



New Labs Pave Way for Continued Advances in Small-Scale Testing

"In order to continue moving toward our goal of reducing the need for expensive large-scale testing, it was imperative we upgrade our laboratory facilities to accommodate the future," Vice President, Paul Croce emphasized. With plans in place to consolidate large-scale testing at the Research Campus, the time was right to focus on achieving similar improvements in small- and intermediate-scale test facilities. "We had simply outgrown our previous lab facility. The growing sophistication and diversity of the work we are doing demanded state-of-the-art infrastructure."

Renovations began in the spring of 2003, following an aggressive schedule that included gutting the building and installing all new mechanical, electrical and plumbing systems. In this case, the design required not only normal heating, ventilation and air conditioning, but also special exhaust systems and environmental controls for laboratories. FM Global researchers and engineers worked closely with Cramer Levine & Company Architects and A.J. Martini to ensure the special needs of each laboratory were met. Some labs required special filtration for incoming air, others needed special exhaust ducts for small amounts of combustion products.

"The new labs are far superior in every way to our former facilities. We are able to set up and conduct tests much faster and with greater consistency," Research Scientist Benjamin Ditch said.

A Model Future

One of the key additions built into the new research laboratories is space for computers to support various modeling programs. These computers are used to advance the overarching goal of using small-scale tests and simulations to refine, supplement and, eventually, replace much of the intermediate- and large-scale testing currently conducted. At this time, modeling and simulation projects are focused on flammability, natural hazards, wind uplift, probabilistic failure analysis, structural dynamics, machine stress analysis, fire modeling and reliability analysis.

"Our new labs are helping to reduce product test cycle-times and giving us additional space to grow," Assistant Vice President, Bob Martell said.

According to Croce, the new laboratory facility will equally benefit FM Global and its clients. "We now have a world-class research facility that can accommodate our future needs." In the near-term, these new facilities will help us provide a greater range of services to assist our engineers in solving problems for clients. In the long term, the advances we achieve in small-scale testing and computer modeling in these new labs will someday translate into reduced testing costs, faster turnaround and reduced frequency and severity of property loss."

Research and Approval Labs

- * Advanced Flammability Measurements
- * Analytical Chemistry
- * Computer
- * Electrical Ignition
- * Environmental Chamber
- * Environmental Lab
- * Fire Propagation Apparatus
- * Flammability
- * Flammability Support
- * General Electrical
- * General Research
- * Heat Flux Gauge
- * Materials Damage
- * Materials Science
- * Polymer Research
- * Reactivity Instrumentation
- * Reliability Computer
- * Spark and Gas
- * Structures Computer
- * Systems and Fuels
- * Thermal Barrier
- * Vibration Lab
- * Water-Mist Technology
- * X-ray Diffraction

