Achieving Institutional Balance: C2E2 Panel Discussion March 9, 2009

Columbia University

Laboratory Design Work Group

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You are here. And here. And here…

Collaboration

- Integrated Environmental Health & Safety Office July 2005
- Assistant Director - LDEO 2005
- VP CU Facilities Operations July 2006
- Office of Environmental Stewardship Fall 2006
- Not all CU campuses within New York City (NYC)

What Were the Issues

- Safety of CFHs – not certified
- Triennial Environmental Audit
- Comer Building (LDEO) Leed Silver
- PlaNYC, 30% CO2 Reduction by 2017
- Interdisciplinary Science Building (ISB) (Morningside)
- New Fire Codes – New York City
- Mind Brain Behavior Building (Manhattanville)

Addressing Challenges

- New Day – new VP Operations and this opened the door.
- Safety & Regulatory issues needing to be addressed.
- Baseline audit performed.
- Facilities funded Environmental Specialist (Engineer - dual reporting).
- Tackled Chemical Fume Hood certifications.

Addressing Challenges

- Design and operating challenges to the Comer Building.
- PlaNYC initiatives to achieve 30% carbon reduction by 2017.
- Design and operating challenges to the ISB Laboratory Building.
- Laboratory Design WORK GROUP (LDWG) FORMED

Assembled the Think Tank

- Develop Guidelines for Laboratory Ventilation and Fume Hood Exhaust System.
- All campuses – CUMC, LDEO, Manhattanville, Morningside
- Inclusive – Representation from Capital Projects Management, Environmental Health & Safety, Manhattanville Development Group, Operations, Office of Environmental Stewardship

Assembled the Think Tank

- Established a timeline and goals.
- Meet bi-weekly 8:00-9:30 am.
- It is a “working” document.
- Identifying new challenges for future guidelines.
- Goal is the best practice for Columbia University.

Lessons Learned

- Collaboration “Positive Benefits”.
- Established “buy-in” for stake holders.
- Questions the WHY
  - Types of Chemical Fume Hoods (CFH)
  - CFH flow rates (e.g. 80, 100, 120 fpm)
  - On/Off controls
  - Building Materials (e.g. Perchloric)
  - Air exchange rates (e.g. 4, 6, 8, 11 ACH)
  - Modeling exhaust plume
  - Commissioning of labs
- Competing priorities – put into perspective.

Questions ?