of deep shelves
* Job rotation to other jobs where no lifting is required

TWISTING (4)

* Redesign workstation layout to eliminate trunk twisting
* Locate lifting operations in front of the body
* Use slides, gravity, chutes to eliminate lifting/twisting

Supervisors can use the checklist found in appendix A along with the chart above to help reduce or eliminate back injuries.

Training/Authorized Persons:

Employees affected with lifting heavy objects shall be trained by a competent trainer in the proper lifting operations for their work area. This training shall be provided upon initial employment and/or new job assignment. Periodic refresher training shall be conducted as needed. Training shall include, but is not limited to, proper lifting techniques, injury prevention, and behavior modification. A list of employees trained shall be attached to this policy and located in each department with affected employees as well as a copy sent to the human resources department.

Appendix A – Back Safety Program

LIFTING TASK REDESIGN CHECKLIST

Listing Task: _____

Elimination Questions – Substitution Questions – Control Questions

Yes	No	
☐	☐	Is there really a need for the lifting task?
☐	☐	Can the need for lifting the load or moving the item be eliminated?
☐	☐	Could lifting/moving equipment be used instead of the worker's arm and back muscles?
☐	☐	Could the weight of the load be reduced?
☐	☐	Could the load be packaged differently so that the natural way to grasp it would place it closer to the body?
☐	☐	Could the load be stored differently to reduce the horizontal distance from the body at both pickup and set down points?
☐	☐	Could the load be packaged differently so that the vertical distance above the floor during both pickup and set down is above knee height and below shoulder height?
☐	☐	Could the load be stored differently so that the vertical distance above the floor during both pickup and set down is above knee height and below should height?
☐	☐	Could the vertical distance between the pickup point and set down point be reduced?
☐	☐	Could the duration of lifting session be shortened?
☐	☐	Could handles or another type of grasping point be made available to improve comfort and control during the lift?
☐	☐	Could the need to rotate from left to right, or right to left, be reduced?

(This page intentionally left blank)

BLACK HAWK COUNTY
BLOODBORNE PATHOGENS PROGRAM

Purpose:

The purpose of the bloodborne pathogens program is to provide general guidelines to Black Hawk County employees regarding their safety and health with respect to blood-borne pathogens and diseases in the workplace. Bloodborne pathogens guidelines were prepared in accordance with Federal Code of Regulations 1910.1030.

Copies of this program shall be located in all departments of Black Hawk County. Although there are departments that do not have high potential for bloodborne exposure, all employees may be exposed to incidents during cuts or scratches. A copy of this policy shall also be maintained in the human resources department.

Policy:

This policy shall provide a guide for safeguarding employee health and safety by providing employees with bloodborne pathogens information and regulations. It shall also ensure that employees with potential for occupational exposure receive proper training. This policy applies to all occupational exposure to blood or other potentially infectious materials as defined in the Federal Code.

Annual Review:

This program shall be reviewed on an annual basis, and shall be updated as necessary to reflect new rules and regulations. It shall also be revised to reflect new or modified tasks and procedures which are affected by occupational exposure and to reflect new or revised employee positions with respect to occupational exposure. Incidents involving bloodborne pathogens due to violations of the program, and any other applicable information shall be included in the program evaluation.

Employer Responsibility:

The department head or designee is responsible for the effective operation of this program. Department heads and supervisors shall ensure that applicable regulations and work rules are followed regarding bloodborne pathogens and that employees with potential for exposure to bloodborne pathogens receive appropriate training (see section on employee training). Supervisory personnel are responsible for establishing and enforcing work rules to ensure that bloodborne pathogens preventative procedures are followed. Department head is responsible for working with employee and for correcting problems as potential hazards are reported to them.

Employee Responsibility:

Upon hire or transfer to a new position, it shall be the responsibility of employee to notify department head with regard to potential problems in their work area. Employees are responsible for safely performing their duties within established work practices and practice universal precautions as outlined in their training.

Employee Training:

Training shall be conducted by a person knowledgeable in the subject matter as it relates to the workplace. To provide the best possible training for employees, all training will be designed based on high risk exposure. Department head shall make training available, to all employees with potential for occupational exposure, initially and annually thereafter.

Employer shall provide additional training when changes such as modification of tasks or procedures or institution of new tasks or procedures affect the employee's occupational exposure. Documentation of training shall include the name of the trainer, each employee trained, date, and type of training received. Employees shall be retrained on any procedures or policies that are violated. Documentation of training shall be sent to the human resources office. Training records shall be maintained for a minimum of three years.

Definitions:

The following definitions are used in the bloodborne pathogens standard, OSHA standard, section 1910.1030.

- *Blood* – human blood, human blood components, and products made from human blood;
- *Bloodborne Pathogens* – pathogenic microorganisms present in human blood that can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).
- *Contaminated* – the presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.
- *Contaminated Sharps* – any contaminated objects that can penetrate the skin including, but not limited to, needles, broken glass, sharp tooling.
- *Engineering Controls* – controls (e.g., sharps disposal containers, self-sheathing needles, safer-medical devices, such as sharps with engineered sharps injury protection and needleless systems) that isolate or remove the bloodborne pathogens hazard from the workplace.
- *Exposure Incident* – specific eye, mouth, or other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that results from the performance of an employee's duties.
- *Handwashing Facilities* **–** a facility providing an adequate supply of running potable water, soap and single use towels or hot air drying machine.
- *Occupational Exposure* – reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.
- *Parenteral* - piercing mucous membranes or the skin barrier through such events as needlesticks, human bites, cuts and abrasions.

- *Personal Protective Equipment* - specialized clothing or equipment worn by an employee for protection against a hazard.

- *Universal Precautions* – 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.

Methods of Compliance:

A list of all job classifications identifying all employees who have or may have occupational exposure shall be located in departments with potential for occupational exposure. Per Federal Code, classifications in nursing and medical facilities range from high risk, medium risk and low risk potential for exposure. Departments with more than minimal potential for exposure to bloodborne pathogens shall develop a detailed bloodborne pathogen program for their respective area in accordance with 1910.1030.

Universal precautions shall be observed to prevent contact with blood or other potentially infectious materials. Under circumstances in which differentiation between body fluid types is difficult or impossible, all bodily fluids shall be considered potentially infectious materials.

Departments such as public health, conservation, county sheriff's and nursing home facilities shall have a written policy at the facility to cover areas of Federal Code not provided for in this policy. A written copy of that policy shall be located in each of those areas. A copy shall also be sent to the human resources department to be placed on file with county policy.

- **Engineering and work practices** shall be used to eliminate or minimize employee exposure. Engineering controls shall be examined and maintained or replaced on a regular schedule to ensure their effectiveness. Where occupational exposure remains after institution of these controls, personal protective equipment (PPE) shall also be used. Department shall be responsible for providing PPE at no cost to employees.

- **Employer shall provide hand-washing facilities** which are readily accessible to employees. These facilities must be supplied with soap and hot water. When provisions for hand washing are not feasible, the employer shall provide either an appropriate antiseptic hand cleanser in conjunction with clean cloth/paper towels or antiseptic towelettes. When antiseptic hand cleansers or towelettes are used, hands shall be washed with soap and running water as soon as feasible.

- **Employer shall provide appropriate 'sharps' containers** where sharps, broken glass and needles may be deposited as soon as possible after use. Containers shall be located in restroom areas and shall be:
    - Puncture resistant;
    - Labeled or color-coded in accordance with the standard;
    - Leakproof on the sides and bottom;
    - Labeled or color-coded according to the requirements of the standard before leaving the facility.
        - See Signs, Labels & Color Coding Section

- **Employer shall provide for disposal of all sharps containers through a certified service.** Departments located outside of public health and the county nursing facility shall take the sharps and bloodborne containers to public health or nursing care facilities for proper disposal. When transporting these containers to the health or nursing care department, employee shall wear appropriate personal protective equipment and practice universal precautions to protect themselves from potential bloodborne particles.

- **Employer shall provide all applicable Personal Protective Equipment (PPE)** to the employee. PPE shall be accessible and in appropriate sizes to all affected employees. Appropriate PPE shall be provided at no cost to the employee. Employee working with potential bloodborne exposure shall use the appropriate PPE provided. Failure to use PPE as outlined in this policy may result in the employee being subjected to the progressive discipline process.

- **All equipment and environment and working surfaces** shall be cleaned and decontaminated (See Appendix B) after contact with blood or other potentially infectious materials with an appropriate disinfectant or properly disposed of in accordance with 1910.1030. Use protective gloves while cleaning contaminated areas.

Bloodborne Diseases:

Bloodborne pathogens are microorganisms such as viruses or bacteria that are carried in blood and can cause disease in people. There are many different bloodborne pathogens including malaria, syphilis, and brucellosis, but Hepatitis B (HBV) and the Human Immunodeficiency Virus (HIV) are the two diseases specifically addressed by the OSHA Bloodborne Pathogen Standard.

It is important to know which bloodborne pathogens (from humans or animals) an employee may be exposed to at work.

Human Immunodeficiency Virus (HIV):

AIDS, or acquired immune deficiency syndrome, is caused by a virus called human immunodeficiency virus, or HIV. When a person has been infected with HIV, it may be many years before AIDS actually develops. HIV attacks the body's immune system, weakening it so that it cannot fight other deadly diseases. AIDS is a fatal disease, and while treatment for it is improving, there is no known cure.

The HIV virus is highly fragile and will not survive very long outside of the human body. It is primarily of concern to employees providing first aid or medical care in situations involving fresh blood or other potentially infectious materials. It is estimated that the chances of contracting HIV in the workplace environment are only 0.4%. However, because it is such a devastating disease, all precautions must be taken to avoid exposure.

Accidental puncture from contaminated needles and other sharps can result in transmission of bloodborne pathogens such as HIV. Employees shall use precaution and wear PPE provided.

Hepatitis C (HBC):

Hepatitis C is a virus that infects the liver. HBC is spread through contact with contaminated blood. It can also be spread through close household contact. The role of sexual transmission is not clear, but high-risk sexual activity (multiple partners or history of STDs) is a risk factor. It can also be transmitted from a pregnant woman to her baby. The mode of transmission is unknown in about 10% of cases.

Hepatitis C can be spread from person-to-person, but parental (blood to blood) route is the most common. Sexual transmission accounts for approximately 15% of all transmission, although it is not thought to be efficiently transmitted sexually. Mother to infant transmission does occur in about 5%-6% of infant cases. There is no evidence that Hepatitis C can be transmitted by casual contact, through foods or breast milk, or by coughing or sneezing.

Exposure to the Hepatitis C virus comes through IV drug users, persons receiving blood products (such as transfusions) or organ transplants prior to July 1992, persons receiving clotting factors before 1987, healthcare workers, chronic hemodialysis patients, infants born to infected mothers, and persons with multiple sexual partners.

At present, there is no vaccine for Hepatitis C.

Hepatitis B (HBV):

Hepatitis means inflammation of the liver. While there are several different types of Hepatitis, Hepatitis B is transmitted primarily through blood to blood contact. Hepatitis B initially causes inflammation of the liver, but it can lead to more serious conditions such as cirrhosis and liver cancer.

There is no cure or specific treatment for HBV, but many people who contract the disease will develop antibodies which help them get over the infection and protect them from getting it again. It is important to note, however, that there are different kinds of hepatitis, so infection with HBV will not stop someone from getting another type.

The Hepatitis B virus is very durable and it can survive in dried blood for up to seven days. For this reason, this virus is the primary concern for employees such as housekeepers, custodians, laundry personnel and other employees who may come in contact with blood or potentially infectious materials in a non first-aid or medical care situation.

Accidental puncture from contaminated needles and other sharps can result in transmission of bloodborne pathogens such as Hepatitis B. Employees shall  use precaution and wear PPE provided.

Hepatitis B Vaccination:

The Hepatitis B vaccination is given in a series of three intramuscular doses in the deltoid muscle. The second dose is given one month after the first, and the third dose is given six months after the first dose. This series gradually builds up the body's immunity to the Hepatitis B virus. The vaccine itself is made from yeast cultures; there is no danger of contracting the disease from getting the shots.

The department head shall make the series of shots available after applicable training has been given to employees with potential for occupational exposure. Vaccination must be offered within 10 working days of initial exposure unless employee has previously received the complete

hepatitis series, antibody testing has revealed that the employee is immune, or the vaccine is contraindicated for medical reasons. When an employee consents to or declines a vaccination, said employee shall be required to sign the consent or refusal form located in appendix A.

In the event an employee initially declines the Hepatitis B vaccination and later decides (while still covered under the standard) to accept the vaccination, the employer shall make the Hepatitis B vaccination series available at that time. The department shall be responsible for payment of vaccinations given to an exposed employee from their department and also any booster vaccinations.

When routine booster dose(s) of Hepatitis B vaccine is recommended by the U.S. Public Health Service, such booster dose(s) shall be made available by the employee's respective department.

Signs, Labels & Color Coding:

Warning labels shall be affixed to containers of regulated waste for transporting. The label should display the following universal biohazard symbol.

The bags that hold disposal waste should be red or orange-red, should be clearly labeled, and should be double-bagged to guard against the possibility of leakage if the first bag is punctured. Bags and sharps containers are not to be reused for any reason.

Emergency Procedures

In an emergency situation involving blood or potentially infectious materials, employees shall always use **universal precautions** and work to minimize exposure by wearing gloves, goggles, pocket mouth-to-mouth resuscitation masks, and other barrier devices.

When exposure occurs:

1. Wash exposed area thoroughly with soap and water. Use non-abrasive, antibacterial soap when possible. **If blood is splashed in the eye or mucous membrane, flush affected area with running water for at least 15 minutes.**
2. Report exposure to supervisor as soon as possible.
3. When exposure to blood or potentially infectious materials occurs on the job, employee may request a hepatitis B vaccine at that time if they have not had vaccine prior to that incident.

Post-exposure Evaluation and Follow-up:

Following report of exposure incident, employee shall call Company Nurse at 1-877-740-5017. Company Nurse shall direct employee with what steps to follow.

The employer shall make available to the exposed employee a confidential medical evaluation and follow-up, including:

- Documentation of the route(s) of exposure;
- Circumstances under which exposure incident occurred;
- Counseling as needed by employee exposed;

- Evaluation of reported illness;
- Procedure as outlined in CFR 1910.1030.

The records of exposure shall be kept on file in the employee's department in accordance with 1910.1030 regulations.

Appendix A – Bloodborne Pathogens Program

Hepatitis B Immunization – Consent or Refusal

Employee's Name (please print) _____ Social Security Number _____

Address _____ City/State/Zip _____ Phone _____

Place of Employment _____ Phone _____

I have read the information about Hepatitis B and the Hepatitis B vaccine which is found on the next page. I have had an opportunity to ask questions of a qualified nurse or physician and understand the benefits and risks of Hepatitis B vaccination. I under-stand that I must have 3 doses of the vaccine to obtain immunity. However, as with all medical treatment, there is no guarantee that I will become immune or that I will not experience side effects from the vaccine.

CONSENT TO HEPATITIS B VACCINATION

Signature of Person to Receive Vaccine _____ Date Signed _____

Witness _____ Date Signed _____

Date Vaccinated	Manufacturer	Lot #	Site	Administered By

REFUSAL OF HEPATITIS B VACCINE

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

Date _____ Signature of Employee _____

Date _____ Signature of Witness _____

INFORMATION ABOUT HEPATITIS B VACCINE

The Disease

Hepatitis B is a viral infection caused by Hepatitis B virus (HBV) which causes death in 1%-2% of patients. Most people with Hepatitis B recover completely, but approximately 5%-10% become chronic carriers of the virus. Most of these people have no symptoms, but can continue to transmit the disease to others. Some may develop chronic active hepatitis and cirrhosis. HBV may be a causative factor in the development of liver cancer. Immunization against the Hepatitis B virus can prevent acute hepatitis and its complications.

The Vaccine

Hepatitis B vaccine is produced from yeast cells. It has been extensively tested for safety and effectiveness in large scale clinical trials.

Approximately 90% of healthy people who receive two doses of vaccine and a third dose as a booster achieve high levels of surface antibody (anti-HBs) and protection against Hepatitis B virus. Hepatitis B vaccine is recommended for workers with potential for contact with blood or body fluids. Full immunization requires 3 doses of vaccine over a six month period, although some persons may not develop immunity even after 3 doses.

There is no evidence that the vaccine has ever caused Hepatitis B. However, persons who have been infected with HBV prior to receiving the vaccine may go on to develop clinical hepatitis in spite of immunization.

Dosage and Administration

The Hepatitis B vaccine is given in three intramuscular doses in the deltoid muscle. Two initial doses are given one month apart, and the third dose is given six months after the first dose.

Possible Vaccine Side Effects

The incidence of side effects is very low. No serious side effects have been reported with the vaccine. 10% -20% of persons experience tenderness and redness at the site of injection and low grade fever. Rarely rash, nausea, joint pain and mild fatigue have been reported. The possibility exists that other side effects may be identified with more extensive use.

