

# Our News



The Royal Commission  
on Environmental Pollution

Issue 1 - Spring/Summer 2009

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## Welcome from the Chairman



Sir John Lawton

Welcome to the first edition of *Our News* – the Royal Commission's first quarterly electronic newsletter. We hope that through this newsletter we will be able to convey a sense of the work that the Commission is engaged in.

It has been a busy six months for the Commission, with the launch of the *Novel Materials in the Environment* report in November 2008, and work on the *Adapting the UK to Climate Change* study rapidly gaining pace. We were delighted that the *Novel Materials* report attracted a significant amount of press interest at home and abroad. The Commission were also invited to the European Commission to discuss the implications of the report with representatives from DG Enterprise and DG Environment – the first time that the European Commission have asked the RCEP to discuss one of our reports. The official UK Government response to the report is anticipated in May 2009.



From December 2008 to February 2009 the Commission were heavily involved in evidence gathering for the *Adaptation* report, making site visits to Wales, the West Country, Norfolk and the Netherlands. The Welsh and Netherlands visits involved trips to field sites, and miraculously we managed to pick (mainly!) dry, fine days in periods of serious winter weather. We were less lucky with the visit to the West Country, when deep snow prevented a trip to Exmoor, but we were able to spend a



whole day with staff from the Meteorological Office and the Hadley Centre discussing climate change. During this time we also welcomed four new Royal Commissioners to the team – we are very pleased to have this new expertise on board. We are now well under way with the oral evidence sessions for the *Adaptation* report and anticipate publishing the report before the end of 2009.

Work on the *Artificial Light in the Environment* short report continues and, again, we hope to publish before the end of the year. This short report has proved trickier than we expected, but we can now see light at the end of the tunnel (pun intended).

In March we announced that the topic for the Commission's 29<sup>th</sup> report will be *Demographic Change and the Environment*; a topic that many of you have written to express your excitement about. It already looks like being a challenging study, but one in urgent need of serious consideration.

Images: right: Malcom Kerby of Happisburgh's Coastal Concern Action Group, with Prof. Cumpsty; left: remains of the former Happisburgh lifeboat launch.

## Houston: We have a Nano Problem

Professor Michael Depledge, Member of the RCEP



The RCEP has spent the last 18 months investigating the potential of very small particles (nanomaterials) to cause damage to the environment. In March Professor Michael Depledge travelled to Texas and Washington DC to update colleagues in the USA on the recommendations arising from the RCEP's report on [\*Novel Materials in the Environment: The case of nanotechnology\*](#).

The Commission had visited the US in 2007 as part of the evidence gathering phase of the study; many were keen to hear the RCEP's conclusions. As an experienced toxicologist and having worked at the science-policy interface for many years, Michael is ideally placed to disseminate the recommendations arising from the report.

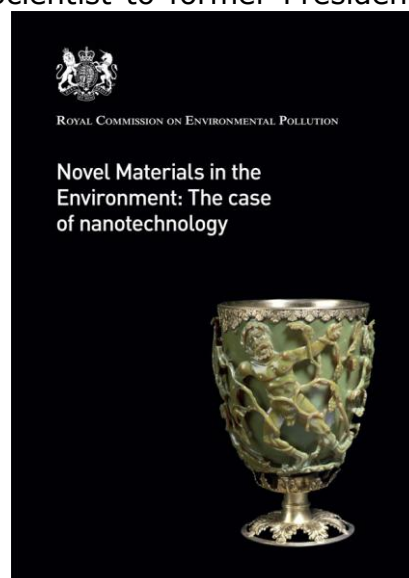
Michael's visit began with a workshop at Rice University in Houston, on '*Priorities to Advance the Eco-Responsible Design and Disposal of Engineered Nanomaterials*.' The workshop brought together 50 leading nanoscientists to identify areas where research efforts should be focussed in order to manage nanomaterial use and thereby minimise threats they might pose to the environment and human health. A range of interesting discussions took place which highlighted the need for; much better characterisation of the nanomaterials currently in use; new ways of reliably and cheaply detecting and quantifying nanomaterials in the environment (at present a distant prospect); dealing with emerging concerns over the potential widespread use of nanomaterials in agriculture, and giving greater consideration to the potential effects of nanomaterials on ecosystem structures and processes.

Michael was interviewed during the conference by 'SciGuy', the Science correspondent from the Houston Chronicle – an opportunity to raise the Commission's broad concern about the fate of nanomaterials in the environment: "*There's a remarkable degree of ignorance about the likely impacts of nanomaterials should they enter the environment and they may pose a threat not only to ecosystems but also to human health*", and their specific recommendations on priorities for testing: "[*The Commission*

have recommended] Taking a much closer look at the different kinds of functionality of different nanomaterials. So we want to try and make a priority list of those which might cause some kind of problem. And we need to develop new kinds of toxicity tests because the ones that are currently used by regulatory agencies do not seem to be adequate." The full article is available [here](#). He was also interviewed by Britt Erickson of the news magazine, Chemical and Engineering News.

