

UNITED STATES OF AMERICA

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CHEMICAL SAFETY AND HAZARD  
INVESTIGATION BOARD

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KALTECH INDUSTRIES GROUP

+ + + + +

PUBLIC HEARING

+ + + + +

WEDNESDAY,  
APRIL 16, 2003

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The hearing was held at the Fashion Institute of  
Technology Student Center, A Building, Faculty Dining,  
8th Floor, 8th Avenue & 27th Street, New York, New  
York, at 9:00 a.m., Carolyn Merritt, presiding.

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P-R-O-C-E-E-D-I-N-G-S

(9:00 a.m.)

CHAIRMAN MERRITT: Welcome to this public hearing of the U.S. Chemical Safety and Hazard Investigation Board. First thing I'd like to do is let you know that there are fire exits. If you are not aware or familiar with this building, there's an exit right in the back corner and another one in front and then there are several on the this aisle right before, or past the elevators. Restrooms are around the corner and then right over here. Thank you for allowing me to do that little announcement, but I think it is important.

I'm Carolyn Merritt and I'm the chairman, I'm CEO of the U.S. Chemical Safety Board, and with me this morning are other Board members and the executives of CSB. With me on my right is Dr. Andrea Taylor and Dr. Gerry Poje and John Bresland sits to my left. And then with us also is Charles Jeffress who is our CEO and Chris Warner who is our general counsel. And Irv Rosenthal, I'm sorry, at the end of the table, last but not least.

Our subject today is a serious chemical explosion that occurred at the Kaltech Industries Group on West 19<sup>th</sup> Street in the Chelsea neighborhood

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1 last April 25<sup>th</sup>. That explosion occurred without  
2 warning during the middle of the work day and injured  
3 a large number of people, some quite seriously.  
4 Sixteen people were hospitalized, four in intensive  
5 care, and 15 others were treated and released.

6 The Chemical Safety Board is the  
7 independent federal agency that investigates chemical  
8 accidents to determine their root cause. Our  
9 authorizing legislation, the Clean Air Act, states  
10 that in no event shall the Board forego an  
11 investigation where an accidental release caused a  
12 fatality or serious injury among the general public,  
13 and that certainly is the case with this event. The  
14 Chelsea explosion did have major public impact. Among  
15 those sent to the hospital were some 14 people who  
16 were not employed at Kaltech and were just bystanders  
17 or occupants of adjoining offices.

18 Our team arrived shortly after the  
19 explosion on April 26<sup>th</sup> and it included lead  
20 investigation Steve Selk. Steve, where are you? At  
21 your table, thank you. And Don Holmstrom, who also  
22 sits at the table, and my colleague, Dr. Poje, who was  
23 the Board member on scene at the time. The team has  
24 continued to investigate this incident over the last  
25 12 months and they are now ready to release the staff

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1 findings.

2 In the second part of today's meeting  
3 we'll hear from two panels of distinguished experts  
4 who will help us to unravel some of the remaining  
5 questions about this even. We have provided the  
6 panels with four specific areas to address, but the  
7 general issue before us is, what is the appropriate  
8 role of municipal fire codes in promoting the safe  
9 handling of hazardous materials?

10 Our first panel consists of three New York  
11 officials who are knowledgeable about the regulatory  
12 system that is currently in place.

13 The second panel consists of three experts  
14 in the subject of fire codes and they will discuss how  
15 other codes have addressed the problems of hazardous  
16 material management.

17 Finally there will be an opportunity for  
18 public comment, and I know many of you here are  
19 greatly interested in this issue or you were affected  
20 by this accident. If you plan to comment, we ask you  
21 to please sign in the sign-in sheets in the front desk  
22 when you got off the elevators. We ask you also to  
23 limit your comments to three minutes and to keep your  
24 comments to the issues at hand. We're also asking our  
25 panelists to restrict their comments to ten minutes so

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1 we have an opportunity for questions following your  
2 panel discussion. Also we'll not actually entertain  
3 questions to the Board members or to the investigators  
4 here. The Board will welcome written and/or  
5 electronic submission of any other comments that you  
6 might have of any length. Instructions for submitting  
7 written comments are contained in the Federal Register  
8 notice at the entrance so you can pick up a copy  
9 there, and our docket for this hearing will remain  
10 open until May 5<sup>th</sup>.

11 Are there any other opening comments? Dr.  
12 Poje?

13 DR. POJE: I would like to just offer some  
14 brief comments, Madam Chair, thank you for your  
15 introductory remarks and good morning to all. I also  
16 extend welcome to this public hearing. I'm a native  
17 New Yorker, born and raised in nearby Brooklyn and  
18 educated at New York University, not too far from this  
19 hearing site. Including taking classes in the Brown  
20 Building at NYU, the site of the Triangle Turquoise  
21 Factory fire much earlier in the last century that  
22 renovated the whole local, state and national approach  
23 to fire protection.

24 Today we meet on an occasion also  
25 noteworthy in the annals of American chemical safety.

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1 56 years ago on this date our nation suffered its  
2 worst chemical catastrophe. A vast multitude of  
3 dockworkers, industrial workers, clerical staffs had  
4 begun their workday as normal that morning in Texas  
5 City. Soon, however, firefighters and numerous  
6 bystanders, including children, were drawn to the  
7 initial spectacle of a colorful fire emanating from  
8 the ship the GRAND CAM in the harbor at Texas City.  
9 Poor hazard recognition and ill-advised emergency  
10 response failed to prevent a runaway reaction of  
11 ammonium nitrate fertilizer in the hold, cargo hold.  
12 The ship's explosion spawned multitudes of fires,  
13 explosions and other catastrophes at nearby chemical  
14 facilities and refineries and ultimately more than 600  
15 men and woman and children were killed and thousands  
16 others injured..

17 Now last April's reactive chemical  
18 explosion at the Kaltech Industries Group in Chelsea  
19 was not of such an epic proportion but it also  
20 occurred during the workday and resulted in serious  
21 injuries to workers and bystanders as you've already  
22 identified. It also caused widespread damage and  
23 disrupted the neighborhoods for many days and weeks.  
24 Not insignificantly this Manhattan explosion followed  
25 close on the heels of 911, further traumatizing many

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1 New Yorkers to the events of that time and of this  
2 incident.

3 Our board has recently examined 137  
4 reactive incidents over the last two decades and we've  
5 concluded that reactive problems are of national  
6 significance. We understand that managing reactive  
7 hazards requires addressing chemical combinations  
8 under specific process conditions and we also have  
9 agreed that federal policy at the Department of Labor  
10 and at the U.S. Environmental Protection Agency is  
11 inadequately protective for workers and communities  
12 and needs to be reformed.

13 I look forward to the presentations by  
14 Steve, our lead investigator, and Don, the head of our  
15 safety team in this incident, who were my colleagues  
16 on the scene last April. I also commend the  
17 leadership of the city for responding to the Board's  
18 request for experts about the existing regulatory and  
19 code system in the city, and similarly I look forward  
20 to the presentation and dialogue with other experts on  
21 fire prevention codes that have bearing on this  
22 particular event.

23 Thank you.

24 CHAIRMAN MERRITT: Thank you, Dr. Poje.

25 Are there any other comments?

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1 (No verbal response.)

2 CHAIRMAN MERRITT: Well, we're back, then,  
3 if there is no other comments from the Board, I  
4 recognize Mr. Steve Selk and Mr. Don Holmstrom for  
5 their presentation and introduction of our panel.

6 MR. SELK: Good morning, Madam Chairman and  
7 members of the Board. One year ago, on April 25<sup>th</sup> to  
8 be exact, there was an explosion in the basement of a  
9 building on West 19th Street here in the City of New  
10 York. The blast injured many people, at least 31 of  
11 them were treated in local hospitals. Sixteen were so  
12 seriously hurt they needed to remain the hospital for  
13 treatment and recovery. Four individuals required  
14 intensive care.

15 The Chemical Safety Board dispatched a  
16 team of investigators from Washington to the incident  
17 site here in New York. Our purpose was to find out  
18 what happened and also to examine how similar or  
19 further incidents could be prevented. Madam Chairman,  
20 the investigation team is ready this morning to report  
21 our preliminary findings to you and to the people of  
22 New York City.

23 We have concluded that the explosion  
24 directly resulted from the mixing of chemical wastes  
25 that were incompatible to each other. The company

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1 that produced these wastes, Kaltech Industries Group,  
2 did not have adequate procedures in place for handling  
3 chemicals. Kaltech did not maintain and administer  
4 the hazardous materials it had on hand. The employees  
5 were not shown material safety data sheets or trained  
6 on the hazard information contained in them and some  
7 of the containers of hazardous chemicals found on the  
8 premises were not labeled. It appears that management  
9 and employees of the firm were not aware of federal  
10 safety regulations that were required of these  
11 chemicals.

12 Let me briefly give you the background and  
13 amplify on what I have just reported.

14 Kaltech Industries Group was a tenant in  
15 the building which is located at 123 West 19<sup>th</sup> Street.

16 They occupied the basement of the building, the  
17 mezzanine and part of the first floor. Kaltech or its  
18 predecessor had been located there for a decade. The  
19 other nine stories of the 100-year-old structure were  
20 occupied by a diversity of tenants including service  
21 firms and even professional offices.

22 Kaltech manufactures architectural-quality  
23 metal signs. Metal panels for the signs were cut from  
24 sheets of steel, aluminum, iron and zinc. The panels  
25 were then engraved by means of an etching process,

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1 polished and coated with paint. The chemical agents  
2 included flammable solvents such as laperthan, alcohol,  
3 foaming mill extrudents and implosive chemicals such  
4 as a strong solution of ferrate chloride and  
5 hydrochloric acid that was used to patch the patterns  
6 onto the metal surface of the signs..

7 The business generated paint waste, dirty  
8 solvents and tension solution, all hazardous wastes.  
9 It was generally stored in 55-gallon drums before  
10 being picked up from the building and taken away every  
11 three months or so by a licensed hazardous waste  
12 transporter.

13 Over time as the operations grew larger  
14 the volume of hazardous waste being produced  
15 occasionally exceeded a metric ton per month. At that  
16 point Kaltech was reclassified as a large-quantity  
17 generator by the Environmental Protection Agency  
18 dealers, a status that presupposes to the highest  
19 level of waste handling proficiency.

20 Now the investigators found another  
21 chemical on the premises occupied by Kaltech, nitric  
22 acid. In a concentrated state nitric acid is a  
23 powerful oxidizer capable of reacting with many  
24 substances, sometimes energetically. We believe that  
25 nitric acid figures predominantly in the incident.

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1           On the day of the explosion employees were  
2 cleaning up. That morning several drums of waste had  
3 been taken from the basement up to the garage level  
4 and removed from the building by the licensed  
5 hazardous waste transporter without incident, but down  
6 below an employee in the basement had been complaining  
7 for some time that a 15-gallon container was emitting  
8 a foul odor. The foreman asked workers to transfer  
9 the contents of the leaking container to a drum.  
10 Workers then transferred the liquid from the leaking  
11 container and also from about a dozen other 15-gallon  
12 containers to 55-gallon drums. They used an electric  
13 pump to do this. They thought that the liquid in the  
14 containers was a safe exshan solution.

15           A minute or so after they finished a noise  
16 was heard coming from one of the drums. It began as a  
17 hissing sound and quickly increased to a roar. Liquid  
18 was straining upwards from one of the drums.  
19 Employees started to flee towards the exits for the  
20 basement, a center hall stairway and an auxiliary  
21 exit. Before many could escape the drum exploded.

22           Based on specifically confined  
23 environments, confined environments aggravate the  
24 consequences of an explosion because the expanding  
25 gases produced are not usually visible. This blast

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1 exited where it could, up the center stairwell and the  
2 elevator shaft. This caused the center stairwell of  
3 the building to collapse. The masonry walls of the  
4 elevator shaft blew out in the basement. Windows were  
5 blown out up to the fifth floor sending broken glass  
6 onto 19<sup>th</sup> Street. Large portions of the masonry  
7 ceiling were basically collapsed. Some of this  
8 masonry fell in the area of the secondary exit  
9 stairwell rendering it useless as a route of egress.  
10 The masonry walls of the mezzanine level collapsed and  
11 portions of the facade of the building fell on 19<sup>th</sup>  
12 Street.

13 The glass created a cloud of dust and  
14 searing the basement. In spite of emergency lighting,  
15 employees described to us an environment of darkness  
16 and debris that impeded or prevented their escape.  
17 Some became trapped. A fire also developed, and we  
18 believe that the blast from the explosion knocked over  
19 a drum of alcohol. The highly-flammable alcohol  
20 spilled from the drum and was probably ignited by  
21 electrical equipment installed in the area but  
22 unsuitable and inappropriate for use where flammable  
23 solvents are stored. Fortunately, the fire that  
24 subsequently occurred only involved a very small  
25 portion of the flammable solvents and chemical actions

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1 we had on hand and the basement was protected by fire  
2 sprinklers. These factors caused the magnitude of the  
3 ensuing fire to be limited. However, Madam Chairman  
4 and Board members, had more of the flammable solvents  
5 that Kaltech had on hand become involved in the fire,  
6 the potential consequences to those who became trapped  
7 in the basement would have been very great indeed.

8 Firefighters entered the building to  
9 extricate those trapped inside. One of the  
10 firefighters who arrived on the scene early told me he  
11 could see the entrance to the building was so  
12 obstructed by rubble that he had to make his way to  
13 the roof of an adjoining building and then cross over  
14 the roof of the subject building and enter there  
15 before descending the ten stories to complete rescue  
16 efforts.

17 The explosion did not only harm employees  
18 working at Kaltech, 14 members of the public were  
19 among the 31 injured. These included a delivery  
20 person, painting contractors who were working in the  
21 upper levels of the stairwell before it collapsed, and  
22 even a handicapped student at the technical college in  
23 an adjoining building.

24 Beyond injuries, the explosion forced  
25 tenants from all ten floors to evacuate. They were

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1 kept away from their workplaces until a structural  
2 review was completed.

3 Cleanup operations were delayed when it  
4 was discovered that asbestos and lead had been  
5 dislodged by the blast and 19<sup>th</sup> Street remained closed  
6 to traffic for many days. The fire department kept  
7 emergency equipment in place until it was declared  
8 safe. Some tenants could not access their offices for  
9 a month or more.

10 After considering all the evidence, we  
11 determined the blast occurred in the basement near the  
12 freight elevator. This is the area where we observed  
13 the heaviest blast damage. It is the location where  
14 the workers conducted the consolidation and mixing of  
15 the wastes. It is where witnesses saw first hand the  
16 hissing drum spewing its contents and it is where  
17 investigators recovered the first 55-gallon drum.

18 Employees told investigators that the  
19 dozen or so containers they pumped liquid from had  
20 been dormant in the workplace for many years. They  
21 also told us that they thought these containers  
22 contained only spent exshan solution. However, the  
23 Occupational Safety and Health Administration  
24 conducted an analysis of the liquid residues from  
25 containers found in the area after the incident and

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1 determined that some of them also contained solvents  
2 such as liquid laperthan.

3           Additionally, investigators from the city  
4 Department of Environmental Protection identified a  
5 residue of retric acid in one of the 15-gallon  
6 containers found in the area. This container matched  
7 the description of what workers stated was the last  
8 container they pumped into the 55-gallon drum. We do  
9 not believe that this container of retric acid had a  
10 label affixed to it describing its contents as  
11 required by both federal and local regulations.

12           Madam Chairman, while we cannot be certain  
13 of the exact chemicals and reactions involved in this  
14 incident, we have information that nitric acid was  
15 found at the scene and evidence indicates that it was  
16 mixed with other wastes and a chemical reaction  
17 occurred. From our knowledge of chemistry and from  
18 the totality of the available evidence, we concluded  
19 that nitric acid most likely reacted with laperthan  
20 causing sudden release of energy and a release of gas.

21       This caused the 55-gallon drum to explode.

22           The chemicals in question are materials  
23 that need to be handled with care and expertise. Our  
24 investigation indicates that Kaltech lacked the  
25 expertise to safely manage the chemicals it used in

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1 its manufacturing operations.

2 The Federal Government has developed  
3 standards for the management of hazards from workplace  
4 chemicals. These regulations require employers to  
5 maintain a list of the chemicals in the workplace and  
6 to ensure that all containers are labeled. It  
7 requires the employer to maintain material safety data  
8 sheets for each substance in the workplace and to make  
9 these available to the workforce, and the regulations  
10 require an employer to train employees regarding the  
11 hazards and handling requirements for these materials.

12 Kaltech did not do these things. In fact it appears  
13 that management was not aware of the regulations.  
14 When followed, they can prevent incidents such as  
15 this.

16 The chemical regulations are required by  
17 the Federal Government through the Department of  
18 Labor's Occupational Safety and Health Administration.

19 However, that agency, OSHA, does not have the  
20 resources to pro-actively inspect all workplaces,  
21 particularly those of small business. Kaltech has  
22 never been visited by OSHA.

23 In the area of hazardous waste management  
24 Kaltech did responsibly convey its hazardous waste to  
25 a licensed contractor for the proper disposal but in

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1 the workplace itself they lacked expertise in handling  
2 their waste. They did not label their waste  
3 containers as required by EPA and the Bureau of Safe  
4 Standards. And earlier I mentioned that workers  
5 thought they were handling standard exshan solutions.

6 Lack of effective labeling figures strongly among the  
7 misunderstandings that led to the incident. It is  
8 unsafe and unlawful to mix hazardous wastes without an  
9 adequate understanding of their compatibility. Where  
10 employers are uncertain of the nature or compatibility  
11 of their wastes, they should not mix it with other  
12 wastes, rather they should seek the advice of a  
13 competent hazardous waste contractor who can pack the  
14 material and safely remove it.

15 I have talked about federal and state  
16 regulations, but in many cases local governments also  
17 exercise control over hazardous substances. In  
18 particular, local fire codes and building codes  
19 include restrictions on where hazardous materials are  
20 allowed to be used, permissible quantities and storage  
21 requirements. New York City's fire code includes  
22 regulations, includes some of these controls and  
23 Kaltech has been issued a permit by the New York City  
24 Bureau of Fire Prevention allowing storage of ten  
25 drums or 550 gallons of such solvents and up to 1,000

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1 gallons of paint. Permits were not in place for other  
2 chemicals they were using.

3 In the course of our investigation we have  
4 noted that fire hose in other localities outside had  
5 some features that are more highly focused, words of  
6 safety and instructions.. Specifically, model and  
7 other bar codes may, like the regulations mentioned  
8 earlier, require that work places maintain material  
9 safety features, label all containers, and submit  
10 hazardous material management plans before summons are  
11 issued. New York City does ask businesses or anyone  
12 who is submitting an inventory of hazardous materials

13 This activity is handled by city's Department of  
14 Environmental Protection under the city's community  
15 right-to-know law. However, that department does not  
16 issue permits for hazardous materials, that activity  
17 is handled by the city's Bureau of Fire Prevention.  
18 And while the chemical inventory data provides for  
19 right-to-know submission that has been made from the  
20 Department of Environmental Protection to the fire  
21 department, it is only used for emergency response  
22 purposes, the data does not make its way to the  
23 permanent authority, the Bureau of Fire Prevention.

24 Madam Chairman, I'm going to describe to  
25 you and the other distinguished Board members an

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1 accident the consequences of which is serious, it  
2 could have been worse. I express the opinion that the  
3 business where the incident occurred did not have  
4 adequate skills, consistent advice to handling  
5 chemical material safely.

6 I have also described some of the elements  
7 of what are the complex array of federal, state and  
8 local authorities and activities.

9 Our objective today is to provide a forum  
10 for you and your colleagues and others gathered here  
11 to learn more about the workings of this complex  
12 solution.

13 Among us today are a variety of officials  
14 from various agencies and departments as well as  
15 subject matter experts. We have invited them to  
16 gather with us and asked them to focus on the role  
17 that local oversight can serve to prevent an incident  
18 such as the one that occurred last April 25<sup>th</sup>.

19 If it meets with your approval, I would  
20 now like to request that my associate and co-  
21 investigator, Donald Holmstrom, introduce some people.

22 CHAIRMAN MERRITT: Thank you, Mr. Selk.

23 May I ask everyone to please turn off your  
24 cell phones, I'm sorry, I forgot to mention that  
25 earlier, but if you would, I would appreciate it.

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1 Thank you very much.

