



**METRO  
WATER  
RECOVERY®**

# **Contractor, Vendor and Visitor Safety Awareness Manual**

## **Non-Construction Activities**

### **RWHTF**

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Maintained by Environmental Health and Safety (EHS) in the Human Resources Department  
and accessible in the Environmental, Health and Safety 6450 Team Site under the  
Contractors, Visitors and Vendors Library.

# Welcome To

## METRO WATER RECOVERY

### ROBERT W. HITE TREATMENT FACILITY

The Metro Water Recovery (Metro) strives to conduct its operations with the highest priority in protecting the safety and health of our employees. Accident prevention is an important part of every job. It is our duty to perform our work courteously, efficiently, and with the maximum regard for safety.

This Contractor, Vendor, and Visitor Safety Awareness Manual (Safety Manual) contains general safety and conduct expectations applicable to all visitors, contractors, and/or vendors regarding Environmental, Health, and Safety (EHS) responsibilities while at Metro. These groups are expected to follow established safety measures to maintain a safe and secure workplace and operate in an environmentally sound manner.

All Contractors, Vendors and Visitors performing construction activities as defined by the Occupational, Safety and Health Administration (OSHA) shall read and adhere to the contents in the MWRD Construction-based Safety and Health Manual.

Strong EHS programs will prevent injuries, control losses, and minimize environmental impacts. We expect contractors and vendors to join us in providing a workplace free of uncontrolled hazards to people, the environment, and our property.

All construction, service, and maintenance contractors must comply with all federal, state and local EHS regulations, as well as Metro's EHS procedures, code of ethics, and harassment policies.

The information contained in these pages is solely for informational purposes, is in summary form only, and is subject to change. It is not intended to replace or limit the requirements of government regulations or standard industry practice. It is each contractor's obligation to meet applicable government and Metro EHS requirements, whether or not they are addressed in this document.

Metro does not directly manage the safety of contractors or their personnel. Contractors are expected to manage environmental, health, and safety hazards, risks, and programs for their employees and subcontractors. This manual has been published to communicate Metro's philosophy and expectations to all contractors, vendors, and visitors.

Metro Safety Committee

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## I. SCOPE

This manual is intended for all contractors, visitors and vendors that are performing or are associated with any work activities that do not involve heavy construction. Short term work, vendor-based work is included. This manual also applies to any unescorted visitor. It is expected that this manual will be shared with others and the contents of this manual are by the Metro Sponsor when applicable.

## II. RESPONSIBILITIES

All Metro Sponsors will ensure that:

- Each contractor, visitor and vendor are provided with a copy of this manual.
- Each contractor, visitor and vendor understand that all work shall be conducted in a safe and responsible manner in compliance with applicable regulations and all content in this manual.

### **Metro Project Managers/Sponsors**

- Communicate appropriate environmental, health and safety requirements and expectations to contractors, vendors, and visitors under their control.
- Ensure that Environmental, Health & Safety (EHS) is provided with a copy of the contractor's written health and safety plan when requested by EHS.
- Immediately inform EHS of an accident, close call or other incident.
- Report incidents or damage that involves Metro property or personnel in the online reporting system. DPMs should contact the EHS Specialist or Designee for clarification.
- Ensure contractors, vendors, and visitors are compliant with all the guidelines, policies, and procedures to meet EHS requirements, whether or not they are addressed in this manual.
- Provide required PPE to visitors.

### **Contractor, Vendors, and Visitors**

- Follow all federal, state and local regulations, as well as the policies and procedures of Metro. Any violation of applicable regulations and requirements are grounds for default of the contract, agreement and/or purchase order.
- Provide all employees with the necessary training and safety equipment including personal protective equipment (PPE).
- Inform the Metro Sponsor of any personal, motor vehicle or environmental accidents.
- Report any perceived emergency to the Control Room and/or to the Sponsor.
- Upon being notified of an emergency, stop activities and follow instructions provided in this Program.
- Follow instructions to take shelter, evacuate, and meet at designated muster points as required.
- During an emergency response situation, adhere to the instructions provided by the Incident Response Coordinator (IRC), or their designee(s).
- Remain sheltered, evacuated off-site at a muster point, or moved away from an emergency area until directed by the IRC.



