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*Health and Income Security for Injured Workers:
Key Policy Issues*

Panel IV: Preparing for Catastrophes in the Workplace

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This session convened at 3:30 PM in the Ballroom of the National Press Club, 529 14th Street, NW, Washington, DC.

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Introductions

Christine Baker, Executive Officer, California Commission on Health, Safety and Workers' Compensation

CHRISTINE BAKER: Good afternoon. I think we'd like to get started to keep on our schedule. Welcome to session four: Preparing for Catastrophes in the Workplace. We would be remiss without this as an agenda item, and of real concern to the United States. Again, I'm Christine Baker, and I'm on the California commission as the executive officer. And I've got the honor to serve as moderator of this session.

First, I'd like to introduce the panel members, and then share with you some of the efforts that California has done to prepare for catastrophes in the workplace. For this session, we are privileged to have four distinguished experts who will give us various perspectives on this important topic.

They are, in alphabetical order – and I think in order of presentation as well – John Howard who is currently the director of the National Institute of Occupational Safety and Health, as well as coordinating all of the Department of Health and Human Services secretaries on the World Trade Center programs. John has also served as the Chief of the Division of Occupational Safety and Health in California, Department of Industrial Relations from '91 through 2002. And I had the pleasure of working with John during that time.

James MacDonald is Director of Insurance and Reinsurance at Navigant Consulting, in Philadelphia, Pennsylvania. With over 30 years of experience, Jim is concerned with insurance challenges, including medical malpractice and the insurance of terrorism, and the future of the terrorist risk insurance – TRIA.

We're honored to have Irv Rosenthal, Senior Fellow at the Wharton School, University of Pennsylvania. Irv was also employed by Rohm and Hass for 38 years, and served a five-year term on the United States Chemical Safety and Hazards Investigation Board.

Robert Snashall is Counselor at Law and Founder of Snashall Associates. Mr. Snashall was the Chairman of the New York State Worker's Compensation Board at the time of the World Trade Center terrorist attacks.

Thank you for all being here and we look forward to hearing from you. There will be an opportunity for the audience to ask questions after the presentations have been made.

As we have learned from September 11th, the risk of catastrophe while people are at work and the risks to the workers who respond require the urgent attention of employers, workers, and policymakers. Recognizing as we do that employers and workers should be prepared if a catastrophe strikes at the workplace, the Commission has held a series of forums. And I'm not going to go into depth in those, except for the fact

that we did identify several main themes. And disaster preparedness is an occupational safety and health issue. Occupational safety and health is about labor and management, labor and employer's cooperation as well as public and private partnerships, and preparedness includes first responder safety. And the definition of first responder has been broadened to include the employees themselves as well as the employers. So, without further ado, I will let Dr. Howard present.

21st Century Emergency Preparedness and Response: The Scope of Emergency Responder Safety and Health

John Howard, M.D., Director, National Institute for Occupational Safety and Health

JOHN HOWARD: Thank you, Christine. And thanks for inviting me here to participate in this session this afternoon. Whether we're speaking about natural disasters like an earthquake, a hurricane, or the appearance of a pandemic strain of influenza, or whether we're talking about manmade disasters like a chemical release in a populated area, a truck bomb detonating next to a government building, or massive structural collapse due to a terrorist incident, the one thing that all of these events have in common is the participation of an emergency responder.

And even beyond those that choose to work in an emergency responder profession, there are many others who can be assigned incidentally or who just decide to volunteer to respond to a large-scale emergency event. Protecting those who do respond to emergencies from injuries and illnesses arising from their response activity is a prime concern of my institute. And I think it's also a concern of government at every level, as it should be for all of us, whether you're an employer, a laborer, or in the insurance industry.

And specifically, I think that our concern should be for responders in all three phases of their life – before they are deployed, while they are being deployed, and after they are deployed, whether it's immediate or long term. We partnered with RAND in 2001, after the World Trade Center disaster at which 450 emergency responders lost their life, to examine the lessons from that terrorist attack on New York City. We produced three monographs, which I would invite you to go to the RAND site or to NIOSH site to look up.

But in those, we had recommendations for pre-deployment and deployment. Of our pre-deployment recommendations, I think the most important was to develop guidelines for the appropriate personal protective ensembles for long duration disaster responses involving rubble, human remains, and a various range of respiratory threats. Two, define the appropriate ensembles of personal protective equipment needed to respond to biologic, chemical, or radiological events. Three, design respirators that are CBRN protective and can be worn for hours at a time. And four, create interoperability with respirator filters so that any filter can fit any respirator.

