

## SAFE JOB PROCEDURE – TRANSPORTATION OF OXYGEN AND ACETYLENE

**PURPOSE:**

To protect workers from injuries associated with the transportation of O2 and C2H2 cylinders through proper handling and precautions.

#	STEP	PRECAUTIONS
1	Preparation <ul style="list-style-type: none"> <li>• Complete SSRA including PPE check.                Include:               <ul style="list-style-type: none"> <li>○ long sleeves</li> <li>○ work boots</li> <li>○ safety glasses</li> <li>○ work gloves</li> </ul> </li> <li>• Review relevant Practices and Procedures</li> <li>• Gather necessary tools for the task:               <ul style="list-style-type: none"> <li>○ bottle cart</li> <li>○ ties and straps</li> <li>○ O2 and C2H2 bottles with caps</li> <li>○ 20 lb. fire extinguisher</li> <li>○ wrenches</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Ensure all workers engaged in the task are familiar with task hazards and emergency response procedures.</li> <li>• Keep a record of the time, date and attendees.</li> </ul>
2	Close valves, back off regulator pressure	<ul style="list-style-type: none"> <li>• Keep clear of connections.</li> </ul>
3	Bleed lines	<ul style="list-style-type: none"> <li>• Keep work area free of ignition sources.</li> </ul>
4	Remove torch and regulators and stow for transport	<ul style="list-style-type: none"> <li>• Ensure accessories are securely stowed for transport (i.e. hoses coiled and secured).</li> </ul>
5	Place cap on bottle before transport	<ul style="list-style-type: none"> <li>• Always keep protective cap over valves, removing only for hookup of regulators.</li> </ul>
6	Move bottle to truck and secure for transport	<ul style="list-style-type: none"> <li>• Keep proper posture for manual lifting, two workers, if possible.</li> <li>• Be aware of location of hands and fingers to avoid pinch points.</li> <li>• Ensure bottle is firmly secured with nylon straps. C2H2 is to be secured in an upright position.</li> </ul>
7	Unload bottles at new location	<ul style="list-style-type: none"> <li>• Keep proper posture for manual lifting, two workers, if possible.</li> <li>• Be aware of location of hands and fingers to avoid pinch points.</li> </ul>
8	Reinstall gauges	<ul style="list-style-type: none"> <li>• Store valve caps in a safe location with bottles.</li> <li>• Keep area free of ignition sources.</li> <li>• Do not stand directly in front of valves when pressuring up hoses.</li> </ul>

**DIRECTIVES:**

- Secure all cylinders to keep them from moving during transport. Consider forces that would be present in possible traffic accidents.
- Limit the number of cylinders to be transported.
- Use open vehicles or trailers in preference to enclosed vehicles or trailers. To allow for ventilation, do not cover cylinders with tarpaulin.
- Ensure that the contents labels on the cylinders can be clearly read.
- Never drop cylinders or submit them to shock.
- Where possible, use mechanical lifting devices and carts to move cylinders.
- Wear safety shoes or boots, safety glasses or goggles, and leather protective gloves when handling cylinders.
- Smoking is strictly forbidden when loading, transporting or unloading any cylinder, whether it contains flammable gas or not.
- If using a dolly to transporting large cylinders, ensure that the cylinder is secured in position by the strap and that the valve is fully closed, and the valve cap is in place. Never leave the dolly unattended. Keep the dolly in the upright or 4-wheel tilted position, never allowing the dolly with a cylinder to rest with the cylinder “lying down” in the horizontal position.
- Avoid transporting large cylinders through public areas.

**EMERGENCY PROCEDURES:**

- Shut off the engine and any electrical equipment.
- Move people from the immediate area and stay upwind of the incident. Consider an initial evacuation distance of 100 metres in all directions. No smoking or open flames are allowed within the evacuation area.
- Do not use excessive force on the valves, and do not attempt to operate a damaged valve.
- Avoid breathing gas or allowing it to contact with skin or eyes.
- Notify the fire department and police; tell them that gas cylinders or receptacles are carried on board.
- Warn other traffic in the area.
- In the event of a fire:
  - Notify the fire department.
  - Close off the source of flammable gas if it is safe to do so.
  - Do not extinguish burning gas by any other means than cutting off the source of the gas supply. If this is not possible, leave the gas to burn.
  - Do not approach cylinders suspected of being hot.
  - Remove cool cylinders from the path of the fire.
- First Aid considerations:
  - For cold burns, remove any clothing that restricts blood circulation, unless it adheres to the skin, flush or soak the affected area with lukewarm or cold water.
  - Hypothermia: Wrap subject in a blanket and move to a warm place.
  - Call the local emergency services at 911 to seek professional medical treatment.