

Study Process

How did researchers gather information for these studies?

Dose reconstruction is the term used to describe the process of collecting and analyzing the information needed to assess the consequences of past contaminant releases. This research method analyzes the plant's past operations, the contaminants released from the plant into the environment, movement of contaminants in the air, water and soil and likely exposures to people.

In order to estimate how much contamination the public was exposed to, researchers reviewed original records, historical monitoring data, classified reports, meteorological charts from Rocky Flats and similar information from independent sources. Researchers substantiated and verified information by using multiple sources. More than 100 Rocky Flats employees, retirees and others were interviewed about the plant's activities. Computer modeling provided valuable information about where contaminants would travel given different weather patterns.

How was the public involved in the studies?

Throughout both phases of the studies, public input was solicited and incorporated into the research process. Interested citizens were invited to public meetings and technical work sessions over the nine-year study period. Information also was reported through quarterly newsletters, fact sheets and technical topic papers. Panel members gave more than 50 presentations to more than 1,500 citizens in communities near Rocky Flats.

Information also is available through a web site. The staff at the Colorado Department of Public Health and Environment answered questions for many concerned citizens and provided them with reports and information about the studies.

In addition, the Citizens' Environmental Sampling Committee was formed in 1992 to conduct an independent study of plutonium levels found in soil around Rocky Flats. Made up of homeowners, public interest groups, local health departments, interested citizens and Health Advisory Panel members, the committee arranged for sampling and analysis of soil near the plant to measure the amount of plutonium and other radioactive materials present. Some sediment samples from nearby Standley Lake also were analyzed. The results were largely consistent with the concentrations and distribution of radioactive materials found by other soil studies of the area.

What is the value of these studies to the public?

For years, the public lacked information about what went on at the nation's nuclear weapons facilities. The Rocky Flats Historical Public Exposures Studies have provided communities with information about the types and quantities of Rocky Flats contaminants that moved off-site and also have developed cancer risk estimates for those releases.

These studies are the most comprehensive risk assessments ever performed for Rocky Flats. While the project does not answer all questions, it attempts to answer those felt to be most important. The Health Advisory Panel believes that the lessons learned from these studies may help prevent similar problems at the facility in the future.

Problems at Rocky Flats led to unnecessary plutonium releases in the past, particularly from plutonium fires and from uncontrolled releases of disturbed, contaminated soil during windstorms. These past problems make it imperative that dismantling and clean-up activities be planned with a careful eye toward the prevention of similar events in the future. It is clear that the potential for increased release rates will exist during the dismantling and cleanup of Rocky Flats. More specifically, contaminated building rubble and freshly disturbed, contaminated soil present the clear potential to create new risks of plutonium releases during future windstorms and flooding events. The Health Advisory Panel strongly recommended that Rocky Flats staff, the Department of Energy, the Colorado Department of Public

Health and Environment and the various citizens' oversight committees actively and jointly evaluate and monitor all clean-up operations to prevent such off-site exposures.

How can I get more information about the studies?

The detailed findings of Phase I and Phase II of the Historical Public Exposures Studies on Rocky Flats are available in more than 30 technical reports. For a complete overview of the Historical Public Exposures Studies, call the Colorado Department of Public Health and Environment at **303-692-2636**.