The deployment recommendations were chiefly related to proper site management, which is critical to ensuring the safety of responders, including whether personal protective equipment is available, appropriately prescribed, used and maintained. Second, coherent command authority is necessary to maintain perimeter control at all times and to have – which we did not have at the World Trade Center – a zonal census record for each responder and volunteer to know where they are or were on the site, how long they were there, and for both immediate management and for future post-deployment issues.

And three, to optimize safety management during a large-scale disaster when you have multiple agencies coming from around the country, it's vital to integrate safety and health management of multiple organizations into the single incident commands structure, which was not done very well in New York. Integrated safety management allows for the assessment of potential harmful exposures in real-time, whether you're at the site and what levels they are at the site and what kinds of controls need to be put in place immediately before entry, and for future reference.

And lastly, to ensure that all communications at the site are interoperable. And so, the institute, working with a lot of partners, including equipment manufacturers, labor, and industry, have been working on those national preparedness recommendations.

What I wanted to do, in my short time with you today, is to give you some idea from my current perspective, working with the World Trade Center health issues. I can tell you that there probably is no more important message for me to say today that no amount of time that is spent on preparedness, careful pre-deployment, and during deployment emergency response is wasted. Such preparedness is really critical to the post-occurrence, the post-deployment consequences. And what I wanted to do was to give you some idea of what I consider to be a 21st century view of that term "emergency responders," and contrast it with our traditional view and with the view that we are currently using.

The traditional view is that a first responder is someone who is involved in the immediate stabilization activities of a disaster, such as putting out a fire or reducing an explosion or collapse risk; engaged in the search and rescue of live victims of the disaster for evacuation to first receivers; and engaged in the search for deceased victims. These workers in the World Trade Center experience were employees of the New York City Fire or Police Departments or other departments in New York City, New York State National Guard troops who did perimeter control, the Port Authority of New York and New Jersey, and the federal government. Many of the federal workers that came to the site were not traditional federal employees but rather were federalized for short periods of time to carry out search and rescue activities, or to do disaster medical assistance.

Well, there are some non-traditional categories that I think were used at the World Trade Center that we now have accepted as a part of what is an emergency responder. And these are first receivers. First receivers were not thought in that way. But these are people, in the case of New York City, who are health workers and volunteers who provide a diagnosis and treatment to injured or ill victims at the site, at a temporary location, or at a permanent healthcare facility, or they were employees of the New York City Medical Examiner's Office that had to do post-mortem examination on human remains. Many of these employees, and even today, do not think of themselves in the category of emergency responders. And that, I think, is an interesting issue in terms of attitudinal adjustment to a new era.

The second category is recovery workers. In the World Trade Center, these were primarily construction laborers and other volunteers who engaged in stabilization of the

site, deconstruction, removal of debris on barges to Staten Island. In their activities, they encountered deceased victims, human remains, and participated in their retrieval. And the question remains whether or not the current cadre of construction workers in New York City that are engaged in current deconstruction activities around the World Trade Center site should be included in that category of emergency response workers.

The third non-traditional category is cleanup workers. These are workers or volunteer contractors, chiefly immigrant laborers, who engaged in the cleanup and removal of dust in the Lower Manhattan area from commercial buildings and from residences, hired through EPA money through general contractors.

In the next category are restoration workers employed in critical infrastructural industries like utilities and communications, who engaged in the restoration of essential services to Lower Manhattan after the World Trade Center disaster. And clearly, as we know, restoration of financial markets was considered to be a national goal, and many of these restoration workers were from the financial services industry themselves. And they certainly did not consider themselves to fall into the category of hazardous employment before 9/11 or in the category of emergency response workers.

And clearly, beyond this sort of expanded 21st century definition of World Trade Center, we have others that are affected – commercial and school building occupants, teachers and students, nearby residents of Lower Manhattan, Chinatown, and western Brooklyn. These multiple categories of exposed persons affected by the World Trade Center are the center of much concern by the Congress who has funded medical monitoring and treatment programs for responders and also a captive insurance fund for World Trade Center claims against the city of New York, by the state of New York who recently passed extensions to the filing time in the World Trade Center Rescue, Recovery and Cleanup Workers and volunteers' compensation cases, and three, by the city of New York, which recently funded medical monitoring and treatment for residents at Bellevue Hospital, a city of New York hospital.