2 MR. HOLMSTROM: Madam chairman, Board  
3 members, Mr. Jeffress and Mr. Warner, we will now  
4 proceed in the panel presentations. We will have two  
5 panels today, one a panel of city officials and  
6 another panel of fire code experts. The panelists  
7 will address questions posed by the Board on the role  
8 of New York City fire and right-to-know regulations  
9 and their role in helping to prevent chemical  
10 accidents like the one at Kaltech. The Board in its  
11 final report may address additional issues beyond the  
12 scope of today's hearing.

13 The first panel, and I would like to ask  
14 them to come up now, is the panel of city officials.  
15 We are pleased today to have four city officials at  
16 our hearing.

17 The first, Deputy Assistant Chief of Fire  
18 Prevention Ron Spattafora of the New York City Fire  
19 Department. He's a 24-year veteran of the Fire  
20 Department, he's a site safety officer at the World  
21 Trade Center Ground Zero. He was voted to the New  
22 York City's Fire Department staff chief position in  
23 August 2002.

24 We're also pleased to have James Hansen.  
25 Mr. Hansen is a professional engineer, he's the

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1 director of engineering and technical standards  
2 management for the New York City Fire Department's  
3 Bureau of Fire Prevention. James Hansen administers  
4 the Code Revision Unit for the Bureau and oversees  
5 technology plan review. Mr. Hansen is a New York  
6 State licensed professional engineer and possesses a  
7 Bachelor's Degree of chemical engineering. His  
8 background includes work as a process design engineer  
9 with the petrol chemical industry with a speciality in  
10 air pollution control. His experience also includes  
11 18 years as an operator of H-Vac equipment and high-  
12 pressure boilers. Mr. Hansen was vital to the  
13 department's efforts on the pending proposals to amend  
14 the New York City fire code and rules regarding  
15 mechanical refrigeration.

16 Today we also have Mr. Robert C. Avatroni  
17 who was named deputy commissioner for the Department  
18 of Environmental Protection's Bureau of Environmental  
19 Compliance. He has prior significant management  
20 background in both private and public sectors. After  
21 spending 12 years with Consolidated Edison he was  
22 appointed to serve in the Kosch administration and  
23 became assistant commissioner in the Department of  
24 Transportation. He was later appointed to the  
25 position of chief of staff for the Office of Sheriff.

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1 In 1994 he was appointed to the position of first  
2 deputy commissioner for the Office of Sheriff and in  
3 '96 he played an active role in the creation of the  
4 Trade Waste Commission.

5 Also we are pleased to have on the city  
6 panel today Mr. John, C. Bosse. He's the director of  
7 Code Revision and Implementation Unit of the  
8 Department of Building, Bureau of Electrical Control.

9 The code unit was in the forefront of the recent  
10 passage of legislation which updated the city's  
11 electrical code and adopted the 1999 national electric  
12 code and over 300 local amendments reflecting the  
13 unique-built environment of New York City. The code  
14 unit also implements the requirements of New York  
15 City's new electrical code and oversees the ongoing  
16 initiative to further an update for the New York City  
17 electrical code and the New York City building code.

18 It's my pleasure to have these gentlemen  
19 here today. If you'd proceed up here to the panel for  
20 questioning.

21 Thank you, Madam Chairman.

22 CHAIRMAN MERRITT: Thank you, Mr.  
23 Holmstrom.

24 MR. HOLMSTROM: Madam Chairman, one other  
25 item. Today we're going to ask several questions of

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1 the panel and I'm going to briefly describe those  
2 questions. We've asked in the Federal Register Notice  
3 for both the panels and those interested in making  
4 public comments to address the questions.

5 The first one is, how does the New York  
6 City Fire Prevention Code function to control the  
7 handling of incompatible material such as nitric acid  
8 and flammable liquids? What are the requirements of  
9 the code's permitting provisions and are they  
10 sufficient to prevent the mixing of incompatible  
11 materials?

12 The second question, in the light of the  
13 Kaltech incident, are there changes to New York City's  
14 Fire Prevention Code that will enhance the state's  
15 handling of hazardous materials such as nitric acid?  
16 If so, what areas should be addressed? In responding,  
17 consider the following topics: Hazardous material  
18 identification and labeling, permitting requirements  
19 such as the submission of a management plan and  
20 inventory statements, MSDS availability to the  
21 workforce, worker training, and the safe separation of  
22 incompatible material in manufacturing facilities.

23 The third question that we have for the  
24 panelists today is do model fire codes such as the  
25 International Code Council's International Fire Code

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1 and the National Fire Prevention Protection  
2 Association National Fire Code present a more  
3 comprehensive approach to hazardous materials  
4 management in these areas?

5 Are there other cities or states that have  
6 adopted more effective hazardous materials provisions  
7 in their fire codes?

8 How do the requirements of the New York  
9 State Uniform Fire Prevention and Building Code Act  
10 affect the fire code obligations of New York City?

11 The final question, by what means do the  
12 New York City Fire Department and the Department of  
13 Environmental Protection exchange information  
14 concerning ability to use in storage of hazardous  
15 materials? Are there ways in which communication can  
16 more effectively, can be more effective concerning  
17 hazardous materials inventory and labeling  
18 requirements?

19 Thank you very much.

20 CHAIRMAN MERRITT: Thank you. Could I ask  
21 the panel, unfortunately the numbers, or your names  
22 there are almost a little bit too small to see so if  
23 you -- We've got big cards, though. If you could  
24 introduce yourself so we know which one you are.

25 MR. HANSEN: I'm James Hansen with the Fire

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1 Department.

2 CHAIRMAN MERRITT: Okay.

3 MR. SPATTAFORA: I'm Chief Spattafora with  
4 the Fire Department, assistant chief of fire  
5 prevention.

6 CHAIRMAN MERRITT: Thank you.

7 MR. AVATRONI: I'm Bob Avatroni, Deputy  
8 Commissioner of DEP, good morning.

9 CHAIRMAN MERRITT: Okay.

10 MR. BOSSE: And I'm John Bosse with the  
11 Department of Buildings.

12 CHAIRMAN MERRITT: Okay, thank you very  
13 much. And for our reporter, if you would, when you  
14 speak please give your names so he'll get that right.  
15 Thank you.

16 Who is the first to speak today?

17 MR. BOSSE: I'm starting off.

18 CHAIRMAN MERRITT: Okay, thank you very  
19 much, Mr. Bosse.

20 MR. BOSSE: Good morning, Madam Chairman  
21 and members of the Board. My name is John Bosse, I'm  
22 director of the Code Implementation Unit for the  
23 Department of Buildings. Also with me here today is  
24 Fatmahama, the PE and our executive engineer, David  
25 Nusbaum, our director of Intercontinental Community

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1 Affairs for the department. I want to thank you for  
2 the opportunity to speak this morning regarding  
3 hazardous materials and building codes. I'll focus my  
4 comments in response to questions posed as to how New  
5 York City's current building code and the  
6 international building code are structured to protect  
7 the public from the harmful effects of hazardous  
8 materials. I'll also respond to the question of what  
9 future plans exist for updating the city's building  
10 code.

11 The city's current building code, also  
12 known as the new code, the 1968 code, it's now  
13 entitled 27 of the administrative code and is  
14 applicable to new buildings, change of use and  
15 alterations exceeding 30 percent of the replacement  
16 value of the building. The new code classifies  
17 different types of occupancies of buildings and spaces  
18 into alphabetical categories and provides specific  
19 instruction requirements for these categories.

20 For example, high-hazard occupancy is  
21 classified as Route A and is broadly defined as  
22 storing, manufacturing or processing of potentially  
23 explosive, combustible or flammable products or  
24 materials. Occupancies falling within this high  
25 hazard definition and are subject to specific

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1 instruction provisions relating to required fire  
2 divisions and/or fire sprinklers, ventilation and  
3 separation of the high hazard use from other  
4 occupancies.

5 Similar requirements are applicable to  
6 other occupancies involving hazardous material such as  
7 certain storage or industrial uses, among others.

8 Requirements regarding various high hazard  
9 uses are scattered throughout the building code. For  
10 example, in addition to the occupancy classifications  
11 in Sub Chapter 3, high hazard uses are also regulated  
12 by Sub Chapter 7 titled "Special uses of occupancies"  
13 which include location, ventilation and sprinkler  
14 requirements. Specific requirements and restrictions  
15 are set forth for the high hazard occupancies,  
16 occupancies involving spray or dip finishing, those  
17 involving radioactive material and radiation-producing  
18 equipment, dry cleaning establishments, and those  
19 involving storage of nitric acid, just to name a few.

20 The emphasis of the code is toward the  
21 more physical properties of hazardous materials such  
22 as flammability, combustibility and explosiveness.

23 It should be noted that a number of existing buildings  
24 pre 1968 are still subject to the 1938 building code  
25 as amended, also known as the old code. For these

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1 pre-existing buildings the New York Board of Standards  
2 and Appeals classifies these as into high hazard,  
3 medium hazard and low hazard uses. According to this  
4 classification, buildings may be required to provide  
5 sprinkler protection, fire extinguishers or may be  
6 required to obtain permission from the Fire  
7 Commissioner.

8           The International Building Code 2000, also  
9 known as the IBC, has a category, Hazard Group H, to  
10 regulate many of the same uses found in New York  
11 City's high hazard Group A. It goes beyond the scope  
12 of Group A to expressly cover additional high hazard  
13 operations and uses. The IBC contains much more  
14 detailed definitions of various high hazard uses and  
15 breaks down the high hazard classifications into five  
16 subgroups, H-1 through H-5, each categorized by  
17 material types. IBC uses the term "control area" to  
18 define the enclosed space where quantities of  
19 hazardous materials, not exceeding the maximum  
20 allowable quantities for control area, are stored,  
21 dispensed, used or handled.

22           The IBC goes beyond the emphasis on  
23 physical characteristics of the city's building code  
24 to include characteristics such as passivity and  
25 covers both physical and public safety concerns. The

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1 scope of the IBC provisions covers areas found in the  
2 city's building archives.

3 As you may know, the mayor in November of  
4 2002 created an advisory commission to advise him on  
5 the prospect of updating the city's building code and  
6 adopting a model code. The commission recently  
7 completed its review of the issues and of two model  
8 building codes, the IBC 2000 and the National Fire  
9 Protection Associations NFPA 5000. This initial  
10 review was focused on the format and ease of  
11 adaptability to the provisions of the existing New  
12 York City building code. The final report from the  
13 commission is expected to be released sometime next  
14 week.

15 The commission's recommendation is to  
16 adopt a model code and the process will be aimed at  
17 modifying the model code text to reflect the intent  
18 and high standards of the existing New York City code  
19 and to take into consideration the unique conditions  
20 found in New York City.

21 We'd be happy to answer any questions you  
22 might have.

23 CHAIRMAN MERRITT: Okay. Does anyone on  
24 the Board have a question for Mr. Bosse? Oh, we were  
25 going to, I think we were going to wait until all

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1 three have and then ask questions, if that's all  
2 right. Is that all right with the panel or would you  
3 prefer to do it -- Okay, thank you very much, Mr.  
4 Bosse.

5 MR. BOSSE: Thank you.

6 CHAIRMAN MERRITT: Who is -- Mr. Hansen,  
7 thank you.

8 MR. HANSEN: Good morning, Madam Chairman  
9 and members of the Board. My name is James Hansen,  
10 I'm the director of engineering for the Bureau of Fire  
11 Prevention, New York City Fire Department.

12 The New York City Fire Department's  
13 primary mission is to provide fire protection,  
14 inspection and prevention services to the firefighters  
15 of the city. To help fulfill this mission a  
16 comprehensive and easily-enforced fire prevention  
17 codes is one of the best tools to achieve life safety,  
18 property protection and continuity of building  
19 operations.

20 With regard to the storage and handling of  
21 hazardous materials, New York City clearly presents  
22 unique safety concerns owing in part to the city's  
23 extreme population density, traffic density, and  
24 extensive underground networks. In response to these  
25 significant public safety concerns, in what manner

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1 does the Fire Department enforce the specific  
2 provisions of the existing New York City Fire  
3 Prevention Code and Rules? To ensure the safety of  
4 life and property, specially-trained inspectors from  
5 zero fire prevention visit all premises where  
6 hazardous materials are used or for sale and/or  
7 stored. Such materials include flammable and  
8 combustible liquids, compressed gases, aerosols,  
9 acids, motor fuels, and the list goes on.

10 Roughly 200,000 fire safety inspections  
11 are conducted annually by the Bureau. The majority of  
12 these inspections relate to the use, sale and/or  
13 storage of hazardous materials.

14 The Bureau is provided with technical  
15 support from a technology management unit which  
16 reviews plans, applications for variances and new  
17 technology. Assistance in the development of  
18 inspection standards is also provided as needed.

19 The Fire Prevention Code of the City of  
20 New York was originally adopted in the year 1918.  
21 Since that time amendments have been adopted on a  
22 piecemeal basis. Typically, the primary driving force  
23 behind these amendments were incidents and tragedies  
24 that identified the need to regulate certain areas or  
25 changed the manner in which certain areas were

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1 regulated. Nonetheless, the Fire Prevention Code of  
2 the City of New York has never gone and undergone a  
3 comprehensive review or revision.

4 As John Bosse of the Department of  
5 Buildings has indicated, the mayor's advisory  
6 commission is assessing the potential viability of  
7 adopting one of the model building codes. A detailed  
8 study has been undertaken to evaluate the likely  
9 impact of differences between the current building  
10 code and the various model codes with respect to,  
11 amongst other things, public safety and effectiveness  
12 of enforcement. We understand that the mayor's  
13 advisory commission is expected to release a  
14 recommendation on this matter next week.

15 As you may expect, the Fire Department is  
16 playing an integral role in the mayor's advisory  
17 commission looking into the potential adoption of the  
18 model building code. Additionally, however, it is  
19 important to note that we will also necessarily be  
20 reviewing the fire, model fire code as many of the  
21 model building codes incorporate, duplicate and/or  
22 reference sections of the model fire code requirements

23 Preliminarily, it appears that select  
24 model codes are more complete in scope and breadth as  
25 compared to the current New York City Fire Prevention

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1 Code. However, particular topics are not in some  
2 cases covered in such depth as to adequately meet the  
3 needs of New York City. As such, it seems likely that  
4 any model code that was indeed eventually adopted  
5 would almost certainly require extensive modification  
6 so as to effectively address the specific hazards that  
7 are unique to New York City.

8 As you well know, New York State recently  
9 adopted both the International Building Code and  
10 International Fire Code as amended by the specific New  
11 York State modifications. The state's adoption of  
12 these model codes does not impact the code obligations  
13 of New York City. Currently, New York City is not  
14 subject to the Uniform Fire and Building Code.  
15 Instead, the city enforces its own Building and Fire  
16 Codes whose origin predated January 1<sup>st</sup>, 1984, the  
17 effective date of the uniform code in the rest of New  
18 York State.

19 Executive Law, Section 383, provides that  
20 in cities with a population of over one million,  
21 existing building and fire prevention codes shall  
22 continue in full force and effect unless the code  
23 council, after analysis and consultation with the fire  
24 and building officials, determines that the local  
25 provisions are less stringent than the uniform code.

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1 Existing local statutory, regulatory and  
2 administrative laws and provisions of the city shall  
3 continue in full force and effect unless the code  
4 council makes the aforementioned determination.  
5 Irregardless of whether or not New York City  
6 ultimately proceeds with the adoption of a model  
7 building code or a model fire code, it is significant  
8 to point out the city would certainly not be precluded  
9 from making modifications or enhancements to our  
10 existing New York City building and/or fire prevention  
11 code in an effort to address any deficiencies  
12 identified in the aforementioned studies.

13 The Fire Department looks forward to  
14 having productive discussions today and we do  
15 appreciate the opportunity to participate in this  
16 hearing. The U.S. Chemical Safety Board will be  
17 considering today's testimony and comments while  
18 developing the safety recommendations for this case,  
19 we look forward to reviewing the Board's  
20 recommendations.

21 CHAIRMAN MERRITT: Thank you very much, Mr.  
22 Hansen.

23 Next, who is going to speak?

24 MR. AVATRONI: Good morning, Madam  
25 Chairman.

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1 CHAIRMAN MERRITT: Good morning.

2 MR. AVATRONI: And members of the Board.  
3 My name is Bob Avatroni, I'm the deputy commissioner  
4 of the Bureau of Environmental Compliance, New York  
5 City Department of Environmental Protection. I thank  
6 you for this opportunity to testify today on the  
7 city's right-to-know program and our division of  
8 emergency response and technical assessment within the  
9 context of the hazardous materials emergency at the  
10 Kaltech site last April.

11 DEP is an integral part of the city's  
12 first response team. DEP houses the right-to-know  
13 data base which is now more comprehensive than at any  
14 point in its history. Over the life of the program,  
15 DEP's right to know staff, part of the Division of  
16 Emergency Response and Technical Assistance, known as  
17 DERTA, have developed a city-wide facility inventory  
18 data base used to track chemical storage throughout  
19 the city. To enhance the program, the right-to-know  
20 program has selected and inspected specific industries  
21 to be noncompliant or unfamiliar with the reporting  
22 requirements of the right-to-know law in order to make  
23 data base more complete.

24 In the event of an emergency involving  
25 hazardous materials DEP and the Fire Department can

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1 access these files on site. Because DEP is on hand at  
2 all such emergencies and because it is our primary  
3 role to be responsible for maintaining and analyzing  
4 this data, we ensure that the critical hazardous  
5 material information is instantly accessible to the  
6 city's first response unit. For example, during the  
7 Kaltech event DERTA responded on site immediately,  
8 helping to prepare in the specific causes and early  
9 response needs. There was then issued the  
10 Commissioner's order mandating safe disposal of  
11 hazardous materials at the site and that disposal be  
12 conducted in accordance with all federal, state and  
13 local regulations. DERTA then remained on site 24  
14 hours a day until all substances were removed.

15 DEP is competent in the level of inter  
16 aids, communication and cooperation before and during  
17 emergency responses. In fact we will soon be expanding  
18 and developing additional methods for accessing right-  
19 to-know information. In the near future DEP and the  
20 city will be rolling out new laptop software that will  
21 make the right-to-know data base available to others  
22 at the city's emergency response team. However, I  
23 would ask that the Board understand correctly the  
24 intent of the technology. This is an important step  
25 for helping the city make its response efforts more

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1 flexible.

2 This does not mean current record keeping  
3 and response techniques are inadequate, in fact quite  
4 on the contrary. We are simply creating a way to help  
5 the city respond in different formations with  
6 different personnel. The need of this or any other  
7 technology enhancing access to the data base would  
8 have prevented this situation or mitigated its  
9 impacts.

10 Given the existing high standards within  
11 the right-to-know program, these people believe the  
12 right to know has been tremendously effective in  
13 reducing potential hazards during emergency throughout  
14 the city. While there is always more that could be  
15 done to increase overall safety, the DEP is proud of  
16 having found innovative ways to maximize use of the  
17 right-to-know data base and its larger role as the  
18 integral part of the city's first response team.

19 I thank you for this opportunity to  
20 testify, I will be happy to answer all your questions.

21 And seated my right is Mr. Enzel Cantansaro who has  
22 played a prominent part as our assistant director for  
23 the hazardous materials response unit and he can help  
24 to answer any questions also.

25 Thank you.

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1 CHAIRMAN MERRITT: Thank you.

2 Ron Spattafora, it's nice to have you  
3 here, thank you.

4 MR. SPATTAFORA: Thank you.

5 CHAIRMAN MERRITT: Do you have a statement?

6 MR. SPATTAFORA: Well, I can just let you  
7 know in regards to the statistics in regards to the  
8 lab unit what they do. There's approximately 6,800  
9 accounts, approximately 6,000 of those accounts are  
10 laboratories. Many of them are in colleges,  
11 hospitals, high schools, and the remaining 800  
12 accounts include medical gas accounts, commercial gas  
13 accounts and hazardous chemicals. The laboratory unit  
14 conducts approximately 9,000 inspections per year.  
15 It's a fire prevention laboratory unit. And our  
16 accounts consist of approximately 6,000 no-fee  
17 accounts and 800 in which we charge a fee.

18 Common violations include lack of  
19 certificates of fitness to handle and store, supervise  
20 laboratories, unsecured compressed gas cylinders,  
21 flammables stored in non-explosion-proof  
22 refrigerators, missing blocks, inoperable safety  
23 showers, acid storage not segregated from flammable  
24 liquid storage, fire extinguishers not serviced by a  
25 certified company, missing warning signs, compressed

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1 gas cylinders exceeding 10-year hydrostatic tanks, and  
2 acid stored on metal shelves.

