THE REGULATORY ROUTE TO COMMERCIAL NUCLEAR DEPLOYMENT

A webinar series to understand the road that was taken to arrive at the current regulatory framework to navigate future paths to successful deployment.

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Summary

 Fifty plus years experience in nuclear safety, licensing, and related fields

Education

 Ph.D., Mechanical Engineering, University of Michigan, 1972 Mattson has diversified experience in engineering and management with Sandia Laboratory, Atomic Energy Commission, Nuclear Regulatory Commission and Environmental Protection Agency. He served as president of International Energy Associates Limited and was a founder and chief operating officer of SCIENTECH, Inc., a leading nuclear safety company.

Mattson's technical experience is in heat transfer and fluid flow, nuclear safety, nuclear facility licensing, nuclear policies and standards, readiness reviews, risk management, security of nuclear facilities and materials, quality assurance and emergency preparedness. He conducted and managed safety reviews for more than 110 nuclear power plants and other radiological facilities. He led the development of NRC's new requirements after the accident at Three Mile Island in 1979 (NUREG-0578, 0585 and 0660).

From 1974 to 1984, Mattson advised AEC and NRC commissioners on policy issues such as safety goals, radiological protection, standardization, risk assessment and security. He led NRC's reviews of advanced nuclear power plant designs from 1977 to 1984. He participated in NRC's onsite response to Three Mile Island and several other nuclear incidents. He developed NRC's standards for security, safety, radiation protection and environmental protection of uranium fuel cycle facilities and waste management facilities.

Since leaving NRC in 1984, he has advised managers of NRC licensees, National Laboratories and DOE contractors on policy issues and decision-making in nuclear safety and security. He led readiness reviews for startup of Limerick Nuclear Power Plant Unit 2, Rocky Flats Plant, and K-Reactor at Savannah River. He participated in safety analysis and field reviews of nuclear facilities in the U.S., Europe, the former Soviet Union and the Far East. He co-chaired the International Atomic Energy Agency's development of safety principles for nuclear power plants after the 1986 accident at Chernobyl (INSAG-3). He served on nuclear safety review boards for five operating nuclear power plants, the Rocky Flats decommissioning site, the DynEx Program at Los Alamos, and the Advanced Test Reactor at Idaho National Laboratory. He established and led nuclear safety consultancies in Ukraine and Kazakhstan. He served on the team that responded to lessons learned from the Fukushima Dai-ichi event for the president of the American Society of Mechanical Engineers.