Medical monitoring funded by the Department of Health and Human Services to date demonstrates that a number of conditions are occurring in the Responder, Recovery, Cleanup and Restoration worker volunteer population at frequencies in excess of the referent populations, such as upper and lower respiratory disease conditions, post-traumatic stress disorders, gastrointestinal reflux disorders, and musculo-skeletal disorders. And even for affected residents and commercial building occupants, there are reports in the scientific literature from early after the disaster of health effects, which mirror those in the responder community, albeit at a less prevalent level. In a re-survey of a sample of New York City residents and workers is currently taking place in the World Trade Center health registry, and we hope to be able to update those early surveys by looking at the persistence of that symptomatology now almost five years later.

So in conclusion, I just want to emphasize that preparedness for disaster needs to include all three phases of emergency response: pre-employment, during employment – and clearly, the area that I'm involved with now that I don't think any of us foresaw was

the post-deployment health issues. And so I'll end with that and be happy to take questions during the question period.

(Applause.)

Management's Role in Preventing and Mitigating Catastrophes in the Workplace

Irv Rosenthal, Senior Fellow, The Wharton School, University of Pennsylvania

IRV ROSENTHAL: I want to contrast what I've heard here and place in perspective catastrophic risks as compared to the bulk of the risks and hazards we deal with in worker's compensation. Our symposium is focused on extending trends in healthcare and income benefits for injured workers. Our session is focused on preparing for catastrophic risks in the workplace. More specifically, I would like to talk mainly about the challenges facing employers in preparing for catastrophes, because I think this is where the real opportunity is.

As I said, my remarks are focused on the role employers in preparing for high consequence, low probability risks, which I'll refer to as HCLPs. I want to stimulate discussion on the proposition that firms can and should do more in instituting preventative measures in regard to terrorist attacks or any other catastrophic risks, rather than relying on so heavily on insurance aimed at compensating firms and victims after the fact. Many firms already take this approach in regard to LPHC processes, and natural disasters. All of the discussions that we've had on terms of trying to eliminate terrorist attacks, and the thrust of the legislation under OSHA dealing with process safety management and with EPA dealing with risk management, which can affect the public.

Terrorism is only one of a multitude of catastrophic risks. And one of the things that applies to catastrophic risks and dealing with terrorist risks as well as more conventional risks is to use the techniques of risk assessment that have been developed in industry to deal with the more conventional hazards. An enterprise can use these existing tools and approaches to reduce the likelihood and consequences of normal workplace catastrophes with some modification can use these against terrorism. The enterprise should examine existing risk management approaches before deciding to either only buy insurance and let the insurer worry or do nothing and hope for good luck or post-hoc government bailout.

My experience in some 38 years in the industry was that if I were to tell our insurer that I've reduced the risk of a catastrophic accident from 1 in 1,000 years to 1 in 10,000 years, he would say that's lovely. And if I'd ask him what's the risk reduction I would get in our premium for doing this, he would laugh.

I put on this strategic risk management framework purely because it embraces the essential elements of a technical thing. T.J. Anderson of Denmark, a financial analyst, put it out. And it's interesting to see that a good part of the measures he deals with are risk transfers and financing in excessive risks. And as with most business-oriented authors, Anderson's paper is highly focused on the use of risk assessment and risk management processes and the financial side of the event, though it also touches on the need to do something about assessing physical risks. And their focus is on how to properly structure your financial instruments and insurance to protect the firm.

However, my feeling is that the firms should recognize that many of the potential emotional and financial catastrophic losses to the totality of the operation's stakeholders, such as the community, the government, and the employees, are most effectively addressed by reducing the operations' physical risks, rather than ensuring coverage of the enterprise and stakeholders' financial losses. And a sound risk assessment is critical for guiding efforts aimed at reducing physical and operational risks. Many risk assessment models exist, and hopefully – I'm going to point to the generic OECD model on the next slide – can be helpful in thinking about it in this fashion.

I'm just going to briefly mention the main headings of this. For many of you, it's routine. Basically, you have to identify what are the sources of potential to cause undesired outcomes for the subjects of concern? Now, in some instances, like we use the World Trade Center, being blown up in a bomb is something that you don't think about normally in terms of structures.

However, there are a number of instances in which you can eliminate the hazard and make the operation intrinsically safer. You then have to go through what types of events can result in the explosion concern. Terrorism, of course, is an intentional act, whereas most accident scenarios arise from unintentional sequence of events. You have to ask yourself what damage can result from such an event, and it's amazing in how many instances firms have not assessed the consequences of such occurrences. And under such conditions, John, it's almost impossible to organize responders, because they never tell you about the possible hazard. And then, you make assumptions about how the risk is ranked.