- All persons that operate Metro equipment, such as aerial lifts, cranes, fork trucks, must be competent in its operation. Documentation of training will be provided upon request. All Metro requirements including pre-inspection must be followed.

### **Environmental Health and Safety (EHS)**

- Define personal protective equipment and safe-handling procedures for specific operational needs upon request.
- Respond to reports of hazardous conditions/accidents to any contractor, visitor and/or vendor; assist in determining corrective measures.
- Assist the Metro Sponsor to ensure EHS measures are being followed by performing safety evaluations of contractor/vendor projects periodically and upon request.
- Annually perform a documented review of this Program.

### **III. NON-COMPLIANCE**

If any health and safety hazards which could pose an imminent danger to people or property, an immediate order to stop work will be issued. Should this occur, EHS will bring the matter to the immediate attention of the Metro Sponsor(s), Procurement Officer, and the CEO. Willful unsafe actions, continued violations of health and safety requirements, or other hazards that pose an imminent threat to people or property may result in termination of the contract, agreement, purchase order and/or services rendered.

### **IV. ACCIDENT REPORTING**

The Metro Project Manager (DPM) or Metro Representative must be notified immediately when any assigned contractor, visitor or vendor sustains any personal injury, motor vehicle accident, close call or other incident and includes one or more of the following:

- 911 is called.
- The accident was in part caused by the actions of Metro personnel.
- Results in the job/activity to be shut down.
- It occurred in an area controlled by Metro personnel.
- Metro property is damaged.
- A motor vehicle accident occurred.

The Metro Project Manager/Representative will immediately inform EHS of the accident, close call or incident. The contractor, visitor, or vendor will submit a copy of their accident investigation form to the DPM/Representative. EHS may perform an additional investigation as well.

The EHS and Security contacts include:

Sr. EHS Manager	Brian O'Malley	(303) 286-3456
Sr. EHS Specialist	Sunny Bradford	(303) 286-3056
Metro Security Manager	Ken Burton	(303) 286-3311
Metro Security Specialist	Chris Dole	(303) 286-3309



## V. CHEMICAL USE

### Safety Data Sheets (SDS)

Contractors are expected to inform and provide Metro with a chemical inventory and SDS's for the materials that will be introduced into the work area during the course of their construction project. All containers of chemicals must be properly labeled with the contents, signal word and hazard pictogram.

In the event that a contractor uses any chemical with odors or particles likely to cause irritation to Metro employees, the SDS will be provided to the DPM and EHS for review PRIOR to the activity.

As noted above, there are hazardous chemicals and materials on the plant that can cause serious injury if not properly handled. SDS information is available on an online database accessible through the 6450 Intranet Site.

### Chemical Handling and Storage

Be aware of the potential dangers associated with hazardous chemicals. Refer to the Safety Data Sheet (SDS) information for proper procedures in handling, storage, and usage of chemicals on the job. The major bulk chemicals on site include:

- Peracetic Acid
- Sodium hypochlorite
- Sodium bisulfite
- Aqueous ammonia
- Acetic acid
- Ferric chloride
- Polymers
- Fuels (gasoline, diesel)
- Lubricating oils
- Lab Solvents

### Respiratory Protection and Medical Clearance

The contractor must ensure that its employees have appropriate medical clearance when required either by governmental regulations or by our company's requirements. Certification of medical clearance for contractor personnel are required to be presented as requested by your Metro Sponsor or EHS.

## VI. CONSTRUCTION ACTIVITIES

Refer to the Construction-based Contractor, Visitor, Vendor Safety Manual for additional requirements.



## VII. DRINKING WATER

Facilities at the Robert W. Hite Treatment Plant are plumbed with three types of water.

### Potable Water or "PW"

This is drinking-quality water suitable for human consumption. It is dispensed from drinking fountains, lunchroom/kitchen sinks, and restroom sink taps. Potable water plumbing can be identified by the letters "PW" on a white band across a dark blue pipe.

### Service Water or "SW"

This is used primarily for the cooling down of equipment installed throughout the plant. Service water is **not** suitable for human consumption. Service water plumbing can be identified by the letters "SW" on a red band across a light blue pipe.