Appendix B – Bloodborne Pathogen Program

General Decontamination Procedure

Hand Decontamination

• Wash hands completely with soap and water.
• Rub hands together for at least 10 seconds (with soap if available). Wash all surfaces well, including wrists, palms, backs of hands, fingers, and under the fingernails.
• Clean the dirt from under fingernails.
• Rinse soap from hands.
• Dry hands completely with a clean towel if possible (this helps remove the germs).
• When towels are not available it is permissible to air dry hands.
• Pat skin rather than rubbing it to avoid chapping and cracking.
• Dispose all disposable towels in the bio-hazard trash.

Clothing, Tool and Equipment Decontamination

Contaminated clothing, tools and equipment should also be cleaned. **It is preferable that soap and clean water be used when available.**

• If only contaminated water is available; mix a solution of:
  _ 1/4 cup bleach
  _ 1 gallon of water
• Immerse objects in the solution for 10 minutes; if clothing, gently swirl every few minutes.
• If clothing, wring out as much moisture as possible.
• If tools or equipment, allow the object to drain and then transfer directly to bleach solution (above).
• Re-immerse clothing in the household bleach solution for ten (10) minutes with periodic gentle swirling of the clothing.
• Allow clothes to dry thoroughly before reusing.

Severe Surface Decontamination

Surfaces heavily contaminated with mold, feces, or body tissues should be disinfected using the following household bleach solution:
  _ 1 1/2 cups bleach
  _ 1 gallon of water
• Place solution in a spray dispenser.
• Thoroughly douse surfaces that have heavy deposits of contaminants and allow to stand for 3 minutes.
• Wipe contaminants from the surface with a paper towel.
• Discard the towel.
• Douse the surface again but use bleach solution that is used for hand washing and wipe off the residual contamination with a paper towel.
• Discard the towel in bio-hazard trash and allow surface to dry.

Important Considerations

• For greatest effectiveness, prepare bleach solutions fresh **daily**.
• Allow all bleach solutions to stand for at least **30 minutes before using**.
• Do not immerse electrical or battery operated tools/equipment in bleach solutions; wipe the outside of these objects with a disposable rag soaked with the solution and allow it to dry. Throw rag in the bio-hazard trash.
• Use gloves and eye protection when cleaning clothes, tools/equipment, and surfaces.
• When mold is present use respirator protection (an N-95 respirator is recommended).
• All containers should be labeled **"Bleach-disinfected water: DO NOT DRINK."**
• **CAUTION: Never mix bleach with products containing ammonia.**

(This page intentionally left blank)

BLACK HAWK COUNTY
COMPRESSED GASES PROGRAM

Purpose:

The purpose of the Compressed Gases Program is to provide general guidelines to Black Hawk County employees on the proper use, handling, and storage of compressed gases and to communicate awareness of these methods to employees. These policies and procedures were prepared in accordance with OSHA regulation Section 1910.101 and 1910.251-255.

Copies of this program shall be located at each site where compressed gases are stored and used. A copy of this policy shall also be maintained in the human resources department.

Policy:

This policy shall provide a guide for safeguarding employee health and safety by providing guidelines in compliance with applicable regulations regarding storage, handling and use of compressed gases. It shall also ensure that affected employees receive proper training in the safe use of materials and pressurized systems.

Annual Review:

This program shall be reviewed annually, and shall be modified when changes in laws or regulations occur. Incidents involving storage or handling of compressed gas due to violations of the program, and any other applicable information shall be documented and included in the program evaluation. Updates shall be made as authorizations change (see Training/Authorized Persons below).

Employer Responsibility:

The department head or designee is responsible for the effective operation of this program. Department heads and supervisors shall ensure that applicable regulations and work rules are followed regarding the safe condition, proper use, storage, and handling of compressed gases and that employees covered by this policy receive appropriate training.

Supervisory personnel are responsible for establishing and enforcing work rules to ensure a safe work environment where compressed gases are located.

Employee Responsibility:

Employees are responsible for safely performing their duties within established work practices and precautions outlined in their training.

Training/Authorized Persons:

Employees to become authorized shall be trained by a competent trainer in the proper use, handling and storage of compressed gases. Training shall include proper personal protective Equipment (PPE) appropriate to specific gases. A list of employees trained and authorized to handle compressed gases shall be attached to this policy and located in each department as well as the human resources department.

Cylinder Handling:

- Exercise care in handling all pressure cylinders. Cylinders should not be dropped or jarred. Use of approved methods shall be exercised when lowering cylinders from vehicles;

- Cylinders shall be transported in an upright position with safety caps used for valve protection set in place. Cylinders cannot be transported without safety caps that are screwed tightly on the cylinder's neck ring and safety cap 56it securely. Regulators shall not be attached to cylinders during transport;
- Safety devices shall not be tampered with;
- Cylinder should never be lifted by the cap. Suitable truck, chain or other holding device shall be used for transportation;
- Do not use electric magnets or loop slings to handle cylinders;
- Cylinders shall not be allowed to come in contact with energized conductors or ground wires from electrical equipment;
- Cylinders shall be opened SLOWLY. A hammer or wrench shall not be used to open cylinder valves. If valves cannot be opened by hand, the supplier shall be notified;
- If cylinder is to be disposed of, follow supplier instruction;
- Where a special wrench is required it shall be left in position on the stem of the valve while the cylinder is in use so that the fuel-gas flow can be quickly turned off in case of emergency;
- Do not charge, ship or use any cylinder which is not provided with a legible decal that identifies its contents:
    - Flammable Gas – labels show a flame on red label;
    - Non-flammable Gas – labels depict a gas canister on a green background;
    - Poisonous Gas – labels show skull and crossbones;
    - Oxygen-containing Gas – labels are designated by a flaming letter "O;"
    - Chlorine Gas – labels are distinctly marked.

Cylinder Storage:

- Oxygen cylinders (empty or full) must be kept separate from fuel gas cylinders by a minimum distance of 20 feet or by a noncombustible barrier at least five feet high that has a one-half hour fire resistance rating. Stored cylinders and storage areas shall be plainly labeled or identified as stated above;
- Empty and spare cylinders shall be stored away from areas where cylinders are in actual use. Empty cylinders shall be marked (Empty or MT). Empty cylinders which contained the same gases shall be grouped together;
- Cylinders shall be stored in a well ventilated area away from heat, flames, sparks or any source of heat or ignition. Keep cylinders away from electrical circuits. Do not expose cylinders to any temperature above 130 degrees Fahrenheit;
- Storage locations shall be away from elevators, stairs, or gangways. Cylinders should not be exposed to continuous dampness, or stored near salt or other corrosive chemicals or fumes;
- Full or empty portable gas cylinders shall be stored in an upright position with caps in place. Cylinders shall be secured so that they cannot fall or be upset, damaged by passing or falling objects, or tampered with by unauthorized persons;
- Cylinder storage shall be planned so that cylinders will be used in the order in which they are received;
- When moving cylinders from one location to another, cylinder shall not be rolled by hand along the floor or transported on a forklift. A cylinder cart shall be used.

Cylinder Use:

- **Always use proper regulator for the gas in the cylinder**;
- Except for hydrogen or fuel gas cylinders, "Crack" the cylinder valve (open it slightly and close it immediately) before attaching a gas regulator to the cylinder – except a hydrogen or fuel gas cylinder;
- Wipe the outlet with clean, dry, lint-free cloth once cylinder has been cracked. The threads and mating surfaces of regulator and hose connections should be cleaned before regulator is attached;
- Do not tamper with the safety relief devices in valves of cylinders;

- Do not force connections that do not fit;
- Do not lubricate valves, gauge connections or other parts of an oxygen system. Do not handle cylinders and fittings with oily or greasy hands or gloves;
- Connect a full cylinder to header or manifold with other cylinders only when their temperatures are approximately the same;
- Cylinders in use shall be secured in place and connected to manifold, welding set, or other device;
- Close the cylinder valve and release pressure from the regulator before removing regulator from a cylinder;
- Do not use a leaking cylinder or valve. Tag leaking cylinders with stuck valves and move them to safe and secure outdoor location;
- Do not use an open flame to detect flammable gas leaks;
- Do not rest tools in the recessed top of cylinders;
- "No Smoking" signs shall be posted and enforced in areas where compressed gases are used or stored;
- If a cylinder valve becomes clogged with ice or snow, thaw with warm (not boiling) water.
- If in doubt as to contents of a cylinder, do not use it.

Definitions:

Anesthetic gas – A gas that may cause loss of sensation with or without the loss of consciousness.

CGA – Compressed Gas Association.

Corrosive Gas – A gas that can cause visible destruction of, or irreversible alterations in, living tissue (e.g. skin, eyes, or respiratory system) by chemical action.

Cryogenic Liquids – Gases condensed to liquid form at extremely low temperatures.

DOT – U.S. Department of Transportation.

Flammable gas – A gas that can be ignited in air.

Compressed gas – A material that is shipped in a compressed gas cylinder and acts as a gas upon release at normal temperature pressure or is used or handled as a gas.

Hazardous gas – A gas that is included in one or more of the following hazard categories: corrosive, flammable, health hazard, relative or toxic.

NFPA – National Fire Protection Association.

Oxidizing gas – A gas that initiates or promotes combustion in materials, either by catching fire itself or by causing a fire through release of oxygen or other gases.

Oxygen deficiency – A condition that occurs when a breathable atmosphere contains less than 19.5% oxygen. Normal is 20.8%.

Pyrophoric gases – Gases that may spontaneously ignite in air at or below 54^{o} C (130^{o} F). Specific gases may not ignite in some circumstances or many explosively decompose.

Toxic gas – A gas that is poisonous or capable of causing injury or death, especially by chemical means.

Inspection:

It shall be the responsibility of the department head, supervisor and/or competent person to periodically inspect areas where compressed gases are used and stored to ensure compliance with applicable programs, policies and regulations. Documentation of inspection will be kept at the site and also in the human resources department.

Training:

Authorized employees shall be trained by a competent person in the proper use, handling and storage of compressed gases. Training shall include proper personal protective equipment appropriate to specific gases.

Violation of Compressed Gases Program:

Employees who violate the compressed gases program may be subject to discipline based on applicable policies. Employees will also be required to retrain on the procedures or policies that were violated.

BLACK HAWK COUNTY
CONFINED SPACE ENTRY PROGRAM

Purpose:

The purpose of the confined space entry program is to ensure safety and health and provide general guidelines to Black Hawk County employees while performing tasks that require entry into areas defined as confined spaces. These policies and procedures were prepared in accordance with OSHA regulation Section 1910.146.

Copies of this program shall be located at each site where confined spaces are located. A copy shall also be maintained in the human resource department.

Policy:

This policy shall provide a guide for safeguarding employee health and safety by providing affected employees with confined space entry information and regulations. It shall also ensure that affected employees receive proper training.

Black Hawk County employees are authorized to enter only Level 1 spaces as subsequently described in this policy. County employees shall not enter a Level 2 or Level 3 confined space.

Annual Review:

This program shall be reviewed annually, and shall be modified when changes in laws or regulations occur. Incidents involving confined space entry due to violations of the program, and any other applicable information shall be included in the program evaluation.

Employer Responsibility:

The department head or designee is responsible for the effective operation of this program. Department heads and supervisors shall ensure that applicable regulations and work rules are followed regarding confined space entry that employees in departments with access to confined spaces receive appropriate training, and that employees enter only level 1 confined spaces.

Supervisory personnel are responsible for establishing and enforcing work rules to ensure that confined space entry procedures are followed.

Employee Responsibility:

Employees are responsible for safely performing their duties within established work practices and precautions outlined in their training.

Definitions:

The following definitions are used in the confined spaces standard. Other definitions are found in OSHA Standard, Section 1910.146.

- *Attendant* - an individual stationed outside one or more permit spaces who monitors the authorized entrants and who performs all attendant's duties assigned in the confined space entry program (See appendix A).
- *Authorized entrant* - an employee who is trained and authorized by the employer to enter a permit space and who performs all entrants' duties as assigned in the confined space entry program (See appendix A).

- *Competent Person - a* person who is capable of identifying existing and predictable hazards as demonstrated by knowledge and experience, and is authorized by the employer to take prompt corrective measures.

- *Confined space* - a space that:
  - By design has limited or restricted means of entry and exit and is not intended for continuous employee occupancy.
  - Include but are not limited to manholes, boilers, pipelines, sewers, tunnels, silos, storage bins and hopper vaults.
  - Large enough, and so configured, that an employee can bodily enter and perform assigned work.

- *Entry* - the action by which a person passes through an opening into a permit-required confined space. Entry is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space, and includes work activities performed in that space.

- *Entry permit (permit)* - the written or printed document that is provided by the employer to allow and control entry into a permit space which contains the information required by this program.

- *Entry supervisor* - the person responsible for determining whether acceptable entry conditions are present at a permit space where entry is planned, for authorizing entry, for overseeing entry operations, and for terminating entry as determined by this section. (Example: department head, foreman or competent person.) An entry supervisor may serve as an attendant or an authorized entrant, provided that he/she is trained for each role that he/she fills (See appendix A).

- *Permit-required confined space (permit space)* - a confined space that has one or more of the following characteristics:
  - Contains or has a potential to contain a hazardous atmosphere.
    - Three of the most common conditions which constitute hazards are oxygen deficiency, presence of combustible gases or vapors and toxic gases or vapors.
  - 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.
  - Contains any other recognized serious safety or health hazard.

Determining Levels of Hazard:

For the purpose of determining the levels of hazards of each permit-required confined space, the following classifications are used:

- **Level 1 Confined Space:** A confined space with the only source of contamination being the work activities conducted. (Example: cleaning.) Black Hawk County employees are authorized to enter.

- **Level 2 Confined Area:** A confined space containing a source of contamination which may make the air unsafe. (Example: storm sewer.) **Black Hawk County employees are not authorized to enter.** Vendors must provide documentation that they are in compliance with OSHA regulations before entering confined space.

- **Level 3 Confined Area:** A confined space exceeding or likely to exceed safe recommendations. (Example: septic sewer.) Black Hawk County employees are **NOT** authorized to enter. Vendors must provide documentation and entry permit that they are in compliance with OSHA regulations before entering confined space.

Confined Spaces Evaluations and Inventory:

The department head, supervisor and/or competent person shall inspect and inventory all work locations to determine if confined spaces exist, as defined by Section 1910.146. Each department shall keep the inventory as an appendix to the confined space entry program in their department. (See confined spaces evaluation and inventory form.)

All known permit-required confined spaces shall be designated by signs such as "*Danger – Permit-Required Confined Space – Do Not Enter,"* or shall be protected from unauthorized entry by padlocks or other mechanical means when possible. (Example: access tools.) Where it is impractical to sign a confined space, employees should be instructed to review this policy and 1910.146 before entry is made into the area.

Lockout/Tagout Procedures:

No work is to be performed until appropriate locking, tagging and/or isolation is accomplished to prevent the inadvertent actuation of operations or processes associated with the space that might expose employees to hazardous conditions. Employees shall refer to Black Hawk County's lockout/tagout program for proper procedures.

Hazardous Communications:

If hazardous substances are present in the confined space during entry, a copy of the MSDS shall be available at the entry site. (Example: cleaning chemicals.)

Employee Information and Training:

Employees shall be informed that Black Hawk County employees are not authorized and shall not enter any Level 2 or Level 3 (as defined above) confined spaces.

Employees authorized or affected by entry into a permit-required confined space shall receive training as required by Section 1910.146 (c)(7). Training, conducted by a competent person, shall include:

- An overview of Section 1910.146;
- Details of this program, including which confined spaces may be entered;
- Definition and identification of confined spaces;
- General hazards associated with confined spaces in the workplace;
- Selection and use of proper personal protective equipment;
- Communication equipment and its proper use;
- Explanation of the permit system;
- Duties of entrants and attendants;
- Recognizing hazards;
- Emergency response procedures;
- Use of emergency rescue equipment.

Equipment:

- Fire extinguishers shall comply with the portable fire suppression equipment program, and shall be suitable for the potential hazards of the location.
- First aid kits shall be reviewed by the consulting physician to ensure supplies address potential needs according to hazards.
- Respirators shall comply with the respiratory protection program.
- Personal protective equipment (PPE) shall comply with applicable programs and regulations.
- Communications equipment.

Entry of Level 1 Confined Space:

Black Hawk County employees are authorized to enter only level 1 confined spaces. Outside vendors shall be engaged for all level 2 and level 3 confined space entry.

A pre-entry checklist (Appendix B) may be used in lieu of a permit for level 1 spaces. The checklist authorizes entry into level 1 spaces without providing an attendant. A pre-entry checklist must be completed before every entry.

