# County of Imperial



# Injury & Illness Prevention Program

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#### Introduction

Welcome County of Imperial Employees to our Injury Illness Prevention Program. This manual sets forth policy, procedures and instructions for the County of Imperial Injury & Illness Prevention Program. In addition, it assigns authority, responsibility and requirements relative to these programs. This manual is applicable to all County employees, to all work conducted under the authority of the County, and to all equipment and property managed by the County. County contractors and other non-contractor personnel will follow the provisions of this handbook while at County facilities.

# Responsibility

The Injury and Illness Prevention Program ("IIPP" also "safety Program," also "Program") administrator, the Director of Human Resources & Risk Management, has the responsibility for implementing the provisions of this program for the County of Imperial.

All managers and supervisors are responsible for implementing and maintaining the County's safety Program in their work areas and for answering worker questions about the Program. A copy of this Program is made available from each manager and supervisor and should be kept in his or her respective office(s) for immediate reference. Departments will have the discretion to establish internal safety policies for their employees as required by their specific work areas and/or work assignments. In such cases, the internal policy will supersede the County's Injury and Illness Prevention Program; in as much as said policy at least meets the minimum safety requirements of the county's Injury and Illness Prevention Program.

### Compliance

Management is responsible for ensuring that all safety and health policies and procedures are clearly communicated and understood by all employees. Managers and supervisors are expected to enforce the rules fairly and uniformly.

All employees are responsible for using safe work practices, for following all directives, policies and procedures, and for assisting in maintaining a safe work environment.

Our system of ensuring that all workers comply with the rules and maintain a safe work environment includes:

- Informing workers of the provisions of our safety Program
- Evaluating the safe performance of all workers
- Recognizing employees who perform safe and healthful work practices

- Providing training to workers whose safety performance is deficient
- Disciplining workers for failure to comply with safe and healthful work practices
- The following practices: General Code of Safe Practices, Unsafe Acts & Conditions, and Specific Code of Safe Practices as outlined in the safety program.

# Communication

We recognize that open, two-way communication between management and staff on health and safety issues is essential to an injury-free, productive workplace. The following system of communication is designed to facilitate a continuous flow of safety and health information between management and staff in a form that is readily understandable and consists of one or more of the following items:

х	New worker orientation including a discussion of safety and health policies and procedures.
х	Workplace safety and health training programs.
х	Regularly scheduled safety meetings.
х	Effective communication of safety and health concerns between workers and supervisors, including
	translation where appropriate.
Х	Posted or distributed safety information.
Х	A system for workers to anonymously inform management about workplace hazards. Employee Suggestion
	form/box.
Х	Our labor/management safety and health committee that meets regularly, prepares written records of the
	safety and health committee meetings, reviews results of the periodic scheduled inspections, reviews
	investigations of accidents and exposures and makes suggestions to management for the prevention of
	future incidents, reviews investigations of the alleged hazardous conditions, and submits recommendations
	to assist in the evaluation of employee safety suggestion.
Х	Hiring of outside consulting firm to assist in implementation of IIIP Program.

#### **Hazard Assessment**

Each department will assign a competent observer(s) to perform periodic inspection to identify and evaluate workplace hazards.

The department of Public Works has assigned the following observers (or current District Superintendent):

Area of our Workplace	Competent Observer
Commercial Vehicle Repair	District #1 Deputy Director PW Field Operations
	District #3 Regional Road Superintendent
	District #4 Regional Road Superintendent
	District #5 Deputy Director PW Field Operations
Permitted Confined Space Entries	District #1 Deputy Director PW Field Operations
	District #3 Regional Road Superintendent
	District #4 Regional Road Superintendent
	District #5 Deputy Director PW Field Operations
Highway Maintenance	District #1 Deputy Director PW Field Operations
	District #3 Regional Road Superintendent

Area of our Workplace	Competent Observer	
Highway Maintenance	District #4 Regional Road Superintendent	
	District #5 Deputy Director PW Field Operations	
Lock Out & Tag Out Operations	District #1 Deputy Director PW Field Operations	
	District #3 Regional Road Superintendent	
	District #4 Regional Road Superintendent	
	District #5 Deputy Director PW Field Operations	
Hazardous Waste Management	District #1 Deputy Director PW Field Operations	
	District #3 Regional Road Superintendent	
	District #4 Regional Road Superintendent	
	District #5 Regional Road Superintendent	

Periodic inspections are performed according to the following schedule:

- Quarterly
- When we initially established our IIPP
- When new substances, processes, procedures or equipment which present potential new hazards are introduced into our workplace
- When new, previously unidentified hazards are recognized
- When occupational injuries and illnesses occur

- When we hire and/or reassign permanent or intermittent workers to processes, operations, or tasks for which a hazard evaluation has not been previously conducted
- Whenever workplace conditions warrant an inspection

Periodic inspections consist of identification and evaluation of workplace hazards utilizing applicable sections of the attached Hazard Assessment Checklist <u>and</u> any other effective methods to identify and evaluate workplace hazards.

#### Safety Committee

Please refer to County Ordinance, Chapter 2.112, Sections 2.112.010 through 2.112.070 inclusive for details on the County's Safety Committee duties and responsibilities.

# Reporting Serious Injury

Serious injury or illness means any injury or illness occurring in a place of employment or in connection with any employment which requires inpatient hospitalization for a period in excess of 24 hours for other than medical observation or in which an employee suffers a loss of any member of the body or suffers any serious degree of permanent disfigurement, but does not include any injury or illness or death caused by the commission of a Penal Code violation, except the violation of Section 385 of the Penal Code, or an accident on a public street or highway.

Procedure for reporting serious injury or illness:

- First supervisor that has knowledge of a serious injury or illness including a fatality or any injury that
  requires inpatient hospitalization for a period of excess of 24 hours on the job, should notify the
  nearest Cal/OSHA by phone 619-767-2280 or fax. The call should be placed immediately after
  seeking medical attention to assist the employee but in no way shall exceed an 8 hours period.
- After reporting the injury to Cal/OSHA, Risk Management should be contacted to notify that a serious injury has occurred and Cal/OSHA has been notified.
- All supervisors shall have annual training instruction on how to report a serious injury or illness.

New supervisors shall have training immediately after acquiring a supervisory position.

#### Accident/Exposure Investigations

Procedures for investigating workplace accidents and hazardous substance exposures include:

- Visiting the accident scene as soon as possible;
- Interviewing injured workers and witnesses;
- Determining the cause of the accident/exposure;
- Taking corrective action to prevent the accident/exposure from reoccurring; and

Recording the findings and corrective actions taken.

#### **Hazard Correction**

Unsafe or unhealthy work conditions, practices, or procedures shall be corrected in a timely manner based on the severity of the hazards. Hazards shall be corrected according to the following procedures:

- When observed or discovered:
- When an imminent hazard exists that cannot be immediately abated without endangering employee(s) and/or property, we will remove all exposed workers from the area except those necessary to correct the existing condition. Workers necessary to correct the hazardous condition shall be provided with the necessary protection; and
- All such actions taken and dates they were completed shall be documented on the appropriate forms.

#### Training and Instruction

All workers, including managers and supervisors, shall have training and instruction on general and jobspecific safety and health practices. Training and instruction shall be provided as follows:

- When the safety Program is first established;
- To all new workers, except for construction workers who are provided training through a Cal/OSHA approved construction industry occupational safety and health training program;
- To all workers given new job assignments for which training has not be previously provided;
- Whenever new substances, processes, procedures or equipment are introduced to the workplace and represent a new hazard;
- Whenever the employer is made aware of a new or previously unrecognized hazard;
- To supervisors to familiarize them with the safety and health hazards to which workers under their immediate direction and control may be exposed
- To all workers with respect to hazards specific to each employee's job assignment.

Workplace safety and health practices for all industries include, but are not limited to, the following:

- Explanation of the employer's IIPP, emergency action plan and fire prevention plan, and measures for reporting any unsafe conditions, work practices, injuries and when additional instruction is needed
- Use of appropriate clothing, including gloves, footwear, and personal protective equipment
- Information about chemical hazards to which employees could be exposed and other hazard communication program information
- Availability of toilet, hand-washing, and drinking water facilities
- Provisions of medical services and first aid including emergency procedures

In addition, we provide specific instructions to all workers regarding hazards unique to their job assignment, to the extent that such information was not already covered in other training.

# Recordkeeping

The following is our recordkeeping policy:

Our establishment is on a designated high hazard industry list. We have taken the following steps to implement and maintain our IIPP Program:

- Records of hazard assessment inspections, including the person or persons conducting the
  inspection, the unsafe conditions and work practices that have been identified and the action taken
  to correct the identified unsafe conditions and work practices, are recorded on a hazard assessment
  and correction form; and
- Documentation of safety and health training for each worker, including the workers' name or other identifier, training dates, type(s) of training, and training providers are recorded on a worker training and instruction form. We also include the records relating to worker training provided by a construction industry occupational safety and health program approved by Cal/OSHA.

Inspection records and training documentation will be maintained for one year, except for training records of employees who have worked for less than one year which are provided to the worker upon termination of employment.

We train our workers about the following training subjects:

- General Code of Safe Practices
- Unsafe Acts and Conditions
- Defensive Driving General Information
- Accident Reporting Procedures
- Heat Stress
- Back Safety and Lifting Safety
- Slips, Trips, and Falls
- Office Safety
- Blood Borne Pathogens
- Emergencies
- Bomb Threat Response Plan
- Hazard Communications Standard "Right to Know"
- Hazard Communication Standard Fact Sheet
- Maintenance and General Construction Safety
- Ladder Safety
- Drive Safety Commercial Motor Vehicle Drivers
- Forklift Safety
- Flammable & Combustible Materials
- Personal Protective Equipment (PPE)
- Housekeeping Safety
- Air Compressor Safety
- Machine Guarding
- Electrical Safety
- Trenching and Excavation Work
- Power Tool Safety
- Lock-Out and Tag-Out Safety
- Material Handling Safety
- Permit Required Confined Spaces
- Safety for Janitors
- Accident/Exposure Investigation Report

#### General Code of Safe Practices

It is the policy of the County of Imperial that everything possible will be done to protect our employees from accidents and injuries while on the job. To this end, we are presenting the following information for your safety and benefit. You are expected to know and observe these practices.

- All employees will follow these safe practice rules; render every possible aid to safe operations, and shall immediately report all unsafe conditions and practices to their immediate supervisor.
- All employees will be given periodic accident prevention and safety instructions.
- Anyone known to be under the influence of alcohol and/or drugs WILL NOT be allowed on the job
  while in that condition and is subject to the specifications of our existing alcohol and drug policy.
- No one will be knowingly permitted or required to work while his/her ability or alertness is so impaired by fatigue, illness or other cause that might necessarily expose the individual or others to injury.
- Employees should be alert to see that all guards or protective devices are in proper places and adjusted, and will report deficiencies promptly to the supervisor.
- Horseplay, scuffling and other acts which tend to endanger the safety or well-being of employees is prohibited.
- Workers WILL NOT handle or tamper with electrical equipment, machinery, or air/water lines in a manner not within the scope of their duties, unless they have received instructions on specific safe practice procedures by their supervisor.
- Good housekeeping MUST be practiced at all times by all employees.
- All employees will participate in safety meetings conducted by their supervisor on a regular basis.
   Immediately report ALL hazards that require immediate attention.
- All injuries will be reported promptly to the supervisor or management so that arrangements can be made for medical and/or first aid treatment.
- Failure to immediately notify a supervisor or management of a work related injury or illness constitutes a violation of County policy and subjects the employee to disciplinary action.
- All employees who are suffering from, or who believe they are suffering from, heat related illness shall immediately report this condition to their immediate supervisor so they can be provided with first aid or other medical attention, you are immediately allowed a minimum of 5 minutes cool down rest period in the shade or cool area.

The following unsafe acts and conditions are regarded as unacceptable in all industries. The County of Imperial asks its employees to exercise "common sense" at all times and to make his/her personal safety of foremost importance as they perform their daily work activities.

Unsafe Acts Definition: "The unsafe act is a violation of an accepted safe procedure which could permit the occurrence of an accident."

- Improper lifting
- Horseplay
- Drinking alcoholic beverages, using any type of drugs prior to or during work hours or prescribed medication that adversely affects motor and sensory skills
- Failure to wear safety belt, or other proper fall protection, or shoes
- Failure to use safety devices
- Operating equipment without authority or safety training
- Failure to warn or secure equipment
- Operating equipment at improper speed
- Making safety devices inoperable
- Using defective gear or equipment or failing to report defective equipment
- Using gear or equipment improperly, not consistent with the manner it was designed
- Failure to use personal protective equipment
- Improper loading or placement
- Servicing equipment that is in motion or which has not been rendered inoperable through the County's established Lock Out & Tag Out procedure specific to the equipment being serviced
- Failure to notify immediate supervisor of heat related illness or symptoms.

Unsafe Conditions Definition: "The unsafe condition is a hazardous physical condition or circumstance which could directly permit the occurrence of an accident."

- Congested working conditions or work areas
- Substandard housekeeping
- Inadequate warning system(s)
- Inadequate guards or protection
- Defective tools, equipment, substances
- Fire and explosion hazards
- Hazardous atmospheric conditions (i.e. gases, dust, fumes, vapors, etc.)
- Excessive noise
- Radiation exposure
- Inadequate ventilation or lighting
- Confined spaces
- Failure to "lock-out" and "tag-out"

NOTE: Willful violations of any of the above practices or conditions is subject to disciplinary action(s)

#### DOG ATTACK PROCEDURES

The County of Imperial will require all employees who have exposure to this risk as a regular part of his/her job to review the following information with their supervisor, in an attempt to reduce risk from a dog attack.

#### **Procedures**

Annually, each supervisor will be responsible to review the following information with their employees. The Supervisor will track and record the names of the employees and the date the information was reviewed and submit that documentation to Human Resources/Risk Management.

The following information should be reviewed with employees:

While most dogs are not aggressive, even properly trained domestic pets can attack given the right circumstances. Old dogs may become agitated easily, females may be defensive of their litter, and some breeds are more inclined to be territorially defensive. Other dogs just do not tolerate strangers and others might snap if subject to rough handling or play.

The following are Safe Practices to protect you:

#### Prevention:

- If you are in your vehicle, always survey the area for dogs that could be running loose <u>before</u> getting
  out. If you encounter a loose dog, don't get out of your vehicle until you are certain that it will not
  attack.
- If you need to enter a private yard or residence, do not enter the yard without surveying the area first for dogs. If you are not sure if there is a dog on the property, make some noise (clap your hands, bang on the fence, call out, etc.) to see if the sound would elicit a response from a dog. Always proceed with caution.
- Always be respectful of a dog and the dog's personal space.
- Never approach a dog that is unfamiliar to you or one that is tied or confined behind a fence.
- Never reach out to pet a dog without letting it see you <u>and</u> sniff you first. Startling a dog can cause it to snap and/or bite you.
- Pay attention to a dog's body language. The following are signs a dog is uncomfortable and may bite:

Tensed body Eyes rolled so the whites are visible

Stiff tail Hair on its back is raised

Pulled back head and/or ears Intense stare

Furrowed brow Growling and/or showing its teeth

# Warding off an Attack:

• If you encounter an aggressive dog, be alert and do not panic. If you become agitated or run or scream, you may make the dog feel more confident in his attack.

- Avoid eye contact with an aggressive dog.
- Never turn your back on the dog or run away. Make yourself rigid and motionless. In many cases the dog
  will lose interest in you and walk away. If the dog loses interest, slowly begin moving away from the dog
  without making any sudden movements. Continue to avoid eye contact, but always keep the dog in your
  peripheral field of view.

# Defending and Protecting Yourself:

- If the dog comes towards you exhibiting aggressive behavior (growling or barking), stand your ground without sudden movement. Brace yourself and command the dog as if you were its owner: "No!" "Down!" "Sit!" "Stay!" Do this repeatedly. Do not raise your hands in a fight stance prematurely as this may antagonize the dog and you might lose your one chance at stopping the attacking dog through commands.
- If the dog attacks yell for help and defend yourself; Be Loud and Fight Aggressively...<u>Do Not Hold Back</u>:
  - "Feed" the dog your jacket, purse, a stick or anything that you can put between yourself and the dog. If you have an object to use as a weapon— a stick, chair, heavy bag, large rock use it to hit the dog in the throat, nose, ribs and back of the head. Using a "makeshift weapon" will help keep distance between you and the dog's teeth and claws.
  - If no object is available, use your fist to hit the dog in the throat, nose or ribs. Kicking will also work, particularly with smaller dogs. Kicking may cause you to lose your balance and fall which can increase the attack.
  - Use your weight to your advantage. Bring your entire body weight to bear on the dog, pushing down with the hard points of your knees or elbows. If possible get on top of the dog and concentrate force on the throat or ribs. Keep your face and neck out of biting and clawing range.
- If you fall to the ground, protect your face, chest and throat. Get into the fetal position, keeping your head tucked under your arms. Clench your hands into a fist so that your fingers are more protected.

