

Cross-border Exposure Characterisation for Risk Assessment in Chemical Incidents (CERACI)

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Introduction

A key element of effective preparedness and response to acute incidents, involving the release of chemicals, is the ability to undertake a timely and accurate human health risk assessment, irrespective of the scenario or its underlying cause. Furthermore, for incidents which cross country borders, information sharing can be significantly hindered by a number of factors, such as: language barriers; the use of different monitoring equipment, dispersion models and risk assessment guidelines or unfamiliarity with response structures, communication networks and emergency coordination of other countries.

The Cross-border Exposure characterisation for Risk Assessment in Chemical Incidents (CERACI) Project

This project is co-funded by the EU and aims to improve acute phase chemical incident exposure assessment by:

- Identifying and describing environmental modelling and monitoring operations for health risk assessment during acute chemical incidents in the twenty seven EU Member States.
- Investigating which Member States have organised collaboration and interoperability on environmental modelling and monitoring for health risk assessment nationally and across national borders.
- Identifying and further developing operational and technical best practices for environmental modelling and monitoring for health risk assessment during acute chemical incidents.
- Determining if harmonisation and collaboration in this field has the potential to improve capabilities and capacities to respond to acute chemical related health threats.

The initial phase of the CERACI project is to develop an understanding of how each Member State undertakes exposure assessment and risk characterisation, in the acute phase of a major chemical incident, including any existing cross-border arrangements.

The project is coordinated by the Dutch National Institute for Public Health and the Environment with the Health Protection Agency leading on two of the six project work packages. The project has drawn upon the resources and expertise of the Environmental Hazards and Emergencies (EHE) department of CRCE.

There are three partners in the project, the Dutch National Institute for Public Health and the Environment (RIVM), the Nofer Institute of Occupational Medicine (NIOM) of Poland and the Centre for Radiation, Chemical and Environmental Hazards (CRCE) at the Health Protection Agency (HPA).

Information Gathering

The initial information gathering stage of the project concentrated on the following topic areas by Member States - cross-border arrangements, monitoring capability, modelling, risk assessment and exposure characterisation.

This information has been gathered by reviewing available published literature and other sources for each Member State. To support this stage of the project, a network of EU Member State experts is being established. A survey of this network of experts is currently being undertaken as a means of improving understanding of differing approaches to public health risk assessment during chemical incidents.

Progress and Timeline

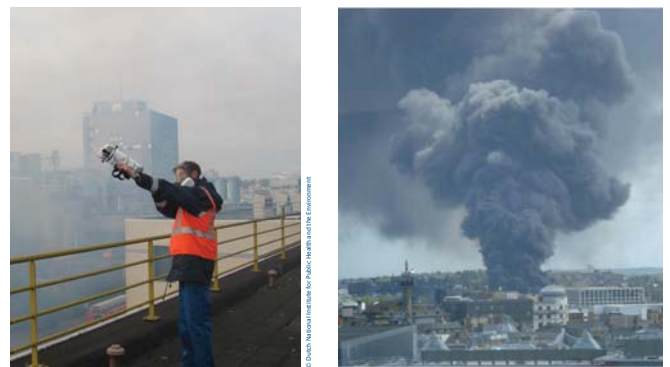
The project commenced in January 2011. The initial information gathering exercise is complete and the survey of experts is currently being coordinated by NIOM. The survey was opened in July and will close in September 2011. A link to the survey is available on the project website at www.rivm.nl/ceraci.

Information from the survey will be used in the design of table-top exercises in spring 2012 to verify and test best practices for exposure characterisation in cross-border chemical incidents. RIVM will coordinate these exercises. The HPA will lead on the production of the final project report in 2012.

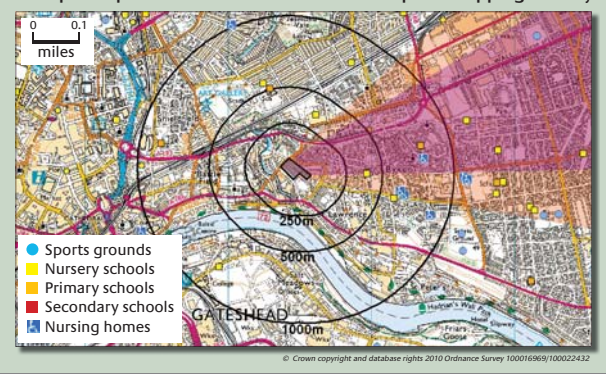
Findings

The initial findings of the information-gathering phase of the project are to be summarised in the HPA Chemical Hazards and Poisons Report, together with other articles, and will be freely available on the HPA website at www.hpa.org.uk/Publications.

Qualitative and Quantitative Monitoring of Chemical Releases to Inform Public Health Risk Assessment*



Example Dispersion Model with Sensitive Receptors Mapping Overlay



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