ISO TC 142 – WG9 – Part 5 Offshore & marine

Scott Taylor (BSI & ISO)

06/10/2017

- The purpose of ISO
- ISO TC 142 – W9…..Why??
- WG 9 parts 1 to 6 & new addition of part 7
- Part 5 – original ISO concept

The purpose of ISO

- *'Through its members, it brings together experts to share knowledge and develop voluntary, consensus-based, market relevant International Standards that support innovation and provide solutions to global challenges'.*

- *'International Standards make things work. They give world-class specifications for products, services and systems, to ensure quality, safety and efficiency'.*

- *'ISO creates documents that provide requirements, specifications, guidelines or characteristics that can be used consistently to ensure that materials, products, processes and services are fit for their purpose'.*

- *'Bringing real and measurable benefits to almost every sector imaginable, standards underpin the technology that we rely on and ensure the quality that we expect'.*

Ref: https://www.iso.org/home.html, accessed 05/10/2017

ISO TC 142 – W9…..Why??

- Currently air filtration products are tested in accordance with EN779, EN1822, ASHRAE 52.1 and 52.2
  - Derived for the commercial HVAC industry
  - Laboratory test conditions
  - Products that appear to be comparable with test data do not perform comparably in real world conditions
  - What it says on the 'box', is not necessarily how products perform in a Gas Turbine air intake filtration system
- Proprietary filter manufacturer supplementary test standards
- Gas Turbine OEM supplementary test standards
- There is an obvious need to develop standards for Gas Turbine air intake filtration systems , hence…….
- WG 9 'Particulate air filter intake systems for rotary machinery and stationary internal combustion engines'

WG 9 parts 1 to 6 & addition of part 7

Part 1 Static filter elements – published.

Part 2 Pulse filter system testing.

Part 3 Mechanical integrity of filters under conditions that may be encountered in abnormal operating environments.

Part 4 Testing installed filters under in-service operating conditions (in situ testing).

Part 5 Offshore & marine

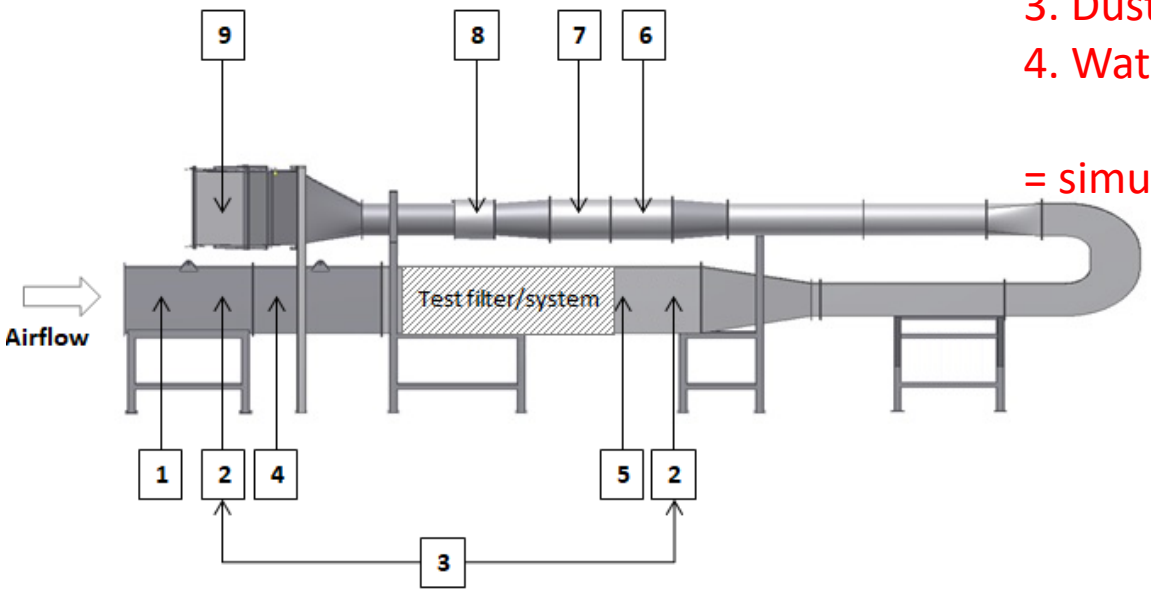
Part 6 will cover test methods for cleanable filter elements, and will not cover the system testing as in Part 2.

Part 7?? Burst testing.

Part 5 – original ISO concept

1. Water challenge on/off
2. Dry
3. Dust/and oils
4. Water challenge on/off/on/off

= simulated cyclic real world conditions



Key

1 Dust, saline solution aerosol and mineral oil aerosol (as per. Annex A) injection points
2 Pressure ring
3 Manometer
4 Upstream sampling point
5 Downstream sampling point
6 Fan
7 Flow Control
8 Flow meter
9 Exhaust filter