### Additional Information:

- If you frequently encounter stray or aggressive dogs, electronic whistles (adjusted at a frequency to cause dog's extreme discomfort) are excellent safeguards against dog attack. Another low tech tool to use for protection is an umbrella or cane that can be used to keep a dog at bay or as self defense weapon. An umbrella can be used by opening the umbrella and pointing it at the dog as a shield. The idea is that the dog can't see you to attack, so keep the umbrella between you and the dog.
- Any employee who carries a defensive weapon to repel dogs will disclose that information to their supervisor and all weapons will be reviewed by management to ensure that they are in compliance with any and all applicable regulations and or policy.
- All bite episodes shall be reported to management as soon as possible.
- The local Animal Control Department is responsible for issuing citations, therefore, avoid the temptation to rebuke the owner of an aggressive dog. If you notice the aggressive dog unleashed again, contact the

police with a good description of the dog, the owner and time of day. Try to remember the dog's name if it was called during your presence.

# Defensive Driving – General Information

- NEVER drink alcoholic beverages and drive. NEVER use illicit or medically prescribed controlled substances (narcotic drugs), which will impair your motor or sensory skills.
- NEVER insist in the right of away. ALWAYS be courteous when driving and give the other driver the right of right of way.
- DO inspect your vehicle to make sure it is in proper working order BEFORE you start it. ALWAYS
  check your vehicle gears BEFORE engaging the starter.
- ALWAYS drive the posted speed limit unless weather or other conditions make this unreasonable to do so.
- ALWAYS check your mirrors as you drive. ALWAYS turn your head and look behind you when backing-up in your vehicle.
- NEVER make a "conventional 3-point" U turn in a commercial or residential street UNLESS it is absolutely safe to do so. Executing two right or left turns on subsequent streets to make the "U" turn minimizes the risk for a collision. This method may be more time consuming but in the long run it is safer.
- NEVER drive without your seat belt on or allow passengers to ride without their seat belts securely
  fastened. If your vehicle is equipped with both a single lap and a single shoulder belt, County policy
  requires you to utilize both belts.
- ALWAYS drive with your headlights on (even during day time). This allows the other drivers better visibility of your presence, especially in sunny days.
- ALWAYS maintain at least 3 seconds distance between your vehicle and the one directly in front of you.
- ALWAYS "look ahead" of the vehicle directly in front of you to see what other cars are doing. This will help you to "anticipate" what maneuvers others might make. DO NOT make the mistake to "assume" that what you observed is what "actually" is going to take place.
- ALWAYS pull over to the right hand side of the road in order to allow an emergency vehicle that has the red lights (and/or sirens) to pass.
- NEVER pick up hitch hikers or transport non-employees for personal reasons while working on County time; exceptions: clients or vendor on County business. To do so unnecessarily exposes yourself and the County to potential dangers, harm and liability.
- Look closely at your mirrors and look behind your right shoulder. Think about "little people" as well
  as "adults" when checking your mirrors. Remember, children are not as easily visible.
- ALWAYS come to a complete stop at red lights or stops. ROLLING STOPS are prohibited by State law and County policy.
- Any fine subsequent to a moving violation will be the responsibility of the driver to pay. Failure to pay will cause for a DMV imposed restriction on driving privilege. As such, driving privileges at work

will also be hindered thereby restricting your work activities.

- ALWAYS decrease your speed when driving into a curve. This becomes especially crucial when you
  are carrying a stable or unstable load inside your vehicle.
- ALWAYS secure your load before transporting. Failure to do so could result in unnecessary damage to goods and the distractions that could cause you to have an accident.
- If for some reason you are expected to use your own personal vehicle for County business your vehicle must be properly insured within the legal requirements of the State of California. A "Certificate of Insurance" must be on file with County of Imperial's Safety Director.

Use of Global Positioning System (GPS):

The County of Imperial reserves the right to install GPS vehicle tracking systems in any and all of its vehicles. These devices allow the County to monitor information pertaining to the use and condition of its vehicles, including the location, speed, direction, and ignition status. Employees should understand that GPS data from these systems is deemed by the County to be reliable information and that the County may use this data to make employment and management decisions regarding employees based solely, or in part, on GPS data.

#### Vehicle Accident Prevention

- ALL DRIVERS should not drink alcoholic beverages and drive. NEVER use illicit or medically
  prescribed controlled substances (narcotic drugs), which will impair your motor or sensory skills.
- ALL DRIVERS should limit distractions while driving. This includes not using cellular phones while
  driving. This would include using electronic devices to send/receive text messages or use the
  internet. Drivers should keep conversations with passengers to a minimum while driving so that full
  attention can be given to the task at hand.
- Drivers shall inspect vehicles to make sure it is in proper working order BEFORE starting it. Tires should be inspected to make sure they are not low or over inflated. Tire air pressure should be corrected prior to driving with clients and other passengers.
- NEVER drive without your seat belt on or allow passengers to ride without their seat belts securely
  fastened. If your vehicle is equipped with both a single lap and a single shoulder belt, County policy
  requires you to utilize both belts. ALL PASSENGERS will be required to use seatbelts regardless of
  sitting in the front or rear seats of vehicle. Children will be required to use car seats or booster seats
  as required by law and these will be used in accordance with the child's age and/or size.
  Additionally, drivers having children in the vehicle should engage child locks at the beginning of
  travel.
- When unloading passengers, and where available, you should pull to a designated unloading/loading area and turn on emergency/hazard lights. Passengers should unload on the curbside instead of coming out on the side of traffic flow. If unloading areas are not available, drivers should locate an area where passengers will not be placed in an unsafe situation.
- Always pick up and drop off passengers so that they do NOT have to cross traffic to get to their destination.
- ALWAYS drive the posted speed limit unless weather or other conditions make this unreasonable to do so.
- ALWAYS check your mirrors as you drive. ALWAYS turn your head and look behind you when backing-up in your vehicle. All Drivers of mini vans and large vehicles should honk horn three (3) times if no back up alarm is available.
- Drivers should never engage other drivers in confrontations. Be patient and courteous at all times especially if other drivers want to engage in any type of "road rage" conduct. Pull over to the side, when safe to do so, and contact 911 if you or your passengers feel threatened.
- NEVER make a "conventional 3-point" U turn in a commercial or residential street UNLESS it is
  absolutely safe to do so. Executing two right or left turns on subsequent streets to make the "U" turn
  minimizes the risk for a collision. This method may be more time consuming but in the long run it is
  safer.
- ALWAYS drive with your headlights on (even during day time). This allows the other drivers better
  visibility of your presence, especially in sunny days.
- ALWAYS maintain at least 3 seconds distance between your vehicle and the one directly in front of you. You should never tailgate.

- ALWAYS "look ahead" of the vehicle directly in front of you to see what other cars are doing. This will
  help you to "anticipate" what maneuvers others might make. DO NOT make the mistake to "assume"
  that what you observed is what "actually" is going to take place.
- ALWAYS pull over to the right hand side of the road in order to allow an emergency vehicle that has
  the red lights (and/or sirens) to pass. You should turn on your hazard/emergency lights during this
  time. Once the emergency vehicle passes, you may turn off your emergency lights and proceed to
  your destination.
- NEVER pick up hitch hikers or transport non-employees for personal reasons while working on County time; exceptions: clients or vendor on County business. To do so unnecessarily exposes yourself and the County to potential dangers, harm and liability.
- Look closely at your mirrors and look behind your right shoulder. Think about children as well as adults when checking your mirrors. Remember, children are not as easily visible.
- ALWAYS come to a complete stop at red lights or stops. ROLLING STOPS are prohibited by State law and County policy.
- Any fine subsequent to a moving violation will be the responsibility of the driver to pay. Failure to pay
  will cause for a DMV imposed restriction on driving privilege. As such, driving privileges at work will
  also be hindered thereby restricting your work activities.
- ALWAYS decrease your speed when driving into a curve. This becomes especially crucial when you
  are carrying a stable or unstable load inside your vehicle.
- ALWAYS secure your load before transporting. Failure to do so could result in unnecessary damage to goods and the distractions that could cause you to have an accident.
- If for some reason you are expected to use your own personal vehicle for County business your vehicle must be properly insured within the legal requirements of the State of California. A "Certificate of Insurance" must be on file with County of Imperial's Safety Director.

#### Vehicle Accident Reporting Policy

All employees involved in a vehicle accident while operating a motor vehicle during working hours are required to follow the following procedures. However, if the driver requires immediate medical assistance following an accident they should not delay seeking the necessary medical attention for their injuries

Procedure for operating a vehicle while conducting County – funded activities:

#### When operating County vehicles:

- 1. Call 911 immediately if damage or injuries are involved and request medical assistance and an officer to file a report on behalf of the County.
- 2. Notify your immediate supervisor and Risk Management at (442) 265-1148.
- 3. For minor injuries, contact the Workers Compensation Nurse Line at (877) 545-9157.
- 4. Complete a Vehicle Accident/Damage Report (found in the glove compartment of the vehicle).
- 5. Submit the Vehicle Accident/Damage Report to your supervisor for review within 24 hours of the accident.
- 6. Take County vehicle to County Fleet Services for inspection.

# Procedure while operating Personal vehicle:

When a County employee use his/her personal vehicle on official County business, the employee's personal vehicle must carry proof of financial responsibility at all times. The County employee's personal automobile insurance will be the primary source of insurance coverage for damages to the employee's vehicle and injury and property damage to the other party.

#### Procedures for Drivers:

- 1. Call 911 immediately if damage or injuries are involved and request medical assistance and an officer to file a report.
- 2. Notify your immediate supervisor and Risk Management at (442) 265-1148
- 3. For minor injuries, contact the Workers Compensation Nurse Line at (877) 545-9157.
- 4. Complete a Vehicle Accident/Damage Report (found on the County web page under Risk Management Forms).
- 5. Submit the Vehicle Accident/Damage Report to your supervisor for review within 24 hours of the accident.
- 6. Notify private insurance carrier.

# Procedures for Supervisor:

- 1. Complete "Supervisor's Investigation" segment within Vehicle Accident/Damage Report within 48 hours following the date of the accident.
- 2. Submit the Vehicle Accident/Damage Report to the Risk Management division and County Fleet Services via autoclaims@co.imperial.ca.us within 48 hours of the accident.

#### **Body Temperature Regulation**

- The normal core body temperature is 98.6 degrees Fahrenheit.
- Blood flows to the body surface to regulate heat buildup by dissipating body heat.
- Sweat/perspiration flows to the body surface to regulate heat buildup by dissipating body heat.
- Sweat/perspiration begins as an aid when the blood flow is insufficient to dissipate body heat.
- In order to be effective, sweat (perspiration) must evaporate from the body otherwise the core body temperature will continue to rise.

#### Minor Heat Stress

- The body begins to sweat/perspire excessively.
- The body begins to experience cramps and pain in the muscles.
- Red patches begin to appear on the skin.
- The person begins to feel irritated, dizzy, and weak.

#### **Moderate Heat Stress**

- The body continues to sweat/perspire excessively.
- Red patches appear on the skin, the skin is cold, pale and clammy.
- The person feels tired and without strength.
- Head aches, nausea, loss of appetite.
- Dizziness and feels "light headed."
- Irregular pulse, rapid and or weak pulse.

#### Heat Stroke

- The body stops sweating/perspiring.
- The skin is hot and dry, pale and with red patches.
- Breathing is heavy and deep and very rapid.
- Rapid pulse, weak and possibly irregular.
- Head aches and nausea.
- Dizziness, confusion, delirious.
- Loss of consciousness.
- Convulsions.
- THE PERSON MAY DIE.

# **Treatment**

 Remove the person from the heat source. Loosen clothing. For minor and moderate heat stress give water; if conscious allow the person to drink while taking small sips.

- Call 9-1-1 immediately and request help.
- Fan air on the person. The objective is to bring down the core body temperature to within normal range.
- Place cloth soaked in cold water on person, change these regularly.
- Place person in comfortable position, elevate feet.

NOTE: This information does not include the County's "Heat Illness and Prevention Program" (in compliance with Title 8, CCR, Section 3395) which is presented under separate cover but forms part of the County's "Injury and Illness Prevention Program." Please see your immediate supervisor for more detailed information.

#### Back Safety and Lifting Safety

We were all born with only one back, take care of it and it will take care of you. Once it's broken ... that's it, there are NO "replacement parts."

- The most common causes of back pain are:
  - o Poor Posture. This increases strain on the back muscles and may bend the spine.
  - Poor Physical Condition. Proper diet and exercise is the sensible way to help avoid back problems.
  - Repetitive Trauma. The worker repeats a particular irritating movement, the minor injuries begin to accumulate and weaken affected muscles or ligaments.
- Body weight in your stomach and/or weight being lifted transfers an estimated 10 pounds of strain on your back.
- The "basics" of good lifting include:
  - o Size up the load before trying to lift it.
  - o Bend the knees; lift with your leg muscles NOT your back.
  - o Always "push" a load, don't "pull." By pushing you use your leg muscles.
  - Do not twist or turn your body once you have executed the lift. This causes strain on your back and body.
  - o Make sure you can carry the load to its destination before attempting to move it.
  - Set down your load, don't throw it or drop it.
- Plan ahead before lifting. Ask for help to perform a proper lift. If possible, split the load into smaller ones.
- When using someone else to help lift, make sure that only one person calls out the lift commands and directs the lift. Work as a team and not independent of each other.
- Always use "common sense" when lifting. THINK before you lift. Make an "attitude adjustment" when lifting.
- ALWAYS report back injuries, no matter how minor, to your immediate supervisor.

Repetitive Trauma occurs when the body undergoes a movement which causes trauma to the body. Repetition of this movement submits the body to an accumulation of the same trauma which with time causes a temporary or permanent disability. Sometimes, all it takes is a simple lift or movement to cause the final trauma and injury.

Back supports are not required by Cal/OSHA regulations. They are not a 100% guarantee that you will not get hurt. The single most important element that can help you against injury is proper lifting technique. With or without a back support, if you do not execute proper lifting technique you may get hurt.

#### Slips, Trips and Falls

This information provides the basics on the physical forces involved in slips, trips, and falls. By understanding these forces you will better understand how to prevent injuries.

- The physical forces at work in a fall are: a) Friction, b) Momentum, and
   c) Gravity
- Slips, trips and falls are most likely to happen when you are in a hurry or don't pay attention where you're walking.
- All spills should be cleaned up right away, regardless of who caused the spill. Avoid "But, I didn't do it" type of attitude. This is a negative attitude and is non-productive in the workplace.
- Don't let grease accumulate on a floor, especially if there is equipment or machinery around. Be extra cautious on smooth services, especially on wet or rainy days.
- INCREASED FRICTION reduces chances of slip, trip and fall injuries.
- Make sure your footwear matches the working conditions present on your job.
- Pine tar disinfectants used on ceramic floors sometimes leave a slippery residue and can cause bathroom falls.
- Post signs or place barricades to warn others of a wet surface.
- When working on a ladder use both hands when you climb the ladder, never overreach, never carry items when climbing.
- Trips occur whenever your foot hits an object and you are moving with enough momentum to be thrown off balance. Contributing factors also include: a) cluttered work area, b) poor lighting, c) area has loose footing, and others.
- Arrange furniture so that it doesn't interfere with walkways or pedestrian traffic in your work area.
- Extension or power tool cords can be dangerous tripping hazards. Tape them to the floor or arrange them so that they won't be in the way for pedestrians.
- You and your attitude are the most important factor against Slips, Trips and Falls.

#### Office Safety

- Practice safe walking skills. If you must walk on or over wet surfaces, take short steps to keep your center of balance under you and point your feet slightly outward. Move slowly and pay attention to the surface you're walking on.
- Clean up spills yourself or report it to a maintenance person. Even minor spills can be very hazardous.
- Be more cautious on smooth surfaces. Move slowly on floors which have been waxed but not buffed, and other very slippery surfaces.
- Wear the right shoes. High heels are more likely to cause slips or twisted ankles as compared to flat shoes. Consider this in your dress attire.
- When carrying objects, make sure you can see where you are going. Keep your work area well lit.
- Keep your work area clean and don't clutter aisles or stairs. Please store materials in closets, file cabinets, or desks. Be careful to not OVER stack. DO NOT store materials inside Electrical Room, near heaters, or other heat sources.
- Arrange furniture so that it doesn't interfere with walkways or pedestrian traffic in your area.
- Extension or power tool cords can be dangerous tripping hazards. If they must be used, tape them to the floor or arrange them so that they won't be in the way for pedestrians.
- When using stairs, use the handrails at all times. If you're carrying something and can't grip the handrail, use extra caution. Don't run or jump from landing to landing when using stairs. Remember to always report broken stair treads, floor boards, or handrails to your immediate supervisor.
- Always use a ladder to obtain objects beyond your reach. Never use a swivel chair with wheels as a makeshift ladder.
- Dispose of broken glass or other sharp objects carefully. If you believe they could present a hazard to cleaning or maintenance staff, put the sharp pieces into another container before putting them in the wastebasket.
- Practice good housekeeping at all times in your office work area. Cluttered work areas are a breeding ground for accidents.
- Practice good common sense in your work area at all times. Think "safety first".

