Large-scale behaviour of fireworks

Transmitted by the expert from the Netherlands

At the 31st session of the Sub-Committee of Experts on the Transport of Dangerous Goods the Netherlands presented document INF.27 to draw the attention to a recently completed research project on the large-scale behaviour of fireworks. This project was performed jointly by research institutes from the United Kingdom, Germany and the Netherlands and was partly financed by the European Union.

The project “Quantification and Control of the Hazards Associated with the Transport and Bulk Storage of Fireworks” (CHAF) was set up to assess whether the effects on the scale of transport in containers and bulk storage corresponded with the hazards predicted on the basis of Series 6 tests performed with three packagings or a minimum volume of 150 litres. (Note: Series 6 is used to assign the correct Hazard Division to goods and articles of Class 1.) The project produced many useful results, more information (reports, videos, etc.) can be found on www.chaf.info.

However, some unexpected and unexplained results were also obtained, like the mass explosion of a container completely filled with an article classified by Series 6 tests as 1.3G. (Note: Substances and articles of Hazard Division 1.3 represent a fire hazard but no mass explosion hazard.) Further details can be found in UN/SCETDG/31/INF.27, page 3 to 6.

The Netherlands believes that unexplained issues from the CHAF project should be resolved and that this can best be achieved by a global project with multiple partners cooperating and dividing the work load.

In order to make a large step towards such a global project the Netherlands is organising a meeting in the spring of 2008. Exact dates and location will be announced in due time.
Experts, both from governments and research institutes, are warmly invited to participate in this meeting.
For further information and/or expression of interest to participate in this meeting you can contact: Ed de Jong, TNO Defence, Security and Safety - ed.dejong@tno.nl - phone: +31 15 284 3358 - fax: +31 15 284 3974