Written by the Technical Committee of the film and video industry's joint sector-based working group and produced by the Commission de la santé et de la sécurité du travail du Québec.

Construction – Demolition

Simultaneous work

1. The producer, or his representative, must ensure that everything is done safely when different work is carried out simultaneously at the same location. If some work could jeopardize the safety of the people present, he must ensure that these hazards are eliminated, mainly by organizing the work accordingly and by controlling access to the site.

Sets and temporary structures

2. When a set is being built, a passage at least 1.2 m wide and 3 m high must be provided around the set and emergency exits. This passage must be kept clear and lit at all times, and all hoses, wires, pipes, etc., crossing it must be covered with cable mats.

   The building structure must also not be subjected to stresses greater than those that were planned.

3. The set must be sufficiently braced so that it can support all the loads that will be applied during construction, filming, recording or demolition. A wall or structure that could collapse must be supported or braced.

4. If sets or temporary structures support loads or are equipped with platforms or walkways, they must be built according to a plan prepared by a qualified person. A copy of this plan, on which the maximum permissible loads are indicated, must be made available to the production crew.

5. When platforms, walkways or structures support loads greater than 194 kg/m^2, or when the spacing between the structural components is 600 mm or more, the plans must be signed by an engineer and bear his seal.

6. The work area must be kept in order, materials must be stored safely, tools in good condition must be used, and demolition waste must be removed. Protruding nails must also be removed or bent back, unless the material is piled or placed in a container to be transported outside the work area. During dismantling of a set, nails protruding from a piece of reusable wood must be immediately removed.

7. When loads are raised using jacks or hoists, this equipment must be installed on a solid foundation, aligned with the load to be lifted, and equipped with a stopping mechanism at the screw's end of stroke or an end-of-stroke indicator.

8. Hand tools must be:
   - appropriate for the work to be done;
   - used only for the purposes for which they were designed;
   - replaced or repaired if they are defective;
   - stored so that they do not fall on or block the work or traffic areas.

9. Portable electric tools must be:
   - powered by a wire equipped with a third conductor for grounding; or
   - equipped with double insulation; or
   - connected to a circuit equipped with a ground fault circuit interrupter.

10. The controls for portable electric or pneumatic tools must be:
    - located in such a way as to reduce as much as possible the risk of accidental start-up; and
    - designed in such a way as to automatically cut off the power or air supply when the operator releases them.

11. Electrical wires and pressurized flexible hoses must be hung or protected to prevent them from being damaged.

12. Before portable tools are used, all protectors or protective devices must be installed.

13. Cutting tools must be kept in good condition, be properly sharpened, and be equipped with a blade guard or protectors.

14. Automatically loaded tools such as staple guns or gun nailers must be equipped with a mechanism that prevents operation before contact with the work surface. The triggers must not be deactivated.

15. Equipment such as saw benches, sanders, routers, etc., must be equipped with a dust collector at the dust source.

16. A machine in operation must never be left unsupervised. Before leaving the premises, the power must be shut off and all moving parts must have stopped.

17. When dust, vapours or toxic mists are in the air, the producer must make sure that the workers have respiratory protective equipment supplied by the employer. He must refer to the *Guide des appareils de protection respiratoire utilisés au Québec*, published by the Institut de recherche Robert-Sauvé en santé et en sécurité du travail (IRSST). The producer, or his representative, must make sure that the personnel involved wear the appropriate equipment.

DC 400-1364-13A.pdf

18. The members of the production crew and visitors must wear safety hats and boots when there is a risk of injury from falling objects, blows, electric shock, the presence of fused metal or hot or corrosive liquids, etc.

19. The employer must supply workers with hearing protectors when the noise level exceeds the permissible limit. The producer, or his representative, must make sure that exposed people wear the appropriate equipment. Protection is considered necessary when it becomes difficult to hear a person speaking at a distance of 30 to 60 cm.

20. Any person doing construction or demolition work must wear protective gloves and safety glasses or a face shield.

21. When doing work with or near electrical tools or machines, close-fitting clothing must be worn and ties and jewellery must be removed.

Painting and staining work

22. It is preferable to use liquid paints or stains in order to reduce the inhalation of toxic dusts, and water-based (latex) products rather than organic-solvent-based products.

23. Stains and other powders may be mixed as a concentrated solution or as a paste when a glove box with fiberglass walls is used. Otherwise, the producer must supply the technician with approved respiratory protection and make sure that the targeted personnel wear the appropriate equipment.

24. Decolorizers (chlorinated bleaching agents such as bleach) should not be used to remove paint spots on the skin. Decolorizers are skin irritants and may break down the stains into even more hazardous by-products.

25. If decolorizers must be applied to a set to lighten stains, the employer must plan for an exhaust system at source or make sure that the technician wears a chemical cartridge respirator for acid gases, as well as eye protection.

