



Module 6.1.4.6
SPECIFIC ACTION PLAN
WELDING, CUTTING AND GRINDING WORK

HEALTH AND SAFETY ACTION PLAN FOR REPAIR AND CONSTRUCTION PROJECTS AT
THE JOHN H. CHAPMAN SPACE CENTRE

General

Every contractor/subcontractor must plan welding or torch cutting work with the Agency's project manager. The safety measures mentioned below in points **1, 2 and 3**, must be met and a security guard must be present at all times during the work. The contractor/subcontractor must deactivate the smoke detectors in the sector before starting the work and reactivate them when finished or when the work is stopped for more than an hour.

1. Compressed gas cylinders: Compressed gas cylinders must not be stored at the Agency. If it is necessary to do so, they must be kept in the designated room, located in the Agency's loading and shipping dock.

Compressed gas cylinders may only be used in the following conditions:

- a) They must be placed upright so that the pressure-limiting device is in constant and direct contact with the gaseous phase; and
- b) They must be fixed to a rigid structure or secured to a trolley designed for such cylinders, or on the vehicle they fuel.
- c) When a compressed gas cylinder is not in use:
 1. It must be stored upright with the relief valves on top; and
 2. The relief valve protective cap must be in place.
- d) It is prohibited to lift compressed gas cylinders by the collar or the protective cap.

All arc and gas welding and cutting operations, and the installation, handling and maintenance of the equipment used for such operations must comply with CAN/CSA Standard W117.2-M87, Safety in Welding, Cutting, and Allied Processes, except for section 7.8.2.2.



Module 6.1.4.6
SPECIFIC ACTION PLAN
WELDING, CUTTING AND GRINDING WORK

HEALTH AND SAFETY ACTION PLAN FOR REPAIR AND CONSTRUCTION PROJECTS AT
THE JOHN H. CHAPMAN SPACE CENTRE

No cutting, welding or other work requiring an open flame may be performed on a vessel, reservoir, pipe or other container where a flammable or explosive substance may be present, unless:

- a) Air samples have been taken to indicate that the work may be done without danger; or
- b) Procedures have been taken in accordance with subdivision 9.8 CAN/CSA Standard W117.2-M87, Safety in Welding, Cutting, and Allied Processes.

A welding torch using oxygen and a combustible gas must be equipped with a gas-check valve and with a flame arrester at the combustible gas supply point and the oxygen supply point located in the torch handle.

It is prohibited to use electrical conductors or a pipeline containing flammable gases or liquids as a welding or cutting current neutral circuit.

2. Site ventilation: Before starting work, an analysis must be done to ensure that the area where the welding or cutting work is to be done is properly ventilated, so as not to poison the worker.

Steps must be taken to ensure that fumes created by this work do not spread to other areas of the Agency through the ventilation system.

3. Grinding and cutting: When grinding and cutting with an abrasive wheel is required, it is crucial to protect the spark-projection areas, unless this surface is not combustible. The measures indicated in point **1** also apply to this type of work.