



## **Preliminary tests show steel quality did not contribute to towers' collapse**

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GAITHERSBURG, Md. -- Early tests on steel beams from the World Trade Center show they generally met or were stronger than design requirements, ruling them out as a contributing cause of the collapse of the towers, federal investigators said Wednesday.

Engineers with the National Institute of Standards and Technology have conducted preliminary tests on some of the 236 pieces of steel from the wreckage, said Frank Gayle, who is leading NIST's review of the steel.

The tests found that, typical for construction steel used in the 1960s when the World Trade Center was erected, the steel beams exceeded requirements to bear 36,000 pounds per square inch. Often they were capable of bearing around 42,000 pounds per square inch.

"What that is showing us is that the steel that was applied certainly met the specifications, but was also significantly higher in some instances," lead investigator Shyam Sunder said.

A group of victims' families, the Skyscraper Safety Campaign, had complained that a majority of the beams from the site were quickly shipped off and reprocessed into new steel before it could be tested.

Sunder cautioned the NIST's results were preliminary, but said if those findings continue in further testing, that would rule out weak steel as a contributing factor in the collapse.

The steel testing was discussed Wednesday at the end of a two-day meeting with NIST officials about the Sept. 11 investigation.

The two-year probe is designed to create a model of the fire and collapse, enabling NIST, which is part of the Commerce Department, to make recommendations for improved fire and safety codes in building construction.

The Skyscraper Safety Campaign's Sally Regenhard, whose firefighter son was killed at the site, said she doubted NIST's findings.

"I don't really feel that they have a representative sample of all the steel," Regenhard said.

James Quintieri, a professor at the University of Maryland who is consulting with the Skyscraper Safety Campaign, said key questions, about the steel's strength under

intense heat, and the overall design of the building, remain unanswered.

In coming months, NIST will recreate sections of the building's floor trusses, and conduct large-scale fire endurance tests on them to determine how the floors of the towers responded to the twin stresses of impact by a jet plane and a continuing fire.

The NIST group also discussed its investigation of the Rhode Island nightclub fire last February, which killed 100 people. Investigators will use the results of their investigation to make recommendations for improvements to fire and building codes.

At the meeting, some complained investigators were being delayed by prosecutors and civil lawyers denying them access to critical information, including the exact makeup of the soundproofing foam that burst into flames at the nightclub.

Lead investigator Bill Grosshandler said his team has to date gathered only about 20 percent of the information on the makeup of different materials in the building, but said it was still early in the fact-gathering process.

Others, including NIST's Dr. Jack Snell, seemed frustrated with the agency's access to information. The investigation is proceeding under an act of Congress passed last year aimed to use NIST expertise to probe building disasters.

"The whole motivation for this law was timely investigations," said Snell. "We're not doing timely investigations."

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National Institute of Standards and Technology: <http://www.nist.gov>

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