

TERM--A Transportation Emergency Response Management, Resource Identification and Planning Technique*

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ABSTRACT

Under the sponsorship of the United States Department of Energy (DOE) Office of Environmental Restoration and Waste Management Emergency Preparedness Program, Sandia National Laboratories and Rensselaer Polytechnic Institute developed an emergency planning code to identify existing emergency response resources, estimate response times, and determine deficiencies in the emergency response system. This code, entitled TERM, has been linked to network databases and routing models available on the DOE's TRANSNET system, a centralized dial-up computer system containing routing, risk, and systems analysis codes and associated data.

Assessment of emergency response resources and their capabilities and planning for improved capabilities along transportation routes have been identified as areas of concern by states and Indian tribes as well as the Federal Government. The purpose of this project is to develop a computerized technique to assess and plan optimal siting strategies for emergency response resources that can be used by the DOE and state/local governments.

Following development, the code will be applied on the transportation routes used for the test phase of the Waste Isolation Pilot Plant (WIPP), a geologic storage site for DOE Defense Programs transuranic wastes located in southern New Mexico. Testing of the technique by a state or local emergency response planning agency will precede general release of the code. Potential long-term applications of this technology could include expansion of the scope of commodities handled to include other hazardous materials. Future integration of this technique with routing and systems analysis codes will permit users to address the requirements of the United States Hazardous Materials Transportation Uniform Safety Act in assessing routing alternatives for radioactive and hazardous materials.

This paper will provide an overview of the technique, illustrate its application to the WIPP Program, and discuss integration of the technique into the comprehensive transportation network analysis capabilities available on the TRANSNET system.

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