#### **Blood Borne Pathogens**

Definition: Blood Borne Pathogen is a "Micro Organism" that can cause infection or disease in the human body. It is "Blood Borne" because it "travels" via blood and all blood by-products (i.e. plasma, red blood cells, white blood cells and platelets.

#### **Universal Precautions**

"Universal Precautions" means: Treating all human body fluids (visible or not visible contaminated with human blood) as if they were contaminated with a blood borne pathogen and then taking the necessary precautions.

Blood Borne Pathogens regulated under the California and Federal OSHA Standards

- Hepatitis B (HBV)
- HIV HIV (Virus that causes AIDS)

Where are the California and Federal OSHA Standards Found?

California: General Industry Safety Orders, California Code of Regulations, Title 8, Section 5193.

Federal: General Industry Safety Orders, 29 Code of Federal Regulations, 1910

Series, Section 1030.

Basically, these standards say that any employer who's work duties exposes its employees to Blood Borne Pathogens (as a means of the employee's "Primary" work duties) must have an "Exposure Control Plan", provide the necessary training, provide the necessary Personal Protective Equipment (PPE) and related training, provide monitoring housekeeping measures to observe OSHA recommendations, provide for the Hepatitis B Vaccination with no charge to the employee, provide medical attention and follow up care in the event of an exposure, maintain medical records for a period of 30 years following the date of the last day of the employee's employment. For more details, review the standard.

#### Potentially infectious body fluids

- Human Blood, including blood components and products made from Human Blood (i.e. red blood cells, white blood cells, plasma, and platelets.)
- Saliva in Dental Procedures
- Semen
- Vaginal Secretions
- Cerebrospinal Fluid
- Synovial Fluid
- Pleural Fluid

- Pericardial Fluid
- Peritoneal Fluid
- Amniotic Fluid
- Any body fluid visibly contaminated with blood

# Potential entry routes into body

- Eyes
- Mouth
- Mucus Membrane
- Cut or Scrape in your Skin
- Acne or other similar skin condition
- Unsafe or Unprotected Sex
- Blood Transfusions

# Ways to protect yourself

- ALWAYS take "Universal Precautions" when helping out in a work related accident that involves blood or any other body fluid.
- "Universal Precautions" could include the following: 1) Putting on surgical gloves, 2) Using safety goggles or face shield, 3) Using a surgical mask, 4) Calling 9-1-1 for professional help.
- NEVER touch body fluids without proper barrier protection.
- NEVER pick up sharp objects that are contaminated with body fluids with your hands. Use any mechanical means available (i.e. brush, dust pan, forceps)
- ALWAYS wash and disinfect your hands after handling any body fluids or other contaminated materials.
- Household Clorox bleach diluted in water is a good disinfectant
- ALWAYS dispose of infected waste in a Biohazardous Waste bag or container. NEVER press a
  plastic bag against your body to prevent possible puncture from any sharps.

#### Fire

If you discover a "small fire" use a Fire Extinguisher to extinguish the fire. Follow these instructions when using the Fire Extinguisher:

- Pull the pin from the nozzle.
- Aim the nozzle at the base of the fire.
- Squeeze the handle to release the agent.
- Sweep the nozzle from side to side at the base of the fire. Reuse the Fire Extinguisher if the fire re-starts.
- Immediately contact your Immediate Supervisor and follow their instructions.
- Have fire extinguisher unit re-serviced after use.

NOTE: Most Fire Extinguishers will last approximately 8-10 seconds and will then become empty. There is no exact answer as to what constitutes a "small fire" which can be effectively controlled with only a Fire Extinguisher. It becomes a matter of personal judgment. In any event, you don't have a lot of time to decide since a "small fire" can spread rapidly and become larger.

- If you discover a fire (other than a small one) or smell smoke, immediately call 9-1-1 and then your Immediate Supervisor and follow instructions.
- In a large fire, immediately close any doors to confine the fire. Immediately contact your Immediate Supervisor and follow their instructions.
- If your clothes catch on fire STOP, DROP, and ROLL. The objective is to smother the flames. If you are a bystander and observe someone in this predicament, grab a blanket, jacket, or other material which you can use to help smother the flames.
- NEVER open a door until it has been touched at the top and bottom with the back of your hand before opening. If hot, DO NOT OPEN. If not hot, open door slowly. Proceed with CAUTION.
- If you become trapped in a room:
  - Close doors to separate you from the fire or smoke.
  - Place a cloth under and around the door frame to prevent smoke from entering. Use your clothing if necessary.
  - Call 9-1-1 and advise them of you situation and location. DO NOT hang up until your location has been confirmed.
  - o Signal from windows. DO NOT break glass unless absolutely necessary.
  - o If glass is broken, smoke may be drawn inside the room or additional oxygen might spread the fire to your immediate area.
  - Lay low to the floor. Get on your knees or stomach since hot air rises. The oxygen you need to breath will be low and nearest to the floor.

- REMAIN CALM. You can think more clearly this way. DON'T PANIC. Panic does not let you
  think clearly and will induce you to make bad decisions and mistakes.
- The #1 killer in fires is SMOKE INHALATION. Cover your nose and mouth with a damp cloth or whatever other means is available to you. The idea is to prevent from having to inhale smoke as this can cause you to pass out.

#### Earthquake

- REMAIN CALM and alert others around you.
- If INSIDE, DO NOT LEAVE, IMMEDIATELY take cover under tables, desks, doorways and similar protective places.
- Stay away from over head fixtures such as: skylights, windows, filing cabinets, bookcases, etc.
  These can break or become loose and turn into flying projectiles and can cause severe harm and damage to people.
- In a HALLWAY, or CORRIDOR, brace yourself against the wall and duck down covering your head and eyes with your arms.
- Most earthquakes will last a few seconds or minutes. REMAIN CALM and ride the quake through.
- If OUTSIDE but close to building, move into a doorway or building lobby if close by.
- If OUTSIDE but in an open space away from the building stay there. Keep away from overhead objects such as shelving, stacked pallets, windows, etc. Keep away from power lines, poles, flammable liquid storage tanks, etc.
- If you're in a WHEELCHAIR, stay in it. Move to cover if possible. Lock your wheels and protect your head with your arms.

#### After the Earthquake

- Check for persons around you for injuries and provide assistance where possible.
- Contact your Immediate Supervisor and wait for his/her instructions. The Safety Coordinator should be contacted in the absence of the Immediate Supervisor.
- EXPECT AFTERSHOCKS. Report any fallen wires, suspicious smells or odors, broken water lines, etc.
- Make sure telephones are on their cradles. DO NOT use the telephone unless for emergency assistance calls. These can become unnecessarily over used with calls.
- Evacuate the building if instructed to do so. Meet at the pre-determined Staging Area; ask your
   Immediate Supervisor to find out where the Staging Area is in your place of work.
- While congregating in the Staging Area, make sure to stay away from the path of ON COMING Emergency Vehicles.

# For SUDDEN, SEVERE flooding:

- Evacuate all office spaces immediately and relocate to a safe place or the rooftop. If you have a
  portable radio, take it with you. Know your General Public Information Radio Stations. (Radio
  Station KICO @ 1230 AM in the immediate area.)
- The Safety Director will seek direction from the REGULATORY AGENCY IN CHARGE DURING THE RESPONSE and provide further instructions.
- HYPOTHERMIA is a major cause of injury in sudden or severe flooding.
- Hypothermia is the loss of core body heat. Our normal body temperature is 98.6 degrees Fahrenheit. HYPOTHERMIA begins setting in when your core body temperature falls to approximately 90 degrees. Elderly and disabled persons are more susceptible to HYPOTHERMIA. Try to keep warm with extra clothing. Our bodies generate heat, gathering together generates more heat.

# Action for SLOW flooding:

The Safety Director and the rest of the Emergency Response Safety Team must take immediate action to prevent or lessen damage.

- Shut down all power and utilities as soon as possible.
- Remove records and supplies whenever possible from danger areas.
- Cooperate with local Police, Emergency Agencies, and co-workers to take appropriate action as soon as possible.

Water is likely to flood through the offices indiscriminately. Remember, water follows the path of less resistance and flows where gravity pulls it to; it flows "downward." Each office should follow this basic plan of instructions:

- Disconnect all electrical equipment.
- Cover computers, typewriters, calculators, and other equipment with plastic covers if possible to prevent or lessen water damage.
- Move records and files to dry location if time permits.
- Locate your extra clothing (i.e. coats, jackets, sweaters) and other items such as blankets, and bring with you if instructed to evacuate.
- If you have a portable radio and/or flashlight, bring these items with you.
- Locate your office First Aid kit and Fire Extinguishers and bring them with you.
- Cooperate with and follow instructions given by those in charge.

#### **Explosions**

In the event of an explosion in the building, such as those caused by leaking gas, faulty boilers or explosives, terrorist actions, etc., employees should take the following actions:

- FIRST, TAKE COVER under desks, tables, or other similar objects, which will give protection against flying glass or debris.
- AFTER the explosion, look for any wounded and render care to the level of injury and your certified training.
- DIAL 9-1-1 for fire, medical and police protection. Let them know that there has been an explosion. Answer any questions emergency personnel might have and DO NOT hang up the phone until they tell you to do so.
- Notify your respective Immediate Supervisor who will then immediately report to the appropriate personnel within the County Organization.
- After the effects of the explosion have subsided, the immediate supervisor or the local Police will determine if evacuation is necessary.
- If evacuation is ordered, proceed to your nearest EXIT as instructed by emergency personnel, following evacuation procedures. Take along wounded as your abilities allow.
- If assistance is needed in evacuating disabled personnel, the immediate supervisors should coordinate this effort and solicit assistance from qualified personnel.
- Proceed to the evacuation staging area and await instruction from emergency or County personnel who may be in charge of the emergency situation.
- DO NOT leave staging area unless instructed to do so. Remember, being in the staging area allows responsible parties to make sure there is no one missing.
- In the Staging Area, MAKE SURE to stay away from the path of ON COMING Emergency Vehicles. If there is a fire, be conscious that wind currents make fire and smoke change direction. Be prepared to change staging area position if the wind shifts the smoke or fire into your direction.

#### Bomb Threat Response Plan

The Bomb Threat Response Plan has been prepared by the arson and bomb personnel of the Imperial County Fire Department/Office of Emergency Services. It is the primary intent of this department to provide every county building with an organized plan and list of procedures to be followed in the event of a bomb threat. An organized plan resolves most bomb threat problems with minimal confusion, personal injury, and property damage. This plan is divided into three sections: threat, search, and evacuation.

#### The Threat

The threat is one of the most critical aspects involved. How the threat is handled at the initial contact will determine the effective response for the individuals employed at the County building in question.

#### Telephone Threat

- The person receiving the phone call is to remain calm at all times.
- Concentrate on the exact wording of the message.
- Give a pre-arranged signal to an employee near-by to allow monitoring of the call. If it is at all
  possible, attempt to ask the caller pertinent questions located on Example.
- Contact the supervisor immediately.

These questions should be compiled on a small card and kept under the telephone of the employee who receives all incoming calls.

#### Written Threat

- Place each item of mail in protective, see-through covers. Handle as little as possible.
- Save all correspondence
- Contact the supervisor immediately.

#### Classifying Threat

The designated authority/supervisor will contact the appropriate law enforcement agency by dialing 911.

Next, an evaluation of the bomb threat is made by the supervisor through the use of the following questions:

Is this another in a series of bomb threats? Could the threat have been the result of other recent bomb threats?

The threat must then be classified as one of two categories:

- Specific This is less common but likely involves an explosive device. The threat usually provides
  information regarding the bomb, its placement, the rationale for attack, and when it will explode.
- Non-Specific This threat simply states that the bomb has been placed somewhere on the premises.

#### Search

Based on the evaluation of the threat, the designated authority must make a decision for evacuation by choosing from four alternatives:

- Search the facility without evacuation (covert search).
- Search evacuation routes, then evacuate and complete search (overt search).
- Evacuate and search (overt search).
- Take no action.

In almost all cases the supervisor will make the decision to evacuate. If the bomb threat has been classified as specific and location is known, a partial evacuation may be all that is needed. It is important to search while the evacuation occurs because an explosive device may be located on the primary or alternative routes of evacuation. It is not the responsibility of the bomb squad to conduct a search for an explosive device. Rather, it is the responsibility of the employees in that building to conduct the search, due to their familiarity with the building.

It is recommended that if the caller specifies a time when detonation is to occur, the search and evacuation should be accomplished by not less than 15 minutes prior to the stated time. If the search and evacuation cannot be completed within those specifications, evacuate the building.

- The designated authority must select employee search teams at the time the evacuation is announced. These teams should consist of building personnel who are familiar with specific areas of the building. All search teams should wear some form of identification. Designate control centers and operators. This will establish information networks and allow information to be readily accessible.
- If available, tools should be provided to the search teams. These include a flashlight, knife, screwdriver, crescent wrench, probe, extension mirror, tape, chalk, etc.
- Establish a search sequence. Start on the outside and work towards the inside beginning with a thorough search of outside areas such as ornamental structures, shrubs, window boxes, trash containers, etc. Next, move to the building entrances, lobbies, and public areas that include restrooms, stairways, elevators, elevator shafts and so forth.
- Once inside, search each room beginning with the basement or sub-basement. A visual search should be conducted first, starting from floor to waist, waist to eye-level, and eye-level to ceiling.
- The searcher should stand in each room with eyes shut in order to listen for sounds that are out of the ordinary. If the lights are off, do not turn them on. This could ignite an incendiary device.
- As each floor is cleared, chalk or tape should be used to indicate that the area has been searched.
- Do not touch the device once it is found. Note its location, description, proximity to utilities, and the time found. Report it to the control center.

The control center must then notify the police and departments that a potential incendiary device has been found. The police and fire departments will already be on the premises as a result of the initial 911 call. Upon notification of an explosive device, these departments will assist in securing the area and clearing it of people. The Bomb Squad should be called in for the removal of the device.

#### Evacuation

Each building will have its own primary and alternative evacuation routes. These routes should be posted in various areas of the building. Evacuation is not necessarily the best method and in many instances, a partial evacuation will suffice. The designated supervisor will make the final decision and evacuation proceedings will be conducted in accordance with the evacuation instructions created for each county building.

- The designated authority will determine if an evacuation is necessary. If a decision is made to evacuate, the supervisor will announce the evacuation. A pre-determined signal should be used, since evacuation proceedings in the event of a bomb threat are marked different from fire evacuations.
- Take all belongings and any material that could be considered combustible.
- The designated authority will determine if an evacuation is necessary.
- Employees are encouraged to search while evacuating, using the searching procedures outlined above. The explosive device may be located on the primary or alternative route.
- Designate evacuation teams. These should be teams already familiar with evacuation procedures. These teams should wear some form of identification.
  - Establish an evacuation-holding center where evacuees will be safe from potential hazards. Make sure that re-entry among unauthorized personnel does not happen.
  - Assign one person to answer inquiries from the news media. Instruct personnel not to discuss the current situation with any outsiders.
  - In the event no bomb is found, the decision for re-entry lies with the person in authority. That decision will be influenced by the confidence the person in authority has in the search that was conducted.

Hazard Communications Standard

"Right to Know"

Dear Employee,

In November 1986, the voters of California passed Proposition 65 - Title 27 of the California

Code of Regulations, Sections 25000 to 27001 inclusive. This law became effective on January

1, 1987. It requires the Governor of California to Publish a list of Chemicals "... known to the

State to cause cancer or reproductive toxicity ..." according to a specified procedure established

by the Proposition. This list was first published on February 27, 1987 covering 29 chemicals.

The list has been revised since then to include over 800 chemicals, and other revisions will be

forthcoming. A copy of this list is included in this binder and can also be obtained from the

California Department of Health services.

Proposition 65 requires that a clear and reasonable warning to be given to persons potentially

exposed to listed chemicals at the levels specified by the regulations adopted by the California

Health and Welfare Agency ("CHWA").

The County of Imperial operates under numerous health, safety, and environmental laws which

protect employee and public health. Many of these laws already require work place warnings

regarding the potential health hazards from certain chemicals. In conformance with regulations

adopted by CHWA on February 16, 1988, the following warning is provided:

WARNING

The County of Imperial uses chemicals known to the State of California to cause cancer, birth

defects, and other reproductive harm. Unauthorized use is prohibited. Authorized personnel

using these chemicals should refer to the applicable Safety Data Sheets SDS and follow

appropriate safety procedures. Persons having questions regarding this warning should write to:

County of Imperial, 940 Main Street, Suite 101, El Centro, CA 92243 Attention: Safety Director.

(Proposition 65 – Title 27 of the California Code of Regulations, Sections 25000 to 27001)

Hazardous Communications Standard

Things to Remember

"CAUTION" Mea

Means ... less dangerous than "Warning" or "Dangerous,"

however, 1 oz. to 1 pint of the material can cause death.

"WARNING"

Means ... moderately poisonous, 1 to 3 tablespoons full can cause death.

35

"DANGER" Highly poisonous; a few drops or a tablespoon full can cause death.