### Plant Water Chlorinated or "PWC"

This is used for landscape irrigation, fire hydrants, washing floors at various locations on the plant site, and in certain wastewater treatment processes. Plant water chlorinated is **not** suitable for human consumption. Formerly, this water was chlorinated. Currently, it is treated with paracetic acid. Plant water chlorinated plumbing can be identified by the letters "PWC" on a yellow band across a light blue pipe.

**NOTE:** A red-tagged drinking-water source means the water is **not** fit for human consumption. Report any accidental ingestion of SW or PWC to the Metro Sponsor.

## VIII. ELECTRICAL SAFETY

Only contractors meeting NFPA 70E requirements for qualification, licensing, and training will install, repair, modify, or remove electrical service, wiring, or equipment.

Refer to the Construction-based Contractor manual for additional requirements.

## IX. EMERGENCY RESPONSE

### **Metro Process Control Room and Calling 911**

When reporting an emergency, contact the Process Control Room 24-hour emergency numbers listed below. without alerting the Control Room. For any fire, police or medical emergencies, the Process Control operators will contact the appropriate local emergency agency. Security and/or operations personnel will assist the responding agency with access to Metro property, and direct emergency personnel to the identified emergency location.

<b>Process Control Room</b>	<b>303-286-3274 or 303-286-3275</b>
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### **Emergency Communication**



Metro utilizes Rave Alert to send mass text, email, and recorded voice messages during emergencies. All Metro staff are enrolled in the system. Contractors performing work at the Hite facility can also be enrolled to receive these emergency messages. This may be a supervisor or other key staff member rather than entire crews. To enroll in this system, reach out to your Metro contact or a member of Metro EHS (contacts provided in Section IV.).

## **Emergency Muster/Shelter Locations**

Specific locations are designated for Metro employees, contractors, vendors, and visitors. When reasonably possible, contractors and vendors working on the plant will be notified if a drill will affect them; otherwise, when an emergency alarm sounds, Metro employees, contractors, visitors and vendors are expected to respond to the assigned assembly points (also known as muster points) as directed by the emergency announcement.

There are three types of assembly points:

1. Fire alarm muster point
2. Tornado shelter
3. HazMat shelter

Fire muster points, tornado, and HazMat shelter locations are listed in Appendices A and B. They are also posted on all safety bulletin boards and in strategic locations throughout the plant.

## **Facility Evacuation Response**

A full or partial evacuation is considered a secondary emergency response and is relatively unlikely to occur. The primary response to the higher severity atmospheric emergencies will be to move personnel into the HazMat shelters.

If the escalation of an emergency necessitates the evacuation of all plant personnel, the Metro's Incident Response Commander (IRC) will initiate an evacuation notification process that directs personnel to an off-site muster location. It is recognized that a high level of congestion would occur from a simultaneous immediate facility-wide evacuation. The movement of personnel would commence in stages based on the nature of the emergency.

For an off-site evacuation, the main gates for egress are the North and South gates. The majority if not all motor traffic is expected to leave through these points. Additionally, Gates 11, 14, and 2 can be used for motor vehicle egress. However, the use of a particular gate(s) may be negated by the nature of the emergency. This information will be provided to employees if directions to evacuate is given.

Following an evacuation announcement, employees will:

- Evacuate using the closest available exit.
- If employees or contractors have visitors on site, it is the employee's and/or contractor's responsibility to guide the visitor to the appropriate egress point. Contractors and visitors do not need to meet at the evacuation muster point but must remain accessible by phone for follow-up.
- Carpool when possible.
- If it is not possible to evacuate safely, employees should remain in the HazMat shelters.



## Fire Evacuation Muster Points

The muster locations below will be at the far end of designated parking lot, not obstructing arriving emergency response vehicles.

Building	Muster Location
Administration	South parking lot
Technical Services Building (TSB)	West parking lot
Operations Services and Control Building	West parking lot
Facilities Maintenance	West parking lot
M&E and Purchasing	North parking lot
Transmission	West parking lot (South side)
RR&R Services	East parking lot of RR&R service building
RBFS	West parking lot

If you discover a fire, alert others by activating the fire alarm system, leave the area, and contact the emergency numbers listed for the Process Control Room. Do not call 911.

