

Household Hazardous Waste (HHW) Program  
Environmental Services (ES) Department  
Volunteer Program

*DRAFT*

Proposed Improvements

- Expand training requirements for volunteers. All volunteers, regardless of job assignment, will be required to train at the same level. New volunteers will not only receive general program awareness and chemical hazards awareness but will also be trained in proper hazardous materials handling, sorting, and packaging requirements. Additional safety awareness and practices will be expanded, and a hands-on component will be incorporated. Site specific issues will be incorporated, including traffic/vehicle safety and clear distinguishing guidelines between volunteer and staff responsibilities.
  - City Risk Management & City Attorney recommends training comparable to the OSHA requirements for the work being performed. It was determined that an 8 hour class would be sufficient to address the general job assignments volunteers engage in at HHW collection events; 4 hours of classroom lecture and 4 hrs hands-on practical.
  - Course material will follow OSHA's recommended subject matter for hazardous materials handling as they would apply to specific HHW activities. Site specific set-up and procedures will be incorporated, including slides, short video of collection events, table top exercises, and HHW facility/event tour.
  - All new volunteers must complete the classroom lecture. The initial 4 hour hands-on training will be completed at the main facility or collection event.
  - Inactive volunteers for more than 1 year must re-train.
  - An annual refresher will be developed and required for all volunteers.
  - Active volunteers will be grandfathered from the initial training. However, documentation of more than 8 hours hands-on volunteer work shall be documented. Active volunteers shall only complete the annual refresher.
  - Volunteers will receive a disclaimer statement of the potential health and safety hazards encountered at an HHW event and will be required to sign the waiver/indemnification statement. The statement will also include information relating to City provided insurance coverage for medical treatment based on the two options described in the City/County Regional HHW IGA.
  - Volunteers will complete a written assessment (test) to evaluate knowledge and a skills assessment to demonstrate the objectives of the training received.
  - Volunteers completing the required lecture and hands-on components will receive a certificate attesting that they have successfully completed the necessary training.
- ES/HHW administration will maintain all volunteer files, including additional initial training documentation, annual refreshers, grandfathered volunteer documentation, volunteer history/hours, and additional hazmat certifications provided voluntarily.

Training Curriculum Elements

- Occupational Health & Safety Administration (OSHA) Standards in relation to hazardous materials set in Part 1910 shall be incorporated into the training program.
- Required training will be based on volunteer duties/activities and associated hazards:

- Collection Set-up - Volunteers may handle empty drums, buckets, and totes on the ground to assist setting up collection area, and set up generator, cooler and fan.
  - Physical hazards include flying debris entering eyes, lifting heavy items, pinching fingers, hands and toes with equipment or truck lift-gate, injuring hands or body while using hand tools and drum dolly, dropping heavy items on foot, slipping on plastic sheeting, tripping on plastic sheeting or tripping over equipment and supplies, tripping on extension cords, and puncturing skin with sharp objects.
  - Biological hazards include coming in contact with insects, snakes or rodents.
  - Thermal extreme hazards may occur during unusual cold weather temperatures or hot weather temperatures to include cold stress, frostbite, hypothermia, heat related stress, and heat related illnesses.
  
- Greeting and Traffic Control - Volunteers will be responsible to safely direct vehicular traffic to approach the greeting station or the unloading zones.
  - Physical hazards include flying debris entering eyes, being hit by vehicles or tires rolling over feet due to poor or distracted drivers or from rolling vehicles, swinging car doors that may cause bodily injuries, moving between vehicles (moving or stationary), being distracted near and around customer vehicles, and loud noises.
  - Biological, Chemical, Radiological, Fire & Explosion hazards include customers pulling out chemical products and attempting to hand to volunteers.
  - Thermal extreme hazards may occur during unusual cold weather temperatures or hot weather temperatures to include cold stress, frostbite, hypothermia, heat related stress, and heat related illnesses.
  
- Unloading HHW Materials - Volunteers will assist customers by unloading HHW materials from vehicles onto service carts and rolling the carts to the sorting area at the Main site, or the sorting table(s) at outreach sites or the paint truck.
  - Physical hazards include flying debris entering eyes, lifting heavy items, pinching fingers, dropping heavy items on foot, slipping or falling off pick up truck beds, slipping on spilled materials, puncturing skin with sharp objects, and loud noises.
  - Biological hazards include coming in contact with insects, snakes or rodents inside cardboard boxes, bags, or containers, puncturing skin with medical sharps, and coming in contact with bio-hazardous waste.
  - Chemical hazards include handling all categories of hazardous materials. Inhalation, ingestion, absorption and injection exposures may occur from residues on product containers, leaking containers, containers that may break open when handled, containers that may be dropped and spilled while handling, broken glass containers, chemical products that may mix while handling or spilled, and unlabeled materials/containers.
  - Radiological exposures include contact with smoke detectors or other radioactive wastes.
  - Fire and explosion hazards include handling flammable materials, spilling flammable materials, handling containers with crystallized product on lids (shock sensitive), handling pressurized liquid/gas containers, and handling ammunition.
  - Thermal extreme hazards may occur during unusual cold weather temperatures or hot weather temperatures to include cold stress, frostbite, hypothermia, heat related stress, and heat related illnesses.

