TRANSNET--Access to Radioactive and Hazardous Materials Transportation Codes and Databases*

J. W. Cashwell

Sandia National Laboratories**, Albuquerque, New Mexico, United States of America

ABSTRACT

TRANSNET has been developed and maintained by Sandia National Laboratories under the sponsorship of the United States Department of Energy (DOE) Office of Environmental Restoration and Waste Management to permit outside access to computerized routing, risk and systems analysis models, and associated databases. The goal of the TRANSNET system is to enable transfer of transportation analytical methods and data to qualified users by permitting direct, timely access to the up-to-date versions of the codes and data.

The TRANSNET facility comprises a dedicated computer with telephone ports on which these codes and databases are adapted, modified, and maintained. To permit the widest spectrum of outside users, TRANSNET is designed to minimize hardware and documentation requirements. The user is thus required to have an IBM-compatible personal computer, Hayes-compatible modem with communications software, and a telephone. Maintenance and operation of the TRANSNET facility are underwritten by the program sponsor(s) as are updates to the respective models and data, thus the only charges to the user of the system are telephone hookup charges.

TRANSNET provides access to the most recent versions of the models and data developed by or for Sandia National Laboratories. Code modifications that have been made since the last published documentation are noted to the user on the introductory screens. User friendly interfaces have been developed for each of the codes and databases on TRANSNET. In addition, users are provided with default input data sets for typical problems which can either be used directly or edited. Direct transfers of analytical or data files between codes are provided to permit the user to perform complex analyses with a minimum of input.

Recent developments to the TRANSNET system will also be discussed in the final paper. Some of these include use of the TRANSNET system to directly pass data files between both national and international users as well as development and integration of graphical depiction techniques.