



PROTECT: Protection of the Environment from Ionising Radiation in a Regulatory Context

^aHoward B.J., ^aBeresford N.A., ^aBarnett C.L., ^bCopplestone D., ^bHingston J., ^cAndersson P.,
^dBrown J., ^eGarnier-Laplace J.

PROTECT overview

The EC EURATOM funded PROTECT project aims to evaluate different approaches to protecting the environment from ionising radiation.

We will compare these approaches with those used for non-radioactive contaminants. We will suggest numerical target values and standards for protecting the environment from ionising radiation.

To achieve this we will work with the International Commission on Radiological Protection, the International Atomic Energy Agency, regulators, industry, NGO's and other interested parties.

The outputs will help to inform a future revision of the EC Basic Safety Standards.

There are three work packages (WPs):

- ❖ **WP1:** Environmental protection concepts.
- ❖ **WP2:** Assessment approaches: practicality, relevance and merits.
- ❖ **WP3:** Requirements for protection of the environment from ionising radiation.



The project should assist in a more balanced comparison of the effects of radionuclides with other environmental stressors. The potential demonstration of the comparatively low impact of radionuclides within the environment compared to many other anthropogenic hazards may help inform the re-emerging debate with regard to the nuclear power option versus other power sources within Europe.

Work package 2

WP 2 will bring together those organisations using, or developing, tools to demonstrate protection of the environment from ionising radiation to:

- ❖ Evaluate whether existing and developing approaches are practical.
- ❖ Consider how acceptable and relevant the approaches are to regulators and industry (identified by work package 1).
- ❖ Apply numerical target values recommended by work package 3 and others.
- ❖ Assess the user friendliness of the approaches to potential users.
- ❖ Application of the available approaches to case studies will be used.

Work package 3

WP 3 aims to propose numerical target values for protection of the environment from ionising radiation to ensure compliance with protection goals. It will:

- ❖ Define appropriate levels of protection, taking into account European legal requirements and existing practices for other hazardous substances.
- ❖ Propose target values for both dose and activity concentrations to ensure protection and compliance.
- ❖ Consult with regulators, industry, NGOs and other experts to identify areas of consensus and make recommendations for numerical target values in the future.



PROTECT will:

- Evaluate the current regulatory approaches to chemical and radioactive substances.
- Recommend how standards should be set and establish how to assess these approaches.
- Evaluate different approaches for protecting the environment from ionising radiation.
- Propose an appropriate level of protection and numerical target values.
- Record views from the consultation exercise.
- Make recommendations for the future.

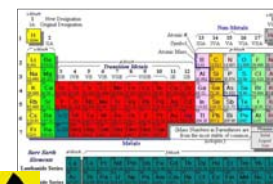
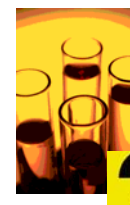


Work package 1

Drawing on the experiences of key stakeholders from regulatory organisations, NGOs and industry (nuclear and chemical) in different member states, this work package will:

- ❖ Gather information on the current regulatory approaches to both chemicals and radioactive substances in member states.
- ❖ Critically review the biological and ecological endpoints of protection currently used and the similarities and differences between approaches for chemicals and radioactive substances.

We are consulting regulators and the nuclear and chemical industry asking them to contribute their views on the current regulatory approaches to radioactive substances with respect to protection of the environment via a questionnaire, interviews and workshops.



If you want to fill in a questionnaire, the forms for both regulators/advisory bodies or industry can be downloaded from www.ceh.ac.uk/protect

We will continue to receive questionnaire returns until 1/08/07

Consultations

PROTECT is actively trying to consult with as wide a range of interested parties as possible. All documentation will be openly available on the projects web site www.ceh.ac.uk/protect



- ❖ Key deliverables will be made available for web based consultation.
- ❖ During the course of the project we will run a number of workshops for interested parties from regulatory organisations, NGO's, industry and the research community.
- ❖ If you want to be kept informed of PROTECT's progress and consultation exercises please register your interest via clb@ceh.ac.uk
- ❖ A newsletter will be circulated to all those registering their interest at appropriate times throughout the project.



www.ceh.ac.uk/protect

A CO-ORDINATION ACTION within the EURATOM 6th Framework Programme. Contract No. 036425 (FI6R)

^aCentre for Ecology & Hydrology, Lancaster; ^bEnvironment Agency, Warrington; ^cSwedish Radiation Protection Authority, Sweden; ^dNorwegian Radiation Protection Authority, Norway; ^eInstitute for Radiological Protection and Nuclear Safety, France

