

Statement of Dr. Gerald V. Poje
Member of the U.S. Chemical Safety and Hazard Investigation Board
before the Council of the City of New York
Fire and Criminal Justice Services Committee
October 29, 2003

Good morning Madam Chairman and Members of the Committee, and thank you for inviting us to testify. I am Dr. Gerald Poje, one of five members of the U.S. Chemical Safety Board – the CSB. With me is Mr. Stephen Selk, a professional engineer and CSB lead investigator. Today's subject is an important one: modernizing the New York City fire code will help prevent serious hazardous materials accidents, saving lives and property.

The CSB is an independent federal investigative agency, established by Congress in 1990. We determine the root causes of chemical accidents and make safety recommendations to government, industry, and other bodies.

The Board's involvement in today's issue dates to April 25, 2002, when a serious building explosion occurred on West 19th Street in Chelsea, at a sign-making company called Kaltech Industries. Kaltech was a small business of about 50 people, and it occupied three floors in a ten-story, mixed-used commercial building.

The explosion happened in the middle of a workday, as Kaltech employees were combining various containers of hazardous waste chemicals in the building's basement. The chemicals included nitric acid, a powerful oxidizer, and lacquer thinner, which is highly flammable.

When these chemicals were mixed in a 55-gallon drum, a violent chemical reaction occurred, producing heat and gas. A few moments later the drum exploded and sent a powerful shock wave through the building.

The center stairwell collapsed, injuring two painters. Parts of the elevator shaft were blown out, a wall caved in, and a fire was ignited in the basement. Shattered glass and debris showered 19th Street, injuring at least one pedestrian. At least 36 people were injured in all, including four whose burns and other injuries were life-threatening. Among the injured were six New York City firefighters hurt during rescue operations.

The Board investigated this accident along with other city, state, and federal agencies. Board investigations are unique in that we look not only at rules violations but also at the overall adequacy of regulations, standards, inspections, and oversight. We always have one basic question in mind: what should we as society do to make this kind of accident less likely in the future?

The Board found that Kaltech did violate existing government regulations and good safety practices. Hazardous wastes were not labeled or characterized. Workers were not provided with appropriate safety information or training. Incompatible chemicals were not separated and were in fact mixed together, leading to the accident.

The explosion at Kaltech resulted from longstanding safety problems at this firm. As far as we can determine, company managers were simply

unaware of pertinent regulations and precautions, despite operating for ten years in this location and holding fire permits from New York City.

How could this situation occur? First, Kaltech had never been inspected by OSHA or state environmental authorities, and that is not atypical for businesses of this size.

However, Kaltech had been visited a number of times by city fire inspectors, who conduct about 100,000 hazardous materials inspections every year. Over the years, city fire inspectors cited Kaltech for various routine violations, but Kaltech's deficient handling of hazardous chemicals was never detected or corrected. Among the obstacles, we concluded, was the antiquated nature of the New York City Fire Prevention Code itself.

As the Board learned at a public hearing earlier this year, the code dates from 1918 and has been amended in only a "piecemeal" fashion over the succeeding 85 years. As a result, the code lacks many of the present-day hazardous materials controls that are included in modern model fire codes, such as the National Fire Protection Association code and the International Fire Code.

No New York City fire inspector – armed with the code as it currently stands – has adequate authority to correct hazardous material safety problems of the kind we found at Kaltech. On September 30 of this year, the Chemical Safety Board voted unanimously to recommend that New York City amend its current fire code to bring it into line with model fire codes.

We are recommending five specific reforms to the New York City fire code, at a minimum. The code should require that:

1. All hazardous materials are identified and labeled;
2. Permit applications include a hazardous materials management plan and inventory statement;
3. Material safety data sheets are made accessible to the workforce;
4. Workers are trained on safe chemical handling;
5. Incompatible chemicals are adequately separated.

In addition, it goes without saying that city fire inspectors will need to be fully trained on enforcing the proposed new code requirements.

Madam Chairman, there are many overlapping safety requirements under local, state, and federal regulations. However, for small businesses, a city fire inspector is often the only government safety official who will regularly visit and enforce those requirements. In those cases, city fire codes and inspections are the only line of defense a community has to protect itself from hazardous materials accidents. There are excellent model code provisions in existence, and the Board urges New York City to adopt them, as so many other jurisdictions have already done.

Thank you again for the opportunity to testify, and we will be pleased to answer your questions.