3 Critical violations include storage of  
4 dry, potentially explosive picric acid, storage of  
5 ethyl ether past its expiration date, storage of  
6 flammable liquids exceeding the allowed flammable lab  
7 capacity, and storage of flammable liquids in  
8 unapproved labs and/or chemical storage rooms.

9 All laboratory requirements are covered by  
10 Title 3 of the Rules of the City of New York, Section  
11 10-01. In lieu of existing regulations, fire  
12 prevention will refer to the NFPA 45.

13 All laboratories are required by law to  
14 have at least one CFF holder on each laboratory floor  
15 at all times whenever there is a laboratory in  
16 operation, in some cases around the clock, 24-hour  
17 coverages.

18 All institutions are required to maintain  
19 MSDS sheets for each chemical used in their  
20 laboratories at a central location, usually the  
21 Environmental Health and Safety Office and/or security  
22 desk.

23 Existing laboratory rules do not require  
24 the flammable liquids or acids to be stored in OSHA-  
25 approved chemical storage cabinets, they are usually

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1 stored under fume-hood cabinets and under wash-sink  
2 cabinets.

3 Also I have the fire report here, and  
4 during the investigation of the fire there were  
5 several summonses that were issued to Kaltech in  
6 regards to improper storage. Acetylene gas, the  
7 improper storage of acetylene gas, illegal storage of  
8 paint, no CFF folder for air compressor, no permit for  
9 an air compressor, illegal storage of flammables,  
10 illegal storage of oxygen and acetylene tanks.

11 CHAIRMAN MERRITT: Okay, thank you.

12 At this time I'd like to open the floor  
13 for questions from the Board if there is someone who  
14 has a question to be recognized.

15 (No response.)

16 CHAIRMAN MERRITT: Then we'll start with  
17 Dr. Rosenthal. Since I missed you before, we'll start  
18 with you.

19 DR. ROSENTHAL: Okay. In relation to the  
20 g43 description of the various authorities that exist  
21 in the codes and in the different departments, in  
22 retrospect, it appears that there were regulations  
23 that covered everything, and in glancing through the  
24 report, it looks as though there were people who did  
25 some degree of inspections, what are your thoughts

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1 about what additional resources or provisions or  
2 things might have assisted any one of you in reducing  
3 the likelihood of the type of incident that occurred  
4 at Kaltech? So I'd be interested in your response  
5 across the table.

6 CHAIRMAN MERRITT: Would someone like to  
7 respond to that?

8 MR. AVATRONI: I don't know, I'll take a  
9 crack at it, Dr. Rosenthal. From a DEP perspective, I  
10 think I speak on behalf of my colleagues, obviously  
11 any incident, if we have one incident it's one too  
12 many and this was a very critical incident. What we  
13 try to do is we try to develop as much intelligence as  
14 we possibly can, and I think I alluded to that in my  
15 testimony with respect to our right-to-know data base,  
16 and we have measures in place, obviously, that would  
17 be critical and promptly driven if those situations  
18 are not met. What we try to do, again, is develop as  
19 much information with right to know and we handle  
20 that, so that is preventive in nature and it works in  
21 the vast majority of incidents. Obviously it did not  
22 work here.

23 We have, and I don't want to compromise  
24 anything right now, what we did a year ago is we had  
25 the city council, with the city council we passed a

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1 legislation that really modified the spill bill and  
2 intensified the penalty structure from a monetary  
3 perspective which is significant. Also the ability to  
4 pierce the corporate veil and hold an individual  
5 responsible personally. So if you have ABC  
6 Corporation and you decide to go defunct, you do not  
7 waive your immunity to being held responsible.

8 Additionally what we did in one of the  
9 critical issues that we felt were important from our  
10 perspective, is that we asked the council, and they  
11 did approve this, is that we could prosecute  
12 criminally. And in fact we look at each situation in  
13 an attempt to determine if in fact people have misused  
14 their responsibility. I will tell you this, maybe on  
15 some of these incidents we cannot answer all the  
16 questions you might have but there is an ongoing  
17 investigation as we speak.

18 So I hope that enlightens you in terms of  
19 my feeling toward the situation, the city's feeling as  
20 well, and this mayor is driven to fulfill that  
21 obligation.

22 DR. ROSENTHAL: Just a sub thing on your  
23 response. In other words, all of the fire department  
24 and other people are aware of the information you have  
25 when they visit the site?

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1                   MR. AVATRONI: Yes. What we do is we  
2 quarterly send the fire department information, we  
3 work closely with the fire department. And on site,  
4 as I alluded to in my testimony again, we do share  
5 information so people are aware of what should be in  
6 the facility. Again, it's something that, you know,  
7 it's sort of like if you go, obviously there's  
8 preventive medicine, so you try to act up front and to  
9 detect anything early on. And of course then when  
10 something does happen, you know, obviously you go to a  
11 doctor to be helped if you have something, so I equate  
12 that to this type of situation.

13                   MR. SPATTAFORA: The DEP data base is  
14 available to our special operations command units, the  
15 HASMAT units and the affiliated squad companies that  
16 respond to these type emergencies. What we're looking  
17 to do, and we're working on it now with the safety  
18 battalion, with operations, is to get that data base  
19 to our operations center so it will be available not  
20 just to the special operations command units that  
21 respond to the incident but also the fire prevention  
22 inspectors so they can have that information available  
23 to them prior. So they don't necessarily have to look  
24 at the MSDS sheets that are on the site, they can have  
25 that information prior to doing the inspection. Also

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1 it will be available to field units so they'll have  
2 that information also.

3 Prior to this we were just getting hard  
4 copy MSDS sheets in fire prevention, the toxic  
5 substance unit was getting hard copy. That  
6 information had to manually be inputted into a data  
7 program, all right, and that took time. And for a  
8 period of time a lot of that information wasn't  
9 adequately getting put into the system, so we're  
10 looking now to get that data base to operations center  
11 so that everyone has it.

12 CHAIRMAN MERRITT: Yes, Mr. Hansen.

13 MR. HANSEN: Yes, James Hansen. I'd just  
14 like to add something to, you know, to what additional  
15 resources might be needed, I think, to prevent this  
16 from happening at a location. Now we talked about the  
17 model codes and the fact that the New York City Fire  
18 Prevention Code hasn't been updated in quite a long  
19 time and it does need an update and the model code, I  
20 think, is a good springboard to move from there, and,  
21 you know, adopting the model code with certain  
22 modifications and with the program of inspections that  
23 the fire department has in place of getting out to  
24 these facilities, I think that that's the answer. I  
25 think the answer is to get the code up to where it

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1 should be and then to implement an inspection program  
2 that, you know, within the constraints that the city  
3 has, you know, budget wise, to get a program out there  
4 where we can get the job done.

5 CHAIRMAN MERRITT: Okay, thank you.

6 Mr. Bosse.

7 MR. BOSSE: John Bosse. I'd just like to  
8 second Mr. Hansen's insight. I think that one thing  
9 that we're very interested in is making sure that we  
10 fill in any blank spots and overlapping jurisdictions  
11 between agencies, and we did that with the fire  
12 department on our effort to adopt the national  
13 electrical code and the building code effort  
14 continues. The fire department already has  
15 representation on the mayor's advisory commission on  
16 the adoption of the model building code so I think  
17 we're moving in the right direction.

18 CHAIRMAN MERRITT: Okay, thank you.

19 DR. TAYLOR: I have a question, I guess any  
20 of the panelists can answer, but specifically for the  
21 fire department. I know that you require a  
22 Certificate of Fitness for the applicants so they know  
23 what materials they're handling and storing. Is there  
24 any requirement for the workers to know that same  
25 information and require a Certificate of Fitness as

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1 well?

2 MR. HANSEN: Well, our Certificate of  
3 Fitness program is, I've explained what it is.  
4 There's certain types of activities that are regulated  
5 by the fire department and those individuals involved  
6 in those certain activities have to secure a fire  
7 department Certificate of Fitness. They have to come  
8 down, they have to take a test, in some cases they  
9 have to have some background requirements and they  
10 have to pass an exam and they are personally issued  
11 the certificate.

12 DR. TAYLOR: And that's for all the  
13 chemicals that they have on their site?

14 MR. HANSEN: Well, there is probably about  
15 70 different categories. One of the categories is  
16 storage and handling of flammable liquids, there's  
17 cryogenic liquid, you know, there's all different  
18 categories and certificates. We have currently out  
19 there, and they're renewed every three years, 203,000  
20 certificates. So there's quite a few of these and,  
21 you know, we test 300 candidates a day, you know. So  
22 there are people possibly coming in. Our enforcement  
23 program is constantly issuing violations to people who  
24 don't have the people who have passed the exam.

25 And one of the areas that I think that the

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1 fire department, you know, will have to take a look  
2 at, and that is what is actually on, what is the study  
3 material, because we give the applicants study  
4 material so they know where they can, where they need  
5 to focus their intention in studying. And if it's not  
6 included in there, and I know in some areas it is  
7 included and talks about incompatible material and  
8 things of that nature, I think it would be very  
9 important and very worthwhile to have that in there,  
10 have the applicant study that and be tested on that  
11 and then I would provide, you know, some increased  
12 level of safety.

13 CHAIRMAN MERRITT: Do you verify who takes  
14 the test to assure that is the person who is being  
15 represented there?

16 MR. HANSEN: Well, yeah, that's an  
17 interesting thing. That was changed about two years  
18 ago when we went onto a system where, similar to motor  
19 vehicle, where we take a picture of the applicant.  
20 And there have been people who had their picture taken  
21 and then when they show up at the test it's a  
22 different person, the marshals took them away.

23 (Laughter.)

24 DR. TAYLOR: Now the second part of that,  
25 so the workers that are on site, is that OSHA's

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1 responsibility and who makes that decision and how is  
2 the training done for the employees at the site?

3 MR. HANSEN: I'm not that familiar with the  
4 OSHA requirements. I know that they require training,  
5 the right to know. We do not get involved and verify  
6 that the OSHA-required training has been conducted, we  
7 have our own self-certification program.

8 DR. TAYLOR: Just for the applicant only?

9 MR. HANSEN: Just for the applicant only,  
10 yes.

11 DR. TAYLOR: Okay.

12 CHAIRMAN MERRITT: Thank you, Dr. Taylor,  
13 thank you, panel. Is there any other comments before  
14 we move on? Fine, thank you.

15 DR. POJE: I would like to ask Mr. Bosse  
16 and maybe comments from Mr. Hansen as well about the  
17 process that the city has been underway in  
18 investigating building code reform. Mr. Bosse, you  
19 told us that the mayor has actually set in motion  
20 something that, and to celebrate the examination of  
21 revision of codes. We're interested most specifically  
22 in the preventative value that might be had for code  
23 revision, particularly fire prevention codes that  
24 might speak to the specific problems at the Kaltech.  
25 You indicated that there were special modifications

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1 that would need to be had for the City of New York in  
2 adopting a revised fire prevention code because of the  
3 uniqueness of the city.

4           There are a couple of things. One is,  
5 explain the process by which the code is being  
6 reexamined and who has standing in being and serving  
7 on the code revision recommendation team. And then,  
8 second of all, how this revision of code would need to  
9 be modified to deal with the explicit New York City  
10 context.

11           MR. BOSSE: First I will just describe the  
12 commission. About four months, by executive order,  
13 the mayor established an advisory commission on the  
14 adoption of a model building code and it is to make  
15 recommendations to the mayor regarding whether that is  
16 the course that the city should take. On that  
17 commission about a dozen members. Two fire  
18 department officials sit on that as well as other  
19 recognized industry leaders involved in the building  
20 code and the building construction industry in the  
21 city. As I mentioned, it's expected that sometime  
22 next week that commission will issue its  
23 recommendations to the mayor. So what I can speak to  
24 is the process that we followed in the adoption of the  
25 national electrical code and the amendments.

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1 DR. POJE: Will that recommendation to the  
2 mayor be something that the Board would have access  
3 to?

4 MR. BOSSE: Certainly. We'll make sure  
5 that you're provided with a copy of the report as soon  
6 as soon as it's issued.

7 DR. POJE: I would appreciate that.

8 MR. BOSSE: But the process that was  
9 followed in the electrical effort was that a number of  
10 technical committees were established covering,  
11 really, groups of subject matter and chapters of  
12 national electrical code. That was looked at,  
13 compared with the existing code, and where there was a  
14 consensus, certain improvements were made. The major  
15 intent was to bring the existing code into the format  
16 of the national code, but in the process there were  
17 over 300 amendments. So it's very specifically  
18 tailored to the circumstances that you find in New  
19 York City and the problems of environment that we have  
20 here.

21 DR. POJE: Just to interrupt for a second.  
22 The electrical code has already been accomplished?

23 MR. BOSSE: Yes. The mayor has signed the  
24 law, Local Law 41, back in December, December 2<sup>nd</sup>, so  
25 we adopted the 1999 and the 300, over 300 local

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1 amendments.

2 DR. POJE: And just on that matter because  
3 I also had the opportunity to be in the building  
4 shortly after the event occurred, also I noticed that  
5 a number of electrical protection procedures for an  
6 environment that might contain flammable vapors were  
7 not had. Is there any grandfathering that would be  
8 allowed within this code revision or are we to force  
9 people to come up to best standard possible for the  
10 electrical code portions?

11 MR. BOSSE: Uh, there is a phase in but the  
12 local allowed a six-month phase in of the technical  
13 standards. The administrative positions took effect  
14 January 1<sup>st</sup>, but at the option of the applicant, they  
15 can, because projects start at the design phase, you  
16 want to allow them to have time to switch gears and  
17 follow the new code. But I would anticipate that a  
18 process, should we go forward with the model building  
19 code, will follow what we did with the electrical  
20 code.

21 DR. POJE: So, then, just to be clear,  
22 there would be a number of other technical committees  
23 following now that this decision might allow the DEP  
24 and the fire department to ?

25 MR. BOSSE: Right. All the affected

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1 agencies and public would have input into that and  
2 then we would come up with modifying language to the  
3 national code.

4 MR. ROSENTHAL: In other words, you would  
5 be going back to a facility like Kaltech and forcing  
6 the rewiring and new electrical provisions?

7 MR. BOSSE: Umm, that would be depending on  
8 what appli ? As far as work, existing work, if they  
9 were to come in and file a job application, then they  
10 would have the option of proceeding up until July 1<sup>st</sup>.

11 MR. ROSENTHAL: There would be no  
12 grandfathering of existing buildings from the  
13 electrical portion?

14 MR. BOSSE: Well, I would have to know the  
15 percentage of work that was remaining. I'd have to  
16 have more details before I could really answer that.

17 MR. ROSENTHAL: Okay, thank you. I'll look  
18 at the modifications when you send them to me.

19 MR. BOSSE: Okay.

20 CHAIRMAN MERRITT: One of the things I've  
21 heard and I know we have heard it before is  
22 limitations of number of inspectors we have, but we  
23 know at this site as well as what I have heard from  
24 you, is there are multiple inspectors who may go in  
25 and look at a site like this. We may have a fire

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1 inspector or we may have someone out of the water  
2 department who's looking at their sewer discharges.  
3 Have you looked at it and is there a way to cross-  
4 educate people so that the fire inspector goes in and,  
5 you know, he may be looking for fire extinguishers but  
6 if he saw an operation like this it would trigger  
7 something in his mind to report it through an  
8 mechanism to other agencies where there may be a  
9 concern. That's one question I have.

10 And the second one has to do with  
11 notification of building occupants concerning  
12 activities involving chemicals, hazardous chemicals  
13 such as the ones that were managed there or supposed  
14 to be managed there at Kaltech and created the  
15 situation, how do you manage both the right to know  
16 and how do you cross-pollinate one another with  
17 information concerning things that should be somewhat  
18 obvious, I think, in an inspection?

19 MR. SPATTAFORA: We could start in the  
20 program where we're giving the field companies when  
21 they do their annual inspections, semi-annual  
22 inspections, depending on the type of building, we're  
23 giving them information in regards to what we in fire  
24 prevention in regards to the storage, what type of  
25 materials, flammables, combustibles, paints,

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1 combustible mixtures at each premise.

2 DR. TAYLOR: Pardon me, is anyone looking  
3 at the labeling of drums?

4 MR. SPATTAFORA: The labeling? That's more  
5 of a, like the lab unit would go there and check on  
6 that in regards to labeling the MSDS sheets, some of  
7 them on technical aspects of the code, whereas the  
8 field units would want to know the amount that they  
9 are permitted to have on the premise. And they'd be  
10 looking at the storage, good housekeeping, things of  
11 that nature. But we have a program now in place where  
12 that information in regards to the quantities of  
13 combustibles, flammables, paints are being given to  
14 each administrative company and the allowable amount  
15 on the permit so that now the companies when they do  
16 the inspections, they'll have that information and  
17 they'll be able to make a determination on whether  
18 those permits are being complied with and whether they  
19 have permits at all to have that material.

20 MR. HANSEN: I would just like to add a  
21 little to that. In terms of cross-training or cross-  
22 enforcement, currently the fire department enforces,  
23 has gross enforcement authority from the building code  
24 to enforce many of the life-safety issues, need to be,  
25 overcrowding, you know, things of that nature, we have

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1 that authority, and it is very useful and it's used,  
2 you know, every day, you know, violations and summons  
3 are issued every day for that. And in terms of cross-  
4 enforcement with other agencies, I mean once the model  
5 fire code or whatever code gets in place in the city,  
6 perhaps the fire department will have within their own  
7 power the authority to issue what is needed under  
8 their own authority. If that doesn't come to be, some  
9 level of ability to enforce the provision, not only  
10 just training, you know, the ability to go out and  
11 actually correct it right there rather than a referral  
12 to the agency and then the agency has to allocate  
13 resources for that. Some degree of cross-enforcement  
14 is worthwhile, you know, and one inspector can handle  
15 quite a bit. Even within the Bureau of Fire  
16 Prevention there is a possibility, we have many  
17 specialty units, and our inspectors may inspect a  
18 building, maybe two, three, depending upon what's in  
19 the building, public assembly, high rise, whether they  
20 have a kitchen, cooking equipment, whether they have  
21 an oil tank or they're using flammables or  
22 combustibles, we may be in there two, three, perhaps  
23 even four times a year to make an inspection. And,  
24 you know, in terms of cross-enforcement, it gets into  
25 a whole lot of issues, you know, how much you have to

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1 pay somebody who is a super inspector and doing, you  
2 know, the entire building. But certainly, you know,  
3 having one inspector go in, inspect the entire  
4 building for all the fire code violations, anything  
5 that affects fire safety, and then having him leave is  
6 a very nice thing, it's a nice thing for us, it's very  
7 efficient for the building owner. They're happy only  
8 to see a fire inspector perhaps once a year than every  
9 three months. Something that certainly, you know. We  
10 have talked about, it's been considered, but, you  
11 know, it is a big job to implement something of that  
12 nature.

13 DR. POJE: Just following up on the Chair's  
14 comments, though, are there any right-to-know access  
15 to be had by other tenants in a building about the  
16 conduct of material usage and storage in that  
17 building? This was a mixed-use building that the  
18 Kaltech operation was within. Are people  
19 knowledgeable about the right-to-know provisions in  
20 the City of New York and are they availing themselves  
21 of that information to be more vigilant for materials  
22 being used in their immediate environment?

23 MR. AVATRONI: We have a situation here,  
24 obviously, we do exchange our information with our  
25 sister agencies for obvious reasons. Unfortunately, I

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1 guess more now than ever in the world we live in it's  
2 very difficult to put out information with respect to  
3 chemicals to occupants, to the general public from a  
4 security perspective.

5 DR. POJE: What about their safety?

6 MR. AVATRONI: Right, that's a very good  
7 point. You try to balance the safety and, again, we  
8 try to be the caretaker, if you will. But I think  
9 what we don't want to have happen, I think you folks  
10 would agree also, is create an environment that if you  
11 had that information out to the general public and  
12 someone wanted to do something that was not in  
13 anyone's best interest, it might actually pose more of  
14 a threat or more of a concern or more of a health risk  
15 to the general public at large, so we walk a fine line  
16 there. I can tell you this, if we have a situation  
17 where information is requested, if we have a formal  
18 request we will review people. We work with law  
19 enforcement, too, for obvious reasons.