- Entrants shall be trained as defined in Section 1910.146(3).
- Mechanical ventilation shall be provided.
- Entry ability shall be revoked when conditions become unacceptable for entry.
- When an entry permit has been revoked because conditions have become unacceptable in the permit space, subsequent entry shall be made with an attendant stationed outside the permit space.

Permit-Required Entry:

- Entrants shall:
  - Maintain contact with attendant through voice contact unless respiratory protection prohibits contact. In that case, contact will be maintained through electronic signal device.
  - Perform only those duties listed on the permit.
- Attendants shall:
  - Be stationed and remain outside the permit space(s) at all times.
  - Order authorized entrants to evacuate the permit space immediately when the attendant:
    - Observes a condition which is not allowed in the entry permit.
    - Detects behavioral effects of hazard exposure.
    - Detects a situation outside the space which could endanger the entrants.
    - Detects an uncontrollable hazard within the permit space.
    - Must leave the work station.
  - Summon rescue and other emergency services as soon as the attendant determines that authorized entrants need to escape from permit space hazards.
  - Takes the following actions when unauthorized persons approach or enter a permit space while entry is underway.
    - Warn unauthorized persons to move away from the permit space.
    - Request unauthorized persons to exit immediately if they have entered the permit space.
    - Inform authorized entrants and any other designated persons when unauthorized persons have entered the permit space.
  - During rescue, the employer shall ensure that attendants:
    - Properly use rescue equipment provided for their use.
    - Perform assigned rescue and emergency duties without entering the permit space.
    - Do not enter the permit space to attempt to rescue entrants.
  - Rescue Team:
    - The Waterloo Fire Department is the designated rescue team for Black Hawk County.
    - The Waterloo Fire Chief shall receive a copy of Black Hawk County's confined space entry program.

Prohibition of Level 2 or Level 3 Entry:

No Black Hawk County employee shall enter a level 2 or level 3 confined space.

Employee Training:

Training shall be conducted by a competent person (see "Definitions"). Employees shall be trained annually in accordance with 1910.146 (g) (1-4). The trainer shall verify that each affected employee has received and understands the information presented through a competency test, a written test, or a

combination of both. Documentation of training shall include the name of the trainer, each employee trained, the date, and the type of training received.

Outside Contractors:

Outside contractors shall be informed of the elements of this program by the applicable department head or designated representative and must provide copies of their permit-required confined space program. Contractors who fail to follow these requirements will be asked to leave the premises. Contractors with an insufficient program will not be allowed to begin work until their program meets or exceeds the requirements of Code of Federal Regulations Section 1910.146, permit-required confined space entry program.

Violation of Confined Space Entry Program:

Employees who violate the confined space entry program may be subject to discipline based on applicable policies. Employees shall be retrained on the procedures or policies that were violated.

Appendix A – Confined Space Entry Program

Confined Spaces – Attendant Duties

Attendants are individuals stationed outside of confined spaces who monitor the authorized entrants. These attendants:

- Must know hazards that may be faced during an entry, including information on the mode, signs or symptoms and consequences of exposure.
- Must be aware of possible behavioral effects (i.e. disorientation, faulty judgment) of hazard exposure in authorized entrants.
- Must continuously maintain accurate count of authorized entrants in the confined space and ensure that the means used to identify authorized entrants accurately identifies who is in the confined space.
- Must remain in a pre-designated location outside the permit space during the operation. This is true until replaced by another trained attendant.
- Communicates with entrants as necessary to monitor entry and also alerts entrants of need to evacuate the space.
- Monitors activities inside and outside the space to determine if it is safe to entrants and/or exit the space.
    - Attendant shall be trained to detect prohibited condition
    - Attendant shall be trained to detect behavioral effects of hazard exposure
    - Attendant shall be trained to detect situations outside the space that could endanger entrants
- Summon rescue and other emergency services as soon as the attendant determines that entrants may need assistance to escape for confined space.
- Takes the following actions when unauthorized persons approach or enter the confine space while entry is underway:
    - Warn unauthorized person to stay away from confined space
    - Advise unauthorized person to exit immediately if they have entered the confined space
    - Inform authorized entrants and entry supervisor if unauthorized persons have entered the confined space.
    - Performs no duties that interfere with attendants' primary duty to monitor and protect the entrants.
- Performs non-entry rescues.

Authorized Entrants are individuals who have been trained to enter confined spaces. These entrants:

- Must know hazards that may be faced during entry, including information on the mode, signs, symptoms and consequences of hazard exposures.
- Properly use equipment as stated below:
    - Testing and monitoring equipment;
    - Ventilating equipment;
    - Communications equipment;
    - Lighting equipment;
    - Barriers and shields;
    - Equipment for safe egress;
    - Rescue and emergency equipment.
- Must communicate with the attendant as necessary to enable the attendant to monitor entrant and the need to exit status
- Must alert attendant when entrant:
    - Recognizes warning signs or symptoms of exposure to a dangerous situation;
    - Detects a prohibited condition.
- Must exit confined space quickly whenever:

- An order to evacuate is given;
- Entrant recognizes warning signs or symptoms of exposure to dangers;
- Detects prohibited condition;
- Evacuation alarm is activated.

Entry Supervisors are individuals who are responsible for determining if acceptable entry conditions are present, for authorizing entry and overseeing entry operations. They are also responsible for terminating operation. Entry supervisors:

- Must know hazards that may be faced during the operation;
- Verifies by checking, appropriate entry has been made on the permit, tests specified by permit are conducted and procedures and equipment specified are in place. They must endorse the permit and allow entry to begin;
- Verifies rescue services are available and means for summoning them are operable;
- Ensures removal of unauthorized individuals who attempt entry;
- Determines when permit is required or if level 2 or 3 entry;
- Terminates entry and cancels permit as required.

Appendix B – Confined Space Entry Program

Confined Spaces – Pre Entry Checklist

In accordance with section 1910.146 (3) (C), before an employee enters a confined space, the internal atmosphere shall be tested, with a calibrated direct-reading instrument, for oxygen content, for flammable gases and vapors, and for potential toxic air contaminates, in that order. Any employee who enters the space, or that employee's authorized representative, shall be provided an opportunity to observe the pre-entry testing required by this paragraph.

Sample pre-entry checklist (From OSHA Code of Federal Regulations)

Appendix B to §1910.146 -- Sample Permits

```
Confined Space Entry Permit
Date and Time Issued: _________________ Date and Time Expires: _________
Job site/Space I.D.: _________________ Job Supervisor:_________________
Equipment to be worked on: ___________ Work to be performed: __________

Stand-by personnel: ____________________ _________________ _______________

1. Atmospheric Checks:  Time      _________
                        Oxygen    _________%
                        Explosive _________% L.F.L.
                        Toxic     _________PPM

2. Tester's signature: _____________________________

3. Source isolation (No Entry):  N/A   Yes   No
     Pumps or lines blinded,     ( )   ( )   ( )
     disconnected, or blocked    ( )   ( )   ( )

4. Ventilation Modification:     N/A   Yes   No
     Mechanical                  ( )   ( )   ( )
     Natural Ventilation only    ( )   ( )   ( )

5. Atmospheric check after
   isolation and Ventilation:
   Oxygen ___________%           >    19.5   %
   Explosive ________% L.F.L     <    10     %
   Toxic ____________PPM         <    10     PPM H(2)S
   Time _____________
   Testers signature: _____________________________

6. Communication procedures: ___________________________________________
_______________________________________________________________________

7. Rescue procedures: __________________________________________________
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________

8. Entry, standby, and back up persons:              Yes       No
   Successfully completed required
     training?
   Is it current?                                    ( )       ( )

9. Equipment:                              N/A       Yes       No
   Direct reading gas monitor -
     tested                                ( )       ( )       ( )
   Safety harnesses and lifelines
     for entry and standby persons         ( )       ( )       ( )
   Hoisting equipment                      ( )       ( )       ( )
   Powered communications                  ( )       ( )       ( )
   SCBA's for entry and standby
     persons                               ( )       ( )       ( )
   Protective Clothing                     ( )       ( )       ( )
   All electric equipment listed
     Class I, Division I, Group D
     and Non-sparking tools                ( )       ( )       ( )

10. Periodic atmospheric tests:
    Oxygen     ____%    Time ____  Oxygen     ____%    Time ____
    Oxygen     ____%    Time ____  Oxygen     ____%    Time ____
```

Explosive	____%	Time ____	Explosive	____%	Time ____
Explosive	____%	Time ____	Explosive	____%	Time ____
Toxic	____%	Time ____	Toxic	____%	Time ____
Toxic	____%	Time ____	Toxic	____%	Time ____

We have reviewed the work authorized by this permit and the information contained here-in. Written instructions and safety procedures have been received and are understood. Entry cannot be approved if any squares are marked in the "No" column. This permit is not valid unless all appropriate items are completed.

Permit Prepared By: (Supervisor)_____
Approved By: (Unit Supervisor)_____
Reviewed By (Cs Operations Personnel) :
_____ _____
(printed name) (signature)

This permit to be kept at job site. Return job site copy to Safety Office following job completion.

Copies: White Original (Safety Office)
Yellow (Unit Supervisor)
Hard(Job site)

Appendix D - 2

ENTRY PERMIT

PERMIT VALID FOR 8 HOURS ONLY. ALL COPIES OF PERMIT WILL REMAIN AT JOB SITE UNTIL JOB IS COMPLETED

DATE: - - SITE LOCATION and DESCRIPTION _____
PURPOSE OF ENTRY _____
SUPERVISOR(S) in charge of crews Type of Crew Phone #
_____
_____
COMMUNICATION PROCEDURES _____
RESCUE PROCEDURES (PHONE NUMBERS AT BOTTOM) _____
_____
* BOLD DENOTES MINIMUM REQUIREMENTS TO BE COMPLETED AND REVIEWED PRIOR TO ENTRY*

REQUIREMENTS COMPLETED	DATE	TIME
Lock Out/De-energize/Try-out	____	____
Line(s) Broken-Capped-Blanked	____	____
Purge-Flush and Vent	____	____
Ventilation	____	____
Secure Area (Post and Flag)	____	____
Breathing Apparatus	____	____
Resuscitator - Inhalator	____	____
Standby Safety Personnel	____	____
Full Body Harness w/"D" ring	____	____
Emergency Escape Retrieval Equip	____	____
Lifelines	____	____
Fire Extinguishers	____	____
Lighting (Explosive Proof)	____	____
Protective Clothing	____	____
Respirator(s) (Air Purifying)	____	____
Burning and Welding Permit	____	____

Note: Items that do not apply enter N/A in the blank.

**RECORD CONTINUOUS MONITORING RESULTS EVERY 2 HOURS

CONTINUOUS MONITORING** TEST(S) TO BE TAKEN	Permissible Entry Level	_____
PERCENT OF OXYGEN	19.5% to 23.5%	___ ___ ___ ___ ___ ___ ___ ___
LOWER FLAMMABLE LIMIT	Under 10%	___ ___ ___ ___ ___ ___ ___ ___
CARBON MONOXIDE	+35 PPM	___ ___ ___ ___ ___ ___ ___ ___
Aromatic Hydrocarbon	+ 1 PPM * 5PPM	___ ___ ___ ___ ___ ___ ___ ___
Hydrogen Cyanide	(Skin) * 4PPM	___ ___ ___ ___ ___ ___ ___ ___
Hydrogen Sulfide	+10 PPM *15PPM	___ ___ ___ ___ ___ ___ ___ ___
Sulfur Dioxide	+ 2 PPM * 5PPM	___ ___ ___ ___ ___ ___ ___ ___
Ammonia	*35PPM	___ ___ ___ ___ ___ ___ ___ ___

* Short-term exposure limit: Employee can work in the area up to 15 minutes.
+ 8 hr. Time Weighted Avg.: Employee can work in area 8 hrs (longer with appropriate respiratory protection).
REMARKS:_____

GAS TESTER NAME & CHECK #	INSTRUMENT(S) USED	MODEL &/OR TYPE	SERIAL &/OR UNIT #
_____	_____	_____	_____
_____	_____	_____	_____

SAFETY STANDBY PERSON IS REQUIRED FOR ALL CONFINED SPACE WORK

SAFETY STANDBY PERSON(S)	CHECK #	CONFINED SPACE ENTRANT(S)	CHECK #	CONFINED SPACE ENTRANT(S)	CHECK #

SUPERVISOR AUTHORIZING - ALL CONDITIONS SATISFIED_____

DEPARTMENT/PHONE _____

AMBULANCE 911 FIRE 911

BLACK HAWK COUNTY
CRANE SAFETY PROGRAM

Purpose:

This program was created to provide general guidelines to Black Hawk County employees on performing tasks that require the use of cranes and derricks. All procedures and policies were prepared in accordance with 29 CFR Part 1926.550-.556.

Copies of this program shall be located at each work site where crane work is performed, including temporary maintenance and construction sites. A copy shall also be located in the human resources department.

Policy:

Department head and/or designee shall use this program as a guide for safeguarding employee health and safety by providing employees proper training that is in compliance with applicable regulations regarding crane safety.

Annual Review:

This program shall be reviewed annually, and shall be modified when changes in laws or regulations occur. Incidents involving violations of this program, and any other applicable information shall be included in the program evaluation.

Employer Responsibility:

The department head or designee is responsible for the effective operation of this program. Department heads and supervisors shall ensure that applicable regulations and work rules are followed during the use of crane operations and that employees covered by this policy receive appropriate training. Department head or designee shall be responsible to:

- Ensure operators receive the proper certification as outlined in the standard;
- Ensure operators receive the required training and license to operate cranes and hoists;
- Determine whether the ground is sufficient to support the weight of equipment and load;
- Assess hazards within the work zone that would effect safe operation;
- Ensure equipment is in safe operating condition via required inspections;
- Ensure employees in the work zone are trained to recognize hazards associated with the use of equipment and duties assigned to them;
- Designate a competent person to inspect all machinery and equipment prior to each use, and during use, to make sure it is in safe operating condition;
- Maintain written records of inspections and tests;
- Maintain all manuals for cranes and hoists in a central file for reference;
- Ensure rated load of the crane is plainly marked on each side of the crane.

Qualified Operators:

Only qualified/trained operators shall be allowed to operate cranes and hoisting equipment.

Revised Policy approved and adopted by the Board of Supervisors 2/3/09
Revised and approved on 9/28/10; Title revised 8/15/17

Employee Responsibility:

Authorized operators are responsible for safely performing their duties within established programs, regulations, work practices and precautions outlined in their training. The work practices shall be performed to the best of the employee's ability. Employee shall report any equipment defect or safety hazard to supervisor and use of equipment shall be discontinued until its safety has been assured. Repairs shall be made only by qualified personnel. Employees are required to conduct functional tests prior to using the equipment.

Procedures:

The operator of the crane shall perform his/her duties as follows:

- Equipment shall be operated by a qualified operator or trainee that is under direct supervision of the qualified operator;
- The operator, when operating the equipment, shall maintain full attention on the task being performed;
- The operator shall ensure that hand signals used during the lift are understood and followed by all involved;
- No load in excess of the rated capacity shall be lifted;
- Before leaving the crane or carrier unattended, the operator shall land any load, place the controls or master switch in the off position and open the main line device of the specific crane or carrier;
- The main line disconnect shall not be closed until the operator has made sure that no one is on or adjacent to the crane or carrier.

Attaching the Load:

- Hoist chain or ropes shall be free of kinks or twists;
- Hoist chains or ropes shall not be wrapped around the load;
- The load shall be attached to the load block;
- Prior to lifting the load, the operator shall make certain that the load, sling, attachments, lifting devices and the load block are unobstructed;
- Hoist chains and ropes shall be inspected before each lift and the inspections shall be documented. Inspection reports will be maintained with crane and hoist inspection reports;
- Hoist chains and ropes found with defects shall be immediately removed from service.

Moving the Load:

- The person responsible for directing the lift shall make sure that the load is properly secured, balanced and positioned in the sling or other lifting device;
- The person responsible for directing the lift shall make another visual inspection of the hoist chain or rope to make sure there are no kinks or twists;
- The load block shall be brought over the load in a manner that will prevent swinging when lifting the load;
- The chain or rope shall be inspected to ensure that it is properly seated in the chain sprocket or drum groove;
- Lift equipment shall not be used for side pulls;

- The operator shall not lift, travel or lower a load while someone is on the load or hook;
- The operator shall avoid lifting the load over people;
- If the load being lifted approaches the rated load to be handled, the operator shall test the brakes by lifting the load a few inches and applying the brakes;
- The load shall not be lowered below the point where there is less than two wraps of rope on the hoisting drum, unless a lower limit device is provided. If a lower limit device is provided, no less than one wrap shall remain.

Parking the Load:

- Operator shall not leave a suspended load unattended;
- Load block of the hoist shall be raised above head when not in use.

Hand Signals:

Hand signals shall be used unless the participants of the lift are equipped with telephones, radios or other equivalent means of communication.

