



***ASME Committee on Nuclear Air &
Gas Treatment (CONAGT)***

AG-1 Development

***Thomas J. Vogan, Chair - CONAGT
June 18, 2012***

Topical Agenda

- ✓ **History of CONAGT**
- ✓ **The Committee Organization**
- ✓ **ASME AG-1**
- ✓ **Future Activities**



History of CONAGT

History of CONAGT

- **May 1971 – ANSI N45.8 Committee formed to address air cleaning systems – Initiated work on the development of ANSI N509 and N510**
- **Jan 15, 1976 – CONAGT was accredited and chartered under the ASME Board on Nuclear Codes & Standards – Replaced ANSI N45.8 Committee**
- **May 6, 1976 – First CONAGT business meeting held at ASME headquarters in New York**

History of CONAGT

- **June 1951 – Air Cleaning Seminar for the AEC
Held at Harvard University, Cambridge, MA**
- **Evolved into the AEC Air Cleaning Conferences**
- **ANSI N45.8 formed between 11th & 12th ACC
with participants from the ACC.**

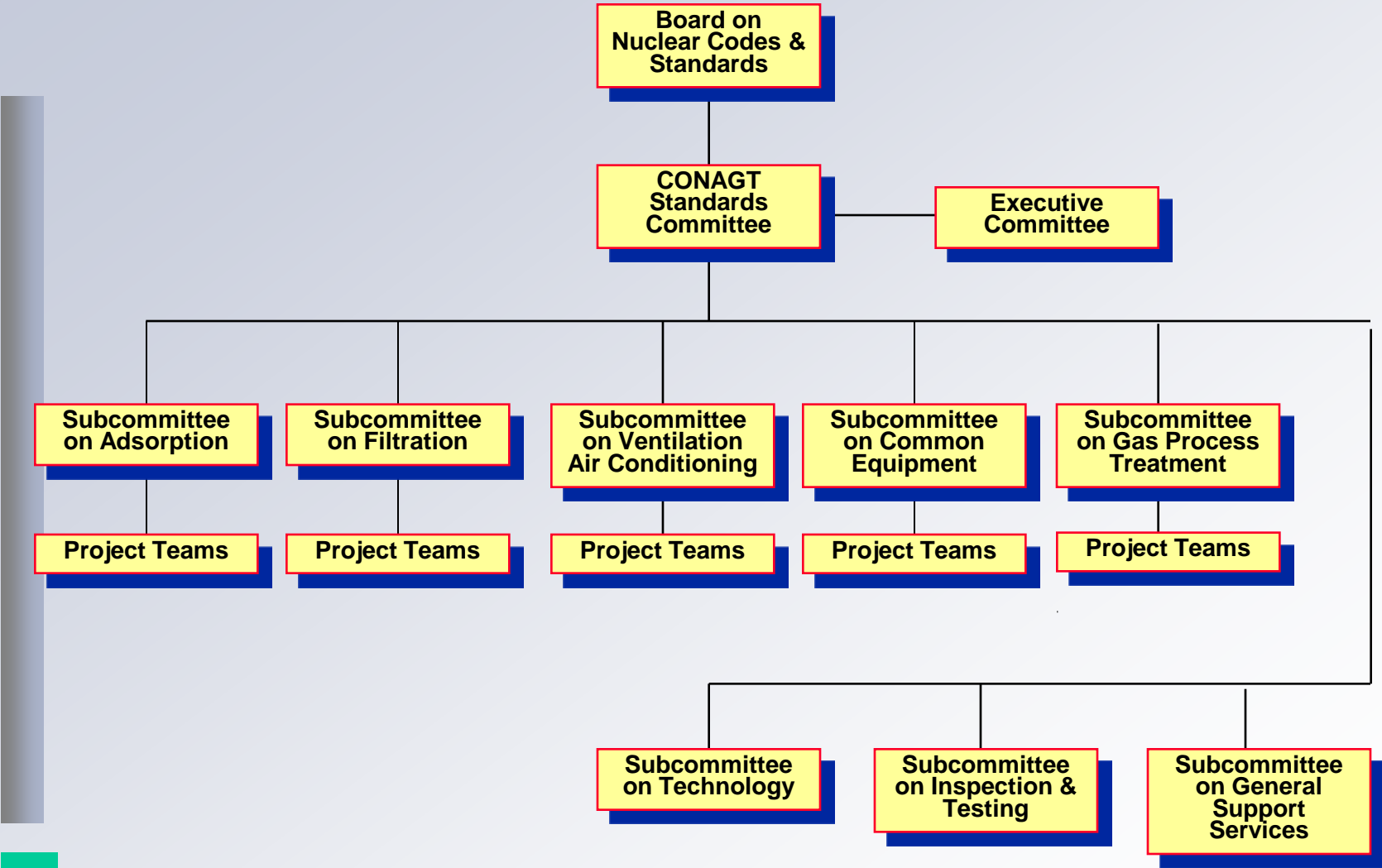
Original Publications

- **ANSI N510-1975 published June 19, 1975**
- **ANSI N509-1976 published December 7, 1976**
- **ORNL NISC-65, Air Cleaning Handbook published May 1976**



The Committee Organization

CONAGT ORGANIZATION





ASME AG-1 Code

Organization of AG-1

- **Division 1 – General Requirements**
- **Division 2 – Air Cleaning Equipment**
- **Division 3 – Gas Process Treatment Equipment**
- **Division 4 – Testing**

Division 1 – General Requirements

- **Definitions, References and Materials**
- **Structural Design Rules**
 - ✓ **Loading Criteria**
 - ✓ **Loading Combinations & Service Limits**
 - ✓ **Stress Criteria**
 - ✓ **Deflection Criteria**
 - ✓ **Component & Support Design Rules**
 - ✓ **Seismic Design Verification**
- **Inspection & Testing**
- **Fabrication & Coatings**
- **Packaging, Quality Assurance & Documentation**
- **Repairs, Replacements & Modifications**

Division 2 – Air Cleaning Equipment

- **Fans & Blowers**
- **Dampers & Louvers**
- **Ductwork**
- **AHU Housings**
- **Refrigeration Equipment**
- **Conditioning Equipment (Heaters & Coolers)**
- **Moisture Separators**
- **Filters**
- **Adsorbers & Adsorbent Media**
- **Mounting Frames**