Michael was invited by Dr Neal Lane (Chief Scientist to former President Bill Clinton) to present a lecture describing the RCEP's report at the Baker Institute, on the Rice campus. The audience was made up of a cross-section of people – from those experts involved in nanotechnology research to distinguished scientists and policymakers with no specific background in nanotechnology.

From Houston Michael journeyed to Lubbock, also in Texas, to meet with students and Professors at Texas Tech University. This visit also gave Mike a chance to catch up with Dr Celine Godard-Codding – a colleague who shares a research interest in biomarkers, persistent pollutants and mammalian diseases.



On the final day of his trip, Michael was invited to Washington DC. He was met by a representative for the British Embassy in Washington, who had organised a series of meetings for him. The first stop was a discussion with the National Academy of Sciences, who have recently completed their own report on nanomaterials. They were strongly supportive of the conclusions reached in the RCEP report. Next, Michael met with Julia Moore, Deputy Director of the Woodrow Wilson Center who has been leading on a project on Emerging Nanotechnologies. Again, the RCEP Novel Materials report was warmly welcomed and endorsed.

Over lunch, Michael talked with Dr Arden Bement (Director of the National Science Foundation), Travis Earles (Executive Office of the President) and Dr Jeffrey Morris (Nanotechnology Lead, USEPA) regarding the significance of the RCEP report. The USEPA has decided to focus its research efforts on developing biomarkers of nanomaterial exposure. Dr Bement considered the report to be a "balanced and thorough assessment of the current situation" and supported the report's recommendations. Later that day, Michael visited the House of Representatives Committee on Science and Technology, and the Subcommittee on Research and Science Education. Drs Dahlia Sokolov and Marcy Gallo were both deeply interested in the report's findings. Similarly, the response of Dr Ann Zulkosky and Elizabeth Bacon representing the Senate Commerce Science and Transportation Committee expressed strong support for the RCEP report and its findings, and indeed, in the broader work of the RCEP.

As a result of his endeavours in the US on behalf of the Commission, there is wide interest in the possibility of Michael presenting evidence to the Senate when they draft their nanotechnology bill this year. Furthermore, all of the organisations involved in meetings expressed their desire to keep in touch with the RCEP and to hear more about our work. A very worthwhile visit!

# RCEP waves goodbye to its first NERC Secondees

Laura Pleasants, Secretariat

In January 2009 RCEP welcomed its first NERC secondees to the Secretariat. Debbie Putt and Philine (Line) zu Ermgassen were the first students to have worked at the RCEP Secretariat under the NERC Policy placement scheme.



We asked Debbie and Line what they had made of their time at RCEP; we were pleased to hear that they had enjoyed their time with RCEP and learnt something! Debbie, who applied whilst studying for a NERC-funded PhD on the distribution of snow across the northern hemisphere at Reading University, said "It has been great fun working with the Commission, particularly with the Members at Commission meetings and on evidence-gathering trips. Many scientists never get to take part in this kind of challenging and wide-ranging discussions of real world issues, and I feel hugely privileged to have been involved at this early stage of my career."

Our secondees were tasked with conducting research into topics related to the *Adapting the UK to Climate Change* study, presenting their findings to Members, and submitting a short report. Debbie's task for the Commission was to research 'the impacts of sea level rise on groundwater and the coastal environment', and Line looked at 'RIVPACS and its use within the Water Framework Directive under climate change'.

Of her time at RCEP, Line, who is completing her PhD on invasive species at the University of Cambridge, said "Working within the Commission provided the framework to challenge preconceptions regarding the very basis of rational decision making in a changing climate. The opportunity to participate in Commission meetings and visits allowed me to consider a whole host of topics and world views outside the scope of my own study, which I found extremely enjoyable. I am certainly very aware of the privilege it was to participate with discussions and the development of ideas within such a well informed, dynamic and respected forum".

The Commission and its Secretariat were very grateful for the time and enthusiasm Debbie and Line put into their reports, and wishes them every success for the future.

Image: Debbie Putt (left) and Line zu Ermgassen outside the RCEP offices at 55 Whitehall

# The RCEP welcomes 4 new Members

Laura Pleasants, Secretariat

In February 2009 four eagerly anticipated new Members joined the Commission. They are: Professors Maria Lee and Joanne Scott, both of UCL, Prof. Peter Matthews, Chairman of the Northern Ireland Authority for Energy Regulation, and Prof. Michael Roberts, formerly Chief Executive of the Defra Central Science Laboratory. The new Members will serve for 3 years each in the first instance. The total number of Royal Commissioners now stands at 13. More information regarding the new Members can be found on the [Number 10 website](#).

- Next issue:  
***Our News Issue 2 (Summer/Autumn 2009)***

