

Dry Ice Shipping By Kathleen Joseph

Dry ice is a **dangerous good (DG)** when used during shipping. The definition of a dangerous good in part: *Articles/substances capable of posing a risk to health, safety or the environment.* Whenever a DG is sent, multiple sets of regulations require training in order to minimize the risk to everyone in the shipping chain. Although many of the shipping classes are temporarily on hold due to changes in personnel, there is a dry ice training module available to help you continue your work. Researchers needing to ship purified proteins are great candidates for this module. Plan ahead and contact Kathleen.Joseph@tufts.edu for assistance.

Explosions, sometimes resulting in personal injury, are the most commonly encountered problems when dry ice is used for shipping. A shipping company related the following: A package had been damaged during transport. The DG guy was called at 1:00 AM by the people at the transfer station. He determined over the phone that the damaged package could

continue its journey with added precautions. The damaged package was placed in a 50-gal steel drum (standard operating procedure). The next day, the DG guy received a call from the recipient - they couldn't get the lid off the drum. And was it supposed to bulge like that? He asked what was in the package. "Infectious materials and dry ice" was the reply. He groaned, "Nobody told me that there was dry ice. DON'T TOUCH IT. I'll contact the DG representative in your town, and he'll come open it for you."

The local DG guy collected a maintenance person and a drill with a medium bit, to relieve the pressure of the package. Unfortunately, about 10 minutes before they arrived at the facility, the Facilities Guy declared, "I'll get that thing open!" With his crowbar, he did in fact get the lid off the drum. The lid was under enough pressure to shoot straight up in the air, hit a beam, and come down on his arm, breaking it in two places.



Remnants of a container that exploded on a train in Switzerland back in 2009. The container initially contained influenza samples. <http://www.tagesschau.sftv.2009.Web.28.Apr.2009>.

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Haematoma caused by exploding transport container. Editorial. *BMJ* 2001;322(7283):434.

Safety's Roll in Construction Projects at Tufts University By Peter J. Nowak

Tufts Environmental Health and Safety (TEHS) takes an active role in many construction and deferred maintenance projects throughout the university. This role often consists of providing guidance on laboratory design in a science building, but may also include providing input on general safety items relevant to an administrative or dormitory building. For laboratory design or renovations, a team is formed that typically consist of a Tufts Project Manager who generally takes the lead, members of Tufts Facilities Services, TEHS, Tufts Office of Sustainability, and outside

contractors, such as an architect, and in some cases a commissioning agent, who's responsibility is to ensure that everything is working as designed once the project is complete. Specific areas that TEHS provides guidance in a laboratory may include placement of fume hoods, safety eyewashes and safety showers. In addition to the placement of equipment, recommendations on the type of equipment are addressed to assure applicable safety standards are met. An example of this is the Tufts Fire Marshals recommending certain fire extinguishers, smoke and fire detectors, and placement of sprinkler heads. Another function

performed by TEHS is to determine how many air changes might be required for the kind of work that may be going on in a specific lab. Many construction projects include work in older buildings. On all 3 campuses, Tufts may have buildings that can be close to or over 100 years of age. These building sometimes develop problems with leaks in windows, doors, or even in the brick exterior. Very often when these projects begin, Tufts staff members are still occupying the location. Steps need to be taken to ensure that the occupant's needs and concerns are addressed. Again, a team is

formed to determine the best way to approach each project. A Tufts Project Manager will take the lead role with TEHS offering consultation and advice. Some examples include noise and dust levels. Another example is hazardous materials and what steps will be taken while the project is under way to make sure that no one is exposed. As described above, TEHS is often part of the construction and deferred maintenance team. If you have questions regarding a particular project, do not hesitate to contact the Project Manager and/or TEHS.