



# West Bay Sanitary District Code of Safe Practice

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FOR IMMEDIATE RELEASE  
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Questions or comments regarding this  
Code of Safe Practice should be directed  
to the Regulatory Compliance Coordinator.

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## Plasma Cutter Safety

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These safety practices indicate general practices for the safe use of plasma cutters.

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### Precautions

- Operation and maintenance of any plasma arc equipment involves potential hazards. Personnel should be alerted to the following hazards and precautions should be taken to prevent possible injury.

### Gases and Fumes

Gases and fumes can be dangerous and hazardous to your health.

- Ventilation must be adequate to remove the smoke during cutting.
- Vapors of chlorinated solvents can form the toxic gas Phosgene when exposed to ultraviolet radiation from an electric arc. All solvents, degreasers, and potential sources of these vapors must be removed from the cutting area.
- Keep all fumes and greases from the breathing area.
- Use a downdraft-cutting table or water table to capture fumes and gases.
- Use an air-supplied respirator if ventilation is not adequate to remove all fumes and gases.

### Arc Rays

Arc rays can injure eyes and burn skin.

- Use welding shield with #4 or darker filter when drag cutting and #10 or darker when cutting with standoff.
- Wear proper protective clothing.
- Make sure others are protected from arc rays.

### Electric Shock

- Install and maintain equipment according to USA Standard C1, National Electric Code.

- Proper grounding procedures must be adhered to when using plasma-cutting equipment. The work or metal upon which a person cuts must be grounded to a good electrical ground.
- Do not contact electrically live parts.
- Insulate yourself from work and ground.
- Replace any cracked or damaged insulating parts, including torch bodies and hoses.
- Turn off primary power before working on torch parts, including changing cups and tips.
- When operating plasma arc cutting apparatus in a damp or wet area, extra care should be taken.

## Fire

Hot slag and sparks can cause fire.

- Remove combustibles from the working area or provide a fire watch.
- Do not cut containers that have held combustibles. All flammable and combustible materials in the cutting area that might be ignited by cutting sparks should be removed.

## Compressed Gas Cylinders

- Compressed gas cylinders are potentially dangerous. Refer to suppliers for proper handling procedures.

## PERSONAL PROTECTIVE EQUIPMENT

Protection Area	PPE Required
Eye	Safety glasses or goggles meeting the ANSI Z87.1 Standard. Check for proper tinting.
Face	Face shield to protect face from flying objects when appropriate.
Hand	Proper protective work gloves.
Head	Hardhat.
Foot	Leather steel toe safety shoes or boots.
Body	Protective clothing with long sleeve shirt and long leg pants.
Respiratory	Use in well-ventilated area or with point of use ventilation device.
Hearing	Wear earplugs or earmuffs as necessary.

## Reference Publications

The following publications provide additional information on safety precautions and proper handling.

- Bulletin No. C5.2-83 “Recommended Safe Practices for Plasma Arc Cutting.”
- American National Standard ANSI Z49.1-1983, “Safety in Welding and Cutting.”