20 DR. POJE: Now on that very matter, the  
21 preface that I gave to my opening remarks about the  
22 terrible tragedy 56 years ago in Texas City, Texas was  
23 the additional multitudes of lives lost and serious  
24 injuries from people who hadn't a clue about how to  
25 appropriately respond when a dangerous situation was

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1 upon them. So this weighing of rights to know and  
2 rights to protect from an evil intent is the crux of a  
3 very serious dilemma for social safety and social  
4 security that I think needs serious examination before  
5 we adopt what happened after 9/11 as being the sole  
6 imperative for protecting our communities. There is  
7 too much of a history of the management of hazardous  
8 materials that has led to the poor outcome of too few  
9 people knowing what was being handled and how best to  
10 respond, endangering the lives of many other innocent  
11 bystanders in the situation. I don't welcome the task  
12 that's upon you at the DEP, I think it's an onerous  
13 challenge, but I do think we have to balance safety  
14 and security and assure that those innocent bystanders  
15 and other workers in other businesses in similar  
16 geographies are effectively aware of how to protect  
17 themselves during an emergency and how to respond in  
18 emergencies.

19 MR. AVATRONI: I concur with that  
20 assessment.

21 CHAIRMAN MERRITT: Thank you. Are there  
22 any other comments to that? Mr. Bresland.

23 MR. BRESLAND: Thank you, Madam Chair.  
24 I've got several questions but maybe I'll ask them in  
25 the order that I'm thinking about them.

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1           The volumes of chemicals that were stored  
2 in the basement in this building, which is a multi-use  
3 building, I understand that they were permitted to  
4 store 500 gallons of flammables and 1,000 gallons of  
5 paint. How does that, from your perspective as  
6 professionals in the fire fighting business, is that  
7 an appropriate amount of flammables to be stored in  
8 the basement of a multi-use building and how does that  
9 volume compare with the model fire code amount?

10           MR. HANSEN: To my knowledge, the permit  
11 that the fire department had issued to Kaltech was  
12 based upon an inspection that was conducted on the  
13 first floor, so the ?

14           DR. TAYLOR: Only on the first floor and  
15 not the basement?

16           MR. HANSEN: I'm not sure. It's reported  
17 that he didn't inspect the basement, I don't know  
18 whether that basement was inspected, but the comment  
19 indicates that the first floor was issued a permit.  
20 In terms of flammables stored in the basement, is that  
21 inappropriate now? Based on the model codes I would  
22 say no, the model codes do not permit flammable  
23 storage in the basement, sprinklered or not  
24 sprinklered.

25           DR. TAYLOR: All right.

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1 MR. HANSEN: Unfortunately, we do not have  
2 the model codes in the city and recent legislation for  
3 mercantile would allow for certain flammables store in  
4 the basement with sprinkler protection and certain  
5 other provisions but that legislation did not address  
6 the issue of a factory, whether they could have  
7 flammables in the basement. So, you know, I would say  
8 that, you know, from a fire protection standpoint and  
9 a safety standpoint, it's not appropriate, no, to the  
10 basement. But it may not have violated any city code  
11 other than the fact that they didn't have a permit  
12 from us for that and perhaps the Certificate of  
13 Occupancy issued by the building department did not  
14 indicate that the basement was approved for the use of  
15 some type of manufacturing process.

16 MR. BRESLAND: Just following up now, can  
17 you explain how the process works? If an inspector  
18 from a department of the city comes and is inspecting  
19 the building and I guess they're thinking about an  
20 inspection with regard to hazardous chemicals, they go  
21 to the first floor but they don't go to the basement,  
22 why would that be?

23 MR. HANSEN: Well, the building owners, I  
24 mean some of these buildings are very large, you know,  
25 and there's different tenants on different floors, so

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1 the fire department will go to the particular owner of  
2 the building who has requested the first inspection or  
3 if it's a renewal it will go to that, and that tenant  
4 or owner, whoever it happens to be that got the permit  
5 from the fire department, will then indicate and show  
6 the fire inspector the areas where he conducts certain  
7 activities. Sometimes it may happen that the  
8 inspector doesn't get to floors because he was not  
9 aware of or he was not informed that there was any  
10 type of manufacturing activity going on in those  
11 floors. And after he conducts his inspection he  
12 completes a survey and his survey indicates what  
13 floors he actually inspected and what he found on  
14 those floors, and then his recommendation as to  
15 whether a permit should be issued or not issued.

16 DR. POJE: Is there no kind of checkup  
17 question that is asked for in that, do you have any  
18 other hazardous materials located in other portions of  
19 this building?

20 MR. HANSEN: There is no requirement for  
21 them to submit a list of hazards to the fire  
22 department, directly to us. Our inspectors are  
23 trained in requirements, you know, they have, they are  
24 aware of what the requirements are. They often pick  
25 up the fact that people are using chemicals that they

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1 don't have permits for and, you know, that goes on  
2 every day. We're constantly picking up new accounts  
3 based upon our inspecting of the facility where the  
4 business is being conducted.

5 MR. BRESLAND: I have a slightly different  
6 question. The Chemical Safety Board has been  
7 investigating this incident over the last year, we'll  
8 come up with our findings and recommendations, but a  
9 question to the professionals here on the panel, what  
10 do you think went wrong? I mean if you could wave a  
11 magic wand and make things better, what would you do  
12 to improve the situation?

13 MR. AVATRONI: I think, again, the Board is  
14 to be commended, obviously we've worked closely with  
15 you in the past year. And again going back to the  
16 statement I made before, that what we have, a  
17 situation, we have a situation here when this final is  
18 written, it will not be actually the final epitaph of  
19 this incident. There is an ongoing investigation  
20 which I don't want to talk much and you folks don't  
21 want to talk much as well. So, to answer you  
22 question, you know, and let's use a hypothetical  
23 situation, if someone is not being genuine in  
24 reporting substances, then that individual or that  
25 party should be made to pay a price and we fully

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1 intend to use whatever powers that we have to make  
2 that happen with the appropriate authorities.

3 DR. POJE: If I could just follow up on  
4 that, I think we share your concern over the integrity  
5 of your investigative efforts, but the concern would  
6 be, what could be done in a preventative mode? I mean  
7 clearly we want the long arm of the law to be long  
8 enough and strong enough to catch people when they're  
9 in violation prior to a catastrophic outcome to be  
10 had, so what we're looking for is where is the leech  
11 to be had in either revisions to the way the city does  
12 its business or to augmenting what's been done already  
13 to be preventative of such hard to see facilities.  
14 I've walked through Manhattan, I know there's a lot of  
15 businesses. I appreciate the challenge to the fire  
16 department, to the DEP, to those administering the  
17 building code to be visiting to everybody. We see it  
18 from the federal level regulations, the state's  
19 regulations and local. We believe there's great value  
20 in the infrastructure already established here in the  
21 City of New York to be preventative.

22 MR. AVATRONI: I totally agree, and I think  
23 what we've done, I think what we've done successfully  
24 is obviously there's heightened awareness of what the  
25 right -to-know program is. I think we have many, many

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1 more facilities filing. We have a multi-agency  
2 approach, obviously, that works, and communication, I  
3 think, is at the heart of that effort. And I think  
4 also, quite frankly, it goes back to, a preventative  
5 measure obviously will be how we act in a situation  
6 such as the one that we are looking for and the  
7 heightened awareness also in the penalty that has to  
8 be paid if there is no compliance.

9 DR. TAYLOR: The question that I have, I  
10 just want to follow up, so if the New York Fire  
11 Department does this and you're looking at the safe,  
12 the handling of storage for permitting purposes,  
13 that's correct. If you notice that there were working  
14 conditions that were not being -- poor working  
15 conditions, you know, no labeling, would you report  
16 that, then, to OSHA? Do you have any authority to  
17 pass that on to another agency, or to DEP, if that's  
18 their authority, could you do that?

19 MR. SPATTAFORA: Well, in this program that  
20 we've just enacted we have notified the field units to  
21 let us know if there are any improprieties in regards  
22 to storage, permits, housekeeping, anything like that,  
23 they would let fire prevention know and then we would  
24 let the other agencies know. We have a field public  
25 communications unit and they coordinate information,

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1 transfer with other agencies, so we have an ongoing  
2 interaction with the buildings department and DEP, all  
3 the other agencies in the city.

4 DR. TAYLOR: Does your department handle  
5 the labeling when you go in? Do you conduct targeting  
6 inspections of these work sites or labeling violations  
7 or anything like that or is it just that you depend on  
8 OSHA to do that?

9 MR. AVATRONI: I think what we try to do is  
10 obviously we try to see what chemicals are there, if  
11 they are being reported properly, they're being stored  
12 properly, the labeling is appropriate as well with the  
13 information that's being given to us by the party  
14 that's at the location.

15 DR. TAYLOR: That's what the EP does?

16 MR. AVATRONI: Yes.

17 DR. TAYLOR: Okay.

18 MR. AVATRONI: And, again, that's why  
19 there's a right-to-know filing and a facility  
20 inventory form that comes to us. Again, we wish the  
21 world was perfect and we wish in every instance  
22 everybody was being forthright with us, but that's  
23 simply not the case, and it goes back, and I really  
24 want to make this genuinely clear to everyone, that  
25 the need for us to act appropriately when we have a

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1 violation of this magnitude, any magnitude, is that we  
2 will act accordingly and a message will be sent.

3 MR. ROSENTHAL: I'd like to follow up, one  
4 quick question and then a more involved question.

5 Has your department actually ever visited  
6 the Kaltech site?

7 MR. AVATRONI: Yes, we did, sir.

8 MR. ROSENTHAL: Okay. And so, for whatever  
9 the reason, the unlabeled cans and things just were  
10 either hidden or escaped your attention or something?

11 MR. AVATRONI: That is a fairly accurate  
12 assessment, sir.

13 MR. ROSENTHAL: Okay. I have a more  
14 general question. Being a little older, I don't think  
15 you will ever root out all, quote, "evil" or all bad  
16 actions, in fact what we find in the course of our  
17 investigation is that most accidents are caused by the  
18 failure of people to do things that they already know  
19 they ought to do without any intention of evil, just  
20 from the sins of omission that all of us, except the  
21 panel, are prone to have.

22 (Laughter.)

23 MR. ROSENTHAL: So here we have a  
24 situation, but, you know, things happen, and when you  
25 plan, in terms of the safety of third parties as we do

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1 in a mixed-use building, one has to ask the question,  
2 what if something which is not called for, not  
3 illegal, does occur, is it likely enough to occur so  
4 that there's significance risk, and what are the  
5 consequences of that risk?

6 Now I'm going to go back and say, here we  
7 have a group of solvents, people who are licensed to  
8 use chemicals singly and then to dispose of them.  
9 What I would like to focus on is the process of  
10 disposal, because when you mix chemicals together, and  
11 this is known in laboratories, you're going into a  
12 very dangerous operation, you're undertaking something  
13 far more dangerous than the use of the chemical per se  
14 in the intended operation. And some facilities, for  
15 example, will recognize this and not mix wastes on  
16 site, they will send them out separately in chem pack  
17 to be mixed by the licensed disposer at a facility  
18 where if there is any mislabeling or an unknown mixing  
19 of chemicals the consequences do not endanger people.

20 And so I raise this question, has the city considered  
21 that the disposal of wastes, labeled and identify  
22 people in a mixed-use facility should be done in the  
23 original containers and taken off site by the  
24 disposing of the original containers and then handled  
25 off site, since I think would significantly reduce the

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1 likelihood of the type of incident to have occurred.  
2 Everyone who's worked in a laboratory knows that there  
3 are unlabeled cans, that the labels fall off and  
4 somebody moves away. I've looked in places like Las  
5 Alamos and others where I've worked and there are  
6 unlabeled substances sitting there for six years that  
7 someone forgot to move. So given the reality of  
8 actual human conduct, I wonder if the city has  
9 considered this type of what I would call inherently  
10 safer approach to the disposal of waste.

11 MR. AVATRONI: First of all, they should  
12 not be mixing, okay? And EPA and the state DEC is the  
13 regulatory body which we look to for protection, if  
14 you will. So your point is certainly well taken. I  
15 think there's a mechanism in place and I'm certainly  
16 not prepared to answer that on behalf of the city  
17 because, again, the regulatory requirements have the  
18 EPA and the state DEC taking that initiative, but I  
19 understand what you're saying.

20 CHAIRMAN MERRITT: Is there any other  
21 questions?

22 MR. ROSENTHAL: There was another response  
23 coming.

24 CHAIRMAN MERRITT: Oh, I'm sorry.

25 MR. SPATTAFORA: The investigator's report

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1 from the Chemical Safety Board mentions that a few  
2 months ago Kaltech was producing one metric ton per  
3 month and at that point it was reclassified as a  
4 large-quantity generator under the EPA regulations.  
5 That's a status that pre-supposes the highest level of  
6 waste handling proficiency. So I would think at that  
7 time there would be some type of review of how they  
8 were handling that waste, if, like you mentioned, it  
9 would be performed off site or at another facility.

10 MR. ROSENTHAL: Thank you.

11 MR. BRESLAND: There was some discussion  
12 there from the gentleman on the panel about the  
13 exchange of information, the exchange of the right-to-  
14 know information with our department, and as I  
15 understand it, that was usually in the context of an  
16 emergency response to a fire or to some sort of  
17 hazardous situation; is that correct?

18 MR. AVATRONI: Well, actually there's a  
19 two-prong approach to this. Yes, when we are out in  
20 the field, obviously, there will be an exchange  
21 instantaneous. But also, as I suggested in my  
22 testimony or shortly thereafter, we do hand over that  
23 information, our right-to-know information on a  
24 quarterly basis to the fire department.

25 DR. TAYLOR: So they get it prior to?

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1 MR. AVATRONI: Yes, that's correct.

2 DR. POJE: So from an emergency response  
3 function, that seems to be working out, that a team  
4 thought there was a very good emergency response taken  
5 by the city to such a catastrophic event last April,  
6 the challenge is, how can it inform the more upstream  
7 inspection process to seek to have a greater degree of  
8 prevention potential to the events that occurred last  
9 April?

10 MR. AVATRONI: I agree with your  
11 assessment, obviously we work closely together, we're  
12 proud of our efforts, collaborative efforts to protect  
13 people in the city, and as I suggested in my testimony  
14 again, we are working even further with our data base,  
15 to exchanging information, to use technology as our  
16 friend and to even enhance our efforts, and again to  
17 be more proactive, I think is what you're suggesting,  
18 and we will continue to do that.

19 CHAIRMAN MERRITT: One of the things as a  
20 large-quantity generator, I understand the State of  
21 New York has responsibility for overseeing that  
22 program. Would it be of use to you or are you  
23 notified about large-quantity generators that are  
24 operating here in the city for your further  
25 investigation or inspection or awareness, and if not,

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1 would that be something that you would like to know?

2 MR. AVATRONI: I think there's always room  
3 for improvement, there's always room for exchange of  
4 information which would be helpful to any party, so I  
5 think the answer to that would be yes. But again,  
6 exactly where the, you know, the responsibility lays  
7 at certain points and we as a city attempt to work  
8 collaboratively and I think we're very successful for  
9 the most part in doing that and we try to work with  
10 our partners at EPA and the state and I think we are  
11 successful for the most part but there's always room  
12 for improvement.

13 CHAIRMAN MERRITT: I see. Dr. Poje.

14 DR. POJE: If I could just follow up on  
15 some of the points that I think you raised a little  
16 bit earlier, and that would be what Dr. Rosenthal was  
17 alluding as a difficulty of our Board. We seek to  
18 investigate in order to elevate the lessons learned  
19 from a tragic event, educate those who have primary  
20 responsibility for the causation of that event, but  
21 also to speak to a larger community whose pattern of  
22 practice may be slipping to the same kind of pattern  
23 of practice that this one sorry incident exemplifies.

24 We are a national agency and we try to speak as  
25 particularly as we can to the localities that we can

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1 speak to. So do you have any ideas of how you would  
2 reach the multitude of smaller facilities to give them  
3 knowledge of what had happened here and what is the  
4 existing rules and regulations and standards that the  
5 city would want everybody to adhere to and therefore  
6 be preventative and not dependent upon your  
7 jurisdiction of catching somebody when a failure does  
8 a occur?

9 MR. AVATRONI: I guess the fact that  
10 communication is in and the fact that this hearing is  
11 taking place, the fact that we've worked  
12 collaboratively for a year or so together and  
13 identifying a situation that was tragic. The lessons  
14 learned are the ability to communicate. As I've  
15 mentioned, when we highlight where we are making  
16 modifications in the form of changes to a spill bill  
17 in fact to intensify our efforts and increase the  
18 penalties from a money perspective as well as a  
19 criminality perspective, that's heightened awareness.

20 Awareness is good, communication is good. We didn't  
21 want this incident to happen, you didn't want this  
22 incident to happen, but as you said before, we can use  
23 this as a way of sending out a message which is clear  
24 and concise to people that, yes, we are doing our jobs  
25 collectively and we will not tolerate any situation

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1 that will compromise the public.

2 DR. POJE: Are there any particular trade  
3 associations that might be representative of such  
4 smaller business entities that the city works with  
5 regularly to communicate rules and regulations and  
6 practice?

7 MR. AVATRONI: Yes. In fact we've made a  
8 concerted effort to go out to areas where we felt  
9 there would be problems, I'll use the plating  
10 industry, for instance, that uses, as an example, and  
11 there are many others. We have an outreach program at  
12 DEP under our EEDA program, that's the Economical  
13 Environment Development Area, which goes out and  
14 speaks to people, to make them aware, because, you  
15 know, many people for years were not even aware of  
16 what was necessary under the right-to-know program.  
17 So we have taken significant steps over the period of  
18 time and we will continue to educate and broaden the  
19 potential for all those that deal with chemicals to  
20 know what their responsibilities are know how crucial  
21 it is to protect the people of the city.

22 DR. POJE: I know on behalf of this  
23 personal Board member we'd welcome piggybacking on  
24 such educational efforts so that the lessons learned  
25 from the Board's ultimate report on the Kaltech does

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1 get out to the same kinds of audience that has  
2 prevention done.

3 MR. AVATRONI: We consider you a partner.

4 CHAIRMAN MERRITT: And if you can think of  
5 any other, or members of the audience who are also  
6 here, any other avenues for getting this information  
7 out to those who need to have it in order to know what  
8 their responsibilities are and consequences are, we  
9 would certainly appreciate that as well.

10 Any other questions? Mr. Bresland.

11 MR. BRESLAND: In earlier testimony you  
12 talked about the number of facilities that were  
13 covered under, I guess the fire department's  
14 inspections and you talked about laboratories. In the  
15 New York City Fire Department's eyes, what's the  
16 definition of a laboratory? Is that what I think it  
17 to be, let's say a university laboratory, a school  
18 laboratory, or is it broader than that to include  
19 operations like Kaltech?

20 MR. HANSEN: Laboratory is basically a  
21 diagnostic, a clinical, so you find them in the  
22 universities, you find them in the hospitals, you find  
23 them in the health organization groups, you know,  
24 those type of labs. Typically when you get into  
25 laboratories within industrial, that's covered by

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1 another category of the fire code called technical  
2 establishments, and that activity is then regulated  
3 under the technical establishment and not the lab  
4 regulations.

5 MR. BRESLAND: Where would the operation  
6 like Kaltech fall?

7 MR. HANSEN: Kaltech would probably fall  
8 under the category of technical establishment.

9 MR. BRESLAND: Okay.

10 DR. TAYLOR: Is that where they were?

11 MR. HANSEN: They had been issued permits  
12 individually for what they had there. They had  
13 permits for flammables, combustibles and maybe one  
14 other thing. It's kind of like borderline. Technical  
15 establishment and individual permits is kind of, it's  
16 a gray area, you know, when they have a whole  
17 multitude of chemicals, a very large factory,  
18 typically they get lumped into technical  
19 establishments.

20 DR. TAYLOR: So this was smaller?

21 MR. HANSEN: This is smaller, they gave  
22 individual permits out, but it may well have been  
23 categorized as a technical establishment.

24 DR. TAYLOR: Okay.

25 MR. ROSENTHAL: That's the problem, that

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1 there are gray areas, and that is why, for example, as  
2 a matter of principle, you don't, I'm taking the  
3 experience, you don't allow explosives to be stored in  
4 a mixed-use building. What we don't recognize is that  
5 when we mix seemingly safe materials together we can  
6 and do create explosives, and the question then is,  
7 given the establishment where the person's principle  
8 knowledge is something other than chemistry, even  
9 though he passes your two-day course, he's still not  
10 qualified to recognize what very many expert people  
11 fail to recognize in sophisticated chemical plants,  
12 and so I wonder again whether if one has mixed  
13 categories of waste, the disposal should take place in  
14 a mixed-use facility.

