

19 September 2007

**ROYAL COMMISSION ON ENVIRONMENTAL POLLUTION**

**NOVEL MATERIALS STUDY**

**UK GOVERNMENT NANOTECHNOLOGIES ENVIRONMENTAL RISK  
ASSESSMENT TASK FORCE**

The UK Government Nanotechnologies Environmental Risk Assessment Task Force is one of five task forces set up under the Nanotechnology Research Co-Ordination Group (NRCG) to take forward research objectives to characterise the risks posed by free engineered nanoscale materials. This task force is chaired by Dr Richard Owen of the Environment Agency and he has prepared the submission in consultation with colleagues.

The task force has suggested that the study could be titled: *Study on the environmental risks of novel materials and applications*. They feel that this would highlight risk, which is an important theme of the study. However this sounds slightly more negative than using the word “effects”, which takes account of both positive and negative impacts of novel materials.

The submission explains (and gives references) how some organisations, for example the European Commission and the US Environment Protection Agency, classify novel materials. The European Commission defines any chemical as being novel if it does not exist on the EINEC database. If it is included on the database, it is defined as an existing substance, e.g. cerium oxide.

The task forces states that health and environmental impacts of novel materials are uncertain. It might be possible to use existing knowledge of chemical properties and behaviour to try and extrapolate what the impacts could be. Long-term and indirect effects are likely to be the most important, but there is currently very little information available. In order to try and conceptualise this the problem formulation module of environmental risk assessment will play an important role.

Currently the funding of evidence to support the development of appropriate controls of emerging technologies is insufficient and significant investment is needed to build research capacity and collect data. The task force recommends that research is carried out on fate, behaviour and ecotoxicology of novel materials. Quantification of manufactured nanoparticles in a range of media needs to be carried out.

The task force considers that REACH is a useful framework for regulating novel materials as it already contains provisions for registering and evaluating new materials. However, it is likely that REACH will need adjusting in the future to take account of new materials and a working group in the Commission has been convened to look at this.

The UK Government Nanotechnologies Environmental Risk Assessment Task Force’s submission can be viewed at **Annex A**.

**Enclosed: Submission from the UK Government Nanotechnologies Environmental Risk Assessment Task Force (Annex A)**

The Sanctuary, Westminster

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Secretariat