

## 2012 NFPA 99 Changes

These are only the changes as it affects source equipment, and overall there are relatively few changes to this section. **Obviously there are many more changes to NFPA 99 in 2012, but the points in green are especially important as they address the systems/equipment we make.**

- Now defined as “Code” instead of a “Standard”
- Use “categories” instead of “levels” (Chapter 4)
- Permanent particulates in medical air reduced from 5mg/m<sup>3</sup> to 1mg/m<sup>3</sup>. Particulate size is unchanged at 1 micron. (5.1.3.5.6.1 (5))
- Liquid ring compressor seal water must be treated (5.1.3.6.4(B))
- Liquid ring compressors must be provided with cylinder backup (5.1.3.6.3.4(C) 1-4)
- Oil-free screw compressors: color change hydrocarbon indicator is no longer required (didn’t work) (5.1.3.5.8.1 (1) and (2)). Do still require test for gaseous hydrocarbons on quarterly basis (5.13.6.3.13 (D)(3)).
- Medical air intake location revised to 25 feet from any exhaust or vent, and 25 feet from areas where “noxious fumes might collect”. (5.1.3.6.3.12)
- Medical air intake plumbing can now be made of any material suitable for vacuum, and can be joined by any method suitable for vacuum. (5.1.3.6.3.12 (F))
- New medical air source added: Medical Air Proportioning System
  - “synthetic air” can be made by blending oxygen and nitrogen (5.1.3.6.3.15)
- Vacuum exhaust must be directed away from “occupied areas” (5.1.3.7.7.2 (2))

- Newly defined limits for combined WAGD & surgical vacuum systems
  - Total concentration of oxidizers (oxygen & nitrous) must be < 23.6% (5.3.1.8.1.2 (2))
  - Difficult to measure
- Source pumps for dedicated WAGD must be made of materials that are inert in the presence of oxygen, nitrous oxide and halogenated anesthetics (Section 5.1.3.8.2.1(2))
- New section added on maintenance requirements (5.1.1.5-5.1.1.7), qualifications of maintenance personnel (5.1.13.2), and documentation requirements (5.1.13.4)