Definitions:

Failure - load refusal, breakage, or separation of components.

Hoist (or hoisting) - all crane or derrick functions such as lowering, lifting, swinging, booming in and out or up and down, or suspending a personnel platform.

Load refusal - the point where the ultimate strength is exceeded.

Maximum intended load - the total load of all employees, tools, materials, and other loads reasonably anticipated to be applied to a personnel platform or personnel platform component at any one time.

Runway - a firm, level surface designed, prepared and designated as a path of travel for the weight and configuration of the crane being used to lift and travel with the crane suspended platform. An existing surface may be used as long as it meets these criteria.

Crane and Hoist Safety Design Requirements:

Following are the design requirements for cranes and hoists and their components:

- The design of all commercial crane and hoists shall comply with the requirements of ASME/ANSI B30 standards;
- All crane and hoist hooks shall have safety latches;
- Crane bridges and hoist monorails shall be labeled on both sides with the maximum capacity;
- Each hoist-hook block shall be labeled with the maximum hook capacity;
- All cab and remotely operated bridge cranes shall have a motion alarm to signal bridge movement;
- If an overload device is installed, a load test to the adjusted setting is required.
-

Qualified Operators:

Only qualified/trained operators shall be allowed to operate cranes and hoisting equipment.

Personal Protective Equipment (PPE)/Clothing:

In addition to the use of hard hats, employees shall be protected by overhead protection on the personnel platform when employees are exposed to falling objects. Operators are not allowed to wear canvas or tennis show like shoes and shoes must be closed-toed.

Lockout/Tagout Procedure:

When hazard evaluation determines that lockout/tagout procedures are required to perform a certain task, employees shall refer to 29 CFR 1910.147 and Black Hawk County's lockout/ tagout program for proper procedures.

Welding and Cutting Procedure:

When hazard evaluation determines that welding/cutting procedures are required to perform a certain task, employees shall refer to 29 CFR 1910.251-.255 and Black Hawk County's Welding, Cutting and Brazing Program.

General Safety Rules:

- Do not engage in any practice that will divert your attention while operating the crane;
- Respond to signals only from the person who is directing the lift, or any appointed signal person. Obey a stop signal at all times, no matter who gives it;
- Do not move a load over people. Do not work under a suspended load;
- Ensure that the rated load capacity of a crane's bridge, individual hoist or any sling or fitting is not exceeded. Know the weight of the object being lifted;
- Check that all controls are in the OFF position before closing the main-line disconnect switch;
- Avoid side pulls. These can cause the hoist rope to slip out of the drum groove, damaging the rope or destabilizing the crane or hoist;
- To prevent shock loading, avoid sudden stops or starts. Shock loading can occur when a suspended load is accelerated or decelerated, and can overload the crane or hoist. When completing an upward or downward motion, ease the load slowly to a stop;
- Operators are to use the three-point safety dismount when getting out of the crane.

Employee Information and Training:

A competent person, as demonstrated by knowledge and experience, shall conduct the training. The name of the trainer, qualifications, training materials, course content, date of training and employees trained must be documented. The trainer shall verify that each employee has received and understands the information presented through a competency test, a written test, or a combination of both.

Violation of Crane Safety Program:

Employees who violate the crane safety program may be subject to discipline based on applicable policies. Employees who receive discipline shall be retrained on the procedures or policies that were violated.

BLACK HAWK COUNTY
CRANE SAFETY PROGRAM

QUALIFIED OPERATORS LIST

This list shall be updated at least annually, or whenever qualified operators are added or removed from the list.

Department:_____ **Date:**_____

List qualified employees, job title, and equipment they are authorized to operate:

Employee Name	Job Title	Equipment Make/Model

Completed by: _____
(Print name)

_____
(Signature)

Title: _____

Revised Policy approved and adopted by the Board of Supervisors 2/3/09
Revised and approved on 9/28/10; Title revised 8/15/17

BLACK HAWK COUNTY
ERGONOMICS PROGRAM

Purpose:

The purpose of the ergonomics program is to provide general guidelines to Black Hawk County employees regarding their safety and health while working safely through ergonomic practices in the workplace. Ergonomics guidelines are advisory in nature and informational in content. Under the OSHA Act, the extent of an employer's obligation to address ergonomic hazards is governed by the general duty clause, 29 U.S.C. 654 (a)(1).

Copies of this program shall be located in each department. A copy shall also be maintained in the human resources department.

Policy:

The county recognizes the need to put procedures in place that will help reduce the number and severity of work-related musculoskeletal disorders (MSDs). MSDs include but are not limited to conditions such as low back pain, sciatica, rotator cuff injuries, epicondylitis, and carpal tunnel syndrome (CTD). The recommendations in this guideline are based on a review by the insurance carrier of existing practices and programs, state OSHA programs, and scientific information.

Annual Review:

This program shall be reviewed annually and shall be updated whenever necessary to reflect new or modified tasks, equipment and procedures which affect ergonomic conditions. Incidents involving ergonomic hazards due to violations of the program, and any other applicable information shall be included in the program evaluation.

Employer Responsibility:

The department head is responsible for the effective training and operation of this program. Department heads and supervisors shall ensure that applicable regulations and work rules are followed regarding ergonomic hazards, and that employees receive appropriate training. Supervisory personnel are responsible for establishing and enforcing work rules to ensure that ergonomic injury reduction procedures are followed.

Principle Guides for Efforts in Ergonomic Improvement:

Employee Responsibility:

Employee shall be responsible for reporting ergonomic hazards at his/her workstation to department head/supervisor or human resources. Employee is also responsible for safely performing his/her duties within established work practices and precautions outlined in the training. Employee shall be responsible for properly reporting ergonomic injury through the county's Company Nurse Program (see health and safety policy).

Upon hire of a new employee or when making significant changes in assigned responsibilities, supervisors should work with employee to determine the adequacy of the employee's familiarity with applicable ergonomic principles and practices; and evaluate workstation areas to for appropriate ergonomic fit for employee. If there is question regarding the proper ergonomic fit, supervisor shall contact human resources to help with evaluation.

Department head/supervisor shall provide appropriate training as needed. Employees receiving ergonomics training should be encouraged to consider the applicability of the training content to activities undertaken outside of the workplace.

When employee is provided unfamiliar or significantly different tooling, workstation, equipment or job tasks, training should address ergonomic issues.

Ergonomic features of equipment, tools, work stations (whether existing or under consideration for acquisition) should be evaluated periodically. The department head and/supervisor may involve human resources and the affected employee in the evaluation process.

Benefits of an ergonomic program:

- Achieve success in reducing work-related injuries and associated workers' compensation costs.
- Provide safer and more comfortable work environment including:
    - Reduced staff turnover, associated training and administrative costs;
    - Reduced absenteeism;
    - Increased productivity;
    - Improved employee morale;
    - Increased resident comfort.
- Work station design is a shared responsibility of employee and department head. The work station shall include furniture, electronic and other tools, lighting, and other environmental features. Departments are responsible for individual work stations and for providing an appropriate fit between employee, technology and the working environment.
- Supervisor is responsible for ensuring appropriate work methods are used. When considering employee's regular job assignment, both pace of work and job flow should be reviewed to avoid excessively repetitive work for any employee and his/her specific position.
- Employee suffering from job-related CTDs will have access to medical treatment and rehabilitative processes through the county's worker compensation program. Ergonomic accommodations or improvements may be coordinated by workers' compensation; however; work station modification and equipment cost decisions are responsibilities of the department head, both financially and administratively.
- Employee is ultimately responsible to follow ergonomic policies and work practices directed or recommended for ergonomic purposes.

Definitions:

- *Ergonomics* - Referred to as human factors, or human engineering, ergonomics is concerned with understanding the basic physical and psychological attributes of people as these relate to the things that people use (tools, machines, environments). The goal of ergonomic design is to optimize the person-thing relationship.
- *Repetitive Tasks* - Activities involving sustained or repetitive musculoskeletal exertion with no opportunity for rest or recovery. Examples of repetitive tasks are chopping by hand various food items, working with tools in a twisting motion, bending, lifting and data entry work.
- *Cumulative Trauma Disorders* (*CTD*) - Injuries developed gradually over periods of weeks, months, or even years as a result of repeated stresses on a particular body part as a result of repeated mechanical stresses.

While some MSDs develop gradually over time, others may result from instantaneous events such as a single heavy lift. Early indications of MSDs can include persistent pain, restriction of joint movement, or soft tissue swelling. Activities outside of the workplace that involve substantial physical demands may also cause or contribute to MSDs. In addition, development of MSDs may be related to genetic causes, gender, age, and other factors. Finally, there is evidence that reports of MSDs may be linked to certain psychosocial factors such as job dissatisfaction, monotonous work, and limited job control. These guidelines address only physical factors in the workplace that are related to the development of MSDs. The county recommends that all employees follow ergonomic procedures at home and play.

Employee Training:

Training shall be conducted by a person knowledgeable in subject matter as it relates to the workplace. Department head shall make training available to all employees with possibility of occupational exposure. The trainer shall verify that each affected employee has received and understands the information presented through a competency test, a written test, or a combination of both.

Department head shall provide additional training when changes such as modification of workstations, newly installed equipment or institution of new tasks or procedures affect the employee's occupational exposure. Documentation of training shall include name of the trainer, name of each employee trained, date, and type of training received. Employees shall be retrained on procedures or policies that were violated or when employee has an ergonomic injury. Documentation of training shall be filed with this policy. A copy of documentation shall also be sent to human resources office. Training records shall be maintained for a minimum of three years.

(This page intentionally left blank)

BLACK HAWK COUNTY
HAZARD COMMUNICATION (RIGHT-TO-KNOW) PROGRAM

Purpose:

The purpose of the hazard communication program is to provide general guidelines to Black Hawk County employees while handling hazardous chemicals, and to communicate awareness and proper use of these chemicals to employees. All procedures and policies were prepared in accordance with OSHA regulation Section 1910.1200 and 1926.59 hazardous communications.

Copies of this program shall be located at each site where chemicals are used. A copy shall also be maintained in the human resources office.

Policy:

This policy shall serve as a guide for safeguarding employee health and safety, and to provide employees with necessary information concerning health and physical hazards of chemicals and substances used at county worksites.

Annual Review:

This program shall be reviewed at least annually, and shall be modified when changes in laws or regulations occur. Incidents involving chemical exposure due to violations of the program, and any other applicable information shall be included in the program evaluation.

Employer Responsibility:

Department heads should continually review chemical usage and needs, and replace hazardous chemicals with safer alternatives when possible. Supervisory personnel are responsible for establishing and enforcing work rules to ensure that hazardous chemicals are being handled and used properly to eliminate or reduce exposure. The department head or designee is responsible for the effective operation of this program.

Employee Responsibility:

Employees are responsible for safely performing their duties within established work practices and precautions outlined on material safety data sheets (MSDS) and labels. Employees shall pay attention to warning signs and read all labels carefully. When in doubt about any chemical, the employee shall get additional information from his/her supervisor or from the MSDS. Employee shall wear all applicable personal protective equipment.

Chemical Inventory List:

All chemicals that can cause physical or health hazards must be included in an inventory for each department. Physical or health risks are noted on the container or on a material safety data sheet (MSDS) provided by the manufacturer or retailer. Each department shall keep the inventory as an appendix to the hazard communication program in its department *(Appendix A - Hazardous Materials/Chemical Inventory).*
The department head may designate a person to maintain the department's chemical inventory. The list shall be updated each time a new chemical is introduced into or removed from the workplace. This list shall be maintained as the cover page in the front of the department's MSDS book.

Each department shall forward a copy of its chemical inventory list to the human resources department at least annually to be maintained in a master file.

Container Labeling:

All chemicals purchased for use by Black Hawk County shall meet the following standards before use or transport to other facilities:

- Contents must be clearly labeled by manufacturer:
    - What product is in the container;
    - Possible hazards of the product;
    - Precautions employees must take;
    - Symptoms of overexposure to chemical;
    - What to do in event of overexposure;
    - Where to find further information and instructions;
    - Safety equipment employees must use.
- Container labels must have appropriate hazard warnings.
- Container labels must list name, telephone number and address of manufacturer.
- Container labels should list the emergency contact number of the manufacturer.

A chemical shall not be used if the container does not meet these standards.

A secondary container must be labeled when it is used to disperse, mix, or carry a chemical. Labels should include name of the chemical and appropriate hazard warnings. Containers missing original labels shall be re-labeled immediately. Secondary containment is to be used as a means of preventing incompatible materials from interacting in the event of breakage and/or spillage of hazardous materials. Hazardous materials are to be segregated by hazard class and stored in separate cabinets, trays, or pans.

Labels are not required for portable containers into which hazardous chemicals are transferred from labeled containers, and which are intended only for the immediate use of the employee who performs the transfer. Common secondary containers include sprayers, gas cans and buckets.

Material Safety Data Sheets (MSDS):

Each chemical in the inventory shall have a corresponding material safety data sheet (MSDS). MSDS shall be maintained in the same order that they appear on the inventory list so they may be easily located in the event of an emergency. The person designated to maintain the inventory shall also maintain the MSDS. A cover sheet shall be placed at the front of the MSDS book and signed annually to notify personnel that the sheets are the most current information put out by the manufacturer of the product.

MSDS are written documents provided by manufacturers or suppliers upon purchase and request, and include the following information:

- Trade name of the chemical.
- Manufacturer's name, address, and telephone number.
- Emergency contact numbers.
- Hazardous ingredients, including carcinogens.
- Physical and chemical characteristics, such as appearance, boiling point, vapor pressure, vapor density, solubility in water, melting point, odor, evaporation rate, etc.
- Fire and explosion information.
- Reactivity data.
- Health hazards, including signs and symptoms of exposure, primary routes of entry, and medical conditions which may be aggravated by exposure.
- First aid and emergency procedures.
- Precautions for use and handling, including spill cleanup procedures.
- Applicable control measures such as engineering controls, work practices, or personal protective equipment.

- The date the MSDS was prepared or last reviewed.

MSDS will be maintained in each department and will be readily accessible to employees on each work shift. If a chemical is used off-site, a copy of this program and the applicable MSDS shall accompany the chemical.

When a chemical is removed from use and from the workplace, the MSDS shall be removed from the chemical inventory list. Retired MSDS must be ***retained*** and stored in an inactive file in the department for ***thirty (30) years*** from the date of removal from service. Date of removal must be noted on the upper right hand corner of the MSDS.

Definitions:

The following definitions are used in the hazard health communications OSHA standard, section 1910.1200.

- *Carcinogen* – A chemical is considered to be a carcinogen if:
    - Evaluated by International Agency for Research on Cancer;
    - Listed in the annual report on carcinogens by National Toxicology Program;
    - Regulated by OSHA as a carcinogen.

- *Corrosive* – A chemical that causes visible destruction of, or irreversible alterations in, living tissue by chemical action at the site of contact.

- *Explosive* – Some materials can explode when exposed to heat or flame. Included in this category are materials like flammable liquids and compressed gases, which can explode under certain conditions.

- *Flammable* – All materials that catch fire easily, burn rapidly, spread quickly, and give off intense heat. Many materials used and stored in the workplace are flammable, including many solvents and lubricants.

- *Highly Toxic* – chemical that falls within any of the following categories:
    - Median lethal dose of 50 milligrams or less per kilogram of body weight when administered orally;
    - Median lethal dose of 200 milligrams or less per kilogram of body weight when administered by continual contact;
    - Median lethal dose in air of 200 parts per million by volume or less gas or vapor.

- *Irritant* – Is not corrosive but will cause a reversible inflammatory effect on living tissue by chemical action at the site of contact.

- *Sensitizer* – Chemical that causes a substantial proportion of exposed people or animals to develop an allergic reaction in normal tissue after repeated exposure.

- *Toxic* – Most chemicals are toxic at some level of exposure. If allowed to enter the body through the nose, mouth, or skin, they can make a person sick. Fumes, dust and vapor from toxic materials can be especially harmful because they can be inhaled and pass quickly from the lungs into the blood, allowing the poisons to circulate throughout the body.

- *Target organ* effects have chemicals that:
    - Hepatotoxins – produce liver damage
    - Nephrotoxins – produce kidney damage
    - Neurotoxins – produce primary toxic effects on nervous system
    - Agents which act on blood or hemato-polietic system
    - Agents which damage the lungs

- Reproductive toxins affect reproductive capabilities
- Cutaneous hazards – affect the dermal layer of the body
- Eye hazards – affect eye or visual capabilities

Employee Information and Training:

Supervisors and any employee authorized to handle, or who may be exposed to certain chemicals, must receive training as required by section 1910.1200(h)(3). Training shall include:

- An overview of section 1910.1200;
- Details of this program;
- Explanation of the labeling system and how to read an MSDS;
- How to detect the presence or release of hazardous chemicals;
- Physical and health hazards of the chemicals in work areas;
- Measures employees must take to protect themselves from hazards;
- How to obtain and use the appropriate hazard information.

