

**Scrap Yard Operations
Best Management Plan for Air Emissions
December 2007**

Material Handling

1. All reasonable precautions shall be taken to prevent and control generation of unconfined emissions of particulate matter. These provisions are applicable to any source, including, but not limited to, vehicular movement, transportation of materials, construction, alterations, demolition or wrecking, or industrial related activities such as loading, unloading, storing and handling. Reasonable precautions shall include, but not be limited to, the following:

- A) Crane & loader operators shall minimize material drop heights to three (3) feet or less.
- B) Post speed limit signs to control the speed of vehicles to 10 mph in unpaved areas and 15 mph in paved areas of the facility.
- C) Wet roadways and unpaved areas as necessary to prevent excessive fugitive emissions. Paved areas shall be kept free of dirt and or debris by sweeping or vacuuming (no blowers permitted). If paved areas are not kept free of dirt and debris, they shall be maintained wet to the extent necessary to prevent excessive fugitive emissions.
- D) Control equipment (spray nozzles, fire extinguishers, shovels, rakes, etc.) shall be properly maintained to perform its designed function.
- E) Maintain piles wet to the extent necessary to operate in compliance with the applicable visible emission standard.
- F) Operator of the crane, loader, or forklift used to deliver scrap to and/or from cutting area must have a clear, unobstructed view of the area of hazardous operations at all times.

Torch Cutting

2. All reasonable precautions shall be taken to prevent and control generation of unconfined emissions of particulate matter and incidental fires from torch cutting operations. Reasonable precautions shall include, but not be limited to, the following recommendations:

- A) Maintain a fire extinguisher, water hose with nozzle, rakes and shovels to spread dirt, or other fire suppression equipment in a location immediately adjacent to all torch cutting activities.
- B) The permittee shall be responsible for assuring material to be torch cut is free of grease, oil, debris, or other flammable material(s) prior to commencing torch cutting. Only exempt solvents shall be used to clean metal surfaces.
- C) Immediately extinguish any incidental fires created from the torch cutting

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operations. If necessary, a spotter shall be used to spot and extinguish incidental fires caused by the torch cutting activity.

- D) The permittee is responsible for assuring there is a safe method to immediately extinguish incidental fires.
- E) Flammable materials or debris shall be kept at least 100 feet from all torch cutting activities.

3. The following are additional recommendations excerpted from the Institute of Scrap Recycling Industries, Safety Reference Manual, Version 1.1:

- A) Torch cutting operators should be equipped with protective equipment that may include the following:
 - a. Hardhats
 - b. Safety shoes/boots
 - c. Oil-resistive clothing or coverings
 - d. Fire-resistant or retardant long gloves
 - e. Fire-resistant or retardant coveralls/full body work clothing
 - f. Fire-resistant or retardant long-sleeve shirt
 - g. Respirator and hearing protection, as needed
- B) Full face protection/safety glasses A portable fire extinguisher should be in close proximity to torch cutting area with visible signs indicating its location.
- C) Compressed gas cylinders must not be moved or transported via magnet.
- D) Clear all combustible material away from close proximity to torch cutting area.
- E) As needed, establish written procedure for torch cutting in confined spaces, if applicable. Program should include: oxygen deficiency or oxygen enrichment in torch cutting area; personal protective equipment suited to torch cutting environment and breathing atmosphere; emergency escape and rescue procedures; securing torch cutting fuel and oxygen.
- F) Establish written procedure for handling and storage of compressed gases that should include:
 - a. maximum cylinder pressure
 - b. maintenance of cylinder labels and markings
 - c. storage of cylinders:
 - d. away from sources of heat
 - e. away from highly combustible materials such as oil or grease with valve protection caps in place for cylinders of over 30 pounds weight
 - f. with valves closed
 - g. valve end up
 - h. oxygen cylinders stored separately from fuel gas cylinders or combustible materials.
- G) Separation between oxygen and fuel-gas cylinders may be obtained by a

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minimum distance of 20 feet, or by noncombustible barrier at least 5 feet high having a fire-resistance rating of at least 1/2 hour.

- H) Remove regulators before moving or transporting cylinders.
- I) Cylinders should not be placed where they might become part of an electric circuit.
- J) Oxygen manifolds should be separated from fuel gas cylinders or combustible materials by:
 - a. a minimum distance of 20 feet, or
 - b. noncombustible barrier at least 5 feet high having a fire-resistance rating of at least 1/2 hour.
- K) Each outlet on service piping from which oxygen or fuel gas is withdrawn to supply a portable outlet header should be equipped with a readily accessible shut-off valve.
- L) Master shut-off valves for both oxygen and fuel gas should be provided at the entry end of a portable outlet header.
- M) When propane cylinders are coupled, approved flash arresters should be installed between each cylinder and the coupler block.
- N) When parallel lengths of oxygen and acetylene hose are taped together for convenience and to prevent tangling, not more than 4 inches out of 12 inches should be covered by tape.
- O) Tagout procedure should be in place for fuel tanks and valves during equipment maintenance.
- P) Prevent close proximity to flammable liquid or gas containers.
- Q) If located indoors, the area used for torch cutting should have forced air ventilation exhausted to the outside of the building or to a baghouse or other emission control device.
- R) Exhaust ducts should not discharge near doors, windows or other air intakes in a manner that will permit reentry of effluents into a building.
- S) Prevent slipping/tripping hazards in area of torch cutting pit.
- T) Eye wash should be in close proximity to torch cutting area, with visible signs indicating its location.
- U) Post and enforce "No Smoking" policy in area of torch cutting and gas storage.
- V) Employees should stand upwind from torch cutting fumes.
- W) Establish written and posted procedure prohibiting torch cutting of the following: dented containers, hydraulic cylinders, combustible material unvented compressed gas cylinders, batteries, transformers, capacitors, asbestos-coated material, material with springs or other such devices, and radioactive material.

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- X) Hoses should be protected from sparks, hot slag, oil, grease, falling material and equipment running over them.
- Y) Ensure that torch cutting area is not in close proximity to ventilation intake or exhaust ducts.
- Z) Material to be cut should be secured to prevent fall or collapse during torch cutting operations.
- AA) If during torch cutting operations a loud pop is heard, the operator should immediately shut off all torch valves then relight the torch.
- BB) If during torch cutting operations a loud pop followed by a squeal is heard, this indicates a fire in the hose. The operator should immediately shut off all cylinder valves and place the equipment out of service pending a maintenance check.
- CC) Written preventive maintenance program, including documentation and retention of findings, maintenance completed, and corrections should be established.