**Summary of Statement of Dr. B. John Garrick, Chairman**
**U.S. Nuclear Waste Technical Review Board**
**Before the Subcommittee on Energy and Air Quality**
**July 15-16, 2008**

- The Board's role was established in the Nuclear Waste Policy Amendments Act of 1987. The Board is expected to perform ongoing peer review of the technical and scientific validity of DOE activities related to implementing the Nuclear Waste Policy Act. The Board reports its findings and recommendations at least twice a year to Congress and the Secretary of Energy.
- The Department of Energy's (DOE) submittal of a Yucca Mountain license application to the Nuclear Regulatory Commission (NRC) represents the achievement of a major program milestone.
- Because the Board is completely independent, it does not have a direct stake in the development of a Yucca Mountain repository and will not be a party to the licensing proceeding. That is as it should be.
- Focusing on fundamental understanding as opposed to regulatory compliance, the Board evaluates the technical basis of DOE's approach to the entire waste management system, from waste acceptance through transportation and isolation of spent nuclear fuel and high-level radioactive waste as proposed at Yucca Mountain.
- The Board makes its technical evaluation available by posting Board documents, including letters, reports, congressional testimony, and meeting transcripts, on its Web site at www.nwtrb.gov. Anyone can use this information, including parties involved in NRC's licensing proceedings.
- The Board has identified several technical issues that if addressed could increase operational effectiveness or feasibility, enhance the technical basis for repository performance estimates, or improve fundamental understanding. The Board did not uncover any issue that it believes would have prevented DOE from submitting its license application for regulatory review.
- Operational issues identified by the Board include developing contingencies in case of (1) delay in the development of a Nevada rail spur, (2) lower rate of TAD utilization, and (3) potential problems related to drip shield installation.
- Technical issues that might affect calculated repository performance estimates are deliquescence-induced localized corrosion of the waste packages during the thermal pulse, general corrosion of waste packages, and water recharge that results from climate change. DOE also is investigating seismicity and volcanism at Yucca Mountain.
- DOE has made very significant progress over the last several years, but given the million-year timeframe, some uncertainty in repository performance estimates is inevitable. Uncertainty can be addressed in several ways, and different approaches require different time and resource commitments.
- The Board is very comfortable with its statutory mandate and looks forward to continuing its independent technical peer review.