The fire alarm system includes both an audible fire alarm and strobe lights. If you hear a fire alarm, leave the area, keeping to the right side of walkways. Do not use elevators. Assemble outside the building at the designated muster location for the area. Do not re-enter until an all-clear notification is given by the Fire Department or the Metro's Incident Response Coordinator.

## HazMat and Tornado Shelter Locations

HazMat and tornado shelters are maintained in process areas and personnel buildings throughout the plant. The shelters are identified on the entrance door of the sheltering room within each building. HazMat shelters may further identified with signage on the outside of the applicable buildings.



- Upon hearing the initial alarm warble of Metro emergency alarm system, stop activities and listen to the information that is given over the announcement system. If in a noisy area and the beacons are activated, move to a different area to listen to the emergency announcement. Emergency announcements are repeated to allow for multiple chances to hear the message.
- Follow instructions to take shelter and/or meet at designated assembly points as required.



- During an emergency response situation, adhere to the instructions provided by the Incident Response Coordinator through the Process Control operator, Department Head, EHS or Security Officer, or their designees.
- Remain sheltered, or moved away from an emergency area, until directed by the Incident Response Coordinator through the Process Control operator, Department Head, EHS or Security Officer, or their designees.
- Report your location and condition to associated supervisor and/or Metro Sponsor, as required.

## HazMat Shelter Locations

HazMat shelters are maintained in Process areas and personnel buildings at the RWHTF plant. Each shelter includes speakers and a phone or Gai-Tronics handset to talk to the Control System Operator. The HazMat shelters are identified on the outside of the applicable buildings and at the internal HazMat room within.

<b><u>Building</u></b>	<b><u>HazMat Shelter</u></b>
207 – Administration	Board room
220 – Facilities Maintenance	Men's locker room
260 – OCSB	Control room & women's locker room
267 – RBFS	Men's locker room
268 – RR&R Service	Women's locker room
270 – Technical Services Building	HR training room
274 – Transmission	Hallway between office area & shops
280 – Warehouse and Maintenance Shop	Men's locker room
910 – Cogeneration	Control room
421 – North Primary Electrical Facility	Electrical building
415 – North Primary Pump Station No. 3	Electrical room
581 – North Secondary Control Building No. 1	Electrical room
583 – North Secondary Control Building No. 2	Electrical room
585 – North Secondary Control Building No. 3	Electrical room
587 – North Secondary Control Building No. 4	Electrical room
525 – North Secondary East Blower Building	Control room



312 – South Headworks Electrical Facility	Electrical room
512 - South Secondary Aeration Control Rm	Control Room
528 – Southwest RAS Electrical Facility	Electrical room
728 – PWC Electrical Facility	Electrical room
840 – BDSF	Control Room
202 – South Guard Shack (Security)	Control room

### Tornado Shelter Locations

Building	Tornado Shelter Areas
207 - Administration	North and South end 1st floor restrooms, Wellness Room, and ES Conference Room "B"
270 - Technical Services Building (TSB)	1 <sup>st</sup> floor restrooms 1 <sup>st</sup> floor laboratory locker room Lab supervisor offices BOD room TSS room Balance room
260 – Operations Services and Control Building (OSCB)	Men/Women's locker rooms Safety equipment room Control system storage room 1 <sup>st</sup> floor conference room Control room
220 - Facilities Maintenance	West side offices without windows Women's locker rooms
280 - Warehouse Maintenance Shops	Central North/South hallway Men/Women's locker rooms off the hallway
274 - Transmission	Hallway between office and shops
268 - RR&R Services (StratComm)	Printer room DC file room
267 - RBFS Shops	Men/Women's locker rooms
581-587 - North Secondary Galleries	North secondary galleries—lower level East blower building—basement
Disinfection	Hallway between PWC pump station and chemical storage area
Sludge Process	Tunnel between the sludge process building and holding tanks
Holding Tanks	Tunnel between the sludge process building and holding tanks
DAF	DAF basement
South Primary	Primary sludge pumps building—lower floor
South Secondary	Scum pump stations—lower level South complex compressor building—lower floor



Building	Tornado Shelter Areas
	Pipe galleries
North Primary 1, 2 and 3	Primary sludge pumps building—lower floor
Gravity Thickener Complex	Control room basement
Off-Facility Sites	Tornado Shelter Areas
Thornton North Washington Lift Station	Pump floor
Governor's Ranch Lift Station	Compressor room
METROGRO Farm	Low depression areas
RR&R Private Application Sites	Low depression areas