- **Instrumentation**

Division 3 – Gas Process Equipment

- **Vessels**
- **Noble Gas Holdup**
- **High Pressure Blowers**
- **Hydrogen Recombiners**
- **Gas Sampling**
- **Scrubbers**
- **Cyclones**
- **Membranes**
- **Filters**
- **Precipitators**
- **Adsorbents**
- **Mist Eliminators**

Division 4 – Air Cleaning Equipment

- **Testing Air Treatment Systems**
- **Testing Gas Process Treatment Systems**



CONAGT
Challenges
&
Future Plans

AG-1 Code 2012 Edition

- **New Code Section:**
 - ✓ **Section FL - Sand Filters**
- **Maintenance Revisions**
 - ✓ **Maintenance revision of Section FJ, Low Efficiency Filters**
 - ✓ **Maintenance revision of Section FC, HEPA Filters**
 - ✓ **Upgrade Mandatory Appendix FC-I, HEPA Filter Media**
 - ✓ **Incorporate design and gaskets for HEPA Filter double turned flanges**
 - ✓ **Clarify the reference to “Nuclear Safety Related”**

AG-1 Code 2012 Edition

- **Maintenance Revisions – con't**
 - ✓ **Consolidate and update the ASTM Material Specifications reference**
 - ✓ **Maintenance revision of Section RA, Refrigeration Equipment**
 - ✓ **Maintenance revision of Section CA, Conditioning Equipment**
 - ✓ **Clarify the refrigeration equipment components quality requirements**
 - ✓ **Incorporate rotating equipment vibration requirements into Section AA, General Requirements**
 - ✓ **Expand and clarify the AWS welding standards for ductwork in Section AA, General Requirements**

AG-1 Code 2012 Edition

- **Maintenance Revisions – con't**
 - ✓ **Correct the fire water spray requirements for Section FE, Type III Adsorbers**
 - ✓ **Clarify the application of the Fluid Momentum Loads (FML) for load combinations in Section AA, General Requirements, Section DA, Ductwork and Section HA, Housings**

AG-1 Code 2014 Edition

- **ASME Publications - Elimination of Addenda**
- **2 Year AG-1 Code Publication Cycle**
- **Planned New Code Sections & Appendices:**
 - ✓ **Section FI – Metal Media Filters**
 - ✓ **Section FM - High Strength HEPA Filters**
 - ✓ **Division 3 Code Sections**
 - ✓ **Portable ATS Vacuum Systems**
 - ✓ **Other Adsorbent Media**
- **Maintenance Revisions**

Discussion