15 DR. TAYLOR: Can I go back to Mr. Bosse.  
16 Mr. Bosse, for new buildings, for someone coming in or  
17 occupying the building, what kind of information do  
18 you gather regarding the use of chemicals that are  
19 being used in a multi-use facility?

20 MR. BOSSE: I think I might let our  
21 executive engineer answer that because she deals with  
22 a lot more applications.

23 UNIDENTIFIED SPEAKER: Actually when, you  
24 know, the licensed occupant or engineer on behalf of  
25 the building owner files for a new building, he has to

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1 identify the use and occupancy that will be, you know,  
2 occupying this building, and based on that if, you  
3 know, it's not a lack of building code requirements,  
4 but based on that we identify for him in the building  
5 code, we spelled it out clearly, if he comes in the  
6 category of high hazard, you know, category, he, you  
7 know, all the requirements would be in because of the  
8 construction classification, the sprinkler protection,  
9 the separation from other, you know, occupancy that  
10 may exist in the building. The announced, you know,  
11 in terms of like, even for nitric acid, nitric acid,  
12 if he has like a nitric acid, he has to identify, an  
13 identifiable on the plans, we would have proper in  
14 storage requirement, the proper, you know, ventilation  
15 that would, you know, the proper, you know,  
16 neutralization of this acid, that it didn't spill. It  
17 means all these requirements as our plans with you  
18 were, you know, discovered from the plan submitted.  
19 It means, you know, we give it to and we specifically  
20 say it's a manufacturing. If it's a dry cleaning  
21 establishment, we know there is specific requirements  
22 in the building code, and all this triggers, you know,  
23 in terms of fire protection, you know, it must meet  
24 the requirements of the code.

25 CHAIRMAN MERRITT: The question I have is,

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1 ten years after this and there is space available in  
2 this building and entity X, Y, Z rents that space, is  
3 there some mechanism in the lease agreement or is  
4 there some mechanism other than just making sure  
5 they've heard about the fact that they need to get  
6 these permits, is there some way, some barrier or some  
7 requirement for notification in the lease agreements  
8 or something like that that, you know, will catch this  
9 to say, yes, I'm going to lease this property and, Mr.  
10 Property Owner, I am also going to use chemicals in  
11 this process as a part of what I'm going to be doing  
12 in this leased space?

13 UNIDENTIFIED SPEAKER: Unfortunately, when  
14 there is a tenant change, you know, the building  
15 department modified, as long as the tenant falls  
16 within the same, you know, use group in terms of  
17 zoning and the same occupancy group in term of code.  
18 We'd like very much applying the professional who's  
19 been detained by the building owner to give him the  
20 right advice or to come forward if there is a change  
21 that would, you know, trigger code worker requirements  
22 to come and file with the building department.

23 Right now in terms of like I just wanted  
24 to comment on the exchange of information and the  
25 training for the industry. The building department

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1 meets with BIAC bimonthly, which is the Building  
2 Industry Advisory Council. The Real Estate Board, New  
3 York City's, you know, Real Estate Board is  
4 represented. And I think from this accident, I think  
5 we should be addressing them this way. The building  
6 owner has to be fully aware of what the tenant is  
7 planning to store in the building.

8 CHAIRMAN MERRITT: I assume he would want  
9 to know that. It would seem to me it would be in his  
10 best interest to know what's going on in those spaces  
11 that he is leasing, whether he is an on-site owner or  
12 an absent owner, you know, the security and ability to  
13 continue to have that building standing could result,  
14 you know, could be in jeopardy if he doesn't know  
15 that, so it was a question I had as to whether that  
16 might not be another place where you might have a  
17 requirement for notification or something.

18 MR. HANSEN: Yeah. I'd just like to add  
19 one thing to that, you know, I guess what Billings is  
20 saying is that they're reactive, you know, they wait  
21 for people to come to them. The fire department is  
22 actually out there and we are proactive in that, you  
23 know, we very often will go to a facility and the  
24 occupancy has changed. And one of the permit  
25 requirements in order for us to give a permit is that

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1 the DOB documentation be in order, so we will very  
2 often issue a violation to submit documentation that  
3 you are in compliance with the Department of  
4 Buildings, so we then force them to go back into the  
5 building department process to get the approvals that  
6 they need.

7 CHAIRMAN MERRITT: Okay. Any other  
8 questions?

9 DR. POJE: Just for Mr. Bosse once again,  
10 just to clarify for me where we stand right now with  
11 the state law regarding building and fire codes,  
12 you're not specifically charged as a municipality in  
13 the state with adopting a specific code but you're  
14 precluded from adopting a different code than you have  
15 operational right now?

16 MR. BOSSE: My understanding, that since  
17 we're a municipality over a million persons that we  
18 adopt our own code, and I guess the only proviso is  
19 that our code must be more stringent or at least as  
20 stringent as the state.

21 DR. POJE: And the state has adopted which  
22 code?

23 MR. BOSSE: The state right now has adopted  
24 the International Building Code.

25 DR. POJE: And that has a fire prevention

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1 code?

2 MR. BOSSE: Component.

3 DR. POJE: Component.

4 MR. BOSSE: I don't know the status of  
5 whether they adopted the companion fire code, I  
6 believe they have.

7 DR. POJE: You believe they have?

8 MR. BOSSE: That's correct.

9 DR. POJE: And am I correct, I believe I  
10 heard one of you testify that the city itself has  
11 begun a process of examining the implications of that  
12 code?

13 MR. BOSSE: Yes, and it's coming to  
14 conclusion very shortly, so hopefully sometime next  
15 week.

16 DR. POJE: Okay. And not the  
17 recommendation, I'm talking more about the study or  
18 analysis, just have a look at the implications of the  
19 city's adoption of the code portion of that?

20 MR. BOSSE: Correct.

21 DR. POJE: That is also to be had next  
22 week?

23 MR. BOSSE: Yes.

24 DR. POJE: Okay.

25 CHAIRMAN MERRITT: If there are no other

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1 questions, I would like to take a little break if that  
2 would be all right. The panelists I'm sure would like  
3 that and the Board would like that.

4 I would ask that if you have not  
5 registered to comment, please sign the sheet out in  
6 front so that we would have your name, correct  
7 spelling, and know that you would like to speak in the  
8 public comment period.

9 I would ask everyone to please be back at  
10 a few minutes before 11:00 and we will proceed then  
11 and be on schedule.

12 I would like to thank these panelists,  
13 thank you very much for your prepared remarks as well  
14 as your attentive answers to our questions. Thank you  
15 very much and we look forward to working with you.

16 (Applause.)

17 (Recess.)

18 MR. HOLMSTROM: We're going to call from  
19 the list, please give your name on the list. I'd also  
20 like to thank once again Mr. Hansen, Mr. Avatroni and  
21 Mr. Bose and Chief Spattafora for their excellent  
22 presentations.

23 On our fire expert panel, Madam Chairman,  
24 today we have Glen Corbett. Glen is a professional  
25 engineer, he's assistant professor of fire science at

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1 John J. College in New York City, he's also a captain  
2 in the Waldwick, New Jersey Fire Department and served  
3 as technical editor of fire engineering magazines.  
4 Previously he served as the administrator of  
5 engineering services for the San Antonio, Texas Fire  
6 Department. He was recently appointed to the Federal  
7 Advisory Committee of the National Construction Safety  
8 Team at the National Institute of Standards and  
9 Technology.

10 Second is Guy Colona. Mr. Colona is the  
11 vice-president of fire protection application and is  
12 chemical engineer for the National Fire Protection  
13 Association. He is a professional engineer with a  
14 master's in chemical engineering from Stanford  
15 University. He is the staff liaison to the NFPA  
16 technical committee dealing with hazardous chemical  
17 properties and hazard classifications, explosive  
18 protective systems or pyrotechnics. He developed and  
19 instructed a confined-space safety training course  
20 offered to maritime and general industry. He is the  
21 author and presenter of papers and presentations on  
22 confined-space safety, vapor dispersion modeling,  
23 pyrotechnics and industrial hygiene sampling of  
24 maritime workplaces.

25 We're also privileged to have Dan Lane.

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1 Dan is the eastern regional director of fire service  
2 activities for the International Code Council and has  
3 been affiliated with the ICC since January 2002. His  
4 main responsibility is working with the fire service  
5 on a local, state and national level providing support  
6 functions such as inter-operations on the fire code  
7 and training on fire protections and the codes. Prior  
8 to being hired by the ICC he was a career fire chief  
9 in Maine and a full-time fire marshal in upstate New  
10 York and an arson investigator for Saratoga County,  
11 New York. He has been active in the fire service for  
12 almost 20 years. He was also an adjunct instructor  
13 for the New York State Fire Academy, and among the  
14 various other courses he has taught at the National  
15 Fire Academy include building construction for fire  
16 forces, both combustible and noncombustible.

17 It's my pleasure to introduce the panel of  
18 fire experts. Thank you, Madam Chair.

19 CHAIRMAN MERRITT: Thank you very much. Is  
20 someone designated to go first? Mr. Lane?

21 MR. LANE: Sure.

22 CHAIRMAN MERRITT: Okay, thank you very  
23 much..

24 MR. LANE: Thank you, Madam Chairman, Board  
25 members.

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1           The International Code Council is  
2 committed to ensuring a safe-built environment for the  
3 occupants and the responders to all new and existing  
4 buildings. We do this by having the most proactive  
5 codes and code development process available today.  
6 International codes are now in use in over 46 states,  
7 Puerto Rico and the District of Columbia, and on  
8 reference in federal documents relevant to  
9 construction such as the Department of Defense's  
10 unified facilities criteria for all military  
11 construction.

12           The ICC developed its building safety  
13 codes through the governmental consensus process, a  
14 process that allows input from all interested  
15 individuals and parties. Anyone can submit a code  
16 change.

17           This process incorporates many checks and  
18 balances to protect against undue influence. Before a  
19 code change is made it's reviewed at several open  
20 meetings over an 18-month cycle. Each meeting is then  
21 published, results are then available for public  
22 comment. In addition, the process allows anyone not  
23 satisfied with the final action on a code provision  
24 the opportunity to appeal such action.

25           Now that I've said our legal stuff I'll

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1 get on with the other.

2           Basically when I was asked to attend, I  
3 just kind of reviewed our code and tried to address  
4 some of the issues that were brought up during the  
5 investigation. So what I'll do is, our fire codes  
6 specifically I'm talking about here. Basically the  
7 code takes a proactive approach to the prevention and  
8 management of fires and other emergencies. I'm going  
9 to go through just a couple of the chapters that  
10 specifically would have had impact on this incident.

11           Chapter 1 is our administration,  
12 administrative section, it's a legal language on the  
13 adoption and enforcement of the code. One of the  
14 things addressed in Chapter 1 is permit. On flammable  
15 and combustible liquids a permit would have been  
16 required anytime over five gallons of Class 1  
17 flammable liquids is used, so in this incident a  
18 permit would have been required which would have in  
19 turn opened the door on these other code sections.

20           Chapter 4 of the fire code is entitled  
21 "Emergency Planning and Preparedness". This focuses  
22 on the actions of the occupants. Fires and other  
23 emergencies can either be prevented or managed,  
24 Chapter 4 deals with the management of them.

25           Section 41.2, any safety plan, emergency

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1 procedures and training programs for the employees are  
2 subject to the approval of the code enforcement  
3 official. Code enforcement doesn't mean building,  
4 that could be fire official also.

5 Also under training, employees must be  
6 trained to the hazards of the materials stored and  
7 used in a facility. The facility also must train a  
8 contact person to be the liaison to the fire  
9 department to identify the type and location of  
10 hazardous materials, so basically they have to work  
11 with the fire department.

12 Also in Chapter 4 there's a section on  
13 labeling. Pretty simple, all chemicals must be  
14 labeled. Rooms or areas where the materials are  
15 located must specifically be labeled. And all this  
16 labeling is referenced back to NFPA standards.

17 There are 18 chapters in the international  
18 fire code that are specifically dedicated to hazardous  
19 materials. Each of these chapters deal with a  
20 specific hazard such as flammable liquids, that's  
21 Chapter 34. Chapter 40 deals with oxidizers. And  
22 Chapter 27, this is the general requirements for  
23 hazardous materials. The scope of this chapter  
24 states, prevention, control and mitigation, or before,  
25 during and after, of dangerous conditions related to

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1 the storage, dispensing, use and handling of hazardous  
2 materials shall be in accordance with Chapter 27. The  
3 purpose. Chapter 27 contains the general requirements  
4 for hazardous materials in all occupancies. These are  
5 above and beyond specific requirements set forth in  
6 Chapters 28 through 43 of the International Fire Code.

7 Some of the examples in Chapter 27,  
8 hazardous materials management plan. When applying  
9 for a permit, which goes to Chapter 1 with that over  
10 five gallons which this facility would have had to  
11 have done, when applying for a permit, the HMMP must  
12 be submitted and that must include a legible,  
13 approximately to scale, facility site plan. That site  
14 plan must include the following:

15 Storage and use areas.

16 Maximum amount stored or used in each  
17 area.

18 The range of container sizes.

19 A storage plan and location and type of  
20 emergency equipment.

21 Also in Chapter 27 hazardous material  
22 inventory statements are covered, which is basically  
23 anything they're got in there that's considered a  
24 hazardous material would have to be included. We also  
25 deal with control areas in Chapter 27. This limits

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1 the actual amount -- I'm sorry, there's a table,  
2 2703.1, that would limit the actual amount allowed in  
3 each control area. The control area is defined by the  
4 exterior walls, fire walls, fire barriers and roofs or  
5 a combination thereof where quantities of hazardous  
6 materials not exceeding their maximum allowable are  
7 stored, dispensed, used or handled.

8 Table 2703.8.2 is used for the design and  
9 number of required control areas.

10 Once you get one story below in this table  
11 it's going to drop your permittable maximum allowable  
12 quantities by 75 percent because it is underground.  
13 So on a flammable liquid it drops to 22 and a half  
14 gallons, just for information.

15 Training in Chapter 27, the liaison for  
16 the fire department, the employee for the facility,  
17 shall aid the fire department in preplanning and  
18 familiarize them with the facilities. The time to do  
19 this is not during an emergency, this is to be done  
20 prior to.

21 Also under training, each tenant or owner  
22 shall develop a mitigation plan, post that plan, and  
23 ensure all employees are familiar with it. The plan  
24 must be placed in effect in case of a spill or  
25 release.

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1           Also under Chapter 27, separation of  
2 incompatible materials. Incompatible materials must  
3 be separated by a minimum of 20 feet, must be  
4 separated by noncombustible partitions or stored in  
5 separate HASMAT cabinets.

6           Also in Chapter 27, use, dispensing and  
7 handling section, this is separated into two separate  
8 sections, the first dealing with quantities over the  
9 maximum allowable limits, and that would force the  
10 storage to be in a detached structure.

11           And another section under there, transfer  
12 of hazardous liquids must be from gravity or an  
13 approved pump.

14           In Chapter 34 there's a section, no  
15 flammable or combustible liquids are permitted in a  
16 basement.

17           These are just some highlights of the  
18 International Fire Code that deal with hazardous  
19 chemicals. As previously stated, there are 18  
20 chapters dealing with specific hazardous materials.  
21 If for some reason new technology or strategies emerge  
22 or someone sees a better way to protect lives and  
23 property, anyone can propose and present a code change  
24 to the code and expect a fair opportunity at the code-  
25 change hearings. This code was developed and

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1 maintained by fire service members.

2 Thank you.

3 CHAIRMAN MERRITT: Thank you. Let's see,  
4 how about Mr. Corbett?

5 MR. CORBETT: Yes, thank you.

6 Madam Chairwoman, members of the Board,  
7 thank you for inviting me to testify today before your  
8 Kaltech hearing. I've got a written statement and  
9 some comments I'd like to provide based upon some of  
10 the earlier testimony we've heard today.

11 CHAIRMAN MERRITT: Thank you.

12 MR. CORBETT: The last 20 years has seen  
13 rapid growth in the depth and breadth of hazardous  
14 materials regulations across the United States.  
15 Specifically, the promulgation of detailed model  
16 building and fire code requirements dealing with the  
17 production, storage and handling of hazardous  
18 materials has provided a sound basis upon which to  
19 minimize the threat of a hazardous materials incident.

20 The incident at Kaltech has highlighted a  
21 critical need for the adoption and enforcement of  
22 modern hazardous materials regulations in New York  
23 City. While some of the city's current requirements  
24 adequately address certain hazardous materials  
25 concerns, there are large gaps and the regulations

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1 must be corrected. The model building and fire code  
2 developed by the National Fire Protection Association  
3 and International Code Council provide the ability to  
4 fill these gaps.

5 For example, a critical issue is the need  
6 for industrial and commercial facilities to prepare a  
7 hazardous material inventory statement and a  
8 corresponding hazardous material management plan. In  
9 my opinion, these are the most important aspects of a  
10 model code such as the international building and fire  
11 codes. The broad nature of such provisions provide  
12 facility operators an organized set of operational  
13 plans on handling as well as developing of preplans to  
14 deal with spills and releases. Emergency responders  
15 benefit from increased knowledge about the hazardous  
16 materials used in the facility and in their  
17 jurisdiction and how to deal with them.

18 My experience has indicated that an HMMP  
19 is critical. When I worked in San Antonio before we  
20 adopted the 1988 Uniform Fire Code which was probably  
21 the turning point, hazardous materials regulations  
22 nationally. That was the first time we went from what  
23 we used to call five pages of toothless to 50 pages of  
24 tough. These were a set of regulations that were very  
25 extensive and required a lot of things, including

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1 training of our inspectors, but most certainly  
2 training and education of the public, specifically  
3 facility operators and especially smaller operators.  
4 It was my experience that, very often that, before we  
5 adopted that code and even in the process of adopting  
6 it, that facility operators would walk into my office  
7 and dump a box load of MSDS sheets on my table and  
8 say, what do I have to do, you know, what are the  
9 regulations? And so now with the incorporation of  
10 HMIS and especially HMMP where there's an actual plan  
11 has to be prepared by a recognized authority,  
12 specialist, consultant, it puts in a much more  
13 organized format. And certainly that also is very  
14 beneficial to responders as well because now I have a  
15 written document that, maybe they don't need the whole  
16 document but I can turn over to local responders, that  
17 they can read what that HMMP talks about and what the  
18 preplans are for dealing with an incident there and  
19 what we can do about it specifically. I'll talk a  
20 little bit later about the implications for New York  
21 City in something like that.

22 Now why the HMMP and HMIS provide a  
23 facility with an overall general plan to do with  
24 hazardous materials, the current model fire and  
25 building codes also, this is again NFPA and IBC, also

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1 provide detailed requirements for specific types of  
2 hazardous materials, not only packaging and handling  
3 provisions but extensive building construction  
4 requirements that protect against specific hazard of  
5 particular material. Hazardous materials are grouped  
6 by their particular hazards, of course, toxicity,  
7 flammability, what have you. For example, there is,  
8 again, here in New York City as well as other cities,  
9 before the implementation or the adoption of these  
10 more extensive requirements, very often the fire code  
11 only dealt with fire issues, now the model codes deal  
12 with health and toxicity issues that have nothing to  
13 do with flammability or fire safety. So, again, we'll  
14 be getting that added benefit if the city does adopt  
15 the model codes. These regulations cast a much wider  
16 net, obviously, than New York City's current fire and  
17 building code regulations.

18 The model building and fire codes are  
19 matched so that they work in unison. Generally the  
20 construction requirements are found in the building  
21 code while the handling requirements are found in the  
22 fire code. It's critical that both codes are  
23 necessary to properly deal with the hazardous  
24 materials, they're written in that manner. And you  
25 heard earlier testimony that the city is considering

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1 adoption of the building code. I can't more  
2 forcefully say they need to look at adopting a fire  
3 code in conjunction with the adoption of the building  
4 code because they're a matched set, they have to go  
5 together. You only get half the puzzle if you adopt  
6 just the building code.

7 Make no mistake about it, the adoption of  
8 modern building and fire code will cover many more  
9 hazardous materials that's currently addressed in New  
10 York City's present codes and will require a new way  
11 of thinking about hazardous materials. Enforcement  
12 will be more difficult as a direct result of the more  
13 broad and extensive requirements. However, I believe  
14 that New York City will reap substantial benefits in  
15 the form of fewer and less-devastating hazardous  
16 materials incidents.

