

EUROPEAN
COMMISSION

Community Research

PROTECT

Protection of the Environment from Ionising
Radiation in a Regulatory Context

(Contract Number: **036425 (FI6R)**)

PROJECT PRESENTATION (PP)

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Project co-funded by the European Commission under the Euratom Research and Training Programme on Nuclear Energy within the Sixth Framework Programme (2002-2006)		
Dissemination Level		
PU	Public	X
RE	Restricted to a group specified by the partners of the [PROTECT]	
CO	Confidential, only for partners of the [PROTECT] project	

Start date of project : **1/10/06**

Duration : **24 Months**

PROTECT





This document provides a brief summary of the PROTECT Co-ordinated Action, describing its activities and outputs and giving guidance on how to obtain additional information on the project.

1 Nature and Scope of Project

The **PROTECT** project will evaluate the different approaches to protection of the environment from ionising radiation and will compare these with the approaches used for non-radioactive contaminants. This will provide a scientific justification on which to propose numerical targets or standards for protection of the environment from ionising radiation. To achieve this the project will engage with the ICRP, the IAEA, regulators, industry and other interested parties. The outputs will help to inform a future revision of the EC Basic Safety Standards.

2 Activities

The PROTECT project has four work packages, they are listed below with their specific objectives:

WP1: Environmental protection concepts - 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.

WP2: Assessment approaches: practicality, relevance and merits - Evaluate existing and developing approaches (i.e. the models and tools) used for demonstrating protection of the environment from ionising radiation. Apply recommended benchmark values and assess the potential consequences of their use.

WP3: Requirements for protection of the environment from ionising radiation - Propose standards for protection of the environment from ionising radiation to ensure compliance with protection goals identified by Work package 1. Engage with stakeholders to assess the wider implications of these standards.

WP4: Management and progress assessment

3 Expected results

The project will produce four deliverables:

- A review of approaches to protection of the environment from chemicals and ionising radiation - requirements and recommendations for a common framework (**D1**)





- Evaluation of the practicability of different approaches for protecting the environment from ionising radiation in a regulatory context and their relative merits (D2)
- Aims, and associated secondary numerical targets, for protecting biota against radiation in the environment. Part A: Recommendations for further actions; part B: Proposed levels and underlying reasoning; part C: Records of end users' views on feasibility of proposed targets (D3)
- The PROTECT website <http://www.ceh.ac.uk/protect/> (D4)

4 **Societal impact**

Many European nations are at a critical stage with respect to plans for the final management of spent nuclear fuel. This project may help in taking a sound, pragmatic and cost-effective approach to the environmental concerns surrounding this issue. Similarly, there are many nuclear power plants at various stages of decommissioning. The project will help inform the environmental impact assessment of radiological and non-radiological hazards which must be included in the decommissioning process. Harmonisation of risk assessment approaches (nuclear and chemical, human and environmental) will lead to the most cost effective methodologies.

The project will 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 nuclear power option versus other power sources within Europe.

Results from the project will help to inform a future revision of the EU Basic Safety Standards.

5 **Information about important public events**

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.

6. **Project Website address & contact person**

To find out about the project consult the web site at ceh.ac.uk/protect

To contact the coordinator:

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List of partners

The PROTECT coordinated action is co-ordinated by the Natural Environment Research Council – Centre for Ecology and Hydrology (Lancaster, UK) and consists of 5 partners from five countries:

Sweden: Swedish Radiation Protection Authority

UK: Environment Agency

UK: Natural Environment Research Council

Norway: Norwegian Radiation Protection Authority

France: Institute for Radiological Protection and Nuclear Safety

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