IAQ Management Programme

Seminar on Singapore Standards for Air Conditioning, Mechanical Ventilation and Indoor Air Quality

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Outline

1. 3 misplaced beliefs concerning IAQ Management
2. An IAQ Management Framework
3. Developing an IAQ Management Programme

3 Misplaced beliefs

1. Compliance with SS554 Audit requirements assures good IAQ

2. Having and adhering to a planned schedule of IAQ audits is sufficient to ensure that good IAQ is continually sustained

3. IAQ management is a separate exercise from facilities management

Does compliance with SS554 Audit requirements assures good IAQ ?

1. Satisfactory at ONE point in time over stipulated period does not account for dynamic changes arising from:
   - Tenancy changes
   - Occupancy / activities / processes / materials
   - External challenges (construction, traffic, etc…)

2. Sampling limitations
   - Spatial representation?
   - Time of sampling

3. Nature of information obtained from audit - Single number indicator which does not inform root causes
   - Exposure fluctuations
   - Effect of interactions of air-conditioning system, materials, etc

Does having and adhering to a planned schedule of IAQ audits ensure that good IAQ is continually sustained ?

1. Dislocation between scheduled IAQ audits and major events fail to inform timely evaluation and response to impact IAQ
   - Renovations
   - Tenancy changes
   - Activities / processes / materials
   - External challenges (construction, traffic, etc…)

2. Need to address feedback /complaints

Should IAQ management be a separate exercise from facilities management?

1. Alignment with operational strategies
   - Performance goals /targets (eg energy with IAQ)
   - Meeting air-conditioning, ventilation and filtration requirements
   - Judicious routing of air from cleaner to more polluted zones

2. Alignment with planned renovation
   - Leveraging on mutual benefits
     - Improving façade air-tightness reduces ventilation loss and effectiveness
   - Matching activity / load needs without compromising IAQ

How the IAQ framework guides development of IAQ management programme

OPERATIONALIZATION

- Appointing competent and sufficient personnel
- Establishing communication channels
- Establishing and Discipline in documentation
- Institutionalise triggers events
- Preventive and corrective loops

TECHNICAL SOUNDNESS

- Scope
- Methods
- Expertise

Thank You