As of June 1, 2015 due to the Global Harmonized System passed by the United Nations, the numerical sequence for Safety Data Sheet Coding signaling the level of danger has changed to the following:

# SDS Coding

1	Means	EXTREME danger
2	Means	SERIAL danger
3	Means	MODERATE danger
4	Means	SLIGHT danger
5	Means	MINIMAL danger

The "Pictograms" signaling the type of danger presented by the hazardous material are as follows:

Health Hazard	Flame	Exclamation Mark
<ul> <li>Carcinogen</li> <li>Mutagenicity</li> <li>Reproductive</li></ul>	Flammables     Pyrophorics     Self-Heating     Emits Flammable     Gas     Self-Reactives     Organic Peroxides	Irritant (skin and eye) Skin Sensitizer Acute Toxicity (harmful) Narcotic Effects Respiratory Tract Irritant Hazardous to Ozone Layer (Non Mandatory)
Gas Cylinder	Corrosion	Exploding Bomb
$\langle \rangle$	(T)	
Gases under Pressure	Skin Corrosion/ burns     Eye Damage     Corrosive to Metals	Explosives     Self-Reactives     Organic Peroxides
Flame over Circle	Environment (Non Mandatory)	Skull and Crossbones
1		Acute Toxicity (fatal or

# On the Color Coding

RED Means... Flammability

BLUE Means... Health
YELLOW Means... Reactivity

WHITE Means... Protective Equipment, Special Safety Hazards

# **Secondary Containers**

ALL secondary containers must be clearly labeled and clearly spell out the material inside the container. Information on the label should be sufficient to warn of any potential hazards. NEVER use unmarked or unidentified containers. If you do not have, the proper label for a Secondary Container, POUR BACK the hazardous material in the properly labeled Primary Container.

Personal Protective Equipment (PPE)

Use of PPE is clearly spelled out in the SDS, follow these instructions

The employer is responsible for providing the required PPE

The employee is responsible for taking good care of the equipment

The employee is responsible for inspecting PPE prior to putting it on

PPE is helpful only if it is used correctly. If you're not sure how, ASK your supervisor

# Hazard Communications Standard Fact Sheet

#### Hazardous Chemical

A hazardous chemical is any chemical that poses a physical or health hazard

## Physical Hazards

Physical hazards include 1) Combustible liquids, 2) Compressed Gas, 3) Explosive liquids, 4) Flammable liquids, and 5) Oxidizer.

#### Health Hazards

Includes those chemicals creating acute (immediate) or chronic (long-term) effects. Basically, anything that can damage the eyes, lungs, skin, or [mucous] membranes.

#### **ALL Chemicals**

Practically ALL chemicals can present a physical or health hazard to some degree or another. READ and FOLLOW the INSTRUCTIONS and WARNING labels on all chemicals BEFORE using.

## Your "Right to Know"

You have the right to know what chemicals you have in your place of work. You really NEED TO KNOW what these are and how they can affect you. Being informed about this is very important. TREAT ALL CHEMICALS WITH RESPECT.

## Information on the Product Being Used

First, there is the information on the product label. Second, there is the chemical manufacturer's Safety Data Sheet (SDS).

## Safety Data Sheet (SDS)

Safety Data Sheet (SDS) provides detailed information about the product being used. They are an excellent source of information on how to handle the product. Each chemical being used in the workplace must have an SDS. SDS information is available to ALL employees. Each Road District/Fleet Manager will have a copy with RM/HR being the central depository.

## Safety Policies & Programs

The SDS serves as a basis for your company's safety policies and procedures in regards to reducing physical or health hazards. This includes procedures on how to safely 1) use, 2) store,

3) handle, and 4) dispose of a particular chemical.

## Waste Disposal

The proper disposal of hazardous waste materials is very important. Improper disposal can cause long lasting environmental effects including, groundwater or soil contamination, fire or other catastrophe. Each chemical has specific waste disposal procedures which must be followed. Always dispose of hazardous waste according to local, state, and federal guidelines.

# Mixing Chemicals

NEVER mix any chemicals unless you have been TRAINED and AUTHORIZED to do so. Improper mixing of chemicals can be extremely hazardous. For example, mixing a simple household CHLORINE CLEANER with AMMONIA can produce CLORAMINE, a DEADLY GAS. Avoid the common mistake of "MORE IS BETTER." Always follow the instructions on the label or SDS.

## **Employer Responsibility**

Your employer is responsible to properly train you in the general and specific hazards of your job.

## **Employee Responsibility**

It is up to the employee to work and act safely. Safety is YOUR responsibility. All the rules, regulations, policies, labels, or SDS won't do any good if YOU don't accept your responsibility to perform every job safely; it will reduce accidents. Take the time to think safety; it really does make a difference.

## Maintenance and General Construction Safety

The County has multiple areas of safety concerns. The following are commonly accepted specific safe practices that are true at work sites where employees are engaged in maintenance or construction related work activities.

- All employees will report in good physical condition, alert and ready for work. The use of illicit drugs and alcohol is prohibited at all times. This includes prescribed medication that adversely affects motor and sensory skills.
- If involved in excavation, which requires the use of heavy equipment ALWAYS, call DIG ALERT at 1-800-227-2600 for help. You MUST call with 2 working days notice BEFORE you dig.
- Proper PPE must be worn at all times, e.g., Hard Hats, Safety Glasses, Gloves, Closed Toed Shoes, etc.
- ALL employees MUST KNOW the dangers of the specific work area(s). If not sure, you MUST ALWAYS ask your supervisor or the Safety Director
- Proper precautions must be taken at all times while working around heavy equipment;
   pedestrians are not easily visible and can be run over.
- Trenches and other excavated areas present a fall hazard. NEVER jump over these. If planks are available, ALWAYS use these to cross. Always inspect and make sure planks are sturdy enough to sustain your weight.
- NEVER work with heavy equipment next to excavations or trenches. These present a "cave in" hazard, especially if dirt is damp/wet and should be avoided when working with heavy equipment. The "rule of thumb" is to maintain a distance away from the excavation equivalent to the depth of the trench or hole. Example: 8' deep trench, stay away 8' from the edge of the trench.
- When moving heavy objects see if you can "break up" the load into smaller, lighter loads. Also, use any mechanical means available, e.g. forklift, dolly. If you use the "buddy system", designate ONE person to coordinate the actual lift, agree upon the lifting instruction(s) that will be given, and then execute the lift following the designated person's pre-agreed instructions. ALWAYS lift with your legs, NOT your back.
- When working with hazardous substances, you MUST ALWAYS read the label first, if you
  have questions or concerns, you must then read the appropriate SDS form BEFORE
  handling the substance. Use the required PPE as described in the label or SDS.
- NEVER work in Confined Spaces without obtaining the required "Permit Required
  Confined Space Work Permit." You <u>MUST</u> have received <u>specialized training</u> and
  <u>authorization</u> before entering a Permit Required Confined Space. DO NOT ENTER if you
  have not been properly trained and authorized your life may depend on this.

- NEVER work with tools or equipment without the proper safety guard and proper training.
- NEVER work with electric power tools, equipment, etc. with frayed or cut electric cords.
- NEVER eat; smoke, and/or drink around work areas especially if there are hazardous or combustible substances in the immediate work area.
- ALWAYS wash your hands before and after using toilets.
- NEVER smoke around combustible materials such as, gas, diesel, oxygen, acetylene, liquefied petroleum, enclosed areas, etc.
- NEVER work inside trenches/excavations without proper shoring protection. You MUST have received specialized training before entering.

Respiratory protection is not common in open construction work sites. However, should you ever have the need for this form of PPE, please see your supervisor. You MUST have received specialized training and be authorized to use before using a respirator to perform work duties.

- When pouring cement, always wear the appropriate PPE. At a MINIMUM this should include, rubber gloves, rubber boots, and safety glasses with side shields. If you are working next to the cement truck's shoot, a Hard Hat is also a MUST. If the cement truck is using an overhead boom hose, Hard Hat is also a MUST.
- When working where overhead work is taking place, ALWAYS wear your Hard Hat to protect you from any falling objects.
- If performing maintenance, fixing, or otherwise working with an electric power tools, or other type of power operated equipment ALWAYS follow the correct LOCK OUT and TAG OUT procedure BEFORE working on these.
- NEVER adjust or give maintenance on a piece of equipment that is running or while it is in operation. Always observe established LOTO procedures.
- When involved in "tilt up" operations, unless you are part of the actual work crew which is setting the walls in place you MUST stay away from the actual work area. These types of operations present in themselves specific safety hazards that you should not be around or exposed to. Always perform "tilt up" operations according to the prevailing California or Federal OSHA regulation.

## Ladder Safety

- Always check your ladder and equipment before using it. Check for broken rungs, split side rails, or damaged safety feet. Defective or broken ladders should be put out of service immediately and reported to your supervisor.
- Always utilize the correct ladder for the job and height you wish to reach, e.g., fixed or portable, wood, fiberglass and aluminum.
- The greatest hazard associated with ladders is falls. A fall can result in anything from a minor injury with some bruises or broken bones to an injury that involves a permanent disability or even death.
- When climbing a ladder always face forward, use both hands on the rails and take one step at a time. Hoist tools with a handling.
- Clean your boots or shoes before stepping onto the rungs. When working from a ladder don't over-reach. As a "rule of thumb" always keep your belt buckle between the side rails.
- ALWAYS CHECK FOR OVERHEAD POWER LINES AND NEVER USE A METAL LADDER NEAR THEM.
- If an extension ladder is required be sure that the base of the ladder is on an even, hard surface. Extend the ladder to the height needed and be sure that the extension hooks are securely engaged.
- If using an extension or straight ladder, it must extend 3 feet above the upper landing and it must be properly secured to prevent it from shifting.
- Use the 1 to 4 rule to determine how far from the vertical support to locate the base of the ladder. That's 1 foot of vertical support for every 4 feet of height.
- If the base of the ladder is in a high traffic area, rope it off and/or secure it to prevent it from shifting or being bumped.
- Before using a stepladder check that the spreader lock is working properly; and never stand on the top 2 steps. If you find you need to use the last 2 steps in order to perform the job DON'T DO IT, YOU NEED A TALLER LADDER.

## Driver Safety - Commercial Motor Vehicle Drivers

County of Imperial acknowledges that it may or may not hire individuals designated specifically as "Drivers." However, it also acknowledges that on occasions County employees may be asked to perform job tasks requiring the use of a County or personal vehicle. County of Imperial will expect ALL concerned with this activity to be familiar with and obey the following:

- ALL drivers are expected to follow these rules, render every possible aid to safe operations and report all unsafe conditions and/or practices to their supervisor.
- ALL Commercial Motor Vehicle (CMV) drivers will participate in the County's Alcohol & Drug Program. This is a "Condition of Employment" as required and regulated by the Department of Transportation and California Highway Patrol.
- It is against the law and County policy for drivers to drink alcohol and/or consume drugs (prescribed or illegal) while driving on County time or business.
- Drivers must be alert to their work surroundings and drive their vehicles in a defensive, courteous, and safe manner AT ALL TIMES.
- Visual acuity and alertness MUST NOT be impaired. The driver MUST inform his/her supervisor of illness, fatigue or other conditions that impair safe operations of a vehicle on County time or business.
- Drivers MUST inspect their vehicles BEFORE operating. UNSAFE vehicles MUST NOT be used. Drivers MUST inform their supervisor of unsafe vehicles.
- Drives MUST wear seat belts at all times while operating. Additionally, drivers must obey posted speed limits, weights, heights, etc. while operating on County time. Weather conditions will adversely affect applicability of posted limits.
- Drivers MUST obey weather conditions as they relate to safe vehicle operations.
- No bare feet while operating. Drivers must be careful not to damage property, trucks, docks, etc.
- Drivers will follow the posted instructions in the event of a vehicle accident and render the County all reasonable assistance in obtaining pertinent accident information.
- It is PROHIBITED to jump off a vehicle while on County time or business. ALL drivers must exit their vehicles in a safe manner in order to prevent injury. If the vehicle is equipped with handrails; these must be used when getting "On" and "Off."
- BEFORE unloading, drivers must make sure ramps or docks have been properly secured. Vehicles must be properly secured while loading or unloading.
- SPEED does not reduce driver's skills. It simply reduces REACTION TIME.
- Fatigue reduces REACTION TIME. Reduced reaction time can be fatal.
- Drivers MUST ALWAYS maintain a safe distance from the vehicle in front of them.
- NEVER operate a vehicle which is mechanically unsafe.

- NEVER tamper with a vehicles safety mechanisms or otherwise render a vehicle unsafe to operate.
- ALL new CMV drivers will undergo a Pre-Employment Drug test. You cannot drive until
  we have MRO written confirmation of the results in our office. ALL positive preemployment test results will disqualify you from employment with County of Imperial.
- ALL existing CMV drivers will be subject to the following Alcohol and Drug testing requirements: a) Random Selection, b) Reasonable Suspicion, c) Post-Accident, d)
   Return to Duty and, e) Follow up, as well as f) Pre-Employment.
- If for some reason you must leave your vehicle unattended in an area other than County of Imperial premises you must lock your vehicle and secure your cargo. Failure to do so could result in theft or damage of/to vehicle and cargo.
- Commercial Motor Vehicles (CMV) are NOT to be left idling for over 5 minutes if the vehicle is left unattended; EPA rules prohibit this practice. ALL CMV drivers are to follow this EPA rule when operating a CMV.

## Forklift Safety

- ALL individuals required to drive County forklift as part of their job duties will be trained in the safe operations thereof prior to operating.
- ALL individuals required to drive a County forklift as part of their job duties will be responsible to obey and follow these rules.
- Operating a forklift takes skill, mechanical knowledge, compliance with safety rules and safety driving under unique conditions.
- The Driver is responsible for checking his/her forklift PRIOR to use (checking fluid levels, hydraulics, steering, wheels and tires, brakes, forks, mast, and any potential mechanical problems). If at any time a forklift is found to be in need of repair, defective, or in any way unsafe, the truck must be taken out of service until it is safe to operate.
- ALWAYS be aware of and obey the following "rules of the road" while operating:
  - Keep to the right, the same as highway driving with an automobile
  - Obey speed limits. Remember that a forklift is not a street rod, but is a slow moving vehicle, designed that way for safety
  - Keep 3 vehicle lengths away from other vehicles. This creates a "space cushion" around the vehicle
  - o Slow down at all intersections and always sound the horn at blind ones
  - The pedestrian always has the right of way
  - o No horseplay is allowed. It's basic common sense
  - No riders are allowed on any forklift vehicle
  - Always keep arms and legs inside the vehicle
  - Face direction of travel, keep your mind on what you are doing, and never travel forward with the load blocking your view
  - o Know the position of your forks at all times
  - Be aware of overhead clearances such as pipes, sprinklers, door beams, etc.
  - Know the limits of elevators
  - Be alert for oil and grease spots which could result in an accident
  - o Cross railroad tracks at an angle never a right angle
  - Wear protective equipment when required such as safety glasses, ear protection, and restraining belts
  - Be careful of changing light conditions, such as coming in from bright daylight into dimly lit areas and vice-versa
  - Beware of edges on loading docks
  - Always chock the wheels of a truck being loaded or unloaded

- o Stop completely before raising or lowering a load
- Make sure forks are all the way into a pallet and tilt the mast back to stabilize the load before moving
- Never travel with a load raised high. When moving, always have the unloaded forks no more than six inches high
- Make sure the load is balanced and secure on the forks
- Do not attempt to move loads with broken pallets, loads beyond the capacity of the forklift or loads that are unbalanced
- When you leave a forklift unattended and remain within 25 feet of the truck, completely lower the load engaging means, neutralize controls, and set the brakes to prevent movement. (NOTE: A powered industrial truck is "unattended" when the operator is 25 feet or more away from the vehicle which remains in view or when ever the operator leaves the vehicle and it is not in view, regardless of the distance the operator is away from the forklift.)
- Because of the design of forklifts, they have a very short rear wheel swing. High speeds and sudden turns can tip them and cause serious injury and damage.
- A good rule of thumb is to "travel slowly and avoid sudden turns".
- Tilting the mast back is necessary for safe operation when traveling with a load to create better vehicle/load balance.
- FORWARD up a ramp and REVERSE down a ramp.
- Never park in front of fire equipment, doors, exits, or high traffic areas.
- DO NOT pass another vehicle in narrow aisles.
- NEVER SMOKE in fueling areas.
- If you cannot see past your load in front, travel backwards, carefully.
- Know the load capacity and limits of your vehicle.
- Never attempt to lift a load beyond the load limits of your forklift.
- Do only maintenance or repair work that you are authorized to do. Leave the rest to maintenance or other qualified personnel.
- When leaving your vehicle, lower the forks, put the controls in neutral, set the brakes, block the wheels if on an incline, shut the power off, and remove key.

