

CENTER FOR RESEARCH AND TECHNOLOGY DEVELOPMENT (CRTD)

Mission

- Effectively plan and manage the collaborative research activities of ASME to meet the needs of the mechanical engineering profession as defined by the ASME members.

Vision

- To be recognized as providing timely, credible, accurate products of value to members/customers.

Activities in Support of Mission

- Identify present, new and unfulfilled research and technological needs;
- Conduct peer reviews and project reviews of relevant programs for government agencies and industrial organizations;
- Identify emerging and future technical areas including evolving multidisciplinary areas, where ASME should be a major player;
- Perform assessments of technological change that affects mechanical engineering;
- Develop handbooks that effectively organize and present existing knowledge; and
- Effectively communicate ASME research results

Research Committees

- International Inter-Society Research Committee on Nuclear Codes & Standards
- Research Committee on Corrosion & Deposits from Combustion Gases
- Gas Pipeline Safety Research Committee
- Research Committee on Industrial & Municipal Waste
- Research Committee on Mechanical Power Transmission
- Research and Technology Committee on Particle Accelerators & Applications
- Research Committee on Power Plant & Environmental Chemistry
- Research Committee on Risk Technology
- Research and Technology Committee on Water & Steam in Thermal Systems

Peer and Project Review Committees

- Carbon Sequestration Project Review Committee
- Peer Review Committee for Energy and the Environment

Ad Hoc Committees

- Ad Hoc Committee on Advanced Energy Systems
- Ad Hoc Committee on Nano-Optics
- Ad Hoc Committee on Sustainability
- Ad Hoc Committee on X-Ray Technology

Core Competencies

- R&D Needs Workshops
- Industrial and Municipal waste
- Risk informed research
- Peer and Project reviews

Strengths

- Focused on Collaborative Efforts
- Unbiased, Independent, Neutral Ground
- Strong Federal Sector Contacts

Selected Publications

- Steam Tables
- Risk-Based Methods for Equipment Life Management: A Step-by-Step Instruction Manual with Sample Applications
- Six volume series on Guidelines for Risk Based In-Service Inspection and In-Service Testing
- Consensus Documents on Feedwater, Boiler Water, Steam, and Lay-up of Boiler Systems and CD-Rom
- Reference Method Accuracy and Precision (ReMAP):
Phase 1 - Precision of Manual Stack Emission Measurements

New Research Projects

- Carpet Recycling and Combustion Demonstration Using Cement Kilns
- Development of Reliability-Based Load and Resistance Factor Design Methods for Piping
- Application Guide for Determining Yield Strength of In-Service Pipe by Evaluating Hardness
- Gear Vision Workshop
- Risk Guidance Document for US Dept. of Homeland Security – Joint project with the Council on Public Affairs (CPA) and the Council on Codes and Standards (CCS)
- Sector Specific Risk Guidance Documents for DHS

Recently Completed Projects

- Training Video on Permanent Pipeline Repairs Using Welded Steel Sleeves
- Project Review for DOE/NETL Carbon Sequestration Program
- Peer Review of Salt Waste Processing Facility (SWPF) Technology Readiness
- PPEC Workshops (2 days each). Held semiannually in Fall and Spring.