Training shall be conducted by a competent person as demonstrated by knowledge and experience. Each employee shall be trained prior to exposure to any chemicals and retrained annually. The trainer shall verify that each affected employee has received and understands the information presented through a competency test, a written test, or a combination of both. Documentation of training shall include the name of the trainer, each employee trained, the date, and type of training received.

Exemptions: Defined in OSHA 1910.1200 (b) (5)
The law does not require evaluation or labeling of the following:

- Pesticides as defined in Federal Insecticide, Fungicide, and Rodenticide Act;
- Chemical/substances or mixture as such as terms are defined in the Toxic Substances Control Act;
- Hazardous waste as defined by the Solid Waste Disposal Act;
- Hazardous substance as defined by the Comprehensive Environmental Response;
- Tobacco or tobacco products;
- Agricultural chemicals/licensed applicator chemicals;
- Wood or wood products;
- Articles manufactured item other than a fluid or particle;
- Food (includes alcoholic beverages) sold, prepared, used in retail establishment;
- Drugs (e.g. tablets or pills) - over-the-counter drugs, and drugs intended for personal consumption by employees while in the workplace (first aid supplies) and defined by the Federal Food, Drug, and Cosmetic Act;
- Cosmetics which are packaged for sale to consumers in a retail establishment, and cosmetics intended for personal use by employees while in the workplace;
- Consumer products where the employer can demonstrate that it is used in the same manner as normal consumer use;
- Nuisance particulates where chemical manufacturer or importer can establish that they do not pose physical or health hazard.

Outside Contractors:

Outside contractors shall be informed of the elements of this program by the applicable department head or designated representative and must make copies available of their hazardous communications program and all MSDS for chemicals brought on site. Contractors who fail to follow these requirements will be asked to leave the premises. Contractors with an insufficient program will not be allowed to begin work until their program meets or exceeds the requirements of this program.

Violation of Hazardous Communications Program:

Employees who violate the hazardous communications procedures may be subject to discipline based on applicable policies. Employees will also be required to attend retraining on the procedures or policies that were violated.

Appendix A – Hazard Communication (Right-To-Know) Program

HAZARDOUS MATERIALS/CHEMICAL INVENTORY			
Department:		**Location:**	
Chemical Name	**Location**	**Quantity**	**MSDS on File Yes/No**

Page _____ of _____

BLACK HAWK COUNTY
HEARING CONSERVATION PROGRAM

Purpose:

The purpose of this program is to provide employees with procedures and policies to help protect affected employees against the effects of noise exposure. These policies and procedures were prepared in accordance with OSHA regulation section 1910.95.

Policy:

It shall be the policy of Black Hawk County to provide hearing protection when noise levels exceed those outlined in Section 1910.95. Responsibility for administering this program shall be the duty and responsibility of the Department Heads or designated representative, and supervisors.

Copies of this program shall be available to all employees affected by this policy. A copy of this policy shall also be maintained in the human resources department.

Annual Review:

This program shall be evaluated annually and shall be modified when laws or regulations occur. Incidents which occur due to violations of the program, and any other applicable information shall be included in the program evaluation.

Employer Responsibilities:

Employer shall administer a continuing, effective hearing conservation program as described in the Code of Federal Regulations, section 1910.95 whenever employee noise exposure is equal to or exceeds an eight-hour time-weighted noise level of 85 decibels (db) or more.

The department head/designee is responsible for the effective operation of this program. Department heads and supervisors shall be responsible for ensuring that employees receive required training, and hearing protection is available and worn.

Employee Responsibilities:

Employees shall be aware of the effects of excessive sound levels and shall wear hearing protection when sound levels exceed 85 db, or as directed by their supervisors.

Noise Audits/Monitoring:

Locations and equipment suspected of exceeding 85 decibels (db) shall be monitored. Black Hawk County shall use a representative personal sampling to determine noise exposure for high worker mobility, significant sound level variations, and significant impulse noise component. Locations and equipment that exceed 85 db shall be clearly labeled to notify employees of the risk. Noise is measured by a sound level meter or the dosimeter.

A sound level meter is a device that measures the intensity of sound at a given moment. Since sound level meters provide a measure of sound intensity at only one point in time, it is generally necessary to take a number of measurements at different times during the day to estimate noise over a workday. A dosimeter stores sound level measurements and integrates these measurements over time, providing an average noise exposure reading for a given period of time.

OSHA requires when there are significant changes in machinery or production processes that may result in increased noise levels, remonitoring must be conducted to determine whether additional employees need to be included in the hearing conservation program.

Revised Policy approved and adopted by the Board of Supervisors 2/3/09
Revised and approved on 9/28/10; Title revised 8/15/17

A list of locations and equipment that exceed 85 db shall be maintained by the department. A copy of this list shall be sent to the human resources office.

Noise audits will be conducted using any of the following methods:

- Sound level meter (multiple samples taken throughout workday).
- Noise dosimeter (for employees working in multiple locations).
- Equipment manufacturers' noise specifications.

Employees will be given the opportunity to observe noise audit monitoring and will be notified of noise audit results.

Audiometric Testing:

An audiometric testing program shall be maintained, making audiometric testing available to employees whose exposures equal or exceed an 8-hour time-weighted average of 85 decibels. The County will notify the employee of the measure noise exposure. This testing shall be in compliance with applications noted in OSHA section 1910.95. This testing shall be performed by a licensed or certified audiologist, otolaryngologist, other physician, or by a technician who is certified by the Council of Accreditation in Occupation Hearing Conservation, or who has satisfactorily demonstrated competence in administering audiometric examinations, obtaining valid audiograms, and properly using, maintaining and checking calibration and proper functioning of the audiometers being used. A technician who performs audiometric tests must be responsible to an audiologist, otolaryngologist, or physician.

Baseline Audiogram:

- A baseline audiogram will be conducted within six (6) months of an employee's first exposure at or above the action level to establish a valid baseline audiogram against which subsequent audiograms can be compared;
- Mobile test van exception: Where mobile test vans are used to meet the audiometric testing obligation, a valid baseline audiogram will be obtained within one year of an employee's first exposure at or above the action level. Where baseline audiograms are obtained more than six months after the employee's first exposure at or above the action level, employees will wear hearing protectors for any period exceeding six months after first exposure until the baseline audiogram is obtained;
- Testing to establish a baseline audiogram will be preceded by at least 14 hours without exposure to workplace noise. Hearing protectors may be used as a substitute for the requirement that baseline audiograms be preceded by 14 hours without exposure to workplace noise;
- Employees will be notified of the need to avoid high levels of non-occupational noise exposure during the 14-hour period immediately preceding the audiometric examination.

Audiograms will be conducted annually after obtaining the baseline audiogram for each employee exposed at or above an eight hour time-weighted average of 85 decibels. Each employee's annual audiogram shall be compared to that employee's baseline audiogram to determine if the audiogram is valid and if a standard threshold shift (STS) has occurred.

The department head or designated representative will maintain a record of all employee audiometric test records. This record will include:

- Name and job classification of the employee;
- Date of the audiogram;
- The examiner's name;
- Date of the last acoustic or exhaustive calibration of the audiometer;
- Employee's most recent noise exposure assessment;
- The baseline audiogram.

Testing results shall remain on file through duration of employment with Black Hawk County.

Hearing Protectors:

Department heads and supervisors shall ensure that hearing protectors are provided and worn as follows:

- By employees who are exposed to sound levels of 85 db and above;
- By employees exposed to noise levels equal to or exceeding an eight-hour TWA (time-weighted average) of 90 db;
- When an employee is exposed to sound levels of 85 db or above;
- By any employee who has experienced a persistent standard threshold shift and who is exposed to an eight-hour TWA of 85 db or greater;
- By any employee who has not had an initial baseline audiogram and who is exposed to an eight-hour TWA of 85 db or greater.

Employees will be given the opportunity to select their hearing protectors from a variety of suitable devices provided by the employer, at no cost to the employee. Protection will be replaced as needed. Employees will be held accountable for properly using and maintaining the equipment furnished.

Employee Information and Training:

Training shall be conducted by a competent person as demonstrated by knowledge and experience. Affected employees shall be trained annually. The trainer shall verify that each affected employee has received and understands the information. This information shall include copies of OSHA 1910.95 and the hearing conservation program. Documentation of training shall include the name of the trainer, each employee trained, the date and type of training received.

Training will include:

- The effects of noise on hearing;
- The purpose and use of hearing protectors;
- Advantages and disadvantages of various types of hearing protectors;
- Instruction in the selection, fitting, use and care of protectors;
- The purpose of the audiometric testing and an explanation of testing procedures;
- Who to contact for more information.

Engineering Controls:

Whenever feasible, reduced noise equipment will be purchased. The equipment may also be rented.

Administrative Controls:

The table found below, indicates the total time of exposure permitted at each noise level without hearing attenuation. Supervisors must ensure that employees are not exposed to noise beyond the permitted total time of the sound level:

Permissible Noise Exposures
29CFR 1910.95 Table G-16(a)

Duration (Hours)	Sound Level Slow Response
16.0	85
13.9	86
12.1	87
10.6	88
9.2	89

8.0	90
7.0	91
6.1	92
5.3	93
4.6	94
4.0	95
3.5	96
3.0	97
2.6	98
2.3	99
2.0	100
1.7	101
1.5	102
1.3	103
1.1	104
1.0	105

Violation of Hearing Conservation Program:

Employees who violate the hearing conservation program may be subject to discipline based on applicable policies. Employees shall be retrained on the procedures or policies that were violated.

BLACK HAWK COUNTY
LOCKOUT/TAGOUT PROGRAM

Purpose:

The purpose of the lockout/tagout program is to provide general guidelines to Black Hawk County employees while identifying and controlling hazardous energy sources. It also control of energy during servicing and/or maintenance of equipment in which "unexpected" energization or start-up of machines or equipment or release of stored energy could cause injury to employees. These policies and procedures were prepared in accordance with OSHA regulation section 1910.147.

Copies of this program shall be located at each site where lockout/tagout procedures are performed. A copy shall also be maintained in the human resources office.

Policy:

This policy shall provide information for safeguarding employee health and safety by ensuring that employees receive proper training and are in compliance with regulations regarding lockout/tagout procedures.

Annual Review:

This program shall be reviewed annually, and shall be modified when changes in laws or regulations occur. Incidents involving lockout/tagout violations, and any other applicable information, shall be included in the program evaluation.

Employer Responsibility:

The department head or designee is responsible for the effective operation of this program. Department heads and supervisors shall ensure that applicable regulations and work rules are followed regarding lockout/tagout and that employees receive appropriate training.

Supervisory personnel are responsible for ensuring that employees receive proper training, and for establishing and enforcing work rules to ensure that lockout/tagout procedures are followed.

Employee Responsibility:

Employees are responsible for safely performing their duties within established work practices and precautions outlined in this program and in section 1910.147.

Employee Information and Training:

Employees authorized or affected by the control of hazardous energy shall receive training as required by OSHA section 1910.147(3)(7), including:

- An overview of section 1910.147;
- Details of the lockout/tagout program;
- Types and magnitude of hazardous energy sources in the workplace;
- Methods and means to isolate and control energy sources;
- The purpose, function, and restrictions of energy control procedures.

Training shall be conducted by a competent person as demonstrated by knowledge and experience. Each employee shall be trained initially, and whenever a new piece of machinery or equipment is obtained. Employee shall be retrained when they show incompetence on the job. The trainer shall verify that each affected employee has received and understands the information presented through a competency test, a written test, or a combination of both. Documentation of training shall include the

name of the trainer, each employee trained, the date and type of training received. The certification of training documentation shall be kept with the program in each individual department. A copy of the documentation of trained employees, dates and trainer shall also be sent to the human resources department.

Definitions:

Affected Employees – An employee whose job requires him/her to operate or use a machine or equipment on which servicing or maintenance is being performed under lockout or tagout, or whose job requires him or her to work in an area in which such servicing or maintenance is being performed.

Authorized Employee – An employee who locks out or tags out machines or equipment in order to perform servicing or maintenance on that machine or equipment. An affected employee becomes an authorized employee when that employee's duties include performing servicing or maintenance.

"Energized" – Connected to an energy source or containing residual stored energy.

"Lockout" – The placement of a lockout device on an energy isolating device, in accordance with an established procedure, ensuring that the energy isolating device and the equipment being controlled cannot be operated until the lockout device is removed.

"Lockout Device" – A device that utilizes a positive means such as a lock, either key or combination type, to hold an energy isolating device in the safe position and prevent the energizing of a machine or equipment.

Standardized – Locks/tags must be standardized within the facility in at least one of the following criteria: color, shape, size and print format.

Substantial – Locks and tags must be substantial enough to prevent removal without the use of excessive force or unusual techniques. They must be substantial enough to prevent inadvertent or accidental removal.

"Tagout" – The placement of a tagout device on an energy isolating device, in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.

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

Equipment and Machinery Evaluations:

All equipment and machinery operated or serviced by employees shall be individually evaluated for equipment-specific or machine-specific lockout/tagout procedures using the equipment and machinery evaluation form *(Appendix A – Equipment and Machinery Evaluation Form)*. The form shall specify the energy sources and proper isolation procedures for specific equipment or machinery. An appendix shall be attached to each department's lockout/tagout program that consists of completed equipment and machinery evaluation forms for each machine or piece of equipment located in, or serviced by, the department.

Cord and Plug Equipment:

Equipment that can be unplugged from an outlet, and has no other hazardous energy source(s), does not fall under the requirement of this program if the plug is under the exclusive control of the employee

performing the service or maintenance. If the employee is unable to maintain exclusive control of the plug, a plug lock or other suitable energy isolation device must be used in accordance with this policy.

Lockout/Tagout Procedure:

Employees who are servicing or providing maintenance on machinery or equipment shall:

- Review the equipment and machinery evaluation form for the equipment that is to be locked/tagged out to identify all energy source(s) that are present, and the procedures necessary to isolate the energy source(s).
- Notify all affected employees that the equipment or machinery will be locked out or tagged out for servicing or repair.
- Shut operating equipment down by normal means.
- Isolate equipment from all energy sources by operating switches, valves, or other energy isolation devices.
- Apply assigned locks or tags to isolation devices. Tags may be used only if a machine cannot be locked and must be substantial. (See tag out instruction below.)
- Test all switches and operating controls to confirm that all energy sources are isolated. After testing, return all switches and operating controls to "off," or "neutral."
- Begin service or maintenance work.

Restoring Power:

When service or maintenance work has been completed, the employee(s) who locked/ tagged machinery or equipment out of service shall:

- Inspect the area to ensure that tools and other materials have been removed.
- Reinstall guards on equipment.
- Verify that employees are clear of the machinery or equipment.
- Notify other employees that lockout/tagout has concluded and that the machine will be restarted.
- Verify that controls have been set to neutral position.
- Remove locking device(s) from the equipment.
- Restart the machinery or equipment.
- Notify affected employees that servicing is completed and machine/equipment is ready for use.

Group Lockout/Tagout:

If more than one person is required to lockout/tagout equipment or machinery, each person shall place their personal lockout device or tag on the energy isolation device. If the equipment or machine will not accept multiple locks, a hasp must be used.

- Primary responsibility is vested in an authorized employee for a set number of employees working under the protection of a group lockout.
- When one or more crews, craft or department is involved, assignment of overall job-associated lockout or tagout control responsibility shall be made to an authorized employee designated to coordinate affected work forces and ensures continuity of protection.

Shift Change:

The employee(s) originating the lockout/tagout procedure for the specific job, or another competent person, shall be designated to supervise the transfer of the lockout/tagout devices between shift personnel. Orderly transfer of lockout/tagout device protection between off-going and on-coming employees shall be in place to minimize exposure to hazards due to unexpected energization, start-up, or release of stored energy of machine or equipment

Emergency Lock/Tag Removal:

Locks or tags shall be removed by another person only in cases where the authorized person who applied the lock/tag is unavailable to remove it; it is only removed under the direction of department head/designee. Each department shall determine who may remove a lock or tag applied by another person. The department head/designee shall demonstrate that the specific procedure shall include at least the following elements:

- Verification by the department head/designee that authorized employee who applied the device is not at the facility;
- Making all reasonable efforts to contact the authorized employee to inform him/her that the lockout or tagout device has been removed;
- Ensuring that the authorized employee has this knowledge before he/she resumes works at the facility.

Isolation Devices:

Black Hawk County shall provide all padlocks, tags, chains, wedges, key blocks, adapter pins, hasps, valve covers, plug locks or other devices and forms to be used for this program.

- An inventory of isolation devices, their location, and lock assignments are included on the lockout/tagout assignment form *(Appendix B – Lockout/Tagout Equipment Assignments).*
- Padlocks shall be color-coded for each department or person. Each lock shall be keyed with one key.
- Locks issued for lockout may only be used for lockout procedures and cannot be used for any other purpose.
- Lockout and tagout devices shall be capable of withstanding the environment to which they are exposed.