## Flammable & Combustible Materials

- Always read the SDS on the flammable and/or combustible liquid you will be handling. This will familiarize you with its potential hazards, handling methods, PPE to be used, first aid procedures and other safety data.
- ALWAYS handle and store flammable and combustible liquids in containers designed for these. NEVER use secondary containers not designed or authorized for the specific flammable or combustible liquid you are utilizing. Consult your SDS for more details. Secondary containers must be properly labeled.
- NEVER utilize flammable and/or combustible liquids in an enclosed area without proper ventilation.
- NEVER utilize flammable and/or combustible liquids in or around open flames, sparks, heaters, and other heat sources. These can ignite and or explode causing great bodily injury and/or death as well as property damage.
- ALWAYS utilize the proper PPE when handling flammable and/or combustible liquids.
- All containers holding flammable and/or combustible liquids shall have a label which clearly identifies the liquid. The proper wording and marking on the label shall be present. NEVER remove a label from a primary or secondary container of flammable and/or combustible liquids as this offers a safety alert and warning.
- NEVER leave flammable or combustible liquids unattended. If you will be leaving your work area and/or momentarily interrupting your work activities whereby you will no longer be there to properly handle or supervise the liquid, please store these in a safe and proper manner according to the instructions in the SDS and/or the label. DO NOT STORE flammable liquids inside PLASTIC CONTAINERS. ONLY use United Laboratory (UL) approved, metal, safety cans.
- NEVER smoke, eat, or drink when handling flammable or combustible liquids.
- Always practice good hygiene when working with these liquids as these may enter your body via dirty hands, contaminated cigarettes, using the bathroom, etc. and cause illness or injury. Always wash your hands before eating and before and after using the bathroom when you have been handling flammable or combustible liquids.
- Always clean up spills immediately. DO NOT use tools that create sparks. Consult the SDS for details for instructions on first aid, safety, and PPE. Dispose of according to local, state, and federal safety guidelines.
- Always consult with your immediate supervisor if you have questions.

## Personal Protective Equipment (PPE)

## Eye and Face Protection

- You must understand the following key elements regarding Eye and Face Protection: 1) when eye and face protection is necessary, 2) what eye and face protection is necessary, 3) how to properly don, doffing, adjust, and wear goggles, face shields, etc., 4) PPE limitations, 5) proper care, maintenance, useful life, and disposal of eye and face protection.
- You must show that you understand the training, and that you can use eye and face protection properly before you will be allowed to perform work requiring its use.
- Proper eye protection reduces your chances of injury and reduces the severity of injury if an accident does occur.
- The following is a list of some hazards which can pose danger to eye and face safety:
  - Injurious gases, vapors, and liquids. Workers handling acids or caustics, and doing welding are subject to these hazards.
  - Dusts or powders, fumes and mists. Some sources are scaling, light grinding,
     spot welding, and woodworking; they can also include very small flying particles.
  - Flying objects or particles. Some sources include caulking, chiseling, grinding, hammering, and metal working; these cause the majority of eye injuries.
  - Splashing metal. Some sources are babbitting, casting of hot metal, and dripping in hot metal baths.
  - Thermal and radiation hazards such as heat, glare, ultraviolet, and infrared rays.
     Sample sources are welding, metal cutting, and furnace tending.
  - Lasers. Recent addition to the list of eye hazards, laser beams can present dangerous and unusual exposure. Different kinds of laser beams require different methods of eye protection. Consult with your supervisor for specific eye protection and other safety precautions.
  - o Electrical hazards. Sample sources are arcing and sparks
- When engineering controls (i.e. guards, screens, and shields) do not provide total eye protection, PPE must be utilized. Familiarize yourself with the requirements of your job assignment and ask for the appropriate PPE.
- It is important that your work station have appropriate ventilation and lighting. Proper lighting reduces glare and eye strain and enables you to see your work clearly. A good ventilation system will carry away fling debris that might be hazardous to the eyes if it remains in the atmosphere (i.e. spray booth and grinding area)
- You should become familiar with the location and operation of emergency eyewash facilities. Access to eye wash stations needs to be unobstructed at all times.

- The first 15 seconds after the eye injury is the critical period. An eyewash station must be readily available within 100 feet or a 10 second walk of the work area where the potential danger exists; know the location of the eye wash station.
- If you get something in your eye dirt, wood, metal, or a flying particle go immediately to the nearest eyewash. ALL eye injuries, no matter how minor, MUST be reported to the supervisor or management immediately.
- Flush the eye with water until the foreign object has been rinsed out. Don't rub your eye, this can scratch the eye or embed the object. If you can't rinse out the object, bandage your eye loosely and get additional medical attention immediately. NEVER drive by yourself, request that someone else drive you to obtain medical attention.
- You should become familiar with how the eyewash works. You might even practice holding your eyes open in a stream of water. Cal OSHA requires that employer inspect eye wash stations MONTHLY, inspections need to be documented.
- OSHA states that eye contacts should not be worn by workers in contaminated atmospheres or while wearing respirators.
- Situations where wearing contacts present a safety hazard include: workplaces where you might be exposed to chemical fumes, vapors or splashes, intense heat, and molten metals. Contacts should be removed immediately if redness of the eye, blurring of vision, or pain develops. Alternative: Consider NOT using contacts and instead use your prescription glasses with additional OSHA approved eye protection.
- If you do wear eye contacts on the job you should: a) keep a spare pair of eye contacts or prescription glasses with you, b) make sure your supervisor knows that you wear contacts.
- Affected employees who wear prescription glasses while engaged in operations that involve eye hazards shall wear eye protection that can be worn over the prescription glasses without distributing their proper position.
- Absorptive lenses are used to absorb or screen out unwanted light and glare. Always wear proper eye protection while welding or working with torches. Goggles or helmets are available with filter lenses to shield the eyes from radiation and glare.
- Inspect eyewashes and showers frequently to make sure they work effectively and that the water is potable. Immediately report any deficiencies to your supervisor or management.
- Street-wear eyeglasses are not designed to be safety glasses and should never be used as such. They are not ANSI impact resistant certified.
- Safety equipment should be maintained in good condition and replaced when defective,
   e.g. scratched glasses or face shield which obstruct proper visibility.

The pair of eyes you were born with is the eyes that have to last you a lifetime. Protect them. Remember, "You can walk with a wooden leg, you can chew with false teeth, but you can't see with a glass eye!"

## Foot Protection

- Foot protection is a must while working in County operations. All safety shoes must meet American National Safety Institute Z41-1991 standard on protective footwear.
- When is protective footwear necessary? Any time you are in the work areas; regardless if it is just for "passing through."
- What footwear is necessary? Answer: That which meets the ANSI Z41-1991 consensus standard on protective footwear.
- How to properly don, doff, adjust, and wear protective footwear? All protective footwear must fit comfortably on your feet. Too large or too small footwear may actually cause discomfort and/or harm to your feet. Wear good socks with your shoes, preferably white cotton material. This helps absorb moisture and adds to your comfort. When removing your shoes, always inspect them for any damage, cracks, unusual wear, etc. If steel toed, make sure that it is properly secured and in good functional order. Clean any oil, grease, metal, and/or foreign materials on the soles since this will decrease surface friction and cause a slip and fall. Adjust the laces but not too tight. Since our feet support all of our body weight, if they are tired and hurting, the rest of our body will also feel tired.
- Some type of foot injuries include: skin disease, cuts, punctures, burns, sprains, and fractures. Sharp and heavy objects falling on the foot are the primary source of injury.
- Other hazards include:
  - Compression the foot or toe is squeezed between two objects or rolled over.
  - Puncture a sharp object like a nail breaks through the sole.
  - Electricity a hazard in jobs where workers use power tools or electric equipment.
  - Slipping contact with surface hazards like oil, water, or chemicals cause falls.
  - Chemicals chemicals and solvents corrode ordinary safety shoes and can harm your feet.
  - Extreme heat or cold insulation or ventilation is required depending on climate.
  - Wetness the primary hazard may be slipping but others may also include discomfort and even fungal infections if your feet are wet for long periods of time.
- The County's facility and operations involve a combination of hazards listed above. Always know the type of hazards you might encounter on your day-to-day work activities and use the proper protective footwear.

- Foot protection includes guarding your: a) toes, b) ankles, and c) feet from injury. As such, there are some specific types of safety shoes. These include:
  - Safety Shoes. Standard safety shoes have toes that meet testing requirements found in the ANSI standard. Steel, reinforced plastic and hard rubber are used for safety toes, depending on their use.
  - Metatarsal Guards. Shoes with metatarsal or instep guards protect the upper foot from impacts. In these shoes, metal guards extend over the foot rather than just over the toes.
  - Conductive Shoes. Conductive shoes permit the static electricity that builds up in the body of the wearer to drain off harmlessly into the ground. By preventing accumulation of static electricity, most conductive shoes keep electrostatic discharge from igniting sensitive explosive mixtures. DO NOT USE THESE SHOES IF YOU WORK NEAR OPEN ELECTRICAL CIRCUITS.
  - Safety Boots. Rubber or plastic safety boots offer protection against oil, water, acids, corrosives, and other industrial chemicals. They are also available with features like steel-toe caps, puncture-resistant insoles, and metatarsal guards.
     Some rubber boots are made to be pulled over regular safety shoes.
  - Electrical Hazard Shoes. Electrical hazard shoes offer protection against shock hazards from contact with open <u>circuits of 600 volts or less under dry conditions</u>.
     These shoes are used in areas where employees work on live or potentially live electrical circuits.
  - Sole Puncture Resistant Footwear. Sole puncture resistant shoes are designed to protect against hazards of stepping on sharp objects that can penetrate standard shoe soles. They are used primarily in construction work.
  - Static Dissipative Shoes. Designed to reduce accumulation of excess static electricity by conducting body charge to ground while maintaining a sufficiently high level of resistance to protect your from electrical shock due to live electrical circuits.
  - Foundry Shoes. Used by welders and molders in foundries or steel mills where there is a hazard from hot splashes or molten metal or flying sparks. Because they do not have laces but elastic gores, they can be removed quickly in case hot metal or sparks get inside.
- ALWAYS use the right shoe for the right job. If you are not sure which of the above shoe
  or shoe types you may need, consult with your supervisor or management.
- REMEMBER, when purchasing and selecting safety footwear, it is important to look for shoes and boots that meet the ANSI Z41-1991 standard.

# **Hand Protection**

- When is hand protection necessary? The County will select and require employees to use appropriate hand protection when employees' hands are exposed to the following hazards: a) skin absorption of harmful substances, b) sever cuts or lacerations, c) sever abrasions, d) punctures, e) chemical burns, f) thermal burns, and g)harmful temperature extremes.
- What type is necessary? It is requested that the employee provide advice to the County on the selection of the appropriate hand protection relative to the task(s) to be performed, conditions present, duration of use, and the hazards and potential hazards identified.
- How to properly don on/off, adjust, and wear gloves, mitts, or other protection? Hand protection should be donned prior to beginning your work task which exposes your hands to the hazards already discussed. Glove protection should fit reasonably snug to your hands; too large or small gloves may pose discomfort and/or a hazard. Long sleeve shirt or other sleeve protection should be worn OUTSIDE of the glove and NEVER tucked into the glove. If designed with a wrist strap, adjust snuggly so as to prevent foreign particles entering, but not so tight that it cuts off circulation.
- Hand protection has its limitations. Be aware that all hand protection has its limitations. They are not designed for TOTAL hand protection but to act as a barrier and to minimize injuries and their severity if they do occur. Hand protection is prone to punctures, tearing, burning and other type of damage. Recognize this along with the hazards you are working around with.
- Proper care, maintenance, useful life, and disposal of hand protection. If of a washable type, thoroughly clean/wash your hand protection after use (preferably with soap and water) inside and out. Allow to dry completely and store in an uncontaminated area. This is especially true when working with pesticides or other harmful chemicals. Discard hand protection if it becomes damaged, e.g., torn, punctured, burned, change in shape, hardening, stretching, ripped, etc.
- Recognize the three basic kinds of hazards. These include (but not limited to):
  - Mechanical hazards present wherever machinery is used. Injuries resulting from machinery use might include cuts, punctures, abrasion, crushing, or avulsions, or amputations.
  - Environmental hazards like extreme heat or cold, electricity and materials handling.
  - Contact with irritating substances skin conditions such as dermatitis can be caused by contact with chemicals and biological agents (bacteria, fungi, anti viruses). Chemicals and toxic substances can also enter the blood stream through abrasions or cuts.
- Gloves should be worn with great caution near moving equipment or machinery parts.

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REMEMBER, the most used tool in almost any workplace is the human hand. We only have two and their parts are numbered. There are NO replacement parts.

## Housekeeping Safety

"Housekeeping" is serious when it comes to employee safety while at work. The California Labor Code, Section 142.3 and Title 8 of the California Code or Regulations Sections 1513 and 8391 provide LEGISLATIVE MANDATES as to the "MUST HAVE" in housekeeping while at work. Here are the Mandatory Requirements and the County of Imperial incorporates these as part of its "Housekeeping Safety" requirements.

- During the course of construction, alteration, or repairs, form and scrap lumber with protruding nails and all other debris shall be kept reasonably cleared from work areas, passageways, and stairs in and around buildings or other structures.
- The ground area within 6 feet of a building under construction shall be reasonably free from irregularities wherever it is practicable to attain this condition by grading or similar methods. Open ditches shall be bridged to provide passageways at convenient places.
- Material storage areas and walkways on the construction site shall be maintained reasonably free of dangerous depressions, obstructions, and debris.
- Combustible debris accumulated within the building or structure shall be removed promptly during the course of construction. Safe means shall be provided to expedite such removal.
- Flammable or hazardous wastes shall be placed in covered containers separate from the normal debris.
- ALL WASTE shall be disposed of at intervals determined by the rate of accumulation and capacity of the job site container.
- Waste, materials, or tools shall not be thrown from buildings or structures to areas where employee(s) may be located, unless the area where the material falls is guarded by fences, barricades, or other methods/means to prevent employee(s) from entering and being struck by falling objects. Signs shall be posted to warn employees of the hazard.
- Good housekeeping conditions shall be maintained. Adequate aisles and passageways shall be maintained in all work areas. All staging platforms, ramps, stairways, walkways, aisles, and passageways shall be kept reasonably clear of all tools, materials, and equipment except that which is in use, and of all debris such as welding rod tips, bolts, nuts, and similar material. Hose and electric conductors shall be elevated over or placed under the walkway or working surfaces or covered by adequate cross-over structures.
- All working areas on vessels and dry docks shall be kept reasonably free of debris, and construction material shall be so piled as not to present a hazard to employees.
- Slippery conditions on walkways or working surfaces shall be eliminated as they occur.
- Free access shall be maintained at all times to all exits and to all fire-alarm boxes or fireextinguishing equipment.

- All oils, paints, thinners, solvents, waste, rags, or other flammable substances shall be kept in fire-resistant covered containers when not in use.
- ALL petroleum products shall be stored at least 20 feet away from any compressed oxygen cylinders.

ALL IMPERIAL COUNTY EMPLOYEES WILL PRACTICE GOOD HOUSEKEEPING WHILE WORKING AT ANY OF ITS JOB SITES.

NO EXCEPTIONS.

## Air Compressor Safety

- ALWAYS inspect air compressors BEFORE using them. NEVER use a defective air compressor. ALWAYS make sure that the air compressor has a current and valid "Air Compressor Permit" posted next to its immediate location. Permits are good for only 5 years.
- Air compressors are the most common forms of obtaining compressed air. These must have protective guards around pulleys and belts.
- Proper Lock Out & Tag Out procedures MUST be observed when servicing, adjusting, fixing, or providing maintenance to any air compressor.
- NEVER use an air compressor air hose to dust off clothing or any part of your body.
   Serious damage can be cause such as: pressure contusions, conjunctivitis (eyes), and other serious injury.
- Be careful when working around air compressors which have an oil leak. Aside from being a slip hazard, this can also create a fire hazard.
- Compressed air shall not be used for cleaning purposes except where reduced to less than 30 p.s.i. and then only with effective chip guarding and personal protective equipment to include, but not limited to: safety glasses or goggles, dust mask, face shield in absence of goggles, and a dust mask.
- Bottles of CO<sup>2</sup> gas is another way of obtaining compressed gas/air. Be careful, this type
  of gas/air is cold and can cause serious burns to the skin.
- You should wear gloves if using bottles of CO<sup>2</sup> gas.
- REMEMBER, when blowing cement dust out drilled holes in cement the air pressure and dust particles have ONLY ONE WAY to go ... UP. If you are in the path it will come back straight at you. Wear proper eye protection.
- ALWAYS wear safety glasses with face shield or safety goggles and dust mask when blowing out dust from holes.
- You MUST maintain a maintenance record on every air compressor. ALWAYS make a note of the last time water was released from the air compressor.
- Always report a defective or malfunctioning air compressor. NEVER use if not in proper working conditions. ALL air compressors must have posted next to them a warning sign that states:



## Machine Guarding

The County has numerous pieces of equipment which have moving parts and require proper guards to be in place. Specific safety hazards relative to your specific work assignment need to be reviewed directly with your immediate supervisor. The following is general information which must be observed at all times:

- Guards and decals which identify the danger must be kept in place whenever the machine is operated. Replace missing, damaged, or illegible decals.
- Guards or shields removed for maintenance must be properly replaced before use.
   ALWAYS use proper LOTO procedures when removing guards/shields.
- Repair or replace damaged guards and shields. Emergency "kill switches" safety censors and similar equipment must be in good working conditions at all times.
- Moving parts present the greatest hazard because of the swiftness of their action and unforgiving relentless motion. <u>NEVER</u> place your hand or other body parts into moving machine parts.
- Long hair, loose clothing, and jewelry can easily get caught in machine moving parts and cause severe bodily injury. Secure your hair and loose clothing and NEVER wear jewelry when working with or around machines.
- Pinch Points are found where two parts move together and at least one of them moves in a circle; also called mesh points, run-on points, and entry points. Some examples are: belt drives, chain drives, gear drives, and feed rolls. When shields cannot be provided, operators must avoid contact with hands or clothing in pinch point areas.
- NEVER attempt to service or unclog a machine while it is operating or the engine is running.
- Wrap Points are found in any exposed component that rotates. An example is rotating shafts such as a PTO shaft or shafts that protrude beyond bearings or sprockets.
- Splined, square, and hexagon shaped shafts are usually more dangerous than round shafts because the edges tend to grab fingers or clothing more easily than a round shaft, but round shafts may not be smooth and can also grab quickly.
- Once a finger, threat, article of clothing, or hair is caught it begins to wrap; pulling only causes the wrap to become tighter. IMMEDIATELY turn off the machine.
- Shear Points are found where the edges of two moving parts move across one another or where a single sharp part moves with enough speed or force to cut soft material.
- Some examples of shear points include sickle bar mowers, rotary shredders and cutters [think of your paper shredder], augers in tubes, chain and paddle conveyors, and certain points in an implement frame during raising or lowering, hedge-trimming shears, and rotary mower blade.