17 And I just have a couple of additional  
18 comments I'd like to make about what was talked about  
19 earlier.

20 You heard testimony earlier that the  
21 city's fire department does conduct inspections in a  
22 variety of facilities here in the city. I think, I  
23 would characterize them, they tend to be permit driven  
24 as opposed to what I would call routine inspection  
25 driven, I would reverse the process. I would say that

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1 if you're going to a facility to inspect a building or  
2 a facility, you go through the whole building and not  
3 just focus on the permit for that particular activity,  
4 I think that's an important point to make. Of course  
5 coordination, and you're talking about the largest  
6 city in the country here, coordination between  
7 agencies is particularly difficult in any sense. I  
8 know working in San Antonio that, it was a city of  
9 about a million people, just over a million people,  
10 that it was very difficult to coordinate with other  
11 agencies other than the building department in my case  
12 because we were in the same facility, but there were  
13 issues that did come up that were certainly  
14 environmental protection issues that we had to deal  
15 with and unfortunately it's very often left to the  
16 individual inspector or the fire marshal to have to  
17 get the parties together and what have you. So what I  
18 would suggest, perhaps, is that, I know this is a big  
19 ticket item, but I think technology can help us to a  
20 certain extent here, I think there needs to be a  
21 seamless system between all these agencies as far as  
22 handling hazardous materials. I not only see it from  
23 the benefit from an inspection standpoint but also  
24 from a response standpoint that if you had a common  
25 data base at particular facilities, the hazardous

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1 materials units within the fire department or even  
2 local fire companies could pull up that information,  
3 access it very quickly. And I've talked about the  
4 HMMP giving a paper copy in New York City, it's  
5 probably not the best way to do things because it's  
6 just so large, but I think that certainly the ability  
7 to provide that in a computer data base, perhaps as  
8 part of the fire department's dispatch system, I mean,  
9 again, a seamless system that kind of brings all the  
10 parties together that they all can access this  
11 information.

12 I think there are some, I think there are  
13 benefits in New York City's code that certainly need  
14 to be brought over. For example, the Certificate of  
15 Fitness that you heard about is a good program, it  
16 does attempt to deal with specific individuals and how  
17 they handle themselves and how they work in a  
18 particular type facility, you heard that there were  
19 thousands of those permits, or those certificates  
20 issued every year, that's something very beneficial.  
21 And I think the important point about that is that  
22 we've heard about training earlier and how important  
23 it is for workers' safety, training and things like  
24 that, I think you need to marry those two together.  
25 I think you need to have a Certificate of Fitness

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1 that's tied to the training requirements that you want  
2 to implement that's required typically under both of  
3 the model codes, there are training requirements for  
4 the individuals that would work in these facilities,  
5 and I think if you tie the Certificate of Fitness to  
6 that training, I think that's a good thing. They do  
7 that to a certain extent but, again, if we adopt a  
8 model code that's going to be a lot more extensive, I  
9 think, and we certainly would encourage the city to  
10 use the resources of these two code-writing bodies on  
11 either side of me here in terms of training and that  
12 type of thing.

13 So thank you for your time and I'll be  
14 happy to answer any questions you may have.

15 CHAIRMAN MERRITT: Thank you very much.

16 And we have Mr. Colona.

17 MR. COLONA: Good morning, Madam Chair,  
18 Safety Board members, staff, members of the panel and  
19 ladies and gentlemen of the public. Thank you for the  
20 opportunity to testify this morning. Again, my name  
21 is Guy Colona, I'm an assistant vice-president with  
22 the National Fire Protection Association. I have  
23 management responsibilities and staff technical  
24 responsibilities within NFPA's engineering division  
25 for two different departments. The one that's most

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1 relevant here is our chemical and hazardous materials  
2 department. The other department that I manage is our  
3 fire protection applications department which includes  
4 our fire suppression systems activities in the codes  
5 and standards area.

6 I'd like to begin this morning by  
7 providing you with a brief background about NFPA  
8 followed by a description of the relevant hazardous  
9 chemical codes and standards that I think apply to  
10 today's discussions and finally how I believe these  
11 documents could be effective in managing the safe  
12 storage, handling and use of hazardous chemicals.

13 NFPA is an international organization that  
14 develops voluntary consensus codes and standards that  
15 are adopted by state and local jurisdictions  
16 throughout the United States and the rest of the  
17 world. Many NFPA codes and standards appear as  
18 mandatory references cited in the federal regulations  
19 such as the U.S. Department of Labor, OSHA, DOT and  
20 APPA. All NFPA codes and standards are accredited by  
21 the American National Standards Institute, ANSI, and  
22 meet the criteria mandated by Congress and Public Law  
23 104-113 which is the National Technology Transfer and  
24 Advancement Act.

25 In addition to its consensus codes and

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1 standards activities, NFPA also carries out its public  
2 education mission through programs that incorporate  
3 NFPA's very recognizable mascot, at least to our  
4 children, Sparky the fire dog, which is a registered  
5 trademark of the NFPA, and every October NFPA is the  
6 official sponsor of fire prevention week, a tradition  
7 continuing over the past 80 years. What's more  
8 relevant here today, though, is our codes and  
9 standards arena. NFPA committees write the national  
10 electrical code which has been referenced earlier  
11 today, NFPA 101, the life safety code, and a total of  
12 about 300 other codes and standards adopted throughout  
13 the nation. We have nearly 75,000 members in the  
14 association in the United States and from 107  
15 different countries. We convene more than 250  
16 technical committees made up of about 6700 experts who  
17 represent the various affected parties in the diverse  
18 subject areas covered by our codes and standards. The  
19 representation on each committee, as Mr. Lane  
20 mentioned, in terms of the ICC process, we also look  
21 at taking as much representation from as broad a  
22 spectrum as possible. We have nine interest  
23 categories such as enforcers, users, consumers,  
24 manufacturers, designers, researchers and insurance.  
25 These experts in their various fields volunteer their

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1 time to serve as members of the technical committee to  
2 write nearly 300 codes and standards.

3 One of those standards is NFPA 704 which  
4 was referenced several times today, a standard system  
5 for the identification of the hazards of materials for  
6 emergency response. Many people simply refer to this  
7 as the hazard diamond standard because of the  
8 conspicuous symbol which is the color-coded square on  
9 point that is usually more simply described as a  
10 diamond that categorizes specific hazards. This is  
11 one of many NFPA standards that have some  
12 applicability to the questions being asked here today.

13 Many of you are familiar with the 704 system as it  
14 provides a simple system for ranking the hazard of a  
15 chemical based on a relative scale from zero to four  
16 with four indicating the most severe level of hazard.

17 The ratings are provided for health, flammability,  
18 instability and special hazards. This system is one  
19 frequently used for hazardous material identification  
20 and labeling. Because of its simplicity, it is easily  
21 recognized and understood by workers. Though the  
22 primary intent is described as benefitting emergency  
23 responders, the standard is frequently used to  
24 identify hazards and classify the relative severity  
25 within a workplace. For example, the model fire and

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1 building codes have long used NFPA 704 as one criteria  
2 for establishing certain risk levels and then imposing  
3 certain requirements based on where it fits within the  
4 704 rating. In addition to that standard, the  
5 committee responsible for the standard has developed  
6 ratings for over 1600 chemicals.

7 NFPA code, the standards provide a broad-  
8 based and comprehensive set of requirements applicable  
9 to all forms of chemical, hazardous chemicals. I have  
10 noted earlier these documents represent the basis for  
11 treatment of this subject within various model fire  
12 and building codes.

13 NFPA addresses the hazardous chemical area  
14 in part based upon the physical nature of the  
15 material, i.e. whether it's a liquid, gaseous or solid  
16 material. In other instances the treatment of a  
17 hazardous material may be derived more from its actual  
18 use, such as in spray finishing operations or as we've  
19 a little bit of discussion today, chemical  
20 laboratories.

21 Our fire code, NFPA-1, the uniform fire  
22 code, represents the most comprehensive means within  
23 the NFPA codes and standards system by which to  
24 address the storage, handling and use of hazardous  
25 materials whether liquids, gases or solids. The

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1 purpose of NFPA-1 is, quote, "To prescribe minimum  
2 requirements necessary to establish a reasonable level  
3 of fire and life safety and property protection from  
4 the hazards created by fire, explosion and dangerous  
5 conditions.

6 The code establishes a sequence of steps  
7 that must be followed whenever hazardous materials are  
8 going to be stored, handled or used.

9 The first step involves the classification  
10 of a hazard in the most general terms as either  
11 physical hazards or health hazards. And again, that's  
12 an extension beyond what we've heard the New York City  
13 regulations have traditionally dealt with where they  
14 have limited it to the physical hazards.

15 The code even addresses procedures for  
16 dealing with both mixtures and materials having  
17 multiple hazards. The code then establishes permit  
18 requirements for the storage, dispensing, use or  
19 handling of hazardous materials in excess of a minimum  
20 threshold quantity, a quantity above which the permit  
21 requirement becomes actionable.

22 Linked very closely to the permit process  
23 might be a requirement for a hazardous material  
24 management plan, which we've heard about from the two  
25 previous speakers, along with appropriate hazardous

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1 materials documentation. The HMMP includes an  
2 emergency response training plan and a facility site  
3 plan that designates areas for storage and use,  
4 maximum quantity stored or used in each area,  
5 container sizes and types, product-conveying piping  
6 systems, location of emergency isolation and  
7 mitigation valves and a storage plan.

8 In addition to posting the HMMP with the  
9 permit there is also a requirement that you would have  
10 material- safety data sheets, MSDS's, readily  
11 available.

12 The code also addresses required signage  
13 including the hazard identification signs associated  
14 with the NFPA hazard rating and labeling system  
15 described earlier.

16 The code also addresses the significant  
17 hazard associated with storage of incompatible  
18 materials and specifies acceptable methods for  
19 separating incompatible materials in storage and those  
20 materials in storage that are incompatible with  
21 materials in use.

22 I'd like to go back to, I think,  
23 discussions with the previous panel, I think it was a  
24 question for Mr. Bresland related to the inspection  
25 and the materials in the basement and looking at the

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1 full facility. The way I would interpret that last  
2 statement is that it would be important that you look  
3 at incompatibilities for materials that are stored in  
4 areas adjacent to materials that are in use. And that  
5 would not necessarily be limited to only your  
6 operations, it could be floor to floor, it could be  
7 building to building. So I think in that discussion  
8 that could be extended to that intent. So that kind  
9 of addressed again something you talked about in the  
10 previous panel.

11 All these elements come together to create  
12 an effective fire and life safety plan when the plan  
13 is executed by a trained workforce. The need for  
14 trained workers cannot be overlooked. The hazards in  
15 industrial workplace require constant attention by  
16 management and the workers to ensure that if a plan is  
17 developed it's followed. Anytime a change in routine  
18 occurs, whether it is a new employee or a new process,  
19 there is a potential for something unexpected to  
20 occur. New employees aren't necessarily those who  
21 have never worked at the facility before, it may be an  
22 inexperienced worker who is reassigned to a new  
23 process or a new piece of equipment and they, in that  
24 context, should be considered new under those  
25 guidelines and receive whatever relevant additional

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1 training is going to get them to be proficient in that  
2 new environment. In the end, the best plan, the  
3 proper classification of hazards, the proper labeling,  
4 proper storage, proper separation arrangement all are  
5 ineffective if untrained workers are expected to  
6 implement the plan.

7 NFPA-1 uniform fire code references some  
8 40 NFPA codes and standards on subject areas dealing  
9 with hazardous materials or special uses or  
10 operations. Where a more specific content is  
11 available in these codes and standards, the uniform  
12 fire code extracts text from those referenced  
13 documents into NFPA-1. NFPA-1 is currently adopted in  
14 16 states and a new edition, 2003, incorporates  
15 provisions of our code partner, the Western Fire  
16 Chiefs Association, and the uniform fire code which is  
17 used in approximately 14 additional states.

18 The provisions found in NFPA-1 and the  
19 specific NFPA reference documents form the basis for  
20 developing a comprehensive approach to ensuring fire  
21 and life safety in environments where hazardous  
22 materials are processed, handled, stored and used.  
23 The requirements represent a base of knowledge derived  
24 from over 6,000 participants in the NFPA consensus  
25 codes and standards development process. Through the

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1 ANSI process NFPA and its committees ensure that the  
2 provisions in the codes and standards remain state of  
3 the art. As mentioned earlier, many of the reference  
4 documents contain an NFPA-1 that are either material  
5 specific or address a specific operation or process  
6 are also the basis for requirements found in  
7 regulations for workplace safety and health issued by  
8 OSHA.

9 In addition to preparing the code, NFPA  
10 offers products and services to support NFPA-1 uniform  
11 fire code, including a training program certification  
12 for fire inspectors, handbooks, and other staff  
13 assistance. We're also willing to train enforcers in  
14 those states and metropolitan jurisdictions where the  
15 code is adopted at no expense to the jurisdiction.

16 One benefit in updating the New York City  
17 code is the addition of life safety provisions that go  
18 beyond the traditional view which has been on the  
19 physical or therefor the fire and explosion-type  
20 hazard.

21 So with that, thank you for you attention  
22 and the opportunity to appear before you. Thank you.

23 CHAIRMAN MERRITT: Thank you very much,  
24 panel.

25 I'd like to open now for questions and

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1 I'll start with Mr. Bresland.

2 MR. BRESLAND: A question about the  
3 international fire code -- Am I using the right term?  
4 How many large cities in the United States, for  
5 example cities equivalent in size to New York City,  
6 would have adopted that fire code?

7 MR. LANE: Give me one minute. I may -- I  
8 don't believe I have an updated list but I do have a  
9 list here, I don't know if its states or cities.  
10 Unfortunately I don't have a city list.

11 MR. BRESLAND: Just an approximation at  
12 this time. I mean one, two, ten, fifteen?

13 MR. LANE: I'll be honest with you, I don't  
14 want to shoot from the hip so I can't answer that.

15 CHAIRMAN MERRITT: Would you be able to get  
16 that information to us?

17 MR. LANE: Sure.

18 CHAIRMAN MERRITT: That would be important  
19 as we go forward. Thank you.

20 MR. LANE: Definitely.

21 MR. POJE: You said 46 states, I believe,  
22 had it?

23 MR. LANE: The states themselves or a  
24 municipality in that state but the codes are being  
25 used in 46 states.

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1 MR. POJE: So, in other words, New York  
2 State might be listed but we obviously have the  
3 coverage in New York City?

4 MR. LANE: Correct. And another example  
5 would be like the State of Maine where there is no  
6 state-wide building code but a lot of the  
7 municipalities use either the international code or  
8 one of our legacy codes.

9 MR. POJE: Do you have a map?

10 MR. LANE: Yes, on our web page.

11 MR. POJE: That would map out where the  
12 coverage ?

13 MR. LANE: On our web page it's pretty  
14 extensive, it shows a map of the United States with  
15 different colors and you click on that and then it  
16 will bring up jurisdictions and which codes they're  
17 using.

18 MR. POJE: Thank you.

19 MR. BRESLAND: I guess this question is for  
20 Professor Corbett. Looking at the current New York  
21 City fire code, and I haven't read it in detail but  
22 I've looked at it and it's interesting in that it  
23 makes references to terms that maybe I learned when I  
24 was going to college many, many years ago, how  
25 difficult would it be for a city of the size of New

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1 York City and as complex as the city is to switch from  
2 its existing fire code to the new standard fire code?

3 Can that happen over night or is that a more  
4 difficult or longer-term process than that?

5 MR. CORBETT: Well, it is a process,  
6 certainly, but I think it's something that can be  
7 done, I mean there's no question in my mind. I fall  
8 to the side of saying start off with a clean slate  
9 with a model code rather than try to fix up the late  
10 19's existing fire code that's been retrofitted and  
11 retrofitted over decades, basically. And also, you  
12 know, there's also the issue of commerce here, too,  
13 the fact that New York City does write its own codes  
14 does impact commerce in the city because individuals  
15 who come from other areas of the country have to  
16 basically learn the peculiarities of New York City's  
17 codes. I mean I agree with you also that there's  
18 terms in there that haven't been used, in my opinion,  
19 for over 50 years in some cases, some hazardous  
20 materials terms specific of other areas as well and,  
21 again, I think it's time to, you know, to move on,  
22 basically.

23 And getting back to your question of how  
24 long this would take, it is going to be a process, as  
25 I mentioned earlier, it's an educational process for

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1 everyone involved, it's not just even the city, it's  
2 the impacted people, facilities that are out there,  
3 they're going to have to learn the new codes, you  
4 know, and it's going to take some time. I know that  
5 was one of the considerations we had in San Antonio  
6 with even a million people, that we knew that when we  
7 transitioned into the fire code at that time that it  
8 was going to require a lot of internal work as well as  
9 external educational efforts that we had to put  
10 together ourselves, basically.

11 MR. BRESLAND: Okay, thank you.

12 CHAIRMAN MERRITT: One of the questions I  
13 have for the panel is, you mentioned several things  
14 with regard to requirements for training and giving  
15 employees information, one of the things I wonder is,  
16 do the codes address language barriers that may occur  
17 or may be present with regard to workers, do they  
18 require, you know, language that can be understood,  
19 and also does it address the educational level.

20 MR. COLONA: Guy Colona, NFPA.

21 The elements of the training, the  
22 competencies, and I'm not sure of all of them, but a  
23 number of them do acknowledge that it needs to be  
24 suitable for the languages of the employees, the  
25 workers, has language similar to what OSHA has had for

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1 a number of years in the workplace requirements with  
2 respect to training in a way that is understandable to  
3 all of those affected.

4 And as far as getting into the other issue  
5 which is training to the right education level, which  
6 I think is what you asking, that's probably more  
7 silent but it tends to be something that's implicit in  
8 developing any training, you have to look at that from  
9 that standpoint in terms of knowing that you've  
10 successfully achieved the training that you're out  
11 there for, so you've got to look at the education  
12 levels of the people taking the courses.

13 CHAIRMAN MERRITT: All right. As a  
14 followup, what about certification of the fire  
15 inspectors and how does that play with the  
16 requirements for the fire codes, the international  
17 fire codes?

18 MR. COLONA: NFPA has a current program on  
19 fire inspector certification.

20 CHAIRMAN MERRITT: For the City of New  
21 York?

22 MR. COLONA: It's open -- I mean it's not  
23 limited in terms of its applicability. I don't know  
24 the details on who's going through it or where it's  
25 focused, but I don't think it's intended to be limited

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1 a single jurisdiction. It is a fire inspector  
2 certification program and it has certain competencies  
3 and you go through and you get certified according to  
4 this program.

5 CHAIRMAN MERRITT: Let's stay on the  
6 original question if we could. Mr. Lane.

7 MR. LANE: Yes. Just like NFPA, our code  
8 basically says that the employees have to be trained.  
9 We don't break it down and say that it has to be in  
10 different languages, it just says that every employee  
11 needs to be trained to the hazards they're working  
12 with. And however that has to be done, we don't  
13 basically break it down specifically, it follows the  
14 OSHA standards and the Fair Labor Act.

15 CHAIRMAN MERRITT: Okay.

16 MR. LANE: In the training issue we also  
17 have the certification for fire inspectors and, just  
18 like NFPA, it's not specific to a municipality that  
19 adopts our code, anybody can become certified  
20 regardless of what codes your using or if you're using  
21 any codes.

22 CHAIRMAN MERRITT: Okay.

23 MR. CORBETT: In terms of, I guess the  
24 language issue, that certainly is of concern. It's  
25 not even just the a language as far as training goes,

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1 it goes to the language issue in the terms of  
2 response, response to a particular location where  
3 there is a problem, communication always becomes  
4 critical. We know that, for example, in New York City  
5 that there are problems with high-rise buildings,  
6 especially after hours when it's typically cleaning  
7 crews and things and there's an alarm initiated within  
8 a building and the people that are there perhaps don't  
9 speak English and it does complicate issues, so that's  
10 certainly important.

11 As far as the training goes, training for  
12 the employees, this is one issue that I think on a  
13 couple of levels here is very important. Certainly  
14 training for employees, we've talked about that a lot,  
15 but also educational efforts in terms of the code  
16 requirements because, again, we all, you know, we can  
17 teach someone perhaps how to properly handle a  
18 container or transfer of a liquid or things like that,  
19 but generally speaking, as I mentioned earlier, a lot  
20 of facilities don't really understand the codes  
21 themselves, and this is, I think, an area where both,  
22 again, talking to the NFPA and the ICC. But I think  
23 this is an effort that they should put out there in  
24 terms of having some kind of informational program for  
25 facility operators. I'm not saying they have to train

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1       them, I'm saying I think there should be materials out  
2       there that puts into, I won't say plain English, but  
3       has some kind of explanation of what the code  
4       requirements are. For example, you know, talking  
5       about the ICC, they have the control area concept, and  
6       it takes me an hour to explain to someone, a facility  
7       operator, what a control area is and how it all works,  
8       you know. We've gone through the training but  
9       facility operators haven't, and I think that's an area  
10      where both the NFPA and ICC could extent their efforts  
11      as far as, you know, dealing with that kind of issue.

