You Have Safety Questions? We Have Safety Answers!

QUESTION #20: Are there any protocols or guidelines on transporting chemicals in a school (e.g., to another corridor, up and down stairs, etc.). If so could you please let me know what they are or what resources to look for.

RESPONSE: Large bottles containing dangerous liquids should always be carried (and may be stored) in special carriers or safety containers. [see STAO publication *Stay Safe!* page 11] When purchasing large bottles of hazardous chemicals, schools should consider specifying the plastic-coated glass bottles offered by some suppliers.

Large cylinders containing compressed gases should always be moved on suitable trolleys. When being used or stored, these cylinders should be attached vertically to a firm support, using appropriate clamps with straps or chains, or chained on a suitable

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««« By the STAO Safety Committee

The STAO Safety Committee welcomes enquiries, with respect to safety issues, from STAO members. Please send your questions to the Safety Committee Chair (refer to page 4 'Committee Chairs'). Your questions and the STAO Safety Committee responses may be published in Crucible, particularly if the information is deemed of general interest to other STAO members. Anonymity, however, will be guaranteed.

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trolley. [See STAO publication *Stay Safe!* page 42] It should be noted that the use of large gas cylinders of compressed gas in school science laboratories is not generally recommended by the STAO Safety Committee. The use of lecture bottles, although more expensive, is preferable.

Laboratory carts used for transporting chemicals should have a guard rail or molding on all sides of each shelf to prevent reagent bottles/containers from falling off. Chemicals taken out of a science laboratory for transport to another laboratory or location in the school must be properly labeled. [See STAO publication *Stay Safe!* page 4]

Transporting hazardous substances by car between schools may well invalidate the insurance coverage and is not recommended. [The Transportation of Dangerous Goods legislation sets out the requirements for controlled products being shipped between workplaces]

QUESTION# 21 : We have a new lab that will be shared by physics and chemistry (Grades 11 & 12). The lab has two doors. The front door is used for access and the rear door is permanently locked and the key is held by the administration. We have requested that the rear door be fitted with a thumb release lock so that it can be opened in an emergency. The administration has refused to provide a key or to change the lock. We believe that this failure to provide an additional exit route reduces the safety in the lab. Is there any documentation available we can use to support our request?

RESPONSE: It is desirable that all laboratories should have two doors as far apart as possible, leading to a corridor or other egress; this does not include doors to prep rooms or other support spaces. These doors should have adequate clear wall space adjacent to them so that evacuation is possible, even if a fire or major spill emitting toxic vapour occurs near one of them. When the area of a laboratory is more than 100 m^2, a minimum of two egress doorways must be provided. (*Ontario Building Code Act* Reg. 403/97 Section 3.3.1.5 (e)) Exit doors must open in the direction of exit travel. (*Ontario Fire Code Reg*. 388/97 Section 9.5.3.4.)