25  **FUMES, VAPOURS, LIQUIDS, GASES, DUSTS & FIBRES**

Any exhibit, process or feature that is likely to generate and/or emit gases, vapours, liquids, fumes or dusts into the halls shall be so constructed so as not to be prejudicial to health or a nuisance and shall comply with the requirements of Part 8 of the Safety, Health and Welfare at Work (General Application) Regulations 2007, European Communities (Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres) Regulations 1999 and the Dangerous Substances (Storage of Liquefied Petroleum Gas) Regulations, 1990.

25.1  **Definitions**

25.1.1  **Gases**
Formless fluids usually produced by chemical processes involving combustion or by the interaction of chemical substance. A gas will normally seek to fill the space completely into which it is liberated, for example, nitrogen gas widely used in vessels due to its chemically inert properties.

25.1.2  **Vapours**
The gaseous form of a material normally encountered in a liquid or solid state at normal room temperature and pressure. Typical examples are solvents, for example, thinners that release vapours when the container is opened.

25.1.3  **Liquids/Mists**
A state of matter with definite volume but no definite shape, like water. The routes of entry for liquids could be ingestion and skin contact. If finely dispersed, then they become a mist and therefore inhalable.

25.1.4  **Fumes**
Solid particles formed by condensation from the gaseous state, for example, lead fume.

25.1.5  **Dusts**
These are solid airborne particles, often created by operations such as grinding, crushing, milling and sanding e.g. MDF dust. The size of the dust particles is important as there is a difference between inhalable and respirable dusts and the nature of the hazards they present.

25.1.6  **Fibres**
Dust may be created that is made up of tiny fibres, for example, textile fibres. The fibres may become airborne during certain processes. The fibres may be so small that they fall into the respirable range and as such may be inhaled deep into the lungs.

25.1.7  **Smoke**
A substance made up of small particles of carbonaceous matter in the air, resulting mainly from the burning of organic material, such as wood or coal.
Conditions of use:

- Full details of the hazards arising, how they are harmful to health and the range of control measures which will be implemented must be provided to the venue at least 28 days before the event by the submission of a suitable and sufficient Chemical Risk Assessment carried out by a competent person.

- The show organiser must ensure the level of risk is reduced to as low as is reasonably practicable and to this end eliminate exposures to substances harmful to health.

- Where appropriate, the show organiser must provide the venue with written information regarding the monitoring procedures they plan to implement (for example, fume monitoring arrangements).

- The show organiser is fully responsible for compliance with Chemical Agents Regulations.