## Emergency Equipment

### Life Aid Station Equipment

The following equipment is available for voluntary use and is in the Administration Building, the Technical Services Building (TSB), Facilities Maintenance, Operations Services Building (OSCB), M&E/Warehouse Building, Transmission Building, RBFS, RR&R Service Shop (StratComm), in designated areas

- Automated External Defibrillators (AED) – Zoll units in green case.
- Emergency oxygen unit – A portable cylinder is available in the control room.
- Trauma Kit – First aid items primarily to help control bleeding. Soft case inside the AED wall mounted cabinets

First Aid Kits are primarily located in occupied buildings and wall mounted in restrooms or break areas with the availability of potable water.

Metro does not have dedicated emergency response personnel.

### Emergency Eyewash and Showers

Plumbed eyewash stations are in areas with the potential for exposure to corrosives or other chemicals that are strongly irritating. These plumbed eyewash stations send an alarm signal to the control room when activated and thus, are for EMERGENCY USE only. An eye wash alarm is verified through the evaluation of a dispatched plant operator. Additionally, temporary/portable eyewash and/or shower systems are strategically placed around the plant.

## X. ENVIRONMENTAL INCIDENT REPORTING

Metro strives to be proactive in protecting the environment. Immediate notification is required for any unauthorized discharge, accidental spill, or release to the environment, as defined below:

- All releases (including potable water) to the environment, including dry land, dry gulch, park area, field, lawn, street, parking lot, storm sewer, river, creek, lake, pond, construction trench, sump, etc.



- Unpermitted air emissions.

### Spill/Release Reporting

Contractors, Visitors, and Vendors shall minimize the risk of spills or releases to the environment using appropriate protective procedures (i.e., secondary containment, double containment, drip pans, employee training, overflow protection, and other measures) involving the use, storage, or handling of petroleum products or hazardous materials on Metro property.

In the event of a spill, contact the Operations Superintendent and/or Metro representative. The Contractor must take immediate steps to isolate or otherwise contain the spill if it is safe to do so. Spill kits are available in areas that routinely store and handle chemicals.

Report any of the above incidents immediately to one of the following (do NOT leave a message):

- Metro Sponsor or Operations Manager.
- The following information to the extent possible must be communicated to Metro Sponsor or Operations Superintendent:
  - Who (what entity, Contractor, etc.) was responsible for the spill, if known; do not speculate.
  - The date/time the spill was discovered or made known to Metro.
  - The location of the spill.
  - The estimated volume spilled - or the rate at which material is being spilled if the spill is ongoing - if known.
  - A copy of the Safety Data Sheet (SDS) for the material spilled or released.
  - If ongoing, an estimate of when it will be terminated.
  - The type of environment into which the spill was or is being discharged.
  - The cause of the spill, if known; again, do not speculate.
  - The remediation or mitigation measures are being taken to contain or clean up the spill.

All releases on Metro property will be evaluated by Metro's Regulatory Affairs Division. Any state or federal spill notification will be made by Metro.

### Waste Management

All chemicals and hazardous materials brought onto Metro property or associated with a Metro project must be managed and disposed of in compliance with applicable laws and regulations. Contractors must be in compliance with applicable local, state, and federal requirements for generators of hazardous waste, if applicable.

No more than 55 gallons of hazardous waste or one quart of acutely hazardous waste may be onsite, as defined in 40 CFR 261 without written approval from Metro's Regulatory Affairs Division. Contact Metro Sponsor for notification.

Contractors are responsible for obtaining an Environmental Protection Agency (EPA) Identification Number if generation amounts are greater than the qualifications for a very small quantity generator (VSQG) and managing hazardous waste generated in accordance with applicable local, state, and federal regulations. Contractors may be subject to periodic inspections by Metro's Regulatory Affairs Division to ensure proper management, storage, and documentation practices are being followed.



All potential liability for improper management of waste will be the Contractor's responsibility. (45 FR 72024, 72026; October 30, 1980)

### Air Pollution Management

If there is any potential for any emissions from work the Contractor is completing for Metro, all state and federal air requirements must be met. Examples of potential regulated activities include use of generators, painting/coating, degreasing, solvent usage, asbestos-containing material, and land development.