12                 One last point on certification  
13      inspectors. I live in New Jersey, I'm on the State  
14      Fire Code Council in New Jersey, we have a pretty  
15      extensive inspector certification program, it's a  
16      multi-level program, other states have similar  
17      programs. I think the most important part of our  
18      program is the re-certification process. A lot of  
19      states have a certification. I had one under the  
20      uniform fire code many years ago in San Antonio, but  
21      once I was certified that was it for me. It took  
22      years to go by and I was never asked to do it again.  
23      So, anyway, New Jersey has a program in which there is  
24      a re-certification to maintain that certification. I  
25      think that's a very important part of any kind of

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1 program like that.

2 CHAIRMAN MERRITT: Thank you. Dr. Poje.

3 DR. POJE: If I could change the focus back  
4 to the Kaltech incident and what we have is a small  
5 business that's been involved in this incident, I'm  
6 happy to see the implementation of the uniform fire  
7 code in a number of jurisdictions. Has there been any  
8 analysis done in those jurisdictions where either code  
9 has been adopted for the impact that the code has had  
10 on the small business community? In other words, what  
11 has the enforcement and adherence to the code been  
12 like for those businesses and is there something  
13 special that's done to address the specialized needs?

14 I know Mr. Corbett just described some of the  
15 difficulties of being able to communicate and I  
16 daresay probably those who are employing his services  
17 are a larger business with more complexity but here we  
18 have a smaller business for which chemical usage was  
19 an incidental aspect of the business, not the primary  
20 rationality of the business.

21 MR. LANE: Normally when somebody comes in  
22 to apply for a new business they're going to have,  
23 especially a facility like this, some type of fire  
24 protection engineering firm that's going to assist  
25 them through the process to set them up and running

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1 because you're right, the normal person could not walk  
2 in, understand the codes, and I don't think they've  
3 even been through the permitting process, let alone  
4 the design and construction of a facility to operate,  
5 would need some type of an engineer with plans and a  
6 site plan and ?

7 DR. POJE: I think the question that I was  
8 asking, has there been any specific analysis into the  
9 small business community's responsiveness to the  
10 implementation of these codes and, you know, is it a  
11 successful process of having them be embraced in a  
12 city or municipality where that code is adopted?

13 MR. LANE: Only speaking for the  
14 international codes, I know we've got letters from  
15 like the American Institute of Architects,  
16 Homebuilders Association, those types. I don't know  
17 of anybody endorsing our codes as far as like a small  
18 business association or anything like and their  
19 impact.

20 DR. POJE: And how about from NFPA-1?

21 MR. LANE: Dr. Poje, I'd like to defer to  
22 my colleague, Jim Dolan, who is the regional manager  
23 for the fire code office. Welcome to the table.

24 MR. DOLAN: Thank you very much. Just a  
25 very brief introduction. Before being with NFPA I was

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1 in the New Jersey fire service for 25 years and the  
2 retired state fire marshal over in New Jersey.

3 Specific to your question on the adoption  
4 which goes back to the AHJ's or the municipalities or  
5 states that would adopt, they have to do an impact  
6 study, especially for small business, on the effects  
7 there.

8 The second part of that is, the authority  
9 having jurisdiction, the fire departments, have to do  
10 that educational program and bring those small  
11 businesses in there together either to trade  
12 associations or something there, but that is something  
13 that has to be provided by the enforcing authority to  
14 make sure if what you're saying happens that they  
15 don't fall through the cracks because they're small,  
16 an allied chemical or something like that.

17 DR. POJE: Has either association, the  
18 council or the NFPA, prepared any specific research on  
19 this topic that would assess the ability to understand  
20 the impact on small business and their ability to move  
21 progressively and dramatically in the spirit of what  
22 the code is intending to achieve?

23 MR. DOLAN: Not that I'm aware of offhand  
24 but I can check with the Petroleum institute and those  
25 type of things and get back to you on that.

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1 DR. POJE: We'd appreciate any information  
2 you should gather on that subject.

3 CHAIRMAN MERRITT: Also the National  
4 Association of Manufacturers has a small and medium  
5 business group, that might be another place to check  
6 as well. Thank you.

7 Dr. Taylor.

8 DR. TAYLOR: Just going back again to some  
9 of the training issues. Mr. Corbett, some of your  
10 suggestions were really helpful. In a small business  
11 like Kaltech, how could we, if we adopted the  
12 international fire code standards that the city  
13 adopted, a, I think you called it a seamless system,  
14 how would that impact, again I guess it's twofold, the  
15 training aspect for small businesses and how could we  
16 assure that those businesses would be in compliance?

17 MR. CORBETT: Well, that's a very important  
18 question or a set of questions and I think Jim Dolan  
19 mentioned earlier, he just said the responsibility for  
20 educating the small business facility operators falls  
21 to that local jurisdiction typically, and having  
22 worked for a local jurisdiction, I can tell you it's a  
23 very tough thing because I don't have any physical  
24 things, for example like a handout, to say, this is  
25 what a control area is or is what an HMMP is. As I

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1 said, my recommendation would be if these two code  
2 bodies could actually prepare written materials,  
3 training materials that could be delivered by the  
4 local enforcing agency, I mean that's the thing. My  
5 problem is at the LEA I don't have literature, I have  
6 to create my own or sit down with the people through  
7 workshops and things like that. This is not easy  
8 stuff to understand. I can tell you that, you know,  
9 when the uniform fire code, again, when they adopted  
10 back in `88 when they put that new set of requirements  
11 out there, there were numerous hours of training even  
12 our own inspectors had to go through just to  
13 understand it, you can image what a small business  
14 guy, you know, again, with a box load of sheets walk  
15 into my office saying, what do I have to do, because  
16 he has no clue, typically, what to do.

17 As far as the seamless operation goes, I  
18 mean one of the issues here is the information sharing  
19 we talked about earlier between the different  
20 agencies, and I think for a city the size of New York,  
21 I don't know how you can do it other than through a  
22 computer data base that would share that information  
23 because, again, it is very important. I mean you're  
24 putting a lot of responsibility on individual  
25 inspectors to communicate when there is some issue in

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1 somebody else's code or some other issue. Now they do  
2 have, New York City has joint jurisdiction over  
3 certain areas and things, but it does come up, in my  
4 opinion, quite often where something comes up that  
5 isn't in their code and they have to call the other  
6 agency. It's a long, protracted practice. So I think  
7 if there was some way of using that same computer data  
8 base to share that information. For example, if  
9 you're going to do an inspection, you know, if there's  
10 a problem with a particular issue that comes up, then  
11 that could be relayed through that same data base and  
12 have some kind of central collection point for  
13 handling them. But I think, you know, we rely very  
14 heavily on paper in New York City and I think we need  
15 to get away from that in a lot of respects.

16 DR. TAYLOR: Mr. Lane, did you have any  
17 comments regarding that same question?

18 MR. LANE: No.

19 CHAIRMAN MERRITT: All right, thank you.

20 Dr. Rosenthal.

21 DR. ROSENTHAL: I want to come back to my  
22 same issue. The incident at Kaltech was not a  
23 question of the mishandling of any single material, it  
24 was a question of an unintended reaction. NFPA-704  
25 deals with properties of single materials, it does not

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1 deal with the problem of mixtures or the hazards of  
2 mixtures. We have completed a study that shows there  
3 are a large number of reactive incidents. We are  
4 dealing here with a reacting incident resulting from  
5 the mixture of materials which in and of themselves  
6 were hazardous but the result was, shall we put it, a  
7 synergistic effect. And I come back again to this  
8 lead-in question which is supposed to set you up. So  
9 the set-up question is, would you allow the nitration  
10 of pondering to take place in a mixed-use building?  
11 Any panelists want to respond?

12 CHAIRMAN MERRITT: Can anybody here answer  
13 that?

14 MR. CORBETT: Incompatible materials is,  
15 you know, if you've seen them very often, I think the  
16 first incident you ever dealt with in that chemical  
17 company in New Jersey, that was an issue of  
18 incompatibility and reactions and things like that.  
19 This is an issue that permeates, I think, all areas.  
20 And I've done a lot of inspections, I can tell you  
21 that facility operators who should be knowledgeable  
22 about just storing, not even mixing but just storing  
23 incompatible materials together is a problem and it's  
24 definitely a problem now. I think there are issues  
25 here that we've touched on here as far as compliance,

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1 let's say, with what happened at Kaltech versus, you  
2 know, what the model codes call for. A mixed-use  
3 building, there are extensive requirements in these  
4 model codes to prevent, you know, having a catastrophe  
5 because you have other uses going on inside the  
6 building, obviously, and I think, you know, to answer  
7 your question directly I'd probably say, no, I don't,  
8 you know.

9 DR. ROSENTHAL: What I'm coming to is that  
10 I think when you deal with a potential for an  
11 extremely catastrophic event one has multiple values  
12 to prevent the realization of a sequence of events  
13 that could lead to it. No one in his right mind wants  
14 to hurt anybody or kill someone, we happen to be weak.  
15 You've all been trained how to drive exactly right.  
16 I would love to have a dollar for every time you have  
17 gone outside the prescribed limits. So here we're  
18 dealing, however, with consequences to people and I  
19 come back to the question, should facilities be  
20 allowed to mix wastes in registered large generators  
21 in a mixed-use facility, and if so, what might be  
22 done, particularly for these installations which  
23 involve this added reactivity hazard? So I'd like  
24 your comments individually.

25 MR. LANE: Mr. Rosenthal, we do have a

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1 section that deals specifically with incompatible  
2 materials, it's in 2703.9.8 and it's called  
3 "Separation of incompatible materials", and there are  
4 various steps that have to be taken to ensure anything  
5 that's incompatible is kept away from the other ?

6 DR. ROSENTHAL: Does it deal particularly  
7 with waste disposal?

8 MR. LANE: It deals with any incompatible  
9 material.

10 DR. ROSENTHAL: All right. So that, in  
11 other words, if that standard were in place Kaltech  
12 could not mix classes of incompatible materials or  
13 individual incompatible materials?

14 MR. LANE: They would have been trained if  
15 it was in place and everything would have been labeled  
16 and it would have been a perfect world.

17 (Laughter.)

18 MR. LANE: But you're right, there is a  
19 section of the code that does deal specifically with  
20 the incompatible materials and how they have to handle  
21 them.

22 DR. ROSENTHAL: But it is based on people  
23 being able to understand it being labeled and use it  
24 even though other people than themselves may be at  
25 significant risk?

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1 MR. LANE: Correct, and that would go with  
2 training.

3 DR. ROSENTHAL: Right, okay, thank you.  
4 Well, it comes back to my question, would you allow a  
5 trained group to manufacture nitroconduit in a mixed-  
6 use facility that you have looked at?

7 MR. LANE: No.

8 CHAIRMAN MERRITT: We have five minutes  
9 so ?

10 MR. COLONA: Just to follow up, Dr.  
11 Rosenthal, the NFPA-1 uniform fire code has the same  
12 provisions with respect to the ways in which you can  
13 treat the storage provisions that you establish for  
14 incompatible materials in terms of quantity  
15 limitations and protection levels that you establish,  
16 but the fact is that you would have a specific place  
17 designated and a means for dealing with the  
18 incompatible materials. You would be limited in  
19 certain quantities and then it would go back, as Mr.  
20 Lane said, you'd be back to the same place. That  
21 would have presumed that you labeled the stuff, that  
22 the people moving these commodities in and out of  
23 these designated incompatible storage areas were  
24 trained to know that this area was only for this stuff  
25 and this area was only for this stuff. But if all of

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1 that was in place, it's covered by our code as well.

2 CHAIRMAN MERRITT: All right, and one more  
3 question, our last question will be Dr. Poje's.

4 DR. POJE: One final question. What are  
5 the most frequent reasons given for failure to adopt  
6 either NFPA-1 or the uniform fire codes for the  
7 municipalities?

8 MR. DOLAN: You can put that in one word,  
9 it's unique. The city, state or locality,  
10 municipality will say, we're very unique we can't take  
11 these codes off the shelf and have it work here. We  
12 have, over the years, because of enabling legislation  
13 or other things, even by definitions that they want.  
14 But the thing with the model codes is the committees  
15 that are out there, the experts, you know, they've  
16 dealt with this before. We're not too scientific on  
17 code development, and I think you're all aware that we  
18 started with our life safety code after the Shinewood  
19 Shareways fire here in New York City in 1911, that's  
20 what started it. We're up in Rhode Island right now  
21 in that nightclub fire to see what happened. So  
22 that's the thing with the model codes, to get on that  
23 to identify them. But everyone thinks they're unique  
24 and it won't work here.

25 CHAIRMAN MERRITT: Well, I have time for

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1 one more, Mr. Bresland asked, so this is the last.

2 MR. BRESLAND: Thank you. I understand  
3 from Mr. Lane we're not living in a perfect world.  
4 That's not my question. If the City of New York had  
5 adopted the model codes, both the building code and  
6 the fire code that you are suggesting here and rightly  
7 so, would this have prevented the incident that we are  
8 talking about today from happening?

9 MR. LANE: I'll be honest with you, I don't  
10 think we're ever going to. There were model codes in  
11 place, like Mr. Dolan said, in Rhode Island and you  
12 can have the perfect code, you can have all your  
13 employees trained, you can have all your enforcement  
14 agencies trained, if it's not followed it doesn't do  
15 any good. So I think one of the big issues is  
16 penalties.

17 CHAIRMAN MERRITT: Thank you, panel, very  
18 much for your contributions.

19 (Applause.)

20 CHAIRMAN MERRITT: At this point we would  
21 very much like to open the floor for our public  
22 comments. We allowed this to go on here at noon so  
23 that we hoped we would get the availability of as many  
24 people as possible. I do have a list of eight people.

25 We are asking you several things. Please limit your

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1 comments to the issues that are being discussed here  
2 today. Please limit your comments to three minutes  
3 and we will let you know if you're approaching that  
4 time frame. And if there is anyone else besides these  
5 eight people who would like to register, please go  
6 back and let Mr. Selk know or somebody at the table.  
7 We do want to adjourn on time. We appreciate very  
8 much the public comments and contribution to this  
9 hearing.

10 The first person on our list is Mr. John  
11 Dunn. If you are here, would you please tell us who  
12 you are affiliated with and give your name again so  
13 that in case I mispronounced it.

14 MR. DUNN: My name is John Dunn, I'm a  
15 captain in the New York City Fire Department. I'm an  
16 elected official of the New York City Uniformed Fire  
17 Officers Association. That's the union representing  
18 approximately 2500 lieutenants, captains and chiefs in  
19 the City of New York. And I also serve on the union's  
20 safety committee.

21 CHAIRMAN MERRITT: Thank you.

22 MR. DUNN: My comments are very brief.

23 We welcome you as safety committee ? U.S.  
24 Chemical Safety and Hazard Investigation Board as well  
25 as your recommendations.

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1                   From the fire officers union's  
2 perspective, we are concerned about the safety of our  
3 members and the general public. The New York City  
4 Fire Department is charged with the mitigation of  
5 hazardous materials incidents in New York City. In  
6 June of 2001, before September and the events of 9-11  
7 we thought we had suffered our greatest loss on  
8 Father's Day. Three firefighters were killed in a  
9 commercial building fire after a volatile flammable-  
10 liquid-generated explosion caused a collapse that took  
11 their lives. We supported the option of a new  
12 building code that will provide the most stringent  
13 rules. There needs to be a tightening up and uniform  
14 reporting requirements on the movement of chemicals in  
15 the United States and hazardous materials from the  
16 standpoint of use for normal commerce as well as for  
17 those materials that might be misappropriated for evil  
18 use, for example Oklahoma City and any other act of  
19 terrorism. There should be uniformity in reporting  
20 from point of manufacture and sale to monitoring the  
21 placketing during transportation to a chemical's final  
22 use and storage on site. There should be reporting at  
23 this end point to local fire jurisdictions in order to  
24 assure storage requirements are complied with and  
25 allow us in the fire department to conduct pre-fire

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1 planning. The pre-fire plan involves awareness of the  
2 chemical, its storage amount and location as well as  
3 associated hazards. For example, you might not use  
4 water on certain materials. This information should  
5 available to units responding into the location and  
6 also this would allow for safe operation for pre-fire  
7 plan of tactics and procedures as a guideline plan of  
8 attack.

9 Thank you very much.

10 CHAIRMAN MERRITT: Thank you very much for  
11 you comments.

12 The next person is a Mr. Collins. Please  
13 give your name and your affiliation.

14 MR. COLLINS: My name is Paul Collins, I  
15 represent the Sheet Metal Workers Local Union 137  
16 which represents around approximately 850 workers in  
17 the City of New York, Long Island, northern New  
18 Jersey, Westchester.

19 Kaltech Industries, this accident happened  
20 for one reason and only one reason, poor government,  
21 lack of enforcement. You guys are all savvy, you all  
22 heard everybody speak in here about all the laws, all  
23 the things that you guys wrote, brilliant pieces of  
24 work. Some doctors up there and professors I  
25 understand. Really great things, I'm sure you did a

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1 great job, but there's nobody on the street enforcing  
2 it. It's that simple. If you don't put people out  
3 there to enforce the laws you're going to have these  
4 incidents happen.

5 Kaltech Industries is a non-union  
6 contractor, its workers don't have a voice. If they  
7 say a word about anything that you guys talked about  
8 they will be fired. It will take the government  
9 approximately two to three years to get them their  
10 jobs back. I don't know how many people in this room  
11 can afford to go without a job for two to three years,  
12 but that's the system we have today.

13 Kaltech did not close its operation.  
14 Within hours after that explosion they moved this  
15 operation to Queens. It has other affiliates, Big  
16 Apple Signs which is currently doing work for the City  
17 of New York on the Staten Island Ferry, Signs and  
18 Decal and Millennium signs, they are all related, so  
19 they didn't miss a beat, but I don't know how many  
20 workers were severely damaged in that explosion,  
21 they're missing a lot of time and they're poorly had.

22 I've tried to organize that shop several times, I've  
23 won labor board decisions against them, but because of  
24 the fact that a person could get fired and not be able  
25 to be compensated for the next two or three years, we

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1 can't organize.

2 Day after day I walk these city streets  
3 and once again I tell you all that if there's no  
4 enforcement you'll have no laws, and if we didn't have  
5 cops giving out tickets on the streets, we wouldn't  
6 have the traffic laws. That's exactly what the  
7 problem is here, it happens every day, it happens to  
8 the firemen. The firemen they get hurt on job sites.

9 The reason they get hurt, a majority of the firemen,  
10 is because of the lack of enforcement, and that's the  
11 only thing that has to be done. The City of New York  
12 does not enforce the laws. The buildings department  
13 has become a useless organization. If I called them  
14 today, there was a report in the Times not too long  
15 ago, if you call them today about a guy putting a sign  
16 up on his building with that unlicensed crane hoisting  
17 over the public and clearly in danger, we will get a  
18 response in two to three days. By then the crane is  
19 packed up and gone to wherever it had to go. OSHA,  
20 totally useless. I don't know who that is there for  
21 but it's a totally useless organization.

22 Thank you for the time and comments.

23 CHAIRMAN MERRITT: Thank you very much.

24 Our next commenter is Mr. Eugene Degan.

25 MR. DEGAN: Good afternoon. My name is

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1 Eugene Degan, I'm a consultant in metal and stone  
2 maintenance of commercial buildings in New York City  
3 and I'm a member of the Building Owners and Managers  
4 Association of New York. I serve on the Rules and  
5 Regulation Committee.

6 I'm here today because I want to really  
7 reiterate what the prior questioner had said, and that  
8 is the fundamental problem here is enforcement of laws  
9 that are on the books in that no one is opposed to  
10 creating new laws to make it safer for the people of  
11 the City of New York.

12 The fact is there are a multitude of laws  
13 on the books that were not followed in this incident.

14 I was shocked when I heard today that Kaltech had no  
15 proper labeling of materials, no MSDS sheets available  
16 for inspection, yet this is a large waste generator.  
17 I mean a material large waste generator, you have to  
18 files gobs of paper. This isn't a red flag for  
19 someone to walk down and say, hey, we just want to  
20 make sure you know what you're doing here. And then  
21 to find out on top of that, the EPA actually had an  
22 inspector in there and the city fire department went  
23 down and inspected it. I mean this is, it's just  
24 really impossible to conceive that we could have two  
25 inspections by two agencies that I have a lot of

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1 respect for, I've dealt with in the past.

2 I've managed a company in New York City  
3 that dealt with handling of hazardous materials. We  
4 had every one of our employers trained on an annual  
5 basis, we had all our little diamond signs. I had  
6 illiterate immigrants working for me who understood  
7 what those diamond designs meant and that materials  
8 that would have this marking should not be near this  
9 marking. And they were very concerned. This is not a  
10 function that you have people that can't learn. This  
11 is a function that there's individuals out there who  
12 are so callous to their employees' life and safety  
13 that they do not follow the law, and unless you have  
14 those laws enforced, it doesn't matter what you do.

15 Thank you.

16 CHAIRMAN MERRITT: Thank you very much.

17 Next on our list is Ms. Sally Reganhard;  
18 is that right?

19 MR. REGANHARD: Thank you, good afternoon,  
20 Madam Chairperson.

21 CHAIRMAN MERRITT: Please state your name  
22 and who you are affiliated with.

23 MS. REGANHARD: Oh, yes. My name is Sally  
24 Reganhard and I'm the founder and chairperson of the  
25 Skyscraper Safety Campaign. The Skyscraper Safety

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1 Campaign is an organization that was created after  
2 9/11 by the parents and relatives of firefighters and  
3 civilian victims of the World Trade Center collapse.

4 I lost my son who was a probationary  
5 firefighter for the New York City Fire Department and  
6 -- I'm sorry. I created this organization so that  
7 people who live, work and fight fires in buildings in  
8 this city have a chance of surviving. For more  
9 information please visit my web site, I won't go into  
10 the wonderful work that we've been able to accomplish  
11 during the past 18 months, but I must tell you that  
12 I'm very proud of my organization and I'm proud of all  
13 the members in it. I'm here today with by co-  
14 chairperson who lost her husband, her name is Monica  
15 Gabriel, she lost her husband at the World Trade  
16 Center.

17 I'm here today to speak regarding the  
18 Kaltech explosion and how this relates to the issues  
19 of the Skyscraper Safety Campaign. I'd like to begin  
20 by thanking you for holding this hearing. The  
21 citizens of this city need governmental agencies like  
22 yours who do this thorough type of investigation to  
23 really help us and to look at the agencies that we  
24 have this city and to make determinations whether  
25 they're doing the job and how they can improve the

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1 system here.

2 I'd like to begin by saying that right now  
3 in New York City we have an antiquated building and  
4 fire code. The Skyscraper Safety Campaign strongly  
5 advocates for the adoption of an upgraded model  
6 building and fire code for New York City.

7 Regarding the fire department, the fire  
8 department needs to do far more routine fire  
9 inspections and they need to charge for these  
10 inspections. I was very shocked to hear a  
11 representative from the fire department earlier refer  
12 to the fact that they had thousands of inspections  
13 that they do not get paid for and a few hundred that  
14 they do get paid for. You may know that right now New  
15 York City is in dire straits with a budget crisis.  
16 Eight fire houses are scheduled to be closed in the  
17 next few weeks.

18 The Skyscraper Safety Campaign feels that  
19 the New York City Fire Department did more fire  
20 inspections, routine, thorough fire inspections, and  
21 charged for it, it would have a double beneficial  
22 factor and the people of this city would be safer in  
23 these buildings, the workers would be safer, and also  
24 the fire department would get much-needed revenue and  
25 perhaps they could keep their fire houses open.

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1           Next, I don't if you're aware of this, but  
2 at the recent New York City council hearing both the  
3 DEP and the SDNY do not really even know how many tech  
4 hotels with storage of diesel fuel tanks we actually  
5 have in New York City. The term "tech hotel" means  
6 the buildings that are totally composed of computer  
7 equipment that are backups for large financial  
8 institutions and other critical functions that need to  
9 go on in case of a power shortage. There are  
10 buildings here in New York City, and as I say, the  
11 fire department doesn't even know how many, that have  
12 cropped up and have these diesel fuel tanks in the  
13 building. This is something that should be  
14 investigated and followed through, this is a great  
15 potential hazard. As a matter of fact, I mentioned  
16 the collapse of the World Trade Center. You know No.  
17 7 World Trade Center burned to the ground and  
18 collapsed. It was never hit by any airplane. To this  
19 day it remains a mystery why No. 7 burned to the  
20 ground and collapsed. And the strongest theory is  
21 that that building also had diesel fuel storage tanks  
22 in their building, and they feel, there is currently a  
23 governmental investigation, but they feel that that's  
24 probably the reason why. So that certainly will, you  
25 know, highlight the fact and I hope your panel can

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1 look into the tech hotel.

2 CHAIRMAN MERRITT: Thirty seconds, please.

3 MS. REGANHARD: Finally I'd like to say  
4 that a term that started to be used after 9/11 was the  
5 term "lessons learned". The families of victims  
6 reject this term which implies no accountability or  
7 responsibility for standards and practices. We  
8 instead suggest that an appropriate term to be used  
9 would be deadly mistakes. It was a series of deadly  
10 mistakes that caused the Kaltech explosion as it was a  
11 series of deadly mistakes that contributed to the loss  
12 of life of nearly 3,000 people at the World Trade  
13 Center. Recognizing accountability and  
14 responsibility, whether it be on the part of private  
15 industry or governmental enforcement, will be the key  
16 to public safety in the future.

17 Thank you very much.

18 CHAIRMAN MERRITT: Thank you very much for  
19 your time.

20 Our next speaker is Mr. David Newman.

21 MR. NEWMAN: Good afternoon. My name is  
22 David Newman, I'm an industrial hygienist with the New  
23 York Committee for Occupational Safety and Health,  
24 NYCOSH. I'm presenting the testimony of Joel Shufro,  
25 our executive director.

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1           NYCOSH is a non-profit coalition of more  
2 than 200 local unions and 400 legal and health and  
3 safety professionals and rank-and-file activists in  
4 the metropolitan area.

5           The Kaltech explosion in Chelsea was not  
6 an isolated event. As you know, there are 25,000  
7 toxic fires, spills or explosions each year, at least  
8 1,000 of which involve deaths, injuries or  
9 evacuations. The density of New York City's  
10 population and the mixed-use character of its  
11 buildings and neighborhoods makes the widespread use  
12 of toxic substances a serious threat to all of us.  
13 Several laws protect New York City residents and  
14 workers from chemical fires and explosions.

15           OSHA's hazard communication standard is  
16 designed to ensure that employers and workers know  
17 about work hazards including flammability and chemical  
18 reactivity. The New York City right-to-know law  
19 administered by the Department of Environmental  
20 Protection, DEP, requires some employers to report the  
21 storage of certain substances, certain chemical  
22 substances. Finally, the New York City fire code  
23 regulates chemical storage and handling. All three of  
24 these laws overlap but each is individually enforced  
25 by agencies that, to our knowledge, rarely cooperate.

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1 With stronger cooperative efforts by responsible  
2 agencies these laws could be powerful tools with which  
3 to protect our workers and our communities.

4 OSHA's hazard communication standard was  
5 instituted with the exclusive assumption that the  
6 knowledge that workers would gain under hazard  
7 communication would help reduce the incidents of  
8 chemical-source injuries and illnesses.  
9 Unfortunately, employers frequently shirk the  
10 provisions of this standard which requires a written  
11 program, training of employees about the health  
12 hazards of the chemical substances to which they may  
13 be exposed, training conducted in language that is  
14 comprehensible to workers, labeling of chemical  
15 containers and ready availability of material safety  
16 data sheets. Kaltech has a largely immigrant  
17 workforce. According to OSHA, Kaltech conducted no  
18 health and safety training and provided no material  
19 safety data sheets. We believe this situation to be  
20 typical of many New York City employers. This  
21 situation is compounded by lack of government  
22 oversight and lack of government enforcement.

23 The hazard communication standard provides  
24 the foundation for chemical safety and health  
25 programs. Two factors make the standard and its

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1 enforcement less than effective.

2 First, the fines levied for noncompliance  
3 are a pittance. The average fine for violating the  
4 hazard communication standard in OSHA, Region 2, New  
5 York, New Jersey and Puerto Rico, is \$76.00. This is  
6 significantly less than the cost of a parking ticket  
7 in New York City. Surely workers' safety must be  
8 worth more than a parking ticket for parking on the  
9 wrong side of the street.

10 Secondly, OSHA is woefully understaffed,  
11 meaning that most workplaces, including Kaltech, are  
12 rarely or never inspected. Even with stepped-up  
13 enforcement, the hazard communication standard is  
14 still problematic. The standard does not require  
15 training on the hazards of accidental combinations of  
16 chemicals that are designated non reactive. The  
17 combination of these same non-reactive chemicals  
18 caused the explosion at the Kaltech building. The  
19 Chemical Safety Board has noted this omission in  
20 another OSHA standard, it should be addressed within  
21 the provisions of the hazard communication standard.

22 The New York City Right-To-Know law  
23 requires that employers that store amounts of  
24 hazardous substances file facility reporting forms  
25 with DEP. This local law goes beyond the requirements

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1 of state and federal statutes. Even so, the law is  
2 only as good as its enforcement and there is  
3 substantial evidence that portions of the Right-To-  
4 Know law are not being enforced. The DEP's own staff  
5 estimate that 50 percent of the facilities that are  
6 required to report do not do so. In addition, DEP's  
7 program of community and employer outreach on right-  
8 to-know requirements has been eliminated. Limited  
9 resources may in part be to blame.

10 The law also requires facilities that  
11 store extremely hazardous chemicals to follow risk-  
12 management plans which include estimations of the  
13 total damage that could be incurred given the amounts  
14 and types of chemicals on hand. The facilities that  
15 must file these plans are also required to file toxic-  
16 use reduction plans and to carry out these toxic-use  
17 reduction plans. Toxic use reduction is a strategy  
18 that must receive top priority in order to protect  
19 communities and workers from chemical accidents and  
20 from terrorist attacks. Reduction of the use of toxic  
21 or hazardous chemicals must be an important part of  
22 homeland security.

23 A major component of the Right-To-Know law  
24 is to provide critical information about workplace  
25 hazards to individuals in the community ?

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1 CHAIRMAN MERRITT: Thirty seconds, please.

2 MR. NEWMAN: -- with emphasis on the  
3 community. Since September 11<sup>th</sup>, DEP no longer honors  
4 requests for information about chemical inventories or  
5 releases. This has significant adverse effects on the  
6 ability of tenants and workers and employers to plan  
7 emergency evacuation and emergency preparedness.

8 The final law to complete the city's  
9 chemical safety program is the fire code. It was  
10 intended to prevent chemical fires and explosions that  
11 has degenerated into merely a revenue source for the  
12 city. Certification under the fire code should  
13 require compliance, at a minimum, with the HAZCOM  
14 standard and with the New York City Right-To-Know law  
15 as with OSHA's hazardous waste operations and  
16 emergency response standard as appropriate.

17 CHAIRMAN MERRITT: Thank you very much.

18 MR. NEWMAN: Thank you.

19 CHAIRMAN MERRITT: You can submit the rest  
20 for the record.

21 MR. NEWMAN: Yes, I've given you copies of  
22 that.

23 CHAIRMAN MERRITT: Yes, sir, I appreciate  
24 that. And that's true for anyone who's here, this  
25 will be an open docket until May 9<sup>th</sup>, I think, and you

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1 may submit full written comments electronically to us  
2 and we'll gladly accept those.

3 Our next speaker is Mr. Adam Kelly. Is he  
4 here? Thank you.

5 MR. KELLY: Hello, my name is Adam Kelly,  
6 I'm with Environmental Defense in the New York City  
7 headquarters. Environmental Defense is a leading  
8 national non-profit organization representing more  
9 than 300,000 members, and I'm here today to urge the  
10 New York City Fire Department and other city officials  
11 to take an active role in preventing chemical  
12 incidents such as the one that occurred in Kaltech, at  
13 Kaltech last April.

14 Sadly, the Kaltech incident is all too  
15 familiar. Thousands of chemical accidents happen each  
16 year that seriously threaten the health of workers,  
17 communities and environments. Just two months ago two  
18 people were killed in an explosion at the Exxon-Mobil  
19 fuel storage facility near Staten Island. Two weeks  
20 before that incident several people were killed in a  
21 factory explosion in North Carolina.

22 While the ultimate burden is on the  
23 companies to ensure safe operations, there is much  
24 that the fire department can do to reduce the  
25 likelihood of such accidents. Just as promoting fire

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1 prevention is a key responsibility of the local fire  
2 departments, so too should chemical accident  
3 prevention.

4                   What do I mean by chemical accident  
5 prevention? Preventing chemical accidents means going  
6 beyond adding  
7 protective equipment such as fire extinguishers and  
8 the like. It means looking at the design and  
9 operation of a facility to determine safer ways of  
10 doing business. For example, can safer chemicals be  
11 used? Can the process be improved to eliminate the  
12 use of hazardous chemicals? Is the building location  
13 and construction suitable for industry operation  
14 involving potentially-explosive or flammable  
15 substances? Have operators provided for safe handling  
16 of chemicals including ensuring proper labeling and  
17 training of workers? I know that the fire department  
18 can't know the answers for every facility but needs to  
19 ask the questions to ensure that companies are doing  
20 everything possible to prevent accidents from  
21 happening. The fire department has a unique  
22 opportunity when it comes to the thousands of small  
23 businesses such as Kaltech. These businesses are  
24 often not aware of environmental or workers' safety  
25 rules governing the safe handling of toxic substances.

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1 Fire codes on the other hand are more widely known  
2 and revising the codes to prevent accidents is an  
3 important step. The code should specify the  
4 conditions under which dangerous chemicals can be  
5 used. If those conditions are not met then the  
6 operation should cease, just as restaurants that  
7 violate the smoking codes must close until corrections  
8 are made.

9 In addition, these businesses are much  
10 more likely to be visited by a building inspector than  
11 one from any other government agency. In addition to  
12 checking for whether building codes are being  
13 violated, the inspectors can provide information to  
14 companies about how to reduce or eliminate the use of  
15 dangerous chemicals. The inspectors may not be  
16 experts but can provide referrals to the technical  
17 assistance centers that do have the knowledge and  
18 expertise. In short, the fire department should use  
19 all means at its disposal, building code permits,  
20 inspections, community outreach to promote chemical  
21 safety in the same manner in which it promotes fire  
22 safety.

23 The risks to New York City residents are  
24 significant and steps to prevent accidents are long  
25 overdue.

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1 Thank you.

2 CHAIRMAN MERRITT: Thank you very much.

3 Mr. Michael McAnn.

4 MR. McANN: Hello, thank you. My name is  
5 Michael McAnn, I work for the Center to Protect  
6 Workers' Rights which is the research arm or the  
7 building instruction trades department of the AFL/CIO,  
8 basically on construction safety. I've got a few  
9 comments here.

10 I am a certified industrial hygienist, I  
11 have PhD in chemistry. The whole question of these  
12 chemical reactions that occur, I've seen them in  
13 laboratories, I've seen them in many inspections I've  
14 done at the schools and universities. It's a very  
15 common problem and I wouldn't like it to be focused  
16 just on large generators.

17 In this Kaltech incident they had huge  
18 amounts in storage but it was only one drum, really,  
19 that was the cause of the incident there. It doesn't  
20 have to be large quantities. I think the major  
21 difference is probably the scale of the number of  
22 people potentially at risk. But this was one  
23 building, dozens of people injured from a fairly  
24 small-scale incident. This whole question of these  
25 small-scale chemicals, we've got thousands of these

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1 plants all over the City of New York, and I want to  
2 make sure that they get inspected, these small-scale  
3 ones, not like OSHA's problem of not inspecting any of  
4 these small industries and that.

5 The other question is the whole, as a more  
6 national issue, this whole question of the reactive  
7 chemicals. I know that the Chemical Safety Board has  
8 been pushing a lot on this and that there is need for  
9 OSHA and EPA to take action on these standards dealing  
10 with these, to make it a much bigger issue that would  
11 like to support the Chemical Safety Board in those  
12 issues.

13 And working for the construction unions,  
14 we're very concerned about a lot of these same issues  
15 because many of these accidents that have occurred in  
16 chemical plants have involved contractors where you  
17 had workers, construction workers, doing retrofits and  
18 things like that and didn't know anything about the  
19 hazards of what they were working around, and many of  
20 the people who were injured and killed in these  
21 incidents were construction workers. And so I think  
22 there needs to be real attention paid to this group  
23 because they have even less information than the  
24 people working in these situations on a daily basis.

25 Thank you.

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1 CHAIRMAN MERRITT: Thank you very much.

2 And our last registered speaker is Mr.  
3 Leonard Wharton. Is Mr. Wharton here?

4 I really appreciate all of your comments.  
5 You've put a very personal and human face on this  
6 event from all of your perspectives. Although there  
7 was no one killed in this incident, we deal with  
8 incidents on a daily basis where there are people who  
9 are killed and become the victims of chemical  
10 incidents that are no unlike this one on different  
11 scales. Your comments and your approach and your  
12 recommendations will be weighed in our recommendations  
13 as we proceed, and thank you very much for your  
14 comments.

15 If there are no other comments at this  
16 time, then we've reached the end of the planned  
17 agenda. I would very much like to thank Congressman  
18 Jerry Nadler for helping us to make this hearing  
19 possible, his assistance was much appreciated.

20 On behalf of the Board I want to thank  
21 each of the speakers today and members of the public.

22 You have brought a wealth of knowledge and insight to  
23 this process that we undergo.

24 I also want to thank our able  
25 investigators, Steve Selk and Don Holmstrom, for doing

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1 an outstanding job with what I think has been a very  
2 difficult case.

3 Our intention is to take all of the  
4 information gathered here today, to analyze it, and  
5 then develop our final report and recommendations, due  
6 sometime this summer. At that point we will reconvene  
7 here in New York City for a final presentation and a  
8 vote of the Board on the report as well as the  
9 recommendations, and the public will be welcome at  
10 that meeting as well.

11 If any of you leave today having further  
12 thoughts or information you wish to share with the  
13 Board, remember that our docket remains open for  
14 written or electronic submissions until May 5<sup>th</sup>.

15 While today's hearing was focused on the  
16 ways the city codes can be more effective in  
17 preventing chemical accidents, our report will also  
18 address some of the broader issues that have also been  
19 raised by this event.

20 Small businesses that use hazardous  
21 materials are common throughout this country. If  
22 those business were not following good safety  
23 practices or environmental practices and they are not  
24 being effectively inspected, then the public is at  
25 risk. Certainly the public was endangered in this

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1 case and the public would have had very little  
2 awareness of the danger that they lived so closely to.

3 Kaltech no doubt missed many opportunities to learn  
4 about the safety and environmental requirements and to  
5 implement effective programs. I've said this before  
6 but I'm not sure that there was ever a clearer case of  
7 how inexpensive the cost of safety is compared to the  
8 cost of this serious accident. Very straight-forward  
9 safety measures would have saved this business and  
10 spared its employees and its neighbors much anguish.

11 As concerned as I am about how the  
12 business was operated, I'm also disquieted by the fact  
13 that federal, state and local regulators were not able  
14 to intervene before this accident occurred to improve  
15 the company's safety performance. Some agencies have  
16 adequate rules on the book but evidently lack the  
17 resources to inspect or enforce. Others may have had  
18 the resources but lacked the need regulatory authority  
19 covering hazardous materials. The Kaltech accident  
20 challenges us to do better.

21 The Board's next scheduled meeting will be  
22 May 1<sup>st</sup> in Festus, Missouri, the site of a major  
23 chlorine release last year. To learn about that  
24 meeting or to watch our live web cast, we ask you to  
25 visit our web site on [www.csb.go](http://www.csb.go). Watch that site

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1 also for announcements concerning our final Kaltech  
2 meeting which will be held here in New York City this  
3 next summer.

4 With that, I thank everyone, the Board and  
5 the panel members and the members of the public and  
6 those of you who sat through this, I hope you learned  
7 a lot about what we do, and we look forward to meeting  
8 with you again this next summer.

9 With that, this hearing is adjourned,  
10 thank you.

11 (Whereupon, at 12:15 p.m. hearing was  
12 adjourned.)

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