

# PREFACE

## FOURTH NATIONAL TOPICAL MEETING ON TRITIUM TECHNOLOGY IN FISSION, FUSION, AND ISOTOPIC APPLICATIONS

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The Fourth Topical Meeting on Tritium Technology in Fission, Fusion, and Isotopic Applications, held in Albuquerque, New Mexico, was a major success if judged by the consensus of comments to the organizers. We publicly thank all those who contributed to the organizing effort. The success began with the technical program, which drew major participation and papers on the latest progress in tritium technology from both fusion and national defense programs in the United States and abroad. Some 60% of the 165 papers and a considerable number of the 330 attendees came from outside the United States.

The companions program was made enjoyable and culturally informative through a large volunteer effort by companions associated with the meeting's sponsor, Los Alamos National Laboratory. The New Mexico sky shone blue all week.

The triennial topical meeting on tritium technology is the only conference that brings together researchers from the two large tritium fields—fusion and national weapons programs. In changing times, the participation and advances in both fields, and others, contributed importantly to the technical value of the meeting.

A keynote of the meeting was the changing culture within the U.S. Department of Energy (DOE) toward environmental, safety, and health concerns. The new culture was mentioned throughout the meeting and was the subject of Thursday's luncheon speech by Joseph E. Fitzgerald, Jr., DOE Deputy Assistant Secretary for Safety and Quality Assurance. The culture is based on a formality of operations not traditional at the national laboratories. The goal is to achieve well-documented reductions of emissions and worker exposures. The formalities include emphasis on written and independently reviewed analyses of risk, written policies and procedures, written verification of compliance, reporting of off-normal occurrences, and documented, task-specific training of workers.

Although the measures have met with controversy, they clearly represent the new culture at DOE. The controversy stems from conflicts between the new requirements and previous programmatic commitments for the use of fixed funds. The questions raised are of growing importance to the international community of tritium scientists and engineers.

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