Solvents or other noxious emissions shall be evaluated as part of the project. Any cleaning solvents used in quantities larger than 55 gallons should be approved by Metro's Regulatory Affairs. Recordkeeping of the type of solvents used and quantity must be made available to Metro's Environmental Department by request.

## **XI. FIRE PREVENTION**

### **Fire Extinguishers**

ABC type fire extinguishers are located throughout all areas of the plant and may be identified with overhead red signage if the extinguisher is not visible from all areas it services. Fire extinguishers are for use by any trained personnel to extinguish incipient stage fires. The Adams County Fire Rescue (for the Administration Building) and the Southwest Adams County Fire District (for the Process side of the RWHTF) will manage all fires beyond the incipient stages.

Refer to the Construction-based Contractor manual for additional requirements, as required.

### **Fuel Storage and Transfer Safety Cans**

All fuel cans must guard against possible fire and explosion, be able to resist damage and wear in normal usage and be properly marked identifying their contents. All safety cans must meet the following requirements:

- Be leak tight.
- Automatically vent vapor between 3 and 5 psig (0.2 and 0.35 bar) internal pressure to prevent rupture (or explosion in event of fire).
- Prevent flame from reaching the flammable liquid contents through the spout.
- Automatically close after filling or pouring.

### **Smoking**

There is a no smoking policy in effect at all our sites. Any open flames near sources of ignition shall not be permitted, including in areas where flammable or explosive materials are stored or are present. All such areas shall be conspicuously posted:

**NO SMOKING OR OPEN FLAMES**

### **Cleaning and degreasing**

Gasoline and liquids with a flash point below 100 degrees Fahrenheit shall not be used for cleaning and degreasing. All rags used for cleaning and degreasing shall be disposed in a self-



closing, flammable resistant can or container. When cans are full, rags must be properly disposed.

### **Windsocks (Flags)**

Flag poles are located in the throughout the facility and can be used as a visual aid for checking wind direction in the event of a HazMat release/response.

## **XII. HAZARDOUS AREAS**

### **Hazard Tape – Danger and Caution**

Never remove any hazard tape unless authorized to do so. Do not tamper with any installed taping.

Yellow Caution Tape must be placed around or otherwise prevents access to an area that has some type of low degree safety and health concerns. Personnel may enter these barricaded areas, provided they observe the hazards present, stay clear of potential hazards and stay clear of employees working on the job. Entering the area is permitted but should be careful.

Red Danger Tape must be placed around or otherwise prevents access to any area that has an immediate or high potential safety and health concern. All untrained and/or unauthorized people are prohibited from entering these designated work areas until allowed access by the authorized employee or their designee. All Red Danger Tape must be tagged with the authorized employee's contact information. Entrance to the area is not permitted without proper permission and training.

### **Digester/Holding Tank/Cogeneration Building**

In the Digester/Holding Tank/Cogeneration areas, methane gas is present. Methane gas is a highly combustible gas that is colorless, odorless, and lighter than air. Any open flames in this area could pose a hazard for explosion or fire. Open flames (i.e., welding, torches, etc.) are strictly prohibited without prior authorization from the Metro Sponsor and Process Control. All hot work must be confirmed by your Metro Sponsor on the day of hot work and before beginning work. A hot work permit including fire watch must be in place.

### **Disinfection Building**

Sodium hypochlorite solution, commonly known as bleach, is typically used as a disinfectant agent in the wastewater disinfection process. Sodium hypochlorite is a strong oxidizer and is mildly corrosive to the skin, eyes, and respiratory tract. Sodium hypochlorite solutions may react violently with strong acids, producing chlorine gas, and may react with metals to produce flammable hydrogen gas.

### **Clarifiers/Aeration Basins**

These open tanks may contain rotating equipment (clarifiers), air diffusers to supply air to the microbial action (aeration basins) and hold partially treated wastewater with limited clarity. Thus, a fall into these open tanks could present a range of mechanical and biological hazards, in addition to the very limited means for escape. For these reasons, an employee should never extend beyond the protection of guardrails unless another form of fall protection such as a fall-arrest, fall-restricting, or fall-positioning system is used.