- Crush Points are found between two objects moving toward each other or one object moving toward a stationary object. Some examples include working under a raised heavy object like a truck-n-pup trailer, hitches, telescoping shafts, hoods, and doors.
- NEVER stand between two objects moving toward one another.
- Make certain the driver knows where the help is at all times when hitching a vehicle to an implement. Do not move between the two objects to complete the hitching until the backing vehicle is completely stopped and the brake is set.
- NEVER stand between the tires of vehicles. Use adequate blocking or lock-out devices when working under equipment.
- Pull-In Points are found where objects are pulled into equipment, usually for some type of processing. Some examples are feed rolls, grinders, and forage harvesters.
- Machines are faster and stronger than people. NEVER attempt to hand-feed materials into moving feed rollers. Always stop the equipment before attempting to remove an item that has plugged a roller or that has become wrapped around a rotating shaft. [Example: That would be like putting your hand inside your washer when the spin dry cycle is on.]
- Remember that guards cannot be provided for all situations equipment must be able to function in the capacity for which it is designed.
- Freewheeling parts, rotating or moving parts that continue to move after the power is shut
  off are particularly dangerous because time delays are necessary before service can
  begin.
- Thrown Objects can be dangerous as the object could strike a person at any part of the body. Any object that can become airborne presents a dangerous projectile. Some examples include rocks, stones, sticks, pieces of chopped or cut trees, weeds, etc.

## Personal Protective Equipment (PPE) and Machine Guarding:

- ALWAYS wear the appropriate PPE when working with machines and around machines.
- Some PPE may include: Hearing Protection, Safety Glasses, Dust Mask or Respirator,
   Face Shield [never wear face shield by itself, you must have safety glasses on as well],
   Hard Hat, Steel Toed Shoes, and others.
- NEVER wear gloves when working with machines that have moving parts. The gloves can become caught on the moving machine part(s).

## Emergency Shut Off Switches and Machine Guarding:

- ALWAYS know HOW to turn ON and OFF every machine you work with.
- ALWAYS make sure that EMERGENCY SHUT OFF switches are working properly.
- ALWAYS inspect your machine and machine guards before operating.
- ALWAYS make sure that safety censors are working properly.

 OLD machines or equipment DO NOT USUALLY have emergency shut off switches, censors, "kill switches." FAMILIARIZE yourself with these machines or pieces of equipment and KNOW HOW to shut them off in the event of an emergency. If the machine or equipment is unsafe DO NOT USE IT.

## **Electrical Safety**

Electricity is necessary to get work done at construction sites. However, with its benefits come deadly hazards you should be aware of and guard against when working with electrically-powered equipment or wiring. Primary hazards are shock and possible electrocution, burns, arc-blasts, explosions, and fires.

Electricity travels in closed circuits; its normal route is through a conductor and load. You can get a shock when some part of your body becomes part of the circuit. An electric current enters your body at one point and exits at another.

Shock normally occurs when you touch: both wires of an electric circuit or one wire of an energized circuit and ground, or a metallic part that is "hot" because it is contacting an energized wire and your body is part of the electric

The severity of the shock depends on three factors:

- how much current flows through your body (measured in amperes),
- what path the electric current takes through your body, and
- how long your body is part of the electric circuit.

The effects of an electric shock on your body can range from: a faint tingle at 1 milliamp, to cardiac arrest, severe burns, and probable death, at 10,000 milliamps. A severe shock can also cause considerably more damage to your body than is visible. You can suffer internal bleeding and destruction of tissues, muscles, nerves, and internal organs. In addition, shock is often only the beginning in a chain of events. The final injury may be from a fall, cuts, burns, or broken bones. The most common shock-related injury is a burn. Burns suffered in electrical accidents are of three types: electrical burns, arc burns, and thermal contact burns.

## Electrical burns

Electrical burns are the result of current flowing through tissue or bone, generating heat, and causing injury. They are serious injuries and should be given immediate attention.

## Arc or flash burns

Arc or flash burns are the result of high temperatures near the body. They are produced by an electric arc or explosion.

# Thermal contact burns

Thermal contact burns are those experienced when the skin contacts hot surfaces of overheated electric conductors, conduits, or other energized equipment. Additionally, clothing may be ignited in an electrical accident and a thermal burn will result.

## Other injuries

Other Injuries are the result of an indirect or secondary nature, caused by involuntary muscle reaction from the shock, can result in bruises, bone fractures, and even death resulting from collisions or falls.

## Fire, explosion, and flying metal

Hazards are created from resulting arcs when a short circuit occurs. If high current is involved, arcs can cause injury or start a fire. Extremely high-energy arcs can damage equipment, causing fragmented metal to fly in all directions. Even low-energy arcs can cause violent explosions in atmospheres that contain flammable gases, vapors, or combustible dusts.

## Electrical Safety—Extension Cords

Extension cords are one of the most misused pieces of electrical equipment. When exposed to "normal" construction use, extension cords can experience rapid deterioration. When you subject the cord to additional misuse, such as removing the ability to ground the cord, the cord can be a ticket to the emergency room or even the morgue.

## 3-prong connectors

One of the most common tricks to get extension cords to work faster is to remove the third prong from a 3-prong connector. Removing this third prong can result in electrocution because the path to ground is now lost.

## Repair extension cords with electrical tape

Another common mistake is to use electrical tape to repair extension cords. OSHA doesn't recommend it for a couple reasons: If the tape is applied too thickly it could change the cord's original flexibility and lead to internal damage, and the depth of the abrasions and cuts cannot be monitored to see if they get worse (unless of course you remove the tape).

## Hard or Extra Hard Service cords

OSHA often cites construction companies because they fail to use extension cords that are rated correctly. For instance, a two wire ribbon type cord is not designed for hard usage. OSHA requires that construction extension cords must be either Hard or Extra Hard Service cords. Hard Service or Extra Hard Service cords are marked with one of the following designations: S, ST, SO, STO, SJ, SJO, SJT, and SJTO.

# Strain relief

Another common citation OSHA issues deals with the lack of strain relief on extension cords. The plug area of an extension cord is one of the weakest areas of the cord. When devices or fittings designed to relieve cord strain are not used, insulation tends to pull back and expose conductors.

# Preventing accidents when using extension cords

- Visually inspect all electrical equipment prior to use. Any defects such as frayed cords, missing ground prongs, etc., should be corrected by taking the tool out-of-service.
- Frequently inspect electrical systems to insure the path to ground is continuous.
   Continually audit extension cords at your jobsite. Take any cords that are not hard or extra hard out-of-service immediately.
- Use only cords that are equipped with strain relief.
- Remove cords from receptacles by pulling on the plug, not the cord; you will damage the prongs (usually the ground) and render the cord ineffective to protect your from shock.

## Trenching and Excavation Work

# Trenching Safety

Over a five year period, 26 California workers were killed and 207 others injured in trench caveins. In almost every instance, the cause of these accidents was a failure to properly shore or slope the trench.

## Before Excavating:

## Obtain a permit

Obtain a permit from the Division of Occupational Safety and Health (DOSH) if workers are required to enter an excavation that is 5 feet or deeper.

## Locate hidden obstructions

A minimum of two working days before starting the excavation, notify all regional notification centers and any non-member underground utility owners. It may also be necessary to obtain plans of as-builds in order to locate underground pipes or utilities. Be aware that these records may not be accurate. The obstructions revealed by the plans should be physically located, and either removed or protected from damage.

## Beware of disturbed ground

Trenches in disturbed soil may require additional sheeting and bracing, as will hard compact ground, if there is filled ground nearby. For example, a trench wall which is near another previously filled trench is unstable, although it might appear to be hard compact material.

## Daily Inspection:

A competent person must inspect the trench and protective systems daily before the start of work and through-out the day as conditions change. A "Competent Person" is defined as one who must demonstrate:

- knowledge of the provisions pertaining to excavations, trenches and earthwork
- knowledge of soil analysis as required in the provisions pertaining to excavations, trenches and earthwork
- knowledge of the use of protective systems
- authority to take prompt corrective action on the job as conditions warrant
- ability to recognize and test for hazardous atmospheres.

What conditions influence the kind and amount of shoring you need?

# Depth of trench

If the trench is five feet deep or more it must be shored or sloped. If there is a possibility of soil movement, even shallower trenches have to be shored. If you have doubt about it, shore/slope the trench.

## Soil Classification

 The less stable the soil, the more liquid the soil, the more you need to protect yourself against cave-in.

## Changing weather conditions

- Hard packed soil can become unstable after a rain.
- Trenches which are safety sloped or shored in dry weather can become deathtraps when it is wet.
- Thawing soil can also become unstable quickly.

## Heavy loads in area

 Don't park heavy equipment next to a trench. Nearby structures—such as buildings, curbs, trees and utility poles—exert stress on trench shoring.

#### Vibration

If you are digging a trench near a roadway or where other operations create vibration, make certain the shoring/sloping design reflects these conditions.

#### Other Considerations:

- Every trench is a possible trap for hazardous atmospheres.
- When in doubt, test and ventilate.

#### Resources:

Title 8, California Code of Regulations, Sections 1539-1543. These and other Construction Safety Orders can be reviewed at: http://www.dir.ca.gov/Title8/sub4.html

Cal/OSHA Pocket Guide for the Construction Industry and other educational materials can be ordered from the Cal/OSHA publications website: <a href="http://www.dir.ca.gov/dosh/puborder.asp">http://www.dir.ca.gov/dosh/puborder.asp</a>, or obtained from a Cal/OSHA District Office.

Note: The information provided is not meant to be either a substitute for or legal interpretation of the occupational safety and health regulations. Readers are cautioned to refer directly to Title 8 of the *California Code of Regulations* for detailed information regarding the regulation's scope,

specifications, and exceptions and for other requirements that may be applicable to their operations.

## Power Tool Safety

ALL County employees will be expected to follow these safety rules as they apply to any and all power tools used while working.

- NEVER use power tools if you are under the influence of alcohol, drugs, medication which makes you drowsy, or in such a physical or mental condition that doing so is unsafe.
- NEVER use a power tool unless you have 1) experience, or 2) have received specific safety training.
- ALWAYS inspect your power tools BEFORE using every day. NO EXCEPTIONS!
- NEVER use a power tool that is defective, such as a damaged electrical cord or a malfunctioning safety guard.
- Report ALL damaged or defective power tools to your immediate supervisor. He/she will instruct you on what to do. Supervisors SHOULD NOT ALLOW EMPLOYEES TO WORK WITH DAMAGED OR DEFECTIVE POWER TOOLS.
- Provide maintenance, change blades, and make adjustments ONLY WHEN POWER TOOL IS DISCONNECTED FROM ELECTRICAL POWER SOURCE AND PROPER LOCK OUT AND TAG OUT PROCEDURES ARE FOLLOWED.
- Damaged or Defective power tools should be RED TAGGED and placed OUT OF SERVICE.
- ALWAYS wear the appropriate PPE when using power tools. For example, Cal OSHA requires safety glasses as mandatory when using ANY power tool that creates a danger of injury from flying particles or substances. This includes, but is not limited to: 1) Power Nail Guns, 2) Skills Saws, 3) Power Drills, 4) Powder Actuated Tools, 5) Brad Guns, and many others. (Title 8, CCR, §3303)
- NEVER use gloves when using drills, skill saws and other power tools with rotating parts.
   The glove may come in contact with the power tool's rotating parts and cause you injury.
- NEVER use a power tool if your hands are wet. The tool may conduct electricity and shock you. NEVER operate a power tool when standing on water.
- NEVER use a power tool when in an "awkward position" where the probability exists that the power tool may fall on you should it slip from your hands.
- TAKE GOOD CARE OF YOUR POWER TOOLS. NEVER LIFT OR HAND A POWER TOOL FROM ITS CORD.
- ALWAYS REPORT WORK INJURIES IMMEDIATELY TO YOUR SUPERVISOR. NO MATTER HOW MINOR THEY MAY BE. DO NOT SELF DIAGNOSE THE SERIOUSNESS OF AN INJURY; a Medical Professional will diagnose your medical condition.

## Lock-out and Tag-out Safety

#### Lockout / Blockout

Failure to lockout and blockout machinery before working on it is a major cause of serious injury, amputations, and death in California. Workers are electrocuted or lose fingers, hands, arms – or suffer severe crushing injuries – because machinery is inadvertently turned on while it is being maintained, repaired, adjusted, set-up, or cleaned. Additionally, actions related to un-jamming machinery and equipment contribute to a large number of accidents. Electrocution hazards are addressed in the Electrical Safety Orders.

#### Summary of Safety Order 3314

## Hazardous Energy Control Procedures

Employers must develop a hazardous energy control procedure when employees are engaged in the cleaning, repairing, servicing, setting-up or adjusting of machinery or equipment. Separate procedural steps must be developed for each piece of equipment unless like equipment is essentially the same. Employees involved in these activities must be trained on these procedures and on related hazards. Since every machine may have a different energy source and procedure to effectively lock out and block out, every employee needs to be trained by their specific supervisor on the LOTO procedures for each machine. THIS HAND OUT MATERIALS DOES NOT ACCOMPLISH THIS SPECIFIC SAFETY TRAINING REQUIREMENT.

## Lockout/Blockout

During machine servicing operations, the power source must be de-energized or disengaged and the moveable parts of the machine locked or blocked to prevent movement. Potential power sources might include hydraulic, pneumatic, chemical, electrical, thermal, mechanical (including springs or gravity), or other hazardous energy sources. If you have to move parts of a machine in order to service it, your employer must provide you with extension tools or other means of protection, and thoroughly train you in their safe use. If the machine you are working with has lockable controls, lock them out or seal them in the off position and tag them. If the machine doesn't have lockable controls, de-energize or disconnect it from the power source and place accident prevention signs or tags. Your employer has a supply of accident signs or tags, padlocks and seals.

Also be aware that some accidents occur when control switches short out and the machine restarts. Machines should be de-energized at the power source and not just shut off at the controls or emergency stop. If you work on a repetitive process machine that requires power to

maintain indexing, special requirements have to be met when you are servicing, setting-up or testing the machine. The operating station must be under the control of a <u>qualified worker</u> who is in constant communication with the servicing worker, or who keeps that person in sight at all times. Machine parts that could move rapidly must be individually locked out when the operator has to leave the operating station to install tools. When repair procedures require adjustment or replacement of parts, de-energize the machine, and disconnect it from the power source.

## **Discussion Questions**

- Do you have any questions about how to lock out or block out the machinery in this shop?
- Are there times when you aren't sure whether to lock out or block out?
- When are workers most likely to fail to lock out or block out the machinery?
- How can the requirements of safety order 3314 be enforced in this shop?

#### Resources

Requirements for working on energized electrical systems are prescribed in Title 8, California Code of Regulations, Sections 2320.9 or 2940.

Title 8, California Code of Regulations can be reviewed at: http://www.dir.ca.gov/samples/search/query.htm

Publication: *Lockout/Blockout* can be ordered from the Cal/OSHA publications website at: http://www.dir.ca.gov/dosh/puborder.asp

Note: The information provided is not meant to be either a substitute for or legal interpretation of the occupational safety and health regulations. Readers are cautioned to refer directly to Title 8 of the *California Code of Regulations* for detailed information regarding the regulation's scope, specifications, and exceptions and for other requirements that may be applicable to their operations.

