

Commissioning to Achieve an IAQ Working Environment

Commissioning, Retro-Cx, Re-Cx, & Continuous Cx

- Documentation
- Verification
- Training

Commissioning is a Quality Process

- Data Collection
- Data Analysis
- Solution Planning
- Solution Implementation
- Monitoring
- Measure & Benchmark

Start with a Flow Diagram

- Sequence of Operation
- Functional Performance for System
 - IAQ Performance
 - Action-Reaction-Filter Performance
 - Humidifier Performance
- Dehumidification Performance

Trouble-Shooting IAQ leading to Retro-Cx

- Is It the Sequence of Operation?
- Is It the Quality of Outdoor Air?
- Is It the Conditions within the Unit?
- Is It Conditions within the Ductwork?
- Is It Conditions within the Space?
- Is It Housekeeping?

The IAQ Commissioning Solution

- Start with the Basis of Design
- Use an IAQ Survey Sheet
 - Outdoor Air Intakes
 - Exhaust Air Intakes
 - CO2 Feature
 - Filter Management
 - Housekeeping Management
 - Change the Sequence of Operation
- Take Corrective Action
- Retro-Commissioning
- Monitor, Measure, & Benchmark

Trouble-Shooting Humidification leading to Retro-Cx

- Is It the Sequence of Operation?
- Is It the Humidifier Installation?

The Humidification Commissioning Solution

- Start with the Basis of Design
- Use a Design & Construction Survey Sheet
 - Psychrometric Chart
 - Design Parameters
 - Installation Compliance
 - Quality of Steam
 - Change the Sequence of Operation
- Take Corrective Action
- Retro-Commissioning
- Monitor, Measure, & Benchmark

Trouble-Shooting Dehumidification leading to Retro-Cx

- Is It the System Application?
- Is It the Sequence of Operation?
- Was it an Energy Conservation Measure?

The Dehumidification Commissioning Solution

- Start with the Basis of Design
- Use a Design & Construction Survey Sheet
 - Psychrometric Chart
 - Design Parameters
 - Installation Compliance
 - Change the Sequence of Operation
- Take Corrective Action
- Retro-Commissioning
- Monitor, Measure, & Benchmark

Recap

- Begin with the Basis of Design
- Data Collection, Data Analysis, & Solution Plan
- Retro-Commission Existing Conditions
- Commission New Systems
- Consider:
 - Re-Commissioning
 - Continuous Commissioning

Questions?