### **XIII. HOUSEKEEPING**

All scrap and debris that may pose a hazard to others, including nails, flammable and combustible materials, waste, chemical/oil-soaked rags, etc., must be properly removed and/or disposed at regular intervals.

Contractors, visitors and vendors must ensure that work activities, machinery and supplies do not block or limit emergency (free and unobstructed) egress.

All cords must be placed and/or secured in a manner to prevent trip and fall hazards, especially across and/or along paths of egress.

If work activities create a hazard for other employees or visitors, the area must be barricaded to prevent entry. When this occurs, the Metro Sponsor and/or EHS must be notified to review the activity and any detour signage to be installed.

All staged equipment must be stored in a manner that does not constitute a hazard or provides excessive harborage to pests.

### **XIV. LADDERS**

A means of access is required anytime an individual needs to access a surface that is 19 inches higher or lower than the surface they are standing or working on. For non-permanent access points (especially with construction) this is typically achieved through the use of temporary stairs or a ladder. When ladders are used, the following guidelines must be followed on-site:

- Ladders are to be inspected on a regular basis.
- Ladders that are deemed unsafe must be tagged out and removed from service immediately.
- Ladders shall be maintained so that they remain free of all slipping hazards, such as grease and oils.
- An extension ladder slope shall always be placed at a 4:1 ratio.
- The top of a ladder must always extend 3 feet higher than the roof or work platform it is resting upon, unless it is equipped with a secure grab rail.
- While on a ladder, always face the ladder and maintain at least three-points of contact with the ladder while ascending or descending.
- The areas around the top and bottom of the ladder must remain clear of debris and other objects.
- Ladders placed for work activities lasting an extended period of time need to be secured, ideally at both the top and bottom.

### **XV. LOCKOUT/TAGOUT**

Metro's Lockout/Tagout Program includes procedures for group lockout, availability of lockout devices, use of equipment specific lockout procedures, and attendance at authorized level training.

Metro employees are responsible for shutdown and isolation of equipment or processes adhering to Metro's Control of Hazardous Energy program. In the event that more than one padlock is required on a piece of equipment, an Authorized Metro employee will perform the



necessary lockout/tagout procedure. Once the procedure has been completed and verified, the employee will place the key associated with the locks in the group lockout box and then place it with his/her own lockout device on the box. Contractors, visitors or vendors performing service, repair or construction activities on the affected process will place their personal locks (contractor supplied) on the group lockout box.

Contractors, visitors and vendors are responsible for protecting their personnel by ensuring that their (contractor supplied) locks and tags are in place for any routine maintenance, projects, inspections, repairs, testing, and/or any task in which the control of hazardous energy is necessary. In the event the contractor, visitor or vendor does not have a lockset, LOTO cannot be performed. The associated work cannot commence until LOTO is completed.

At no time shall any authorized person use another lock or key not assigned to him/her. Contractors must adhere to Metro Lockout/Tagout program as well as OSHA's 1910.147 - Control of hazardous energy (lockout/tagout) regulation.

## **XVI. PERSONAL HYGIENE**

### **What is wastewater?**

Commonly known as sewage, wastewater is the water that goes down the drain from sinks, bathtubs, floor drains, toilets, and various piping located in homes, businesses and industries throughout the Denver Metro Area. Wastewater is used water that includes pollutants such as human waste, food scraps, oil, soap and chemicals that are conveyed via a sewage pipe from homes, commercial buildings or industrial facilities. Wastewater travels for miles through an array of various sized pipes known as the wastewater or sewer collection system.

Nature has a process of treating pollutants in the water, but the amount generated by the Denver Metro area would overwhelm the natural treatment process. The wastewater treatment process is an accelerated form of the natural treatment process that can clean millions of gallons of water a day. Are there any health hazards from working around wastewater?

The composition of untreated wastewater is highly variable and therefore constantly changing. Surprisingly, it consists of only about 0.1 percent solids and 99.9 percent liquids. A common characteristic of untreated wastewater is its high concentration of microorganisms. Because of the daily exposure and contact with biological materials, wastewater personnel may have a higher incidence of potential exposure to pathogens than the general public.