Tags/Tagout:

- Tags must be of durable construction, and labeled in a manner that will remain legible in wet or corrosive environments. Tags will be attached by self-locking nylon cable when possible.
- A tag shall be attached to each lock to identify the installer, date, time, and authorization of the lockout. If machinery or equipment can be locked out, a lock must be used. If machinery or equipment cannot be locked out, a tag shall be used without the lock.
- Tagout shall be used only when energy device is not capable of being locked out, and shall be located as close as safely possible to the device in a position immediately obvious to anyone attempting to operate the device.
- When a tag is attached as an energy isolating means, it shall not be removed without authorization of the person responsible for it, and shall not be bypassed, ignored, or otherwise defeated.
- Tags must provide legend, i.e. Do Not Start, Do Not Open, Do Not Close, Do Not Energize or Do Not Operate.

Outside Contractors:

Outside contractors shall be informed of the elements of this program by the applicable department head or designated representative and must make copies available of their lockout/tagout program. Contractors who fail to follow these requirements will be asked to leave the premises. Contractors with an insufficient program will not be allowed to begin work until their program meets or exceeds the requirements of this program.

Violation of Lockout/Tagout Program:

Employees who violate the lockout/tagout program may be subject to discipline based on applicable policies. Employees shall be retrained on the procedures or policies that were violated.

Appendix A – Lockout/Tagout Program

Black Hawk County
Lockout Tagout
Equipment and Machinery Evaluation Form

Department: _____ **Date:**_____

This form shall be completed for each piece of equipment or machinery serviced by employees in this department, and shall specify the energy sources and proper isolation procedures needed to safely service or conduct maintenance. The completed form shall be attached to this department's lockout/tagout program and be readily available to affected employees.

Equipment:_____

Model Number/Description:_____

Location:_____

Check all that apply:

____ Electrical ____ Spring

____ Gravity ____ Pneumatic

____ Hydraulic ____ Other: _____

Procedures to Isolate Energy Sources:

_____

_____

_____

_____

_____

Completed by:_____

Appendix A – Lockout/Tagout Program

Black Hawk County
Lockout/Tagout
Equipment Assignments

Department: _____ **Date:**_____

Each department, or person within the department, will have an assigned color for the locks used for lockout. When placed on equipment, devices will bear a tag with the name of the employee and other pertinent information in legible print. No employee can use another employee's locking device(s). Each employee is responsible for the keys assigned to his/her locks. Locks shall be used only for lockout/tagout procedures.

If lockout/tagout equipment is broken, lost, or fails, contact your supervisor for replacement.

Lockout/tagout equipment is located:_____

_____

Color	Department/Person Assigned
Black	
Blue	
Green	
Orange	
Purple	
Red	
White	
Yellow	

Other available lockout devices:

____ Blanks
____ Blocks and bars
____ Breaker locks
____ Chains
____ Hasps
____ Adapter Pins
____ Tags w/ nylon straps
____ Plug Locks
____ Valve Locks
____ Valve Lock Bars
____ Other: _____

BLACK HAWK COUNTY
PERSONAL PROTECTIVE EQUIPMENT (PPE) PROGRAM

Purpose:

Personal protective equipment (PPE) is designed to protect employees from potential workplace hazards. The purpose of this program is to ensure that employees wear personal protective equipment properly when needed to ensure their health and safety, and to ensure that Black Hawk County is in compliance with applicable regulations. All procedures and policies were prepared in accordance with OSHA regulation sections 1910.132-139.

Policy:

It shall be a condition of employment that employees of Black Hawk County shall be required to wear personal protective equipment when their job duties require it or at the direction of their supervisor(s). Responsibility for administering this program shall be the duty and responsibility of the department manager/designee and employees supervisors.

Copies of this program shall be available to all employees affected by this policy. A copy shall also be maintained in the human resource department.

Annual Review:

This program shall be evaluated at least annually and shall be updated when laws or regulations requiring modification of the program occur, or when a new category of PPE is introduced. Incidents which occur due to violations of the program, and any other applicable information shall be included in the program evaluation.

Employer Responsibilities:

The department head/designee shall assess the workplace to determine which hazards require the use of personal protective equipment (PPE). PPE shall be provided, used, and maintained in a sanitary and reliable condition wherever it is needed due to hazards capable of causing injury or impairment through absorption, inhalation or physical contact. PPE shall be inspected periodically by the department head, supervisor and/or designated representative for defects and repaired or replaced as necessary.

Upon completion of the assessment, the department head/designee and/or supervisor will select and purchase the needed PPE and ensure that employees are trained on the proper fit, usage and maintenance of the equipment.

The department head shall have competent person train employees in PPE usage guidelines, including:

- The correct PPE for each situation encountered in the workplace
- How to properly adjust, put on, wear and remove PPE
- Limitations of the specific PPE provided by the Employer
- Proper maintenance, useful life and disposal of PPE

The department head/designee shall verify that each affected employee has received and understands the required training through a written test, a competency test or a combination of both. Documentation of training shall include the name of each employee trained, the date and type of training received. Copy of documentation of training shall be sent to the human resource department.

The department head/designee must have employees retrained when previous training becomes obsolete, there are substantial workplace changes, or if new PPE is introduced.

Revised Policy approved and adopted by the Board of Supervisors 2/3/09
Revised and approved on 9/28/10; Title revised 8/15/17

It shall be the responsibility of the department head/designee to ensure that each affected employee uses proper personal protective equipment. Employees found in violation of this policy shall be subject to progressive discipline.

Employee Responsibilities:

The Employee is responsible for inspecting, wearing, maintaining and storing of PPE as required by specific training, and for informing supervisors of defects in PPE that necessitate repair or replacement.

Based upon assessment of workplace hazards, the following PPE may be required:

Eye and face protection – OSHA regulation section 1910.133:
Suitable eye protection (safety glasses, goggles, face shields, wire mesh masks, etc.) must be worn when there is potential for injury to the eyes or face from flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, body fluids, potentially injurious light radiation or a combination of these.

Respiratory Protection – OSHA regulation section 1910.134 and Black Hawk County respiratory protection program:

Devices such as dust masks, canister respirators, or other such apparatus must be provided to employees who are exposed to harmful dust, fogs, fumes, mists, gases, smoke, sprays, or vapors. Persons using these devices must be tested to ensure that they are physically able to use the devices, fit-tested to the device, and trained in the use and care of the devices. Fit testing and respiratory physicals must be updated as determined by the care provider.

County employees are prohibited from entering oxygen deficient or oxygen enhanced atmospheres or permit-required confined spaces that would require the use of self-contained breathing apparatus.

Respiratory Protection for M. tuberculosis – OSHA section 1910.139 and Black Hawk County respiratory protection program:

Respiratory protection must be provided for persons working in locations where exposure to tuberculosis may be encountered. This applies to health care providers, public health personnel and law enforcement in specific work environments as determined by the department head, supervisor, or applicable laws and/or regulations.

Head Protection – OSHA section 1910.135:
Employees working in locations where there is danger of being struck in the head by falling objects or other dangers from above such as electrical hazards, or when directed by their supervisors, must wear head protection that meets the requirements of the American National Standards Institute (ANSI) Z89.1-1969.

Hand Protection – OSHA section 1910.138:

Employees' hands and arms must be protected from hazards such as cuts or lacerations, abrasions, punctures, burns, chemicals, body fluids, temperature extremes, and other recognized hazards by use of proper hand wear. Material safety data sheets specify the type of protection needed for handling specific materials, chemicals, and fluids.

Foot/Leg Protection – OSHA sections 1910.136 and 1910.266:
Employees must wear protective footwear when working in areas when there is a danger of foot injuries due to falling or rolling objects, or objects piercing the sole, and where their feet are exposed to electrical hazards. Employees must also wear foot and leg protection if they are subject to crushing foot injury, molten metal, hot surfaces, and/or wet and slippery surfaces.

Leg protection is required for persons using chainsaws, weedeaters, and other devices that could cause injury to legs or when working in close proximity to these devices.

Electrical Protective Equipment – OSHA section 1910.137 and Black Hawk County lockout/tagout program:

Persons involved in power generating or power distribution construction and maintenance must be protected from shock, electrocution and burn hazards. The employer shall use all protective requirements addressed in the 1910.137 standard.

Hearing Conservation – Occupational Noise Exposure – OSHA section 1910.95 and Black Hawk County hearing protection program:

Hearing protection shall be provided for persons exposed to noise levels exceeding limits set forth in 1910.95. The Employer shall furnish ear protection that will diminish the noise to acceptable levels. Earplugs, ear "muffs," or other suitable methods may be used to reduce noise exposure when other methods of reducing noise levels are not possible.

Employees whose exposures equal or exceed applicable time-weighted averages must be tested for hearing capacity to establish a base line for subsequent testing. Hearing of employees in occupational noise situations shall be tested annually and compared to the base line test to determine whether the hearing conservation program is effective. If test results reveal further hearing loss, the employer shall make every effort to further reduce the noise level exposure to acceptable levels.

Traffic Control – Worker Safety Apparel – OSHA 126.201 and Federal Highway Administration Manual on Uniform Traffic Control Devices and Black Hawk County Worker high visibility safety apparel policy:

All employees exposed to the risks of moving roadway traffic or construction equipment shall wear high-visibility safety apparel meeting the requirements outlined in the above regulations.

Seatbelts – Iowa Code 321.445:

All 1966 or newer motor vehicles subject to registration by the state of Iowa shall be equipped with safety belts and safety harness of a type. Drivers and all passengers, of such motor vehicle registered to Black Hawk County or personal vehicles driven for county business by a county employee, shall wear a properly adjusted and fastened seatbelt or safety harness any time the vehicle is in motion.

Personal Wear Items – OSHA sections 132 to 139**:**

The employer must provide and maintain all PPE except personal wear items, which it deems necessary to protect the safety and well being of its employees. Personal wear include items worn frequently or daily, such as safety shoes or prescription safety glasses. Personal wear items should be replaced in a timely manner, and evaluated on a case-by-case basis.

Violation of Personal Protective Equipment (PPE) Program:

Employees who violate the personal protective equipment (PPE) program may be subject to discipline based on applicable policies. Employees shall also be required to attend retraining on the procedures or policies that were violated.

Effective with the new Employer-paid PPE: What is covered under the new rule:

Employers do NOT have to pay for:

- Non-specialty safety-toe protective footwear (e.g., steel-toe shoes/boots)
- Non-specialty prescription safety eyewear
- Sunglasses/sunscreen

- Sturdy work shoes
- Lineman's boots
- Ordinary cold weather gear (coats, parkas, cold weather gloves, winter boots)
- Logging boots required under section 1910.266 (d)(1)(v)
- Ordinary rain gear
- Back belts
- Long sleeve shirts
- Long pants
- Dust mask/respirators under the voluntary use provisions in section 1910.134.

Employers do have to pay for:

- Foot protection
- Special boots for longshoremen working with logs
- Rubber boots with steel toes
- Shoe covers—toe caps and metatarsal guards
- Non-prescription eyewear inserts/lenses for full face respirators
- Prescription eyewear insets/lenses for welding and diving helmets
- Goggles
- Face shields
- Laser safety goggles
- Hard hats
- Hearing protection
- Welding PPE
- Items used in medical/laboratory settings to protect from exposure to infectious agents (aprons, lab coats, goggles, disposable gloves, show covers, etc.)
- Non-specialty gloves: Payment is required if they are PPE, i.e. for protection from dermatitis or severe cuts/abrasions. Payment is not required if they are only for keeping clean or for cold weather (with no safety or health consideration)
- Rubber sleeves
- Chemical resistant gloves/aprons/clothing
- Barrier creams (unless used solely for weather-related protection)
- Rubber insulation gloves
- Mesh cut proof gloves, mesh, or leather aprons

BLACK HAWK COUNTY
PORTABLE FIRE EXTINGUISHER PROGRAM

Purpose:

The purpose of the portable fire extinguisher program is to ensure approved portable fire suppression equipment is readily accessible to affected employees without subjecting the employees to possible injury or safety hazards. Individual departments shall evaluate placement, use, maintenance schedule and testing of portable fire extinguishers. These policies and procedures were prepared in accordance with OSHA regulation section 1910.157.

Copies of this program shall be provided to all employees affected by this policy. A copy of the policy shall also be maintained in the human resources department.

Policy:

It shall be the policy of Black Hawk County that approved fire extinguishers shall be provided, mounted, located, and identified so that they are readily accessible to employees in event of fire. Responsibility for administering this program shall be duty and responsibility of the Building Superintendent, department heads, and supervisors.

Annual Review:

This program shall be evaluated at least annually and shall be updated when laws or regulations requiring modification of the program occur. Incidents which occur due to violations of the program and any other applicable information shall be included in the program evaluation.

Employer Responsibilities:

The Building Superintendent, department head/designee, is responsible for administering this program. Department heads shall be responsible for fire extinguisher maintenance and ensuring fire extinguishers are in their proper designated location and conducting monthly inspections of fire extinguisher in areas where building maintenance does not perform maintenance and inspections. Department heads are also responsible for removing from service any defective extinguisher and replacing it with approved fire extinguisher.

The building maintenance department and department heads shall be responsible for ensuring that their employees receive required training. An Employee that is **NOT** properly trained shall **NOT** use any type of extinguisher. Improper use of extinguisher may cause fire to spread.

Employee Responsibilities:

Employees shall be aware of fire hazards and locations of fire extinguishers in their work area, as well as the type of extinguisher needed for their work location. In the event of fire, employees shall evaluate their own safety and shall not place themselves in imminent danger.

Selection and Distribution of Fire Suppression Equipment:

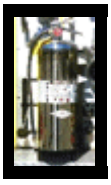
- *Class A Fire*: A fire involving ordinary combustible materials such as paper, wood, cloth, rubber or plastic materials.
  - Portable fire extinguishers for use by employees on class A fires shall be located so that the travel distance for employees to any extinguisher is seventy-five feet (75') or less.
- *Class B Fire*: A fire involving flammable or combustible liquids, flammable gases, grease and similar materials, rubber and plastic materials.
  - Portable fire extinguishers for use by employees on class B fires shall be located so that the travel distance from the class B hazard area to any extinguisher is fifty feet (50') or less.

- *Class C Fire*: A fire involving energized electrical equipment where safety to the employee requires the use of electrically non-conductive extinguishing media. Employee shall note that water can be a dangerous extinguishing medium because of risk of electrical shock.
  - Portable fire extinguishers for use by employees on class C fires shall be located so that the travel distance from class C hazard area to any extinguisher is fifty feet (50') or less.
- *Class D Fire*: A fire involving combustible metals such as magnesium, titanium, potassium and sodium. These materials burn at high temperatures and will react violently with water, air and certain chemicals. Extinguishers in these areas are often specific to the type of metal in question; therefore extinguishers show no rating.
  - Portable fire extinguishers for use by employees on class D fires shall be located so that the travel distance from the class D hazard area to any extinguisher is 75 feet or less.

Types of Fire Extinguishers:

Dry Chemical extinguishers are usually rated for multiple purpose use. They contain an extinguishing agent and use a compressed, non-flammable gas as a propellant.

Halon extinguishers contain a gas that interrupts the chemical reaction that takes place when fuels burn. This type of extinguisher is often used to protect valuable electrical equipment since it leaves no residue to clean up. Halon extinguishers have a limited range, usually 4 to 6 feet. The initial application of Halon should be made at the base of the fire, even after the flames have been extinguished.



Water extinguishers contain water and compressed gas. They should only be used on class A (ordinary combustibles) fires.

Carbon Dioxide (CO_2) extinguishers are most effective on class B and C (liquid and electrical) fires. Since the gas disperses quickly, these extinguishers are only effective from 3 to 8 feet. The carbon dioxide is stored as compressed liquid in extinguisher; as it expands, it cools the surrounding air. The cooling will often cause ice to form around the "horn" where the gas is expelled from extinguisher. Since fire can re-ignite, continue to apply agent even after the fire appears to be out.

Many extinguishers have multi-class ratings. These extinguishers are capable of putting out more than one class of fires. These ratings shall be noted on the extinguishers with symbols as shown below.

Multi- Class Ratings:

Many extinguishers available today may be used on different classes of fires and shall be labeled with more than one designator: e.g. A-B, B-C, or A-B-C. The Building Superintendent and department heads shall make sure that all multi-purpose extinguishers are properly labeled.

The old style of labeling shown here indicates suitability for use on class A, B, and C fires.

The new style of labeling shows that an extinguisher with this label (before red line) may be used on ordinary combustibles, Flammable Liquids, or electrical equipment fires. The new labeling style with a diagonal red line drawn through the picture indicates what type of fire extinguisher shall **NOT** be suitable for. In this example, fire extinguisher could be used on ordinary combustibles and flammable liquids fires, but not for an electrical equipment fire.

