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The Systems Prioritization Method (SPM)
CD-ROM Demonstration for Waste Management '96

by

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ABSTRACT

In March 1994, the Department of Energy Carlsbad Area Office (DOE/CAO) implemented a performance-based planning method to assist in prioritization within the Waste Isolation Pilot Plant (WIPP). Probabilistic performance calculations were required for the Systems Prioritization Method (SPM) and roughly 46,700 combinations of activities were analyzed, generating a large volume of information to be documented, analyzed, and communicated. A self-contained information management system consisting of a relational database on a 600-megabyte CD-ROM was built to meet this need. The CD-ROM was used to store performance assessment results, data analysis and visualization tools, information about the activities, electronic copies of 40 CFR 191 and 40 CFR 268, technical reference papers, and the final SPM report. Copies of the CD-ROM were distributed to interested members of the public, WIPP participants, and the Environmental Protection Agency (EPA).

INTRODUCTION

In March 1994, DOE/CAO implemented a performance-based planning method to assist in prioritization within the WIPP project with respect to applicable EPA long-term performance requirements in 40 CFR 191.13(a) and 40 CFR 268.6.¹⁻⁵ SPM was designed to define the most cost-effective combinations of scientific investigations, engineered alternatives, and waste acceptance criteria to support the WIPP compliance certification application. Probabilistic performance calculations were required and roughly 46,700 combinations of activities were analyzed in the second phase of SPM (SPM-2). A self-contained information management system consisting of a relational database on a 600-megabyte CD-ROM was built to meet this need.

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