### **How can I protect myself?**

For most wastewater workers the risk of developing an occupational illness is significantly reduced when standard safety and personal hygiene precautions are followed. This includes:

- When splashing or wet surfaces may be encountered, wear waterproof gloves and boots.
- Wash hands with soap and water after contacting wastewater or even working around wastewater. Ingestion is a general major route of a potential wastewater employee infection. The common habit of touching any part of the face area will contribute to the possibility of direct exposure.
- Promptly treat cuts and abrasions using appropriate first aid measures.
- Wear surgical-type masks and goggles or face shields for prolonged exposure to wastewater aerosols.



- Change soiled uniforms or protective clothing as soon as the task is completed.
- Clean contaminated tools and reusable personal protective equipment after use.
- Do not eat or drink in areas of exposure

Proper personal hygiene and use of personal protective equipment are critical because infections from contact and exposure to microorganisms may occur without symptoms and antibodies to bacteria and viruses may develop without illness symptoms being readily apparent.

### **Special Immunizations**

The National Institute for Occupational Safety and Health (NIOSH) has made no official recommendations regarding vaccinations for workers who contact sewage. NIOSH does point out that sewage workers, like all adults, should be current on their tetanus-diphtheria immunization.

## **XVII. PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Contractors and vendors are responsible for providing appropriate PPE for their employees. Metro Sponsors should provide the required PPE to visitors. Minimum requirements include:

- Wearing eye protection when the work assignment exposes individuals to potential eye hazards. As a general rule, basic safety glasses are required in all areas except office areas, lunchrooms, restrooms, designated walkways between administrative office buildings, and to and from designated private vehicle parking areas. Safety glasses are required at all times in all laboratories.
- Proper hard hats are required in construction areas.
- Hearing protection is required in posted areas. These areas include the blower buildings, digester hall, and the process building. Hearing protection is required when using loud equipment and tools.
- Closed-toed shoes must be worn in all process and laboratory areas. Steel toed shoes with anti-slip tread are recommended due to potential wet conditions and cart/forklift traffic.
- High visibility vests must be worn in construction areas and around traffic areas.

## **XVIII. TRAFFIC SAFETY AND NON-METRO VEHICLES**

Contractors, vendors, and visitors shall comply with the requirements of all federal, state, and local laws, rules, and regulations pertaining to safe vehicle operation and shall only use the vehicle for the purposes for which it was designed.

- No person shall be allowed to ride on the top, running boards, fenders, hood or in the back of any vehicle, unless it is specifically designed for such a purpose.
- No person shall be allowed to ride in the bed of a flatbed, dump, or pickup truck. When provided, seat belts must be worn on Metro property by all drivers and passengers when operating motor vehicles, including OHVs and carts.
- Always yield to pedestrians and bicycles while driving on Metro property.
- Be cautious when driving in low light and dark conditions, scanning for pedestrians and Metro cart traffic.

### **Speed Limits**



- Observe all posted speed limits, traffic signs, and barricades.
  - The speed limit on Main Street is 25 MPH. All other areas are 15 MPH.
  - Speed limits apply to all motorized vehicles. Speeds are checked by radar and will be strictly enforced.
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- Any speeding violation will be reported to the contractor superintendent/ project manager as well as the Metro Sponsor.
  - Repeat offenders will not be allowed to drive on the property. This means that if they drive to the plant site, they will have to find parking offsite and either carpool or walk to the jobsite.

## **Parking**

To maintain safe emergency egress and limit the risk associated with vehicle traffic on all roads, contractor vehicles shall not park in any lane of traffic on a named road. Vehicles may not block any emergency egress into or out of any occupied building or area. It is acceptable to park temporarily on roads for the sole purpose of loading and unloading tools and equipment from the vehicle to a work area. In rare cases, exceptions can be made through the Metro Sponsor.

All vehicles must be parked in designated areas as defined by signage, surface markings or as determined by the Metro Sponsor.

Personal or non-Metro vehicles are not permitted to park on any named street for longer than 15 minutes. When parking in the street, these vehicles must turn on hazard lights and/or strobe lights and park in a well-lit and clearly visible location by traffic from both ways. Traffic control measures are required for vehicles parked longer than 15 minutes.

All personal vehicles must be parked near contractor trailers, laydown areas or another predetermined location per the Metro Sponsor. These vehicles may NOT be parked near any process areas or buildings.