Inspection, Maintenance and Testing:

Extinguishers shall be inspected, maintained, and tested in accordance with section 1910.157(3).

- The building maintenance department shall be responsible for inspection, maintenance, and testing of all portable fire extinguishers in the workplace, unless otherwise designated by a department.
  - A qualified vendor may be engaged to annually inspect, maintain, or test fire extinguishers. For record keeping purposes, annual extinguisher checks must be maintained in file for the past three years.
  - Monthly visual inspections shall be conducted on extinguishers and hose by a designated person from each department responsible for fire extinguisher maintenance.
- The following elements of an extinguisher shall be included in the inspection:
  - Mechanical parts;
  - Extinguishing agent;
  - Propellant means.
- Each extinguisher shall be tagged with date of the last annual inspection and initialed by the inspector. The date of each monthly inspection shall also be recorded and initialed on the tag.
- The previous year's tags shall be retained in department file in the event of an OSHA audit. Annual inspection checks shall be maintained for three years.
- Dry chemical extinguishers having non-refillable dispensable containers are exempt from this requirement.
- After *any* use, the fire extinguisher shall be serviced by an outside vendor.
- Extinguishers that require 12-year hydrostatic testing shall be emptied and subjected to applicable maintenance procedures every six (6) years.
- Extinguishers placed out of service for maintenance or re-charge shall be replaced by spare extinguishers of the same type and at least equal rating.
- Stored pressure extinguishers do not require an internal examination.

Employee Training:

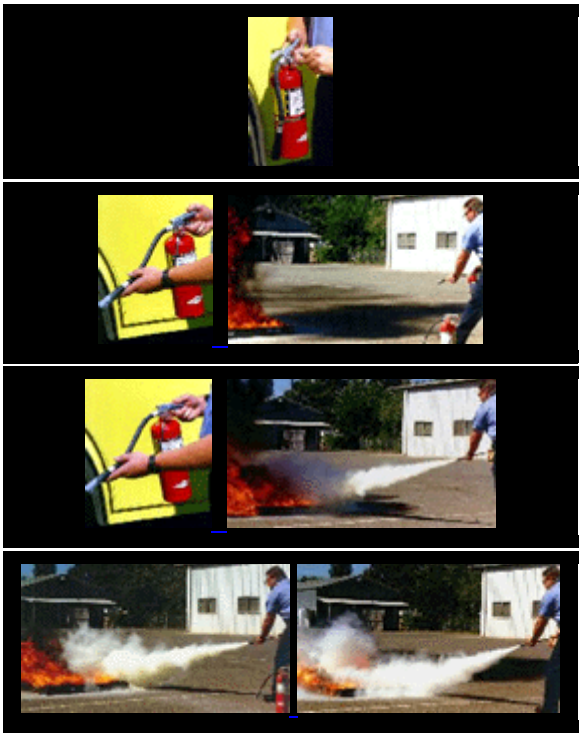
Department heads have the responsibility to provide an annual educational program to familiarize affected employees with the general principles of fire extinguisher use and hazards involved with incipient stage fire fighting. Training shall be conducted by a competent person as demonstrated by knowledge and experience. Documentation of training shall include the name of the trainer, signature of employee trained, the date and type of training received. A copy of this documentation shall be maintained with the department fire extinguisher policy. A copy of training log shall also be forwarded to the human resources department.

Training shall include the following basic procedure.

How to Use a Fire Extinguisher:

Even though extinguishers come in a number of shapes and sizes, all operate in a similar manner. An easy acronym to remember for fire extinguisher use is simply ***P-A-S-S***.

P A S S -- **P**ull, **A**im, **S**queeze, and **S**weep



Pull the pin at the top of the extinguisher. The pin keeps the handle from being accidentally pressed before use.

Aim nozzle toward the base of the fire. Do NOT spray agent into the fire as it may cause spreading of fire.

Stand approximately 8 feet away from the fire (less if halon or carbon dioxide extinguisher). **Squeeze** handle to discharge the extinguisher. If handle is released, discharge will stop.

Sweep the nozzle back and forth at the base of fire. After fire appears to be out, watch carefully as fire may re-ignite!

Questions shall be directed to the Building Superintendent.

BLACK HAWK COUNTY
RESPIRATORY PROTECTION PROGRAM

Purpose:

The purpose of the Respiratory Protection Program is to provide general guidelines to Black Hawk County employees on how to properly perform tasks requiring the use of respiratory protection devices. These policies and procedures were prepared in accordance with OSHA regulation Section 1910.134.

Copies of this program shall be located at each site where use of respiratory protection devices has been identified. A copy of this plan is also located in the Human Resources Department.

Policy:

This policy shall provide a guide for safeguarding employee health and safety by ensuring that employees receive proper training and are in compliance with applicable regulations regarding respiratory protection.

Black Hawk County employees are prohibited from performing tasks requiring the use of atmosphere-supplying respirators such as self-contained breathing apparatus (SCBA). Such tasks shall be contracted to an outside vendor.

Annual Review:

This program shall be reviewed at least annually, and shall be modified when changes in laws or regulations occur. Incidents involving violations of this program, and any other applicable information shall be included in the program evaluation.

Employer Responsibility:

The department head or designee of departments with employees subject to this policy is responsible for the effective administration of this program, including worksite-specific procedures and elements required for respirator use. Department head is also responsible to work through a county designated medical center for coordination of training, medical evaluation and fit testing of employees, equipment purchase and maintenance (sample forms from a medical center are attached). Department is responsible for:

- Procedures for selecting respirator;
- Medical evaluations of employees required to use respirator;
- Fit testing procedures for tight-fitting respirators;
- Procedures for proper use of respirators in routine and reasonably foreseeable emergency situations;
- Procedures for repairing any malfunction or safety hazard as reported by employees;
- Providing safety equipment covered under the new PPE ruling dated November 15, 2007.

Employee Responsibility:

Employees are responsible for undergoing medical evaluation, fit testing, and training prior to use of respiratory protection. When authorized to use respiratory protection, employees shall:

- Inspect the respirator prior to wearing, and ensure that the proper canisters for the hazard are being used;
- Wear the respirator in accordance with training and instruction;
- Guard against damage to respirators;
- Thoroughly clean and disinfect the respirator after each use;
- Inspect the respirator before and after each use, and report any malfunction or safety hazard to the department head or designee;
- Store respirators in a clean condition, protected from dust, sunlight, heat, extreme cold, excessive moisture, or damaging chemicals.

- Provide their own dust mask/respirators used under the voluntary use provision in Section 1910.134.

Definitions:

The following definitions are used in the respiratory protection standard. Other definitions are found in Section 1910.134(b).

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

- *Canister or Cartridge* - container with a filter, sorbent, or catalyst, or combination of these items, which removes specific contaminants from the air passed through the container.

- *Employee exposure* - exposure to a concentration of an airborne contaminant that would occur if the employee were not wearing respiratory protection;

- *Fit Test* - use of a method to quantify or quantitatively evaluate the fit of a respirator on an individual;

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

- *Loose-fitting facepiece* - respiratory inlet covering that is designed to form a partial seal with the face.

- *Self-contained breathing apparatus (SCBA)* – atmosphere-supplying respirator for which the breathing air source is designed to be carried by the user. (This type of respirator is not needed by Black Hawk County employees as they are prohibited from performing tasks requiring the use of SCBA.)

- *Tight-fitting facepiece* – respiratory inlet covering that forms a complete seal with the face.

Selection of Respirators:

Respirators shall be selected by a team comprised of employees who use respirators, and supervisors knowledgeable in selecting proper respirators for specific tasks. The selection team must identify and evaluate the hazards in the workplace, which should include a reasonable estimate of exposure frequency and identification of the contaminant's chemical state and physical form.

Respirators and canisters must be certified by the National Institute for Occupational Safety and Health (NIOSH).

Medical Evaluation:

Wearing a respirator can be physically taxing; therefore, employees required to use a respirator shall have a medical evaluation to determine his/her ability to use a respirator **before fit testing and use.** The County's designated care provider shall act as the physician or licensed health care professional (PLHCP) and shall perform the medical evaluation using a medical questionnaire and medical examination.

Following the evaluation and medical examination, the PLHCP must provide written recommendation regarding employee's ability to use a respirator. Additional evaluation may be required as recommended

by the PLHCP. The employee shall be provided opportunity to discuss the questionnaire and examination with PLHCP as needed.

Facial Hair/Glasses:

Employees who wear respirators as part of their job will be required to remove all facial hair that could interfere with the proper seal of the respirator. When a person wears glasses or goggles or other personal protective equipment, it shall be worn in a manner that does not interfere with the seal of the facepiece.

Fit Testing:

- Employees must receive a medical evaluation prior to the fit testing procedure;
- Employees must pass the appropriate fit test;
- Annual fit testing is required. Fit testing is also required whenever a different facepiece is used, or when the employee's physical condition changes.

Care and Maintenance of Respirators:

- Employees must clean, disinfect, store and maintain respirators using the procedures recommended in Appendix B-2 of CFR 1910.134 or by the manufacturer at the following intervals:
  - As often as necessary to maintain sanitary condition for exclusive use;
  - Before being worn by different individuals when issued to more than one employee;
- Respirators shall be stored in a clean condition, protected from dust, sunlight, heat, extreme temperatures, excessive moisture, or damaging chemicals;
- Respirators shall be packed and stored to prevent deformation of the facepiece and exhalation valve;
- Must be accessible to work area;
- When respirators do not pass inspection, they shall be removed from service until they have been repaired or are replaced;
- To be certain that tight-fitting respirators are giving the best protection, they must be "seal checked" before each use by performing one of the following:
  - *Positive pressure* – Close the respirator's exhalation valves and breathe out gently into the facepiece. This should cause the facepiece to bulge out slightly. If no air leaks out, employee has a good fit;
  - *Negative pressure* – Close the respirator's inhalation valves and breathe in gently. The facepiece should collapse slightly against the face. Employee should hold his/her breath for ten seconds. If facepiece stays collapsed and no air leaks in, employee has a good fit.
  - *Manufacturer's recommended procedures* – These may be used if the procedures are equally effective as the positive or negative pressure tests.

Identification of Filters, Cartridges and Canisters:

- All filters, cartridges, and canisters used in the workplace must be labeled and color-coded with NIOSH-approved labels;
- Labels must not be removed and must remain legible;
- Filters, cartridges, and canisters not meeting the label requirements will be immediately removed from the workplace.

Employee Training:

Training should be conducted by a competent person as demonstrated by knowledge and experience. Employees using respirators shall be trained annually. The trainer shall verify that each affected employee has received and understands the information presented through a competency test, a written test, or a combination of both. Documentation of training shall include the name of the trainer, each employee trained, the date, and the type of training received. A copy of this documentation shall be sent to the Human Resources Department.

Training shall include:

- The necessity for respirator use;
- Limitations and capabilities of respirator used;
- The necessity for proper fit and maintenance of respirators;
- Proper inspection, doffing and donning of respirators;
- How to recognize medical signs and symptoms that may limit or prevent effective use.

Retraining is required when workplace conditions change, new types of respirators are used, or if an employee exhibits the need for retraining.

Outside Contractors:

Outside contractors shall be informed of the elements of this program by the applicable department head or designated representative, and must make copies available of their respiratory protection program. Contractors who fail to follow these requirements will be asked to leave the premises. Contractors with an insufficient program will not be allowed to begin work until their program meets or exceeds the requirements of 1910.134, Respiratory Protection.

Violation of Respiratory Protection Program:

Employees who violate the Respiratory Protection Program may be subject to discipline based on applicable policies. Employees shall be retrained on the procedures or policies that were violated.

Recordkeeping:

The employer shall establish and retain written information regarding medical evaluations, fit testing, and respirator program. All employees using respirators shall be involved in the auditing of such program's adequacy. The records shall be maintained in compliance with 29 CFR 1910.1020 and 1910.134 (m). Fit testing results are maintained until a subsequent test is administered. A copy of training with documented signatures of employees attending training shall be sent to the human resources department. Documentation of fit testing results shall also be sent to the human resources department.

ALLEN HOSPITAL
IOWA HEALTH system
The heart of your healthcare

Allen Occupational Health Services

1826 Logan Ave.,
Waterloo, IA 50703
Phone: (319) 235-3885
FAX: (319) 235-3113

4612 Prairie Park, Ste 102
Cedar Falls, IA 50613
Phone: (319) 266-3842
Fax: (319) 266-5755

On- Site Services
Phone 235-3523

RESPIRATOR MEDICAL EXAM

Last Name _____ First Name _____ Initial ____ Date _____

Social Security # _____ Birthdate: _____ ☐ Male ☐ Female

Company _____

MEDICAL ASSESSMENT

HEIGHT:____ WEIGHT:____BLOOD PRESSURE:_____PULSE: _____ RESP:_____

VISION: (Far vision only)

	RIGHT	LEFT	BOTH	COMMENTS
UNCORRECTED	20/	20/	20/	
CORRECTED	20/	20/	20/	

	NORMAL	ABNORMAL	COMMENTS
Eyes			
Ears			
Nose			
Pharynx			
Chest			
CVS			

COMMENTS

Medical Professional's Signature: _____ Date: _____

Revised Policy approved and adopted by the Board of Supervisors 2/3/09
Revised and approved on 9/28/10; Title revised 8/15/17

ALLEN HOSPITAL
IOWA HEALTH System
The heart of your healthcare

Allen Occupational Health Services
❑ 1825 Logan Ave., Waterloo, IA 50703
Phone: (319) 235-3885
FAX: (319) 235-3113
❑ On-Site Services
(319) 235-3523

RESPIRATOR QUESTIONNAIRE

Supervisor to complete:

Employee/Applicant's Name: _____ SS# _____

1. Types and weight of respirators to be used:
   - ❑Atmosphere-supplying respirator, weight_____
   - ❑Continuous-flow respirator, weight_____
   - ❑Open-circuit SCBA, weight_____
   - ❑Closed circuit SCBA, weight_____
   - ❑Supplied-air respirator, weight_____
   - ❑Combination air-line and SCBA, weight_____
   - ❑Air-purifying (non-powered), weight_____
   - ❑Air-purifying (powered), weight_____
2. Level of work effort:
   ❑Light ❑Moderate ❑Heavy
3. Extent of usage:
   - ❑On a daily basis, Frequency: _____ Duration: _____
   - ❑Occasionally - but more than once a week, Frequency: _____ Duration: _____
   - ❑Rarely - less than once a week, Frequency: _____ Duration: _____
   - ❑Emergency use for rescue and escape, Frequency: _____ Duration: _____
4. Additional protective clothing and equipment to be worn: _____
5. Temperature and humidity extremes: _____
6. Other information: _____

Date: _____ Supervisor: _____

Employee to read:

Your employer must allow you to answer this questionnaire during normal working hours, or at a time and place that is convenient to you. To maintain your confidentiality, your employer or supervisor must not look at or review your answers, and your employer must tell you how to deliver/send this questionnaire to the health care professional who will review it.

If you receive this questionnaire and are NOT at the clinic, please place your completed questionnaire in a sealed envelope to deliver/send to Allen Occupational Health Services. A licensed health care professional will evaluate your documentation and provide you and your company with written recommendation for obtaining a follow-up evaluation and/or your medical clearance to use a respirator. If you have any questions, please feel free to call Allen Occupational Health Services at (319) 235-3885.

Employee to complete:

1. Can you read (please circle your response)? .....❑ Yes ❑ No

Employee Initials: _____

Revised Policy approved and adopted by the Board of Supervisors 2/3/09
Revised and approved on 9/28/10; Title revised 8/15/17

Part A, Section 1 - Mandatory

The following information must be provided by every employee who has been selected to use any type of respirator .