Use of solvents

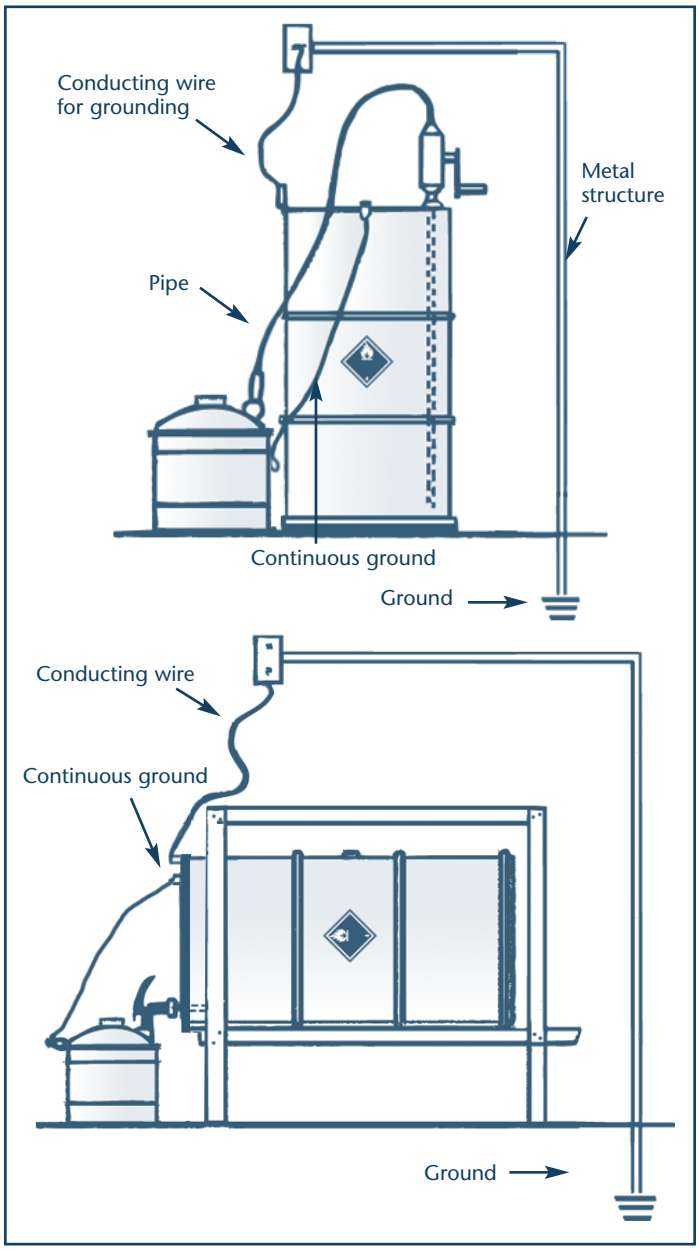
26. When solvents or other chemicals are used, the material safety data sheets for the products must be consulted (see guideline 25) and the ventilation must be sufficient.

27. The appropriate least toxic solvent must be chosen for the task to be performed, and the minimum recommended amount must be used. For example, mineral spirits such as *Varsol* are less toxic than aromatic hydrocarbons such as toluene or xylene. As much as possible, the use of chlorinated solvents (methylene chloride, perchloroethylene) must be avoided because most are carcinogenic.

28. Appropriate gloves must be used to prevent solvents from coming in contact with skin. To clean hands after painting work, it is recommended that baby oil or a mineral oil be used instead of solvents.

29. It is strictly forbidden to smoke or to tolerate open flames near solvents. Solvents must be stored in a safe and well-ventilated location. Large quantities of solvent must be stored in fireproof cabinets. Cloths soaked in solvents must be placed in metal barrels.

30. A class B extinguisher must be located within 3 m of a solvent storage area. When solvents are being transferred from one container to another, a continuous mechanical ventilation system must be used to maintain the concentration of explosive vapours below 25% of the lower flammable limit. Also, during this operation, the main container must be grounded and there must be a continuous ground between the containers.



DC 400-1364-13A.pdf

La version française de cette fiche peut être consultée et imprimée à partir du site **www.csst.qc.ca/cinema_video**.

Written by the Technical Committee of the film and video industry's joint sector-based working group and produced by the Commission de la santé et de la sécurité du travail du Québec.

Use of plastic resins and glues

31. The use of spray processes for toxic substances (foams, resins, etc.) must be limited on a work site. If spraying cannot be done in a spray booth, the producer or his representative must make sure that the exhaust ventilation is sufficient and that exposed people use the appropriate respiratory protective equipment.

32. When large quantities of polyurethane foam resins are sprayed, or when polyurethane foams, or polyester or epoxy resins are moulded or applied by hand, or plastic resins are applied, the following are required:
    - electrical installations conforming to the *Québec Electrical Code*;
    - a recovery system at source; or
    - an air-supply system for the people doing the work, and sufficient exhaust ventilation for the task[1].

33. When plastic resins are present, the employer must supply the appropriate personal protective equipment (hoods, aprons, gauntlets or gloves, and glasses) and make sure that the people doing the work wear it. When polyester resins are mixed, a full face shield with an air-supply system must be worn. Methyl ethyl ketone peroxide (a hardener) splashed into the eyes may lead to blindness.

34. Solvent-based glues must be used in well-ventilated areas, and any contact with ignition sources (open flames, sparks or forgotten cigarette) must be avoided. When large quantities are used, the exhaust ventilation must be sufficient for the task and the electrical components must conform to the *Québec Electrical Code* and be explosion-proof.

35. The application of glue by spraying should be done outdoors. Otherwise, there must be an explosion-proof exhaust system at source for exhausting the vapours outdoors.

References

Guideline 1 on General responsibilities.

Safety Code for the construction industry, S-2.1, r. 6 (section 9).

Regulation respecting occupational health and safety, S-2.1, r. 19.01.

Guide des appareils de protection respiratoire utilisés au Québec, 2e édition, IRSST (DC 200-1634-2 (03-09)).

Québec Electrical Code

www.prot.resp.csst.qc.ca

Note. – The information contained in this guideline is not exhaustive and does not replace current standards, laws and regulations.

1. The concentration of flammable vapours or gases in a building or in another work location that is not an enclosed space must be kept below 25% of the lower explosive limit.

DC 400-1364-13A.pdf

La version française de cette fiche peut être consultée et imprimée à partir du site **www.csst.qc.ca/cinema_video**.

Written by the Technical Committee of the film and video industry's joint sector-based working group and produced by the Commission de la santé et de la sécurité du travail du Québec.

CSST UDA ACTRA aqtis Association des Producteurs de Films et de Télévision du Québec