## Material Handling Safety

## Compressed Gas Cylinders

- Compressed gas cylinder bottles usually contain gases which are highly flammable.
   Special care must be taken when loading, unloading, using, and storing.
- Cylinders of compressed gas shall be stored in areas where they are protected from external heat sources such as flame impingement, intense radian heat, electric arc, or high temperature steam lines.
- Inside of buildings, cylinders shall be stored in a well-protected, well-ventilated, dry location, and at least 20 feet from highly combustible materials such as oil or excelsior. Assigned storage spaces shall be located where cylinders will not be damaged by passing or falling objects, or subject to tampering by unauthorized persons. Note: Cylinders should be stored in definitely assigned places away from elevators, stairs, or gangways.
- Oxygen cylinders in storage shall be separated from fuel gas cylinders or combustible
  materials (especially oil or grease) with a minimum distance of 20 feet or by a noncombustible barrier at least 5 feet high, or a minimum of 18 inches (46 centimeters)
  above the tallest cylinder and having a fire-resistance rating of at least one hour.
- Compressed gas cylinders shall be stored or transported in a manner to prevent them from creating a hazard by tipping, falling, or rolling. Liquefied fuel-gas cylinders shall be stored or transported in a position so that the safety relief device is in direct contact with the vapor space in the cylinder at all times.
- All cylinders which are designed to accept valve protection devices shall be equipped with such devices when the cylinders are not in use or connected for use.
- Unless cylinders are secured on a special truck or rack, regulators shall be removed and valve-protection devices, when provided for, shall be put in place before cylinders are moved.
- Compressed gas cylinders in portable service shall be conveyed by suitable trucks to
  which they are securely fastened; and all gas cylinders in service shall be securely held
  in substantial racks or secured to other rigid structures so that they will not fall or be
  knocked over.
- Exception: When it is not practicable to transport cylinders by truck, nor to bring in racks to the point of operation, as in some construction work, cylinders may be carried in, and properly secured in an adequate manner. For short distances, cylinders may be moved by tilting and rolling them on their bottom edges.

- Gas cylinders transported by crane, hoist or derrick must be handled in suitable cradles, nets or skip boxes, and shall never be lifted by magnet or by slings, unless the slings are designed and constructed to prevent accidental release of the cylinders.
- Valve protection devices shall not be used for lifting cylinders.
- Exception: Valve protection devices may be used for manual lifting if they were designed for that purpose.
- Bars shall not be used under valves or valve protection caps to pry cylinders loose when frozen to the ground or otherwise fixed; the use of warm (not boiling) water is recommended. Note: Valve protection devices are designed to protect cylinder valves from damage.
- Cylinder valves shall be closed before moving cylinders.
- Cylinder valves shall be closed when work is finished.
- Valves of empty cylinders shall be closed.
- Cylinders shall not be dropped or struck or permitted to strike each other violently.
- Cylinder valves not provided with fixed hand wheels shall have keys or handles on valve spindles or stems while cylinders are in service. In multiple cylinder installations only one key or handle is required for each manifold.
- Leaking regulators, cylinder valves, hose, piping systems, apparatus and fittings shall not be used. Note:1) Cylinder valves shall not be tampered with nor should any attempt be made to repair them. If trouble is experienced, the supplier should be sent a report promptly indicating the character of the trouble and the cylinder's serial number. Supplier's instructions as to its disposition shall be followed. Note: 2) Complete removal of the stem from a diaphragm-type cylinder valve shall be avoided.
- Cylinders shall never be used as rollers or supports, whether full or empty.
- Cylinders must not be placed where they might form part of an electric circuit.
- No one shall use a cylinder's contents for purposes other than those intended by the supplier.
- Acetylene shall never be brought into contact with unalloyed copper, except in a blowpipe or torch.
- When flammable gas lines or other parts of equipment are being purged of air or gas,
   open lights or other sources of ignition shall not be permitted near uncapped openings.

#### Steel Drums

 A common steel drum holding 55 gallons may weigh up to 700 pounds, depending on its contents. It can crush your hand, flatten your foot, or roll out of control and crash into a passerby. That's why workers who must handle heavy barrels and drums need special training.

- Full drums should always be trucked or transferred by hoist. Use equipment with drumgripping devices.
- An empty drum may be tilted and rolled on its chime when you master the knack. Wear suitable gloves. Grasp the upper chime edge nearest you with both hands and pull, don't jerk, to balance on the lower chime edge. Face the way you will travel and support the leaning drum on the thigh nearest to it. Then rotate the drum by grasping the chime hand over hand.
- Watch out for burred edges, lock rims, and bungs that may catch your gloves or clothing and throw you.
- Drums usually are stored and trucked upright. When stored on their sides they must be chocked, strapped to a skid or pallet, or cradled. Use a mechanical device to upend or lay down. First squat, and then straighten your legs. Don't bend your back.
- When drums are rolled on their sides, even for short distances, control them all the way. Use your hands and push against the sides. Never roll drums out of elevators, trucks, or storage past blind corners without posting a guard. Rolling drums on their sides may cause them to spring a leak. Beware of partly filled drums containing viscous liquid—they roll in spasms.
- Empty drums that contained hazardous material must have a sign posted on them that says "EMPTY" and the date it became empty must be written on the sign.

## Permit Required Confined Spaces

#### Introduction

Confined spaces can be hazardous, and they can be hazardous in varied ways. Often the confined space will not appear to be hazardous; it may have been entered on previous occasions without incident, and may give no apparent sign of danger. Other times, there may be apparent signs of danger: the distinct odor of irritating or toxic atmospheres, the presence of arcing electrical equipment, continued mild shocks, or flowing grain or sand.

#### Hazards Concentrate

By their nature, <u>confined spaces concentrate hazards</u>. In these spaces, atmospheric hazards occur when certain gases displace breathable air, allowing 1) Toxic, 2) Flammable, or 3) Combustible substances to accumulate. Because of limited work space, it is often difficult for workers to avoid contact with physical hazards such as electrical conduits and moving mechanical components or machinery. In certain types of confined spaces, unstable substances <u>can cause a worker to be engulfed by small particles</u> such as grain or sawdust. Other physical conditions of the space can cause drowning, falling, or entrapment due to interior configuration.

Recognition of the inherent capacity of these spaces to retain hazardous substance is a significant element in any workplace hazard assessment. When confined spaces are recognized to be hazardous, provisions for minimizing the need for entry, following appropriate work practices, and using protective equipment can be made.

#### Scope

The confined space standard was issued in 1993 to protect all workers who must enter and work in these dangerous spaces. The rule covers all of general industry, including: 1) agricultural services, 2) manufacturing, 3) chemical plants, 4) refineries, 5) transportation, 6) utilities, 7) wholesale and retail trade, and 8) miscellaneous services. Confined spaces include areas such as storage tanks, compartments of ships, process vessels, pits, silos, vats, wells, sewers, digesters, degreasers, reaction vessels, boilers, ventilation and exhaust ducts, furnaces, railroad tank cars, tunnels, underground utility vaults, and pipelines.

# Confined Spaces – Definition

A confined space is an area which:

- Has adequate size and configuration for employee entry;
- Has limited means of entry and exit; and
- Is not designed for continuous employee occupancy.

Non-permit spaces such as telephone booths, drop ceilings, and mechanical or electrical closest do not contain (or have the potential to contain) any hazard capable of causing death or serious injury.

In general, confined spaces are classified as <u>open-topped enclosures</u> with depths which restrict the natural movement of air such as degreasers, pits, certain types of tanks, and excavations; or enclosures with limited openings for entry and exit such as sewers, tanks and silos.

Some of the hazards found in confined space which may make them permit-required are determined by 1) the material being stored or used, 2) the process taking place inside the space, and 3) by the effects of the external environment. Worker entry into confined spaces may occur during construction activities or during frequent necessary functions such as inspection, repair, or maintenance.

# Permit-Required Confined Spaces

A *permit-required confined space* is a confined space that presents or has the potential for hazards related to:

- Atmospheric conditions (toxic, flammable, asphyxiating),
- Engulfment,
- Configuration, or
- Any other recognized serious hazard

The standard requires employers to evaluate their workplaces and determine if there are any permit-required confined spaces. Factors to be aware of which may contribute to injury or death in such spaces include unorganized or unauthorized entries, lack of or inadequate isolation methods, unplanned rescue attempts, no hands-on training, lack of a risk assessment or risk control program, and limited communication/control during outside contractor entries. These factors can be reduced or eliminated through careful planning.

#### Risk Assessment

Before any confined space entries are carried out, a workplace risk assessment must be performed to 1) identify the confined spaces, 2) the obvious hazards, 3) and the predictable hazards that each space presents. Methods other than entry should be brainstormed and evaluated.

Can the work be performed from outside of the space, or can the equipment be relocated or reconfigured so that it will not be in a location, which is considered a "confined space"? OSHA allows the reclassification of a permit space to non-permit when hazards of the space are eliminated. The advantage to employers and employees alike is that reclassification allows and entry to be completed without any of the restrictions involved in permit space entry.

## **Training**

All employees involved in permit-required confined space entries must be trained, based on their assigned job responsibilities, prior to entry. Initial and subsequent refresher training provides entrants with the necessary understanding, skills, and knowledge to perform their duties safely.

Refresher training needs to be conducted whenever 1) an employee's duties change, 2) when hazards in the space change, 3) or whenever an evaluation of the confined space entry program identifies inadequacies in the employee's knowledge. Written certification that training has been successfully completed is required. Through this documentation, the entry supervisor can verify that entrants are capable of performing the duties assigned to them.

## **Entry Supervisor**

The entry supervisor is considered to be the most knowledgeable person involved in the permit system. This person is responsible for issuing the confined space permit and must be aware of the hazards of the space and the training requirements and duties of all workers involved with the entry. The entry supervisor is also responsible for:

- Verifying that all tests have been conducted and all procedures and equipment are in place before endorsing a permit;
- Ensure that outside contractors comply with the company's permit space procedures;
- Terminate entry if hazardous conditions develop:
- Cancel permits; and
- Verify that rescue services are available and can be contacted quickly.

Supervisors have the authority to remove unauthorized individual who enter the confined space. They also must determine, at least when shifts and entry supervisors change, that acceptable conditions, as specified in the permit, continue.

#### **Authorized Entrants**

Authorized entrants of a permit-required confined space must:

- Know the hazards they may face;
- Be able to recognize signs and symptoms of exposure; and

Understand the consequences of exposure to the hazards.

Entrants must know how to use any necessary equipment and communicate with attendants. They must be aware of the emergency plan, how to warn other entrants of the existence of a hazardous condition, and summon help if someone is in distress.

Authorized entrants must be familiar with the tasks they are expected to perform in the confined space. They should have additional training in procedures that are not routine, as well as any potential hazards and how to control them.

#### Attendants

An attendant must be assigned to every confined space entry. Multiple spaces can be monitored by a single attendant IF the permit program incorporates procedures to enable the attendant to respond to an emergency on one or more of the spaces without compromising the attendant's overall responsibilities. <u>Under no circumstances can an attendant perform other duties that</u> interfere with the primary duty of monitoring and protecting the safety of authorized entrants.

This "authorized attendant" must know the hazards of the confined space and be aware of the warning signs and physical symptoms these hazards could have on the entrants being monitored. Other responsibilities include:

- Maintain a continuous count and identification of authorized entrants;
- Prevent unauthorized entry into the space;
- Remain stationed outside the space until relieved;
- Communicate with entrants to monitor their status;
- Monitor activities inside and outside the space and order an emergency exit if required;
- Summon rescuers if necessary, and begin to perform a non-entry rescue if it can be done safely.

An attendant may be responsible for continuously monitoring the air and must be trained to recognize hazardous atmospheric changes and order evacuation of the space if such conditions develop. Attendants also should be aware of any special work practices that may be done within the space, such as welding, before any entry begins. If auxiliary ventilation is used, the attendant should be sure that the source of air intake doesn't draw carbon monoxide (as from an idling vehicle parked close by) or other contaminants into the space.

## Equipment

Each employee involved in a confined space entry must be trained in the proper use and care of

equipment that will or may be used. This could include:

- Appropriate personal protective equipment, including respirators; (\*)
- Ventilating and air monitoring equipment;
- Fire protection equipment;
- Low voltage intrinsically safe electrical equipment; and
- Retrieval and rescue equipment.

(\*) NOTE: A special note on the use of respirators. Any person who is required to utilize a respirator while performing a confined space operation must have been administered and successfully passed a Pulmonary Function Test (PFT) PRIOR to using respirator equipment.

# Changing Conditions or Factors

When workplace changes occur that could affect a confined space, the space must be reevaluated. Under certain circumstances, a non-permit space could become a permit-required, or a permit space may be classified as non-permit. Factors that may alter a confined space include:

- Change in configuration of a space that could alter the entrance or interior structure. This
  could affect the egress for entrants and emergency personnel.
- Change in equipment in the space may increase or decrease the volume of air within the space. This could affect the amount of time needed to purge the space of the air change per hour needed to maintain a contaminant below its permissible exposure limit.
- Change in a process could create new hazards in a space, causing it to become permitrequired. If the process or system changes occur, reevaluate the space for potential new hazards.
- Change in temperature, humidity, or air pressure may affect worker performance, often requiring shortened work periods and more rest breaks.

# **Rescue Operations**

An emergency and rescue plan must be established so that every worker knows what to do if an incident occurs. When developing an emergency plan, consider the following for each space:

- Identification of the confined space (description, location in the facility, special or unusual features, blueprints);
- Communication plan (response and dispatch procedures);
- Potential hazard assessment chart (toxic or explosive atmosphere, oxygen deficiency);
- List and location of equipment that could be used for emergencies (closest telephone, cutting equipment, first aid, emergency shower, fire extinguisher or hose);
- Evaluate rescue personnel resources, both in-house and within the community.

Rescue services may be provided by on-site employees or an off-site service. On-site teams must be properly equipped and must receive the same training as authorized entrants, plus training in the use of personal protective and rescue equipment and first aid, including CPR. They must practice simulated rescues at least once every 12 months.

All employees who work near a confined space should have some general training in confined space hazards and understand that they are not to attempt to rescue workers in the space. Statistics show that 60 percent of confined space fatalities occur not from the initial victim entering the space, but rather from untrained and unprotected standby personnel or would-be volunteers trying to rescue those victims. In all emergency rescue situations, assume that the atmosphere is immediately dangerous to life and health (IDLH) until it can be verified as safe to enter.

# Hazards of Confined Spaces

The atmosphere in a confined space may be extremely hazardous because of the lack of natural air movement. This characteristic of confined spaces can result in oxygen deficient atmosphere, flammable atmospheres, and/or toxic atmospheres.

## Oxygen Deficiency

Oxygen deficiency occurs from chemical or biological reactions which displace or consume oxygen from a confined space. Oxygen consumption takes place during combustion of flammable substances as in welding, cutting, or brazing.

Consumption of oxygen also occurs during bacterial action, as in the fermentation process. Oxygen deficiency can result from bacterial action in excavations and manholes which are near garbage dumps, landfills, or swampy areas. Slow chemical reactions such as in the formation of rust on the exposed surface of metal tanks, vats, and ship holds can also result in oxygen consumption.

Normal air has an oxygen content of 20.9%. When the oxygen level drops below 17%, rapid breathing and an accelerated heartbeat occur. As the oxygen content decreases, other physical effects become evident including:

- Poor muscular coordination;
- Rapid fatigue, and intermittent respiration, nausea; and
- An inability to perform tasks.

At concentrations less than 6%, there is rapid loss of consciousness, and death occurs in minutes.

An atmosphere is considered "oxygen deficient" when there is less than 19.5% available oxygen.

Any atmosphere with less than 19.5% oxygen should not be entered without an approved selfcontained breathing apparatus (SCBA).

## Oxygen Displacement: Inert Gases

A simple asphyxiating atmosphere contains an inert gas (or gases) which do not produce any ill effects on the body. However, in sufficient quantity, an inert gas will displace oxygen and may result in an atmosphere unable to support normal breathing. If 100% nitrogen – a non-toxic, colorless, odorless gas – is used to inert (displace oxygen in) a confined space, it will cause immediate collapse and death to the worker if the confined space is not adequately ventilated before worker entry. Other examples of simple asphyxiants which have claimed lives in confined spaces include carbon dioxide, argon, and helium.

# Flammable Atmospheres

A flammable atmosphere generally results from the vaporization of flammable liquids, byproducts of chemical reactions, enriched oxygen atmospheres, or concentrations of combustible dusts. For combustion to occur, three elements, known as the "fire or ignition triangle" must be present in the atmosphere. If one of these elements is missing, combustion will not occur.

The proper mixture of fuel and oxygen varies from gas to gas. The flammability range for each gas is measured in terms of the lower flammability limit (LFL) and the upper flammability limit (UFL). For example, the explosive range for Methane is between 5% and 15% in air. Concentrations below 5% methane are below the explosive range, and concentrations above 15% are too rich to support combustion. If a confined space contains 27% methane and forced ventilation is started, the introduction of air into the confined space may dilute the methane in air, taking it into the explosive range.