1. Today's date: _____ Your social security number: _____
2. Your last name: _____ Your first name: _____
3. Your date of birth: _____ Your age (to the nearest year) _____
4. Your height: _____ ft. _____ in. Your weight: _____
5. Your ethnic group: ❑Asian ❑Afro-American ❑Caucasian ❑Hispanic Sex: ❑Male ❑Female
6. Your company name: _____ Your job title: _____
7. A phone number where you can be reached by the health care professional who reviews this questionnaire (include the area code): _____ The best time to phone you at this number: _____
8. Has your employer told you how to contact the health care professional who will review this questionnaire?
   ❑Yes ❑No
9. Check the type of respirator you will use (you can check more than one category):
   ❑ N,R, or P disposable respirator (filter-mask, non-cartridge type only)
   ❑ Other type (for example, half- or full-facepiece type, powered-air purifying, supplied-air, self-contained breathing apparatus).
10. Have you worn a respirator: ..... ❑ Yes ❑ No

    If "Yes", what type (s): _____

Part A, Section 2 - Mandatory

Questions 1 through 9 below must be answered by every employee who has been selected to use any type of respirator (please choose 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 spaces)? ..... ❑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

Employee Initials: _____
Allen Occupational Health Nov. 2003

N95 Surgical Particulate Respirators (200 Masks) Premium Package

- First line of defense in a pandemic or other bio-emergency
- Aids in preventing the inhalation of viral pathogens
- Meets CDC Guidelines for Avian Influenza (Bird Flu)
- Meets CDC Guidelines for TB, SARS, Smallpox, and Anthrax
- Highest Level of ASTM Fluid Resistance, 160mm HG
- Lowest breathing resistance in its class
- No uncomfortable pressure points
- Durable, Ultrasonically Welded Headbands
- Individually Wrapped Respirators with Instructions
- Single-Use Disposable
- One size fits most. 20 Respirators/Box
- **NIOSH Certified / FDA Surgical Approved**

Flu Armour NIOSH Surgical N95 Particulate Respirators (Masks) uphold a filtration level and fluid resistance universally recognized in the prevention of the inhalation of airborne microorganisms. This medical grade respirator was designed to filter out viral pathogens and effectively protect the respiratory system (nose and mouth) in a pandemic environment. Each respirator is individually wrapped with instructions printed on the packaging. This ensures proper usage, reduces liability, and protects from viral contamination outside the box. Respirators are folded flat, making it portable and easy to store without being crushed.

What is the difference between a regular N95 Respirator and a Surgical N95 Respirator?
"Surgical respirators are a type of respiratory protection that offers the combined protective properties of both a filtering facepiece respirator and a surgical mask. Surgical N95 respirators are certified by NIOSH as respirators and also cleared by FDA as medical devices which have been designed and tested and shown to be equivalent to surgical masks in certain performance characteristics (resistance to blood penetration, biocompatibility) which are not examined by NIOSH during its certification of N95 respirators…Those respirators that are surgical N95 respirators are also cleared by the FDA and, therefore, are appropriate for circumstances in which protection from airborne and body fluid contaminant is needed."
-Occupational Safety & Health Administration, *Guidance on Preparing Workplaces for an Influenza Pandemic*, February 2007.

*OSHA regulations require fit testing of all respirators prior to use in order to determine if proper fit is attainable. Individual facial features, including facial hair, may prevent proper fit. Qualitative Bitrex Respirator Fit Test Kits for OSHA compliance are available on our product menu.

Respirators Used By Black Hawk County Health Department

(This page intentionally left blank)

BLACK HAWK COUNTY
WELDING, CUTTING AND BRAZING PROGRAM

Purpose:

This program was created to provide general guidelines to Black Hawk County employees on performing tasks that require the use of welding equipment and cutting torches. All procedures and policies were prepared in accordance with OSHA section 1910.251-255.

Copies of this program shall be located at each work site where hot work is performed, including temporary maintenance and construction sites. A copy shall also be located in the human resources department.

Policy:

Department head and/or designee shall use this policy as a guide for safeguarding employee health and safety by providing employees proper training that is in compliance with applicable regulations regarding welding, cutting and brazing.

Annual Review:

This program shall be reviewed annually, and shall be modified when changes in laws or regulations occur. Incidents involving violations of this program, and any other applicable information shall be included in the program evaluation.

Employer Responsibility:

The department head or designee is responsible for the effective operation of this program. Department heads and supervisors shall ensure that applicable regulations and work rules are followed during welding, cutting and brazing operations and that employees covered by this policy receive appropriate training. Department head/designee shall be responsible to:

- Establish designated area for cutting, welding and brazing;
- Establish proper procedures and guards for cutting and welding in areas where fire hazards cannot be moved to established area;
- Designation of individual responsible for authorizing cutting and welding in other areas;
- Arrange for proper training for affected individuals and supervisors in the safe operation of equipment;
- Advise contractors regarding flammable materials or hazardous conditions of which they may not be aware.
- Maintain suitable fire extinguishers in a state of readiness for instant use in areas where employee(s) or contractor(s) are working;
- Responsible for safe handling of cutting and welding equipment;
- Regularly examine workplace for combustible materials and hazard areas present in the workplace;
- Ensure fire extinguishing equipment and protection are properly inspected and located.

Employee Responsibility:

Employees are responsible for safely performing their duties within established programs, regulations, work practices and precautions outlined in their training. The work practices shall be performed to the best of the employee's ability. Employee shall report any equipment defect or safety hazard to supervisor and use of equipment shall be discontinued until its safety has been assured. Repairs shall be made only by qualified personnel.

Revised Policy approved and adopted by the Board of Supervisors 2/3/09
Revised and approved on 9/28/10; Title revised 8/15/17

Definitions:

Welder – operator of electric or gas welding and cutting equipment.

Approved – listed or approved by a nationally recognized testing laboratory.

Qualified Operators:

Only qualified/trained operators shall be allowed to operate welding and cutting equipment.

Designated Welding and Cutting Area:

- All welding and cutting operations will be conducted in the designated area when possible.
- Welding screens/guards shall be positioned to protect employees from welding flash, sparks, or flying slag.
- The ventilation system must be on when welding.
- Prior to beginning welding or cutting operations, operator shall inspect the area to ensure the following:
  - There are no flammables or combustibles within the clear zone.
  - Cutting and welding equipment is in good condition.
  - Fire extinguishing equipment is available for instant use. This equipment may consist of pails of water, buckets of sand, hose, or portable extinguishers.

Welding and Cutting Outside Designated Area:

- When welding and cutting operations must be performed outside of the designated area, a supervisor must complete a hot work permit that includes a pre-work inspection to ensure the following:
  - There are no flammables or combustibles within the work zone;
  - Welding and cutting equipment is in good condition;
  - A suitable fire extinguisher is available and in good working condition;
  - Floor and wall openings to adjacent areas are covered to prevent sparks or slag from escaping;
  - There is sufficient ventilation in the work area;
  - Screens and barriers are positioned to protect other workers in adjacent areas.
- A fire watch has been designated;
- Employer must provide railings when working on platforms, scaffolds, or runways to protect against falling.

Prohibited areas:

- Not authorized by management;
- In sprinklered buildings while protection is impaired;
- In presence of explosive atmospheres, or explosive atmospheres that may develop inside unclean or improperly prepared tanks or equipment which has previously contained such materials;

- In areas near storage of large quantities of exposed, readily ignitable materials such as bulk sulfur, baled paper, or cotton.

Fire Watch:

Fire watchers shall be required whenever welding or cutting is performed in locations where other than a minor fire might develop. Watchers shall have the following qualifications and responsibilities:

- Be familiar with methods for sounding an alarm in the event of fire;

- Have suitable fire extinguishing equipment readily available and be trained in its use;
- Watch for fires in all exposed areas, try to extinguish them only when obviously within the capacity of the fire equipment available; otherwise sound the alarm;
- Maintain a fire watch for at least one-half (½) hour after completion of welding or cutting operations to detect and extinguish possible smoldering fires.

Fire watcher shall be required whenever welding or cutting is performed in locations where a fire may develop, or where any of the following conditions exist:

- Appreciable combustible material, in building construction or contents, is closer than thirty-five feet (35') from the point of operation;
- Appreciable combustibles are more than thirty-five feet (35') away, but are easily ignited by sparks;
- Wall or floor openings within a thirty-five foot (35') radius expose combustible material in adjacent areas, including concealed spaces in walls or floors;
- Combustible material is adjacent to the opposite side of metal partitions, walls, ceilings, or roofs, and is likely to be ignited by conduction or radiation.

Personal Protective Equipment (PPE)/Clothing:

Respirators shall be selected in accordance with respiratory protection program and in accordance with CFR 1910.134 (d). Respirator shall be NIOSH-certified and used in compliance with the conditions of its certification.

In accordance with section 1910.252(b) (2) and personal protective equipment program, all employees involved with hot work shall be issued, and are required to wear, appropriate personal protective equipment. Such equipment shall be inspected frequently and maintained according to manufacturer's recommendations.

In accordance with 1910.252 (3), employees exposed to the hazards created by welding, cutting and brazing shall be protected by appropriate clothing required for any welding operation. Clothing will vary with the size, nature and location of the work to be performed.

Lockout/Tagout Procedure:

In accordance with 29 CFR 1910.147, when hazard evaluation determines that lockout/tagout procedures are required to perform a certain task, employees shall refer to 29 CFR 1910.147 and Black Hawk County's lockout/tagout program for proper procedures.

Hazard Communication:

Material safety data sheets (MSDS) shall be available for welding rods, compressed gases, and other hazardous materials used in welding, cutting, and brazing operations.

General Safety Requirements:

- Welding cables and hoses must be kept clear of passageways, ladders, and stairways;
- Prior to welding, cutting, or other hot work on containers such as barrels or tanks, the containers must be thoroughly cleaned to make absolutely certain that no materials or substances remain that may cause fire, explosion, or a release of toxic materials when heated;
- Mechanical ventilation must be provided when there is less than 10,000 cubic feet of space per welder, or when the ceiling height is less than sixteen (16) feet;
- Welders shall not coil or loop electrode cable around their bodies;
- Electrodes must be removed from the holders when not in use;
- Power to the welder must be disconnected.

Employee Information and Training:

Employees authorized for welding and cutting operations shall receive the following training as required by OSHA:

- An overview of Section 1910.251–255;
- The details of this program;
- General hazards associated with hot work in the workplace;
- The selection and use of proper personal protective equipment;
- Explanation of hot work permits system;
- Duties of fire watch;
- Recognizing hazards;
- Emergency response procedures.

A competent person, as demonstrated by knowledge and experience, shall conduct the training. The name of the trainer, qualifications, training materials, course content, date of training and employees trained must be documented. The trainer shall verify that each employee has received and understands the information presented through a competency test, a written test, or a combination of both.

Documentation of welding, cutting and brazing training shall be sent to the human resources office.

Outside Contractors:

The department head or designated representative shall inform all contractors of the elements of this program. Contractors must provide a copy of their welding, cutting and brazing operations program to the contracting department. Contractors who fail to follow the county's program requirements will be asked to leave the premises. Contractors with an insufficient program will not be allowed to begin work until their program meets or exceeds the requirements of this program.

Violation of Welding, Cutting and Brazing Program:

Employees who violate the welding, cutting and brazing program may be subject to discipline based on applicable policies. Employees who receive discipline shall be retrained on the procedures or policies that were violated.

BLACK HAWK COUNTY
WELDING, CUTTING AND BRAZING PROGRAM

QUALIFIED OPERATORS LIST

This list shall be updated at least annually, or whenever qualified operators are added or removed from the list.

Department:_____ **Date:**_____

List qualified employees, job title, and equipment they are authorized to operate:

Employee Name	Job Title	Equipment Make/Model

Completed by: _____
(Print name)

_____
(Signature)

Title: _____

Revised Policy approved and adopted by the Board of Supervisors 2/3/09
Revised and approved on 9/28/10; Title revised 8/15/17

BLACK HAWK COUNTY
WELDING, CUTTING AND BRAZING PROGRAM

HOT WORK PERMIT

Date: _____/_____/_____ Location:_____

Nature of Job: _____

The above location has been examined, and the precautions listed below have been taken to prevent fire. <u>The supervisor must inspect the proposed work area and check precautions to prevent fire</u>.

General Precautions:

- Sprinklers and/or fire host in service.
- Cutting and welding equipment in good repair.
- Area supervisor notified.

Precautions Within 35 Feet of Work:

- Floors swept clean of combustibles.
- Combustible floors wet down, covered with damp sand, metal, or fireproof sheets.
- No combustible materials or flammable liquids.
- Combustibles and flammable liquids protected with fire-proof tarpaulins or metal shields.
- All wall and floor openings covered.
- Fireproof tarpaulins suspended beneath work to collect sparks and protect individuals in the area.

Work on Walls or Ceilings:

- Construction is noncombustible and without combustible covering or insulation.
- Combustibles are moved away from hot zone.

Work on Enclosed Equipment:

- Equipment cleaned of all combustibles.
- Containers purged of flammable vapors.
- Adequate air flow through enclosed equipment to be provided while cutting and welding is done.

Fire Watch:

- To be provided during and for at least one-half (½) hour after work is completed.
- Supplied with extinguishers or small hose.
- Trained in use of equipment and in sounding alarms.
- I have personally examined the above and certify that the checked precautions have been taken.

Signed: _____ Permit Expires: _____at: _____**:**_____
Supervisor Date AM/PM

Final Check-Up:
Work area and all adjacent areas to which sparks and heat might have spread (such as floors above and below and on opposite sides of walls,) were inspected for <u>at least one-half (½) hour after the work was completed</u> and were found fire safe.

Signed:_____ Final Inspection:: _____at: _____**:**_____
Date AM/PM

Revised Policy approved and adopted by the Board of Supervisors 2/3/09
Revised and approved on 9/28/10; Title revised 8/15/17

BLACK HAWK COUNTY
WORKER HIGH VISIBILITY SAFETY APPAREL PROGRAM

Purpose:

The purpose of the worker high visibility safety apparel policy to provide general guidelines for employees who wear high visibility safety apparel while exposed to either traffic (vehicles using the highway for purposes of travel) or to construction equipment within the work area. All procedures and policies were prepared in accordance with Iowa Department of Transportation (IDOT) Title 23, Code of Federal Regulation Part 634, and OSHA 126.201.

Policy:

It shall be a condition of employment that all employees of Black Hawk County whose work activities place him/her within a federal-aid highway right-of-way will be required to wear high visibility safety apparel while working within the right-of-way. This policy applies to construction and maintenance forces, survey crews, utility crews, responders to incidents, and law enforcement personnel when directing traffic, investigating crashes, and handling lane closures, obstructed roadways, and disasters within the right-of-way of a federal-aid highway. Responsibility for administering this program shall be the duty and responsibility of the department heads and their supervisors.

Copies of this program shall be located in each affected department, made available to all employees affected by this policy. A copy will also be maintained in the human resources department.

Annual Review:

This program shall be evaluated at least annually and shall be updated when laws or regulations requiring modification of the program occur, or when new rulings are introduced. Incidents which occur due to violations of the program, and any other applicable information shall be included in the program evaluation.

Employer Responsibility:

The department head shall assess the work areas to determine which departments require the use of high visibility apparel. High visibility apparel shall be inspected periodically by the department head, supervisor and/or designated representative for defects and repaired or replaced as necessary.

Upon completion of the assessment, the department head and/or supervisor will select and purchase the needed high visibility apparel and ensure that employees (including designers, inspectors, flaggers, traffic managers, equipment operators, law enforcement officers, etc.) are trained on the proper fit, use and maintenance of the apparel.

The high visibility apparel practice of Iowa DOT is to use fluorescent yellow-green and orange vests. The ANSI 107-2006 standard specifies:

Class III – Class III garments provide the highest level of visibility to workers in high-risk environments that involve high task loads, a wide range of weather conditions and traffic exceeding 50 mph. Class III garments provide coverage to the arms and/or legs as well as the torso, and can include pants, jackets, coveralls or rain wear. The standard recommends these garments for all roadway construction personnel and vehicle operators, utility workers, survey crews, emergency responders, and accident site investigators.

Class II – Class II garments are for users who need greater visibility in poor weather conditions and whose activities occur near roadways where traffic speeds exceed 25 mph. This class of garment is suitable for law enforcement personnel directing traffic and flaggers.

The Employer shall verify that each affected employee has received and understands the required training through a written test, a competency test or a combination of both. Documentation of training shall include the name of each employee trained, the date and type of training received. A copy of documented training shall be sent to the human resources department.

It shall be the responsibility of the department head to ensure that each affected employee uses proper high visibility safety apparel. Employees found in violation of this policy shall be subject to progressive discipline.

Employee Responsibility:

The Employee is responsible for inspecting, wearing, maintaining and storing high visibility safety apparel as required by specific training, and for informing supervisors of defects in high visibility safety apparel that necessitates repair or replacement.

Definitions:

Close proximity – within the highway right-of-way on federal-aid highways.

High Visibility Safety Apparel – personal protective safety clothing that is intended to provide conspicuity during both daytime and nighttime usage and meets performance class 2 or 3 requirements of the ANSI/ISEA 107-2004 publication entitled “American National Standard for High-Visibility Safety Apparel and Headwear.”

Workers – people on foot whose duties place them within the right of way of a federal-aid highway, such as highway construction and maintenance forces, survey crews, utility crews, incident responders to incidents within the highway right-of-way, and law enforcement personnel when directing traffic, investigating crashes, and handling lane closures or obstructed roadways.

Employee Information and Training:

Employees authorized and/or affected by this policy shall receive training by a competent person. The trainer shall verify that each affected employee has received and understands information as presented. Documentation of training shall include the name of the trainer, each employee trained, the date, and the type of training.

Violation of Worker High Visibility Safety Apparel Policy:

Employees who violate the worker high visibility safety apparel may be subject to discipline based on applicable policies. Employees will also be required to attend retraining on the procedures or policies that were violated.