

European Leak Detection Standard Revised

By Jamie Thompson

The European Standard EN 13160 parts 1 to 7 have just been revised and the resulting vote for the standards by all European Countries has resulted in a positive vote and all the revised standards are now approved.

There are two specific changes which will affect regulators, tank manufacturers and equipment manufacturers and users and they are as follows.

1. The use of Class 2 liquid leak detection (EN 13160-3) in underground tanks is no longer

according to Global Harmonized System of Classification and Labelling of Chemicals (GHS) Hazard Statements: H-statements.

The leak detection liquid shall be classified according to Registration, Evaluation, Authorization & Restriction of Chemicals (REACH) for risk materials: R-statement R 22 (harmful by swallowing) or all non-classified liquids.

For an above ground tank with an interstitial space $\leq 1 \text{ m}^3$ the leak detection liquid shall be classified according to Registration, Evaluation, Authorization &



permitted in new underground tanks as this is now classed as a poison and will harm groundwater. This has been the case in many countries for some time but is now adopted European wide.

Liquid systems - No Longer Permitted for Underground Tanks

For all underground tanks regardless of interstitial space volume and also for above ground tanks with an interstitial space $> 1 \text{ m}^3$ the leak detection liquid shall be not hazardous to water. For these applications the leak detection liquid shall not be classified

Restriction of Chemicals (REACH) for risk materials: acceptable maximum R-statement R 22 (harmful by swallowing) or all non-classified liquids.

This ruling does not apply to existing tanks only new tanks and will mean that underground tanks will have in future to only be fitted with Class 1 leak detection systems (Pressure or Vacuum systems)

Class 1 Pressure or Vacuum leak detection systems only permitted for underground tanks

2. The other notable change is in Part 7 of EN13160 which deals with test methods for interstitial spaces, leak protecting linings and leak protecting jackets. The new requirements for permeation on linings especially flexible linings will require some existing systems to be re-tested to meet the more stringent requirements of the permeation of tank lining which will now be 100 g/m^2 per day in a metal tank but 0.1 g/m^2 per day in a non metallic tank.
3. Another inclusion in this new version is that of the electronic pressure line leak detectors which have been added to EN13160-5. The standard explains their test procedures and the operating mode together with the limiting factor- they will only operate when the pumps is at rest.

For both users and regulators the certification of compliance and test report from a European notified body will ensure conformity with the law.