An oxygen-enriched atmosphere (above 23.5%) will cause flammable materials, such as clothing and hair, to burn violently when ignited. Never use pure oxygen to ventilate a confined space – ventilate with normal air.

# Physical Hazards

In addition to the atmospheric hazards, a confined space must also be assessed for physical hazards. These hazards include those associated with hazardous energy and its control such as

mechanical, electrical, and hydraulic, engulfment; communication problems; noise; and size of openings into the confined space.

# Engulfment

Engulfment in loose materials is one of the leading causes of death from physical hazards in confined spaces. Engulfment and suffocation are hazards associated with storage bins, silos, and hoppers where grain, sand, gravel, or other loose material are stored, handled, or transferred. The behavior of such material is unpredictable, and entrapment and burial can occur in a matter of seconds.

# Other Physical Hazards

The nature of confined space work may make it difficult to separate the worker from hazardous forms of energy such as powered machinery, electrical energy, and hydraulic or pneumatic lines. Examples of physical hazards often encountered in a confined space include the following:

- Activation of electrical or mechanical equipment can cause injury to workers in a confined space. It is essential to de-energize and lock out all electrical circuits and physically disconnect mechanical equipment prior to any work in confined spaces.
- Release of material through lines which are an integral part of the confined space pose a life-threatening hazard. All lines should be physically disconnected, blanked off, or a double block and bleed system should be used.
- Falling objects can pose a hazard in confined spaces, particularly in spaces which have topside openings for entry through which tools and other objects may fall and strike a worker.
- Extremely hot or cold temperatures can make work inside a confined space hazardous. If a confined space has been steam cleaned, it should be allowed to cool before any entry is made.
- Wet or slick surfaces can cause falls in confined spaces. In addition, wet surfaces provide a grounding path and increase the hazard of electrocution in areas where electrical equipment, circuits, and tools are used.
- Noise within confined spaces can be amplified because of the design and acoustic properties of the space. Excessive noise is not only harmful to the worker's hearing, but can also affect communication and cause warnings to go unheard.

#### Testing the Atmosphere

It is important to understand that some gases or vapors are heavier than air and will settle to the bottom of a confined space. Also, some gases are lighter than air and will be found around the top of the space. Therefore, it is necessary to test all areas (top, middle, and bottom) of a

confined space with properly calibrated testing instruments to determine what gases are present.

If testing reveals oxygen deficiency or the presence of toxic gases or vapors, the space must be ventilated and re-tested before workers can enter. If ventilation is not possible and entry is necessary (such as in an emergency rescue situation), entrants must wear appropriate respiratory protection.

# Procedures for Atmospheric Testing

Atmospheric testing is required to evaluate the hazards of the permit space and to verify that acceptable entry conditions exist. The person performing the testing must know how to operate and read the test instrument. A monitor should be calibrated before every use or as required by the manufacturer to ensure that the device provides accurate measurements. For safety's sake, take at least three sets of readings:

- Before ventilation;
- After ventilation; and
- The entrant's reading during the initial entry survey.

Additional or continuous monitoring may be needed.

Because of the way test instruments operate; atmospheric monitoring must be performed in a specific sequence.

OXYGEN tests must ALWAYS be made first because most combustible gas meters are oxygen dependent. Too little oxygen may cause a low combustible gas reading. Too much oxygen may cause a combustible gas meter to explode if gases and vapors are present in ignitable quantities. (If in doubt about the properties of your meter, consult with the manufacturer's manual or the manufacturer.)

FLAMMABLE and EXPLOSIVE GASES are measured next because the risk posed by fire or explosion is more immediate and life-threatening than exposure to toxic gases and vapors.

TOXIC GASES and VAPORS which are commonly found in confined spaces are measured last.

## Evaluation Testing

The atmosphere of a confined space should be analyzed <u>using test equipment sufficiently</u> <u>sensitive and specific to identify and evaluate any hazardous atmospheres</u> that may exist or arise from that space. This will ensure that appropriate permit entry procedures can be developed. Evaluation and interpretation of this data and development of the entry

procedure should be implemented, based on the evaluation of all serious hazards.

## Verification Testing

The atmosphere of a permit space which may contain a hazardous atmosphere should be tested for residues of all identified contaminants using permit specified equipment. This will determine that residual concentrations at the time of testing and entry are within the range of acceptable entry conditions. Results of testing (i.e., actual concentration, etc.) should be recorded on the permit in the space provided adjacent to the acceptable entry condition.

## Duration of Testing

The measurement of values for each atmospheric substance should be made for at least the minimum response time of the test instrument specified by the manufacturer.

# Testing Stratified Atmospheres

When monitoring for entries involving a descent into atmospheres that may be stratified, the space should be tested a distance of approximately 4 feet (1.22 m) in the direction of travel and to each side. If a sampling probe is used, the entrant's rate of progress should be slowed to accommodate the sampling speed and detection response.

# Purging

Purging is the process of initially clearing a confined space of atmospheric contaminants by displacing the hazardous atmosphere with air, steam, or an inert gas.

#### Ventilation

Ventilation is the process of continuously moving fresh, uncontaminated air through a confined space. Ventilation dilutes and displaces air contaminants, assures that an adequate supply of oxygen is maintained during entry, and exhausts contaminants formed by processes such as welding, oxy-fuel gas cutting, or abrasive blasting. Oxygen levels must be maintained within a range of 19.5 to 23.5 percent.

Ventilation by a blower or fan may be necessary to remove harmful gases and vapors from a confined space. There are several ventilation methods and equipment to choose from depending on: 1) Size of the confined space openings, 2) Gases to be exhausted, and 3) Source of makeup air.

Selection considerations include:

- The physical structure of the space;
- Its previous contents;
- The existence of natural drafts;
- The number and location of any openings; and
- The nature of any contaminant-producing tasks that may be performed in the space.

Under certain conditions where flammable gases or vapors have displaced the oxygen level, but are too rich to burn, forced air ventilation may dilute them until they are within the explosive range. Also, if inert gases are used in the confined space, the space should be well ventilated and re-tested before a worker may enter.

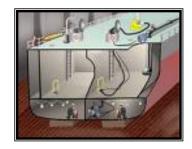
Ventilation should be continuous where possible, because in many confined spaces the hazardous atmosphere will form again when the flow of air is stopped. Be sure that the source of air intake is not placed where it can draw carbon monoxide (as from an idling vehicle parked close by) or other contaminants into the space.

# Respirators

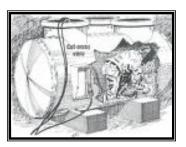
Respirators allow confined space workers to breathe safely without inhaling toxic gases or particles. The two basic types are *air purifying*, which filter dangerous substances from the air; and *air supplying*, which deliver a supply of safe breathing air from a tank or an uncontaminated area nearby. Selecting the proper respirator for the job, the hazard, and the person is very important, as is thorough training in the use and limitations of respirators.

NOTE: Only air-supplying respirators should be used in confined spaces where there is not enough oxygen.

# SOME SAMPLE PICTURES OF CONFINED SPACES























# Safety for Janitors

Janitorial and other building maintenances work duties present a variety of safety concerns. If you are involved in these types of duties, please make sure you observe the following safety guidelines.

- NEVER work if you are injured or are feeling ill where your motor and sensory skills are hindered. Check in with your immediate supervisor and advise him/her that you are ill.
- When working with chemicals ALWAYS read the Product Label and the SDS BEFORE
  using the chemical, especially if you are not familiar with the product.
- ALWAYS obey the manufacturer's Product Label and SDS warning labels.
- ALWAYS follow the mixing ratios specified in the Product Label or SDS. NEVER think that MORE is BETTER.
- When using chemicals always wear the correct PPE as specified in the Product Label and/or the SDS.
- NEVER utilize machines operated by internal combustion while inside a building. These
  create carbon monoxide gas which is poisonous. Always make sure you have
  appropriate ventilation when operating internal combustion machines/equipment.
- ALWAYS know how to use maintenance equipment BEFORE using it. If you are not familiar with how to use the equipment, you MUST FIRST receive the appropriate training and instruction, including safety procedures, from your immediate supervisor.
- If you have to use a ladder to perform your duties, make sure you first read "Ladder Safety" portion of this manual BEFORE using the ladder.
- When mopping, stripping, or waxing floors be extra careful if you have to use electric equipment; you could be electrocuted when handling water/liquids along with electric operated equipment.
- ALWAYS inspect your power tools and other equipment BEFORE using them. NEVER use power tools or equipment if they are defective in any way.
- ALWAYS make sure power tools and other equipment have on protective guards and that these are working properly before using. NEVER use power tools and other equipment if protective guards are defective.
- ALWAYS install protective barriers or other announcements when mopping floors. This
  warns pedestrians from potential slip hazards.
- When cleaning urinals and toilets ALWAYS put on latex or rubber gloves before handling related debris. Used towels, used toilet papers, sanitary napkins, etc. may be contaminated with body fluids, excrement, etc. and could be infectious.
- When cleaning toilet bowls and urinals with chemicals and the possibility of a splash is present ALWAYS wear appropriate eye protection.

- NEVER lift items that are over your physical limit. Ask for help or use a mechanical or other means to lift.
- NEVER lift with your back, bend your legs, maintain your back in a vertical position, hold object close to your body, and then lift. Make sure your walking path is clear BEFORE lifting and carrying object.
- NEVER leave power tools or equipment unattended, especially if children are present or in close proximity. ALWAYS disconnect power tools or equipment if you are not going to attend to these.
- When dusting, use a dust mask, protect yourself.
- NEVER use a "Secondary Container" without proper chemical labeling. Simply writing
   "Clorox" or "Windex" on the "Secondary Container" is NOT an acceptable practice.
- ALWAYS keep hazardous materials/chemicals under lock so as to prevent access to unauthorized personnel and/or children.
- If you wear a back support, you must FIRST receive appropriate safety training in the use of the back support BEFORE being issued one. REMEMBER: Back supports are NOT a guarantee that you cannot injure your back. REMEMBER: Back supports DO NOT allow you to lift more weight.
- ALWAYS wear a good sturdy, anti-slip shoe when working.
- ALWAYS be aware where the closest fire extinguisher and first aid kit are located.
- Think safety before engaging in your work duties; make sure you have the appropriate tools and equipment in order to do your job safely.

SUPERVISOR'S ACCIDENT INVESTIGATION REPORT						
DEPARTMENT OR DIVISION			NAME OF PERSON FILLING OU	T REPORT (PRINT)	WORK PHONE	
LOC	ATION OF ACCIDENT		DATE OF OCCURRENCE	TIME	DATE REPORTED	
INJU	PERSONAL INJUR		PROPERTY DAMAGED	PROPERTY DAM	MAGE	
POS	ITION	INJURED BODY PART(S)	DESCRIPTION OF DAMAGE			
NAT	URE OF INJURY		OBJECT/EQUIPMENT/SUBSTANCE/INFLICTING INJURY			
100	one of mooning		COLONIA META COLONIA EL MATO MOCI.			
OBJ	OBJECT/EQUIPMENT/SUBSTANCE/INFLICTING INJURY		PERSON WITH MOST CONTROL OF OBJECT/EQUIPMENT/SUBSTANCE			
	DESCRIBE CLEARLY HOW THE ACCIDENT OCCUR	RRED				
z						
DESCRIPTION						
룺						
ES						
۵						
	WITNESS NAME	ADDRESS		TE	ELEPHONE NO.	
	WHAT ACTS, FAILURES TO ACT AND/OR CONDITION	WHAT ACTS, FAILURES TO ACT AND/OR CONDITIONS CONTRIBUTED MOST DIRECTLY TO THIS ACCIDENT?				
Si						
ANALYSIS						
ANA						
	WHY DID THE ABOVE ACTS, FAILURES TO ACT AND/OR CONDITIONS EXIST?					
N						
Ĕ						
Ę						
PREVENTION						
				1,000,000,000,000	NTT ATT AT	
	PROBABLE RECURRENCE RAT			LOSS SEVERITY PO		
	FREQUENT OCCASION		MAJOR	SERIOUS	MINOR	
SIG	NATURE OF IMMEDIATE SUPERVISOR	DATE	SIGNATURE OF DEPARTME	N I MEAU	DATE	

SUBMIT COMPLETED FORM TO: HUMAN RESOURCES & RISK MANAGEMENT

Hazard Assessment and Correction Record Injury & Illness Prevention Program						
THIS FORM IS A TOOL FOR EMPLOYEES, SUPERVISORS OR MANAGE HAZARDS WHICH ENDANGER COUNTY EMPLOYEES OR THE PUBLIC.		RDS. IMMEDIATELY NOTIFY YOUR	SUPERVISOR AND RISK N			
DEPARTMENT OR DIVISION		NAME OF PERSON FILLING OUT REPORT (PRINT)		WORK PHONE		
LOCATION OF HAZARD		PROBABLE RECURRENCE RA	TIME	DATE REPORTED		
UNSAFE CONDITION		U	INSAFE WORK PRA	CTICE		
PERSON WITH MOST CONTROL OVER CONDITION		PERSON WITH MOST CONTRO	LOVER WORK PRACTICE			
WITNESS NAME	ADDRESS	<u> </u>	TELEPHON	E NO.		
WHAT ACTS, FAILURES TO ACT AND/OR CONDITIONS CONTRIBUTED MOST DIRECTLY TO THIS HAZARD? WHY DID THESE FACTS, FAILURES TO ACT AND/OR CONDITIONS EXIST?						
PLEASE PROVIDE CORRECTIVE ACTIONS TAKEN AND/OR  NOTE	RARE	DATE CORRECTIVE ACTION	N TAKEN			

SUBMIT COMPLETED FORM TO: HUMAN RESOURCES & RISK MANAGEMENT

# COUNTY OF IMPERIAL VEHICLE ACCIDENT/DAMAGE REPORT ACCIDENT DAMAGE/NOT ACCIDENT RELATED

	IF YOU HAVE AN ACCIDENT		
Em	ployee Responsibility	Date:1	
DO:		Location:	
1.	Call 911 immediately if damage or injuries are involved and request medical assistance and an officer to file a report on behalf of the County.	YOUR VEHICLE: Vehicle:	
2.	Notify your supervisor, Risk Management (442) 265-1148, and Fleet Services (442) 265-1999.	Year Make License No.	Body Style /ehicle No.
3.	Obtain the other driver's license number, insurance information from their Insurance Verification card and a description of the vehicle from their registration card.	Employee Name:	
4.		Department:	
5.		Driver's License:	
6.	Take County vehicle to County Fleet Services for inspection.	best poor or burnings.	
DO	NOT:	Bassassass	
1.	to anyone other than:	Passengers:  If auto accident all section beyond this	
	<ul> <li>Police Officer, Your Supervisor, Risk Management Department</li> </ul>		
	nember that you are an employee of County of Imperial and need to professionally at all times.	OTHER VEHICLE:	
	anders Bernardhillite	Driver's Name:	
	ervisor Responsibility nplete the "Supervisor Investigation" section on page 2 of this	Address:	
form	n and submit a completed report to Risk Management & Fleet	Phone:	Passenger
	vices via email at autoclaims@co.imperial.ca.us within 48 hours		
	ne accident. ase of driver injury, the supervisor shall complete this form in its		
	rety.		
	•	Driver's License No	State:
AW E	NFORCEMENT:	Vehicle: Year Make E	
	Badge No.		Body Style
	Report No	Vehicle License Plate NoS	State:
		Insurance Co	
	Receive a Ticket?	Policy No	
Law	Enforcement did not respond	Damage:	
JURE	D PERSONS:	WITNESSES:	
Name		1. Name:	
Addre	ss:	Address:	
	r	Phone:	
	and Extent:	Witness Statement:	
Name		2. Name:	
Addre	ss:		
Phone	K	Address:	
	e and Extent:	Phone:	
		Witness Statement:	
WAS	S AMBULANCE CALLED? Yes No	Risk Management Comments	: Training Recommende
		Yes □ No	•

# INSTRUCTIONS FOR FILLING OUT ACCIDENT DIAGRAM

- Indicate compass direction on diagram
- Name streets or roads and (if any) railroad tracks
- Indicate direction and position of each vehicle involved in the accident
- Use the letter (A) to designate County vehicle and (B), (C), etc., for other vehicle(s)

	ACCIDENT DIAGRAM			
	VEHICLE SYMBOL (A) → (B) → (C) →	COMPA	ASS	
What was the purpose of the trave	1?			
	ial □ Business/Commercial □ Freeway/Hig		ng Lot □ Rural Road	
Weather Conditions:  Clear Were seatbelts being worn? Yes Supervisor's Investigation: Accident Analysis (What acts, failu	33,			
Preventative Measures (Why did the	he above acts, failures to act and/or conditions exis	st?):		
Signatures				
	ent, you are confirming that the information provide	od is accurate and complete.		
Employee's/Driver's Signature	Printed Name	Date	1	-
Supervisor: By signing this document this form with the employee for the	nent, you are confirming that the information you proughness and accuracy.	rovided is accurate and you	have reviewed the informati	ion on
Supervisor's Signature	Printed Name	Date	1	-