



Steve Fields

On April 2003, doctoral candidate Steve Fields defended his doctoral research proposal on "Decision Support Model for Management of Leaking Underground Storage Tanks." His research focuses on developing a decision support model for identifying the preferred strategy for managing leaking underground storage tanks (LUSTs), which are a primary source of groundwater contamination. State program managers are envisioned as the users of this model. They will be able to enter site-specific information to

determine the expected values for alternative strategies. The strategy with the greatest expected value will be the preferred alternative. Steve's research will also illustrate the use of the decision support model by a case study of the Minnesota Pollution Control Agency's existing LUST releases.



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Jan Forsythe

On April 22, 2003, Janice Forsythe defended her doctoral dissertation research on "Nuclear Waste: Asset or Liability? A Pragmatic View in the 21st Century." Working with 24 experts in the field of radioactive waste management, Jan identified and evaluated alternatives for managing the Nation's radioactive waste management problem, including the latest technologies associated with Generation IV reactors. Jan developed a Notational Nuclear Power System as a vehicle to assist decision makers in addressing resolution of this very difficult and important problem. Serving on Jan's doctoral examining committee were Professors Lile Murphree, Tom Mazzuchi and Jonathan Deason, Assistant Professor Julie Ryan,

Dr. Delwin C. Mecham, Thermal Lead, Specialty Analyses and Waste Package Design for the Yucca Mountain Project at the Idaho National Engineering and Environmental Laboratory, and Woody Stoup, esq., Bechtel-SAIC Co., Deputy Program Manager of Transportation for the Yucca Mountain Project.



Doctoral candidate Daulat Kahn presented his doctoral dissertation research proposal to his Research Advisory Committee on December 23, 2002. Daulat, who is from Pakistan, is undertaking "A Comparative Analysis of Pakistan and USA Environmental Impact Assessment Processes."

Pakistan, which promulgated the Pakistan Environmental Protection Act in 1997, has yet to establish an effective environmental assessment program nationwide. Daulat intends to study the current status of the EIA program in Pakistan and use the Christopher Wood evaluation model to compare the

processes underway in the Pakistan Environmental Protection Agency with those existing in the U.S., thereby identifying ways in which development aid efforts pertaining to EIA can assist Pakistan in achieving goals of sustainability, good governance and equity. Serving on Daulat's Research Advisory Committee are William Roper, Ph.D., P.E., Chairman of the GW Department of Civil and Environmental Engineering: Jonathan Deason, Ph.D., P.E., Lead Professor of the GW Environmental and Energy Management Program; William Becker, Ph.D., P.E., Vice President, Hazen and Sawyer Environmental Engineers and Scientists: and Nabih Bedewi, Ph.D. and Rumana Riffat, Ph.D., Associate Professors of Civil and Environmental Engineering.

Daulat Kahn explaining his research.



Nongnard Sunthonpagasit

Nongnard Sunthonpagasit defended her doctoral dissertation research on January 16, 2003 on "Scrap Tires to Crumb Rubber: Market and Production Issues for Processing Facilities."

Nongnard's research examined the engineering economics of crumb rubber facilities and identified the critical market and production factors involved in the economic feasibility of these facilities. Producers and crumb rubber end-users were queried. A financial model of the operation was created to at market, crumb size and production scenarios

analyze different market, crumb size and production scenarios.

Nongnard found that the profitability of a crumb facility appeared to be sensitive to crumb rubber prices, operating costs, and raw material availability. She indicated that better analysis of market and production impacts on the facilities would improve overall market efficiency.

Nongnard's research director was Dr. Michael Duffey, Associate Professor of Engineering Management and Systems Engineering. Also serving on the committee were Dr. Jonathan Deason, Lead Professor of the E&EM Program; Dr. Rene Van Dorp, Assistant Professor of Engineering Management and Systems Engineering; Dr. Robert Waters, Professor of Engineering Management and Systems Engineering; and Dr. William Roper, Chairman of the Civil and Environmental Engineering Department.







