

ANSI & IEC Standards

AMUG 2008

Some relevant American and international standards for discussion



ANSI N42 RPI standards

- ANSI N42 323C Radiation protection instrumentation: Test & calibration of air monitoring instruments.
- The standard will be published soon. To date all of the ballots are positive. One negative vote delayed this needed standard.
- Mark Hoover & Michelle Johnson co-chaired this significant effort.
- Lou Costrell at age 92 put on the finishing touches.



ANSI N42 RPI standards

- ANSI N42 323C (continued)
- Lou Costrell will now lead the effort to combine the soon to be published ANSI N323C and the relevant materials in ANSI N42.17B entitled “Performance specifications for occupational airborne radioactivity monitoring instrumentation” into a single ANSI standard.
- Mark, Michelle and others experts will help with this standard covering all radionuclides and all conditions except reactor emergencies, covered in ANSI N320, being revised.



ANSI N42 RPI standards

- ANSI N42.18 entitled “Specification and performance of on-site instrumentation for continuously monitoring radioactivity in effluents,” currently covers both aerosol (& gaseous) and liquid effluent monitoring.
- Since the new single ANSI standard covers all aerosol monitoring, in the workplace, in effluent and in the environment, ANSI N42.18 will cover only *liquid* effluent monitoring. IEC 60861(2006) may be used as a model.
- This effort will require a chair and a writing committee.



IEC standards for monitoring airborne radionuclides

- IEC 60761 (2002) in five parts covers:
- Equipment for continuous monitoring of radioactive gaseous effluents-
- Part 1: General requirements;
- Part 2: Specific requirements for radioactive aerosol monitors including transuranic aerosols;
- Part 3: Specific requirements for radioactive noble gas monitors;
- Part 4: Specific requirements for radioactive iodine monitors; and
- Part 5: Specific requirements for tritium monitors,

IEC standards for monitoring airborne radioactivity

- The new IEC standards cover monitoring in the work place, in effluents and in the environment:
- IEC 62302 (2007) Equipment for sampling and monitoring noble gases;
- IEC 62303 (2008) Equipment for sampling and monitoring tritium.
- IEC 62303 includes accident and post accident conditions, while IEC 62302 does not.



IEC standards for monitoring airborne radioactivity

- IEC 60951 Radiation monitoring equipment for accident and post-accident conditions at nuclear power plants-
- Part 1 Equipment for continuously monitoring radioactive noble gases in the air of nuclear power plants and in gaseous effluents.



IEC standards for monitoring airborne radioactivity

- There are two IEC standards needed to complete the series including IEC 62302 and IEC 62303:
- An IEC standard to cover the monitoring of airborne particulates including transuranics at all locations, i.e., in the workplace, in effluents and in the environment; and
- An IEC standard to cover the monitoring of radioiodines at all locations.