- Paint Truck Materials Staging - Volunteers will stage certain materials on paint truck lift-gate from service carts.
  - Physical hazards include flying debris entering eyes, lifting heavy items, pinching fingers, hands and toes with equipment or truck lift-gate, dropping heavy items on foot, slipping or tripping on plastic sheeting or spilled materials, and puncturing skin with sharp objects, and loud noises.
  - Chemical hazards include handling paint products and lead-acid batteries while staging, leaking containers, containers that may break open when handled, and containers that may be dropped and spilled.
  - Fire and explosion hazards include handling gasoline containers, spilling gasoline, and handling pressurized propane tanks.
  - Thermal extreme hazards may occur during unusual cold weather temperatures or hot weather temperatures to include cold stress, frostbite, hypothermia, heat related stress, and heat related illnesses
  
- Sorting HHW Materials - At remote outreach events, volunteers will identify and sort by hazard class all materials placed on sorting table(s) and sorted materials will be placed into labeled secondary containment units. At the Main site, volunteers will identify and sort directly from service cart and sorted materials will be staged at designated consolidation areas for processing. Used oil and antifreeze will be consolidated directly into designated containers.
  - Physical hazards include flying debris entering eyes, lifting heavy items, pinching fingers, injuring hands while operating hand paint mixer, pneumatic drum lift, and pneumatic paint can crusher, dropping heavy items on foot, slipping or tripping on plastic sheeting or spilled materials, tripping over misplaced low profile items, and puncturing skin with sharp objects, injuring hands while operating various hand tools, utility knife and drum dolly, and loud noises from vehicles and can crushers.
  - Biological hazards include coming in contact with insects, snakes, or rodents inside cardboard boxes, bags, or containers, puncturing skin with medical sharps, and coming in contact with bio-hazardous waste.
  - Chemical hazards include handling all categories of hazardous materials. Inhalation, ingestion, absorption and injection exposures from residues on product containers, leaking containers, containers that may break open when handled, containers that may be dropped and spilled while handling, broken glass containers, chemical products that may mix while handling or spilled, and unlabeled materials/containers.
  - Radiological exposures include contact with smoke detectors or other radioactive wastes.
  - Fire and explosion hazards include handling flammable materials, spilling flammable materials, handling containers with crystallized product on lids (shock sensitive), handling pressurized liquid/gas containers, and handling ammunition.
  - Thermal extreme hazards may occur during unusual cold weather temperatures or hot weather temperatures to include cold stress, frostbite, hypothermia, heat related stress, and heat related illnesses.
  
- Resting Breaks - Volunteers will be required to take break periods, including periods to rest, hydrate, eat/drink snacks, or use restroom facilities.
  - Biological hazards include coming in contact with insects, snakes or rodents around break areas or near restroom facilities.

- Chemical hazards include inhalation, ingestion, absorption and injection exposures from residues on clothing or personal protective equipment (PPE) from improper hygiene.
  - Thermal extreme hazards may occur during unusual cold weather temperatures or hot weather temperatures to include cold stress, frostbite, hypothermia, heat related stress, and heat related illnesses.
- Break-down after a collection - Volunteers will assist with closing a remote collection site by closing secondary containment units (open-top drums, closed-top drums, buckets, and totes), placing full trash bags in trash bins, packing generator, cooler and fan, and staging full containers on truck lift-gates. Volunteers are restricted from handling full drums without proper foot protection.
  - Physical hazards include flying debris entering eyes, lifting heavy items, pinching fingers, hands and toes with equipment or truck lift-gate, injuring hands or body while using hand tools and drum dolly, dropping heavy items on foot, slipping on plastic sheeting, tripping on plastic sheeting or tripping over equipment and supplies, tripping on extension cords, and puncturing skin with sharp objects.
  - Biological hazards include coming in contact with insects, snakes or rodents or puncturing skin with sharp objects (supplies, equipment or tools).
  - Chemical hazards include handling all categories of hazardous materials. Inhalation, ingestion, absorption and injection exposures from residues on secondary containment units while sealing containers, staging containers on transport truck, and spilled materials if containers are dropped.
  - Thermal extreme hazards may occur during unusual cold weather temperatures or hot weather temperatures to include cold stress, frostbite, hypothermia, heat related stress, and heat related illnesses.
- OSHA's Suggested Training Curriculum guidelines include:
  - Review of the applicable paragraphs of 29 CFR 1910.120 and the elements of the HHW Program/ES Department Site Safety and Health Plan.
  - Review of relevant site-specific procedures addressing potential safety and health hazards such as, but not limited to, chemical, biological, and radiological exposures, fire and explosion hazards, thermal extremes, and physical hazards.
  - General safety hazards and procedures including those associated with electrical hazards, powered equipment hazards, motor vehicle hazards and walking-working surface hazards.
  - Work practices to minimize volunteer risk from workplace hazards.
  - Safe use of site-specific engineering controls and equipment.
  - Emergency response plan and procedures including first aid.
  - A review of procedures to minimize exposure to hazardous waste/materials and various type of waste streams, including the materials handling program and spill containment program, including location of spill response kits or equipment and the personnel trained to respond to releases.
  - A review of hazard communication programs meeting the requirements of 29 CFR 1910.1200.
  - A review of the recognition of signs and symptoms of overexposure to hazardous substance including known synergistic interactions.
  - A review of decontamination programs and procedures meeting the requirements of 29 CFR 1910.120(p)(4).

- A review of the HHW Program/ES Department requirements to implement a training program and its elements and the parties responsible for that program, including personnel responsible for safety and health.
  - A review of the criteria and programs for proper selection and use of personal protective equipment based upon site specific site hazards.
  - A review of the applicable appendices to 29 CFR 1910.120.
  - Principles of toxicology and biological monitoring as they pertain to occupational health.
  - Rights and responsibilities of volunteers and the HHW Program/ES Department under applicable OSHA and EPA laws.
  - Hands-on exercises and demonstrations of competency with equipment to illustrate the basic equipment principles that may be used during the performance of work duties, including the donning and doffing of PPE.
  - Sources of reference and efficient use of relevant manuals.
- Develop an assessment tool to document comprehension of covered material.