

THE CONSEQUENCES OF THE CHERNOBYL ACCIDENT
THE RADIOECOLOGICAL DATABASE "REDAC" OF THE FRENCH-GERMAN INITIATIVE
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The French-German Initiative for Chernobyl (FGI), implemented by IRSN and GRS from 1997 until the end of 2003, included the "Project on the Radioecological Consequences of the Accident". The most relevant fields of radioecology and post-accidental aspects have been studied, such as radionuclides transfers to plants, to animals, by surface runoff, in the aquatic environment and in the urban environment, wastes management and countermeasures. The main goal was to collect and harmonise, from Belarus, Russia and Ukraine, the highest possible amount of data and results on these different topics. These data have been verified, validated and organized in a common georeferenced database REDAC (**R**adio**E**cological **D**atabase **A**fter **C**hernobyl). For linking the different data, maps of initial and present contamination by ¹³⁷Cs and ⁹⁰Sr have been drawn up and relevant environmental non-radioactive data have been included. The operational database built will also allow the management of the wastes disposal sites. Countermeasures used after the accident for urban areas, natural and agricultural environment, have been described and classified. A methodology for evaluating their effectiveness has been developed. This database constitutes a tool for the development and validation of operational, assessment and explicative models. This allows the quantification and assessment of radionuclide transfer in the different compartments of ecosystems. So the main parameters influencing the transfers can be identified. REDAC should be completed by further investigations, for example on transuranic elements and extended to larger geographical zones. The database should also be combined with others provided by different organisations (IAEA, IRSN, UIR, ...)

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