



Sustainable Clean Rooms

School of Applied Sciences, Cranfield University 26 April 2010

Today's applied science facilities must satisfy traditional requirements such as safety and good working conditions, whilst responding to new agendas such as rapidly changing research activities and priorities, and sustainability. A particular challenge is meeting exacting specifications for any or all of particulates, humidity, temperature and vibration in an energy efficient manner. This is particularly difficult with clean rooms, which are becoming increasingly prevalent in higher education as areas like bio-engineering and nanotechnology expand. This free event examines the challenges, and available solutions, through presentations by:

- Cranfield University's School of Applied Sciences on their Microsystems and Nanotechnology Cleanroom and Precision Engineering Laboratory activities and energy considerations, and work towards an ISO14001 compliant environmental management system.
- Amorette Getty, an expert on sustainable clean rooms, presenting on environmental improvement in clean rooms and laboratories resulting from the LabRats programme at the University of California, Santa Barbara.
- Experts in clean room and lab energy efficiency in the health and pharmaceutical sectors – with one interesting topic being use of catalyst technology for gaseous decontamination of clean rooms and associated material transfer devices, thereby enabling air recirculation and energy savings.
- Participants in clean room standards groups.

The event is organised by the **S-Lab** (Safe, Successful, Sustainable Laboratories) initiative of the Higher Education Environmental Performance Improvement project), in collaboration with the **Pharmaceutical and Health Care Sciences Society** and the US **Labs21** initiative. Although targeted at universities, the issues being discussed are similar in all clean rooms and laboratories and so external attendees are welcome. Facilities staff, clean room and lab managers, architects, M&E engineers, and project managers should find the event especially valuable.

Associated links and sources for further exploration:

HEEPI/S-Lab www.goodcampus.org /Labs21 www.labs21.org.uk /LabRATS
<http://sustainability.ucsb.edu/LARS> /PHSS www.phss.co.uk

Sustainable Clean Rooms

Room 52/1, Vincent Building, Cranfield University, 26/4/2010
Draft Programme

- 10.10 – 10.30 Registration & Coffee
- 10.30 – 10.45 Key Energy and Sustainability Issues in Physical Sciences
Professor Peter James and Lisa Hopkinson, S-Lab on relevant findings from HEEPI's lab benchmarking and auditing activities
- 10.45 – 11.45 Activities in Cranfield University's School of Applied Sciences
Professor Tom Stephenson, Head of School, Dr. Chris Shaw, Facility Manager for MSN, and Dr. Chris Sansom, Senior Lecturer in Ultra Precision Engineering.
- 11.45 – 12.45 Improving Clean Room and Laboratory Sustainability in the University of California
Amorette Getty, LabRats co-ordinator, Institute of Energy Efficiency, University of California, Santa Barbara
- 12.45 – 14.00 Lunch, and Facility Tour
- 14.00 – 14.45 Clean Room Standards and Energy Efficiency Opportunities
James Drinkwater, Bioquell Process Director; Chair of the Pharmaceutical and Healthcare Sciences Society (who are represented on the ISO Technical Group on Clean Room standards).
- 14.45 – 15.30 Greening Clean Rooms – Issues and Solutions
Nigel Lenegan, Director, Energy & Carbon Reduction Solutions; Co-Chair, Global Sustainability Group, International Society of Pharmaceutical Engineers (which is preparing best practice guidance and case studies on energy efficient clean rooms and laboratories)
- 15.30 – 16.00 Making Clean Rooms More Sustainable – Top Tips for Progress
Panel discussion with speakers and other experts

Please book at www.goodcampus.org Events section. The workshop is free but cancellations after 19th April, and no shows that are not due to illness, will be depriving others of a place and so will be charged £100.

Campus details: www.cranfield.ac.uk/locations/cranfield/a4_crancampus.pdf

Parking details: www.cranfield.ac.uk/locations/cranfield/index.jsp