Risks can arise from any sequence of events that actualize the hazard. For instance, you can have the introduction of corrosive materials or the release of a toxic or a flammable substance and subsequent explosions or mass poisonings. The risk assessment process can tell us what scenarios might lead to the actualization of the hazards; you sit down and get a group of people together and run through the various scenarios that can happen. What measures might we take to prevent this occurring and the process modifications that can be put into prevent such a scenario?

There are many instances in which steps can be taken. I think the classic case that is taking place right now has been the replacement of chlorine by hypochlorides in water treatment. This is the result of a conscious decision that chlorine, which can be released accidentally or by a terrorist attack, can have widespread community implications. There are a number of different approaches. Some people reduce their inventories. Some people replace with hypochloride. Some people are going to completely different treatments. They're eliminating chlorine altogether by using UV light and electronic measures. But it's a necessary assessment to physical risk reduction.

The enterprise has to go through a dual analysis. It has to analyze what can be done cost-effectively to reduce the hazards or the likelihood that a scenario that is enacted with the purpose of releasing the hazard, what can occur and what measures can they take to reduce this?

It then can and should compare the cost-effectiveness of improving risk management versus managing just the financial consequences via insurance. In some cases, it may be cheaper – aside from everything else – to go this physical way. But what the enterprise often doesn't take into account, and what's very evident right now with the case of British Petroleum who had a major accident in Texas City, is that some of their own and their stakeholders' losses may not be adequately compensated solely by monetary results. Regardless of the insurance, the loss of social credibility and social license, the problems that BP will face in trying to get government to give it new leases on oil or anything else are much higher than the direct physical losses that they face as a result of this accident.

And that comes from the fact that after the accident is done, even if the firm has obeyed the letter of the law and done everything that it's had to do, the stakeholders don't focus on that. They ask themselves this question: if the firm were to act prudently, did they take reasonable measures to prevent and mitigate all of the stakeholders' catastrophic losses? And if they didn't do that, the firm tends to lose its social license and that alone can be catastrophic.

And just a brief note that when we talk about terrorism risks, these risks are not solely under the control of the firm. They're interdependent risks. They go from the fact that people may share a pipeline, an industrial park, or an electrical grid. And one person's failure to take adequate measures can affect all the other stakeholders on that grid. The result of this type of thing is that to the extent that the enterprise does not address these catastrophic risks and these catastrophic risks are interdependent, the only way they can be addressed is by government policy or law.

It's interesting to see that there's an organization, the International Nuclear Process Organization, which was formed after Three Mile Island. It has every nuclear facility in it. It's not a regulatory issue. Every nuclear facility joined it, because at the end of Three Mile Island, the nuclear industry was at the edge of being closed down as it has been in some countries. And they realized at that point how dependent they were on having a social license to operate. And so they went on to form this association, which every member's chairman goes in. They ordered themselves very rigorously. They do cultural surveys. And they get very, very excellent adherence from their members because their very existence is threatened. And this is occurring with some other industries, as well.

I'm just showing this next overhead because it shows the complexity of dealing with the catastrophic risk. Our discussions today on workers' compensation indicate that this is not a simple matter either. It runs from every locality, city, state, unions, are involved in it. But when you're dealing with terrorism risks, you are really dealing with issues that extend from foreign policy to government reinsurance under TRIA and you are dealing with very complex issues, which to some degree are even more complex than the issues faced with workers' compensation. Thank you.

(Applause.)

Preparing for Catastrophes in the Workplace

James Macdonald, Director, Insurance and Reinsurance, Navigant Consulting

JAMES MACDONALD: Hi there. I'm Jim MacDonald.

Bob Reville of RAND asked me if I would speak about workplace safety and worker's comp and terrorism and TRIA. And I'm pleased to be here thanks to the NASI. I want to plug a little book that just came out this month. Let's see Bob Reville and Lloyd Dixon have a chapter in here. It's called Seeds of Disaster: Roots of Response. The co-editors are from Harvard, Wharton, and George Mason – Erwann Michel-Kerjan and Phil Auerswald, Lewis Branscomb, and Todd LaPorte. But it deals with the subject we're talking about today. It's not just about terrorism, but also about disaster preparedness and what the private sector can do.

Just to explain my current role at Navigant: as the former chief underwriting officer for a major insurance company, I'm frequently asked to speak giving the underwriting case. I now work for Navigant Consulting, which is an independent consulting firm, so I will try to be as objective as possible, with the understanding that I have spent 35 years of my career in the underwriting ranks.

I think the major theme I want to express to you today is that - at least when we're talking about Fortune 1000 companies - there has been more work done in the terrorism preparedness area for the next big one than the Treasury report last year or other surveys would indicate. Obviously, if you survey everything from small retail stores to medium-sized accounts, you're probably going to conclude that the private sector is not doing much to prepare for terrorism. But having spent a lot of time working with risk managers of Fortune 500 and Fortune 1000 accounts, I think one of the things we need to do is take a look for a second at what risk management is all about. I mean, all too often, we think of insurance as the sole solution. We think well, we're going to create some insurance for this problem and file it away. But I think if there is one healthy thing about disasters, looking at these things positively, one thing it's done is it has focused most of us on the holistic set of risk management options, the total set of options that Irv was just mentioning.

[Reference to slide showing pre-loss and post loss risk management goals:]
Insurance is actually only one of the options that a risk manager for a corporation needs to consider. Before a loss, the goals of a risk manager are economic efficiency, tolerable uncertainty - not eliminating all possibility of loss, but determine how much loss can we live with - and what do we need to do to get to that level of tolerable uncertainty, and of course the legal requirements and ethical conduct.

Post-loss, business continuity planning is a key goal. It is important to comply with Sarbanes-Oxley, section 404. Most companies, not because of TRIA, but because of Sarbanes-Oxley, have effectively implemented business continuity planning. If you are publicly traded, you better have a business continuity plan. This is very unappreciated by

the people that wrote the Treasury report last year assessing TRIA. They asked the wrong questions.

But the big question today is “What is ‘tolerable uncertainty’ in the world after 9/11?” So let’s just look at the options. Basically there are three risk-management options. And, as individuals, we all live with some of these options all of the time. For example, we all practice risk avoidance. Whenever possible, you are going to avoid the problem. For example, you’re not going to go to a bad part of town.

[Reference to slide showing traditional risk management options to address hazard risks:] Really there are three options: avoidance, control or risk transfer. You can think of risk transfer as risk financing – that could mean self-insuring, it could be buying insurance, or it could be contractual liability agreements where you get the other guy to hold you harmless.

So there are really three options: avoid it, control it, or figure out how you are going to finance it after it occurs. So let’s move on.

[Reference to slide showing various possible types of terrorism attacks and the estimated probabilities of each being the source of a new attack:] What is the threat? Well, with terrorism, it’s not a data-driven world. I mean, we have got a few data points out there and they span a long period of time. In their latest assessment, RMS estimates that if a major attack occurs, there is a 5-percent probability that it will involve a Chemical, Biological, Radiological or Nuclear – or CBRN device or agent, as noted in the slide. I don’t know how many of you read the presidential working group report, which also talks a lot about CBRN, chemical, biological, radiological, nuclear, also called NBCR, which is the insurance acronym. The 5-percent probability is what RMS is pegging. They are still basically saying we have got a 95% chance the next major attack will not be CBNR – so we have got to worry more about truck bombs, car bombs, suicide bombers, conventional weapons These are the attack scenarios that most insurance underwriters contemplate when they underwrite accounts.

[Referring to a slide showing New York City to be the most likely city to be attacked by terrorists:] Where is a terrorism attack most likely to occur? I was raised in Manhattan; that is why I speak pretty fast sometimes. But as a guy that grew up in 43rd street and 2nd Avenue, when we see things like this, we get a little disturbed. But it is interesting, this is the risk relativity of major urban centers, and intuitively, a lot of us would have said, well, New York is first; Washington is second. Washington is not even third. Washington is down the list. Why is that?

Well, when you don’t have data, what you do is you use your best estimates, and that is usually game theory in the terrorism world, where you look at what is the utility of the adversary, what are they trying to achieve: mass casualties, economic destruction, and an iconic site – I’m a fun guy to invite to meetings, by the way – (laughter) – let me tell you. They want to knock out something that everybody in the Islamic world is going to recognize. Oh, and they want a 90-percent or better chance of success. So they are

probably not going to do a chemical attack in Chicago, right. I mean, it's a "windy city". (Laughter.) So that is basically the framework for analysis. You have got to assume these guys are sane too, and they are strategic. It's like playing chess; you never assume they are not as smart as you.

[Referring to a slide showing quake zones across the USA and both active and dormant nuclear power plants:] You know, the truth is when you look at extreme event risk in the workplace— I just found this map – we have got quake and nuclear exposure all across this country. Terrorism isn't really just a major urban problem— they could achieve their goals in Florida or in California, in New York, or even in Kennebunkport, for that matter, up in Maine, certainly from an iconic standpoint, and possibly economic as well.

[Referring to a slide showing 9/11 Workers Comp deaths and injuries:] It's interesting that one of the prior speakers talked about workers' comp losses on 9/11, because I wanted to check out the latest scene with workers' comp, lessons learned, from 9/11. And, you know, a lot of us think about the fatalities, because it was an unusual attack in that the thinking was afterwards was that either people got away okay or died. But it's interesting that there were about – this is from the GAO report – about 8,000 injuries, or 4 serious injuries or illnesses for every one fatality.

We also see that post-loss responders at the WTC site are showing serious injuries. Have any of you seen this Mt. Sinai report that was just came out analyzing 40,000 WTC rescue workers who were exposed to caustic dust? The report also states that 70 percent of World Trade Center's first responders are now showing new or worse respiratory symptoms. When underwriters had to establish estimated loss reserves right away, we thought, well, what are we going to do? We figured pulmonary would have to be a long-term problem. And we also anticipated the post-traumatic stress claims that we are now seeing.

Now, there are statutes of limitations and reporting comp claims, but they were actually extended in New York, if I'm not mistaken. This is frequently what happens after a major catastrophe; it also happened in New Orleans. This kind of gets insurers upset! After losses, sometimes the regulators come in and say, well, we're going to give you another year or two to report the claims. And that has got insurers kind of miffed.

[Reference to a slide showing insured loss estimates based on various attack modes including nuclear and biological:] What are the possible insured losses from a new attack on the scale of 9/11 or worse? If you look at the potential size of the losses – these are RMS estimates and this is "thinking the unthinkable" here – a nuclear bomb, 5 kiloton, which is actually small – if it exploded in Manhattan, would produce an estimated \$200 billion insured Workers Compensation loss. And if you added the property, which I didn't put in this slide since we are focusing on Workers Comp, we go to a \$450 billion insured loss. That is more than all of the net worth in the U.S. insurance business, right now. So we are talking big bucks.

[Reference to slide showing RMS estimates of a hypothetical terrorism truck bomb attack in Chicago:] But even if you're talking about synchronized truck bombings, this is a scenario in Chicago, RMS scenario, synchronized three-ton truck bombs, where they estimate you could have 70,000 injured people, 5,000 fatalities, and an insured loss in the billions. The key point is that a weapon of mass destruction does not have to involve a Chemical, Biological, Radiological or Nuclear agent.

One important point to note, when people talk to you about how rich the insurance business is and the more than \$400 billion capital they have available, read the GAO report about a year ago. It makes a clear point: all of that capital is not available to pay for one loss. There are only going to be so many insurers exposed in the next event. Half of that capital is dedicated to personal lines, by the way. It isn't even included in the federal terrorism insurance program.

So you do have a significant risk of insurer insolvency without TRIA.

There is a hundred billion dollars of reinsurance made available under TRIA. Nothing, not even the PWG report, suggests the private sector can replace that capacity if the federal program expires next year.

[Reference to a slide showing several specific areas of risk management improvements since 9/11] Okay, if we look at progress since 9/11, there really has been quite a bit of pre-loss improvement in a number of areas. But there is no consistency to it. I won't go over each of these items, but both pre-loss and post loss – we have seen improvements.

[Slide showing Jersey City and lower Manhattan skyline labeled Asset Separation] For instance, here is Jersey City. This is a Google chart. Jersey City's skyline has taken off since 9/11. This is an example of asset separation – one way that risk managers address catastrophe risk. Right after 9/11, one of the major investment banks in Manhattan said half of their employees would be moved to New Jersey.

[Reference to a slide showing an employee's "disaster emergency kit"] Here is a photo of an actual a disaster kit. It's an emergency disaster kit issued to employees in a large office building in a major city. It contains a lot of things. *But what are the minimum items that it should it contain?* There are no guidelines for that. The items in this kit were selected from a long checklist on the DHS website of possible items to consider.

[Reference to slide labeled "Beyond the Basics":] I know one company that issued gasmasks to all its employees. How about aerial egress chutes? How about potassium iodide pills to protect your thyroid in the event of a dirty bomb radiological attack? All of these things are worth thinking about but no minimum standards are currently defined.

[Reference to slide showing building code changes due to terrorism risk] In the building construction area, there has been a lot of progress made. I can't go over this whole slide, but there has been progress made. It's not like everyone in the private sector has been sitting around. ASTM International, NFPA 1600 – a lot of people have been working at improving codes.

[Reference to slide showing “report card” grades from the 9/11 Commission:] However, despite all of this, the 9/11 Commission gives bad grades and says national preparedness is only beginning to find its way into the private sector, driving the overall consensus. It is very clear the hardening of public sector has shifted terrorism risk to the private sector. It's very clear most people don't think they are at risk, and we have this information-sharing problem that is driving the fact that 40 percent of the property buyers still don't buy terrorism insurance.

The emerging question, as discussed in a recent Howard Kunreuther paper on this subject called Rules Not Discretion, is: Do we really need a more entrepreneurial world or do we need a world with clear rules for what to do? For instance, new federal rules might automatically define certain situations as “incidents of national significance”. Maybe a category five hurricane like Katrina on Sunday afternoon in the Gulf headed toward New Orleans should be automatically defined as an “incident of national significance”. Why not make it clear? Don't wait two days to think about it.

Also: Workers Compensation requires a continued federal terrorism backstop even if TRIA expires at the end of 2007. There is no way you can exclude terrorism coverage from Workers' Compensation.

[Reference to a slide showing a quote from Douglas Holtz Eakin, former CBO director,] You know, I did a lot of debates last year on TRIA. I did one at AEI with this very bright guy named Douglas Holtz-Eakin, who was the head of the CBO. Even though the CBO wrote a very critical report about TRIA, and this was just one day after the July 7th bombings, Douglas said, look, if we're going to let TRIA go away we still need some solution for Workers Compensation and the risk of a CBRN attack.

And by the way, everyone I know wants TRIA to go away. Nobody wants another extension. What we need is a new permanent solution addressing CBNR and Workers' Comp. There seems to be a consensus on that point. Thanks very much.

(Applause.)

Workers' Compensation Challenges

Robert Snashall, Counselor-at-Law and Founder, Snashall Associates

ROBERT SNASHALL: Good afternoon. I want to thank the academy for scheduling this conference. I also want to thank Christine and Ed for co-chairing this conference. It has been a great conference. And as the last speaker of the last panel, Christine is already showing me the two-minute warning (laughter). I'm not going to get locked into the PowerPoint presentation; I'll simply try to add to what the previous speakers have already shared with you, and also to keep you awake for the balance of the show.

My focus will be as a former regulator. I was the chairman of the New York state workers' compensation system from 1995 through 2003, and therefore the chairman at the time of 9/11. And so my focus will be as a former regulator, and my focus will be on terrorism and the impact on an agency dealing with the influx of cases.

Now, interestingly, we all know about 9/11 as being the most significant act of terrorism here in this country. We also remember the Murrah building bombing in Oklahoma. We probably remember the first World Trade Center bombing as well. But actually, the first act of terrorism that took place in this country that impacted workers' compensation was in September 1920. A band of anarchists pulled a wagon full of explosives up in front of the House of Morgan on Wall Street in New York City, detonated the explosives, killing about 35 people, some of whom obviously were at work, and some of their families filed for benefits under the newly enacted workers' compensation system.

So terrorism has always been with us and has always impacted workers' compensation system. So there is no doubt in my mind that in the future it likely will impact our systems with the next act, and one thing that we do see is that these acts are becoming increasing more violent and increasingly more destructive.

So I'm going to just focus on probably four main points today. I'm going to assume that you are going to take all of the recommendations that John and Irv and Jim gave to you, and you are going to implement those. You are going to look at your systems. And I am going to just simply ask you to expand a little bit and take into some other considerations.

I will ask you to consider four different factors.

First of all, I will ask you to consider some legal issues.

In my opinion, our workers' comp laws are not set up to absorb these types of losses and these types of cases. These laws were not set up and have serious deficiencies in the ability to respond – and I'll give you some examples – such as the purely jurisdictional issues and the coverage for the volunteer issues.

When I went to Ground Zero several times to visit with the responders and to get an idea of what was happening down there, I was talking with volunteers from Alabama, Florida, California, and around the country. And I'm saying to myself, I'm at Ground Zero within 10 days of 9/11, and there are people from around the country that have come in to respond to the event and to offer help. Where do they file claims when they have adverse effects? Do they file claims in New York? Do they file claims in their home jurisdiction? This is a real jurisdictional issue.

Aside from the jurisdictional issue, let me give you a couple of additional examples. A standard or normal workers compensation statute provides benefits for deaths at work. Where there is a death at work, generally you have a body. You can document that the death took place at a certain time, at a certain location. With 9/11, there were no bodies, so the question then becomes how you deal with a widow saying: My husband left the house this morning. He works on this floor of the World Trade Center. He works in this location. He has not come home. As a regulator, how do you respond to those situations? And, as a regulator you must respond to those claims.

Likewise, the law provides funeral expenses for the widows. In most states, the law provides that you are entitled to \$5,000 or \$6,000 for funeral expenses. What happens when three weeks after the event, the responders find a finger and they match it up with Jack Jones, or a toe and they match it up with Jack Jones? And there is a ceremony and the insurance company pays the \$5,000 funeral expense for the funeral. And then three weeks later another body part is found. The family wants to exhume the casket, and join the two body parts in the same casket. Does the carrier have to pay again? We faced those sorts of questions. We faced them more than we wanted to face them.

The exposure issue is another legal issue, which needs to be addressed. I think Jim or John pointed out that a year after 9/11, there were about 6700 claims, a third of which were death claims for 9/11. Now look at the Mount Sinai numbers. Look at the number of people being tested. What happens with the long-term effects?

In short, after looking at the current statutes you must conclude that these statutes themselves are not adequate to deal with these acts of terrorism and should not be absorbed into our traditional workers' compensation systems.

The second area I would like you to consider is the operational area.

We were fortunate in one respect at the workers' compensation board of New York. We had just implemented a new computerized system. We had just designed a business continuity plan that had gotten two thumbs up from our Office of State Controller. And so when we had to deal with the influx of cases, we were able to rely on state-of-the-art technology.

Not all of our outside partners, however, had that same benefit. There was a self-insured employer in the state of New York who stored all of their workers' compensation

files for all of their cases for the last 25 years. Where did they store them? They kept the files in the World Trade Center. They lost their complete inventory of files. They had no redundancy. They had no backup. They had no technology. As a result of the destruction of their files, they had to come to us and we had to recreate the files that they lost as well.

In addition, although we did have a new computer system allowing us to track and handle the influx of cases, we nonetheless had to change a number of aspects of our operations.

For example, prior to 9/11 the normal procedure in a death case would have a widow come to the workers' compensation board. She would have to testify at the workers' compensation board that she was married on such and such a date. She would have to offer proof of the marriage and recite the fact that there were two or three children from the marriage and that there were no divorces and remarriages.

After 9/11 we decided that we were not going to force two thousand or more widows to come to the workers' compensation board, to testify in person and to verify those claims. So we put into place an affidavit program so that they could complete the affidavit with their attorney, file it with us, and then we would process the claims.

Also be aware of the fact that even though you have your plan and even though you're making your operational changes, there are outside forces out there that may not want to see the program move forward as smoothly as you want it to move forward. For example, there was a defense firm in New York City that did defense work for workers' compensation. Within two weeks after 9/11 the firm had produced a glossy brochure and distributed this bulletin to its clients base. The piece advised the clients on how to controvert these cases, how to fight these cases, how to oppose these cases. In response to this situation, I composed a letter, which I sent to every insurance company and every self insured employer in the state of New York, asking them to treat these cases with compassion and to pay the benefits and to act in a professional manner.

So beyond the legal considerations and operational considerations, you also must face the political environment.

You have internal politics and you have external politics. You have the short-term politics or the long-term politics associated with it. Right after 9/11, one of our biggest challenges, quite frankly, was gaining information from the city and federal officials.

We had two people working day and night trying to get and share information. One of the biggest impediments to getting that information were privacy statutes, where the feds would say we can't share this information on this matter with you, or the city said we can't share this information with you at this time.

I suppose that you could say that in the case of an event the size of 9/11 there is a huge collision of governmental agencies as the several agencies strive to react. The local people want to control the event, the feds want to control the event, and the state wants to control the event.

So you have to be aware of this political dynamic.

These acts of terrorism don't occur on a perfect day for you. They might happen on a day or during a week when your chief person who is in charge of your program may be on vacation in the Canadian Rockies. You cannot wait for that individual to return. You must act at once.

In our case, on 9/11 we did not have a plan in place to handle such an event. We did not anticipate such an event.

And, although the numbers of deaths from 9/11 were overwhelming, I hold the opinion there were considerations or factors, which might in fact have mitigated the losses of 9/11. When the attacks occurred, it was the first day of school and it was primary day in the city of New York meaning that a lot of people were coming to work late that day.

I believe this because when we did our projections and ran our numbers based upon how many people were working at World Center on an average day, we thought the losses could have been significantly higher. And if they were significantly higher, where would our efficiencies have stopped, and where would we have just crashed into a complete failure in terms of meeting the needs of the community.

I was fortunate also to have a great partnership with the AFL-CIO in the state of New York, who wanted us to succeed in meeting the needs of everyone that was impacted by the terrorism. I met with the NYS AFL-CIO, and Denis Hughes, who is the president of the NYS AFL-CIO, told me a story about how when he was a young electrician, he was engaged in the buildings of the towers, how he sat on the top of the towers looking out on the New York skyline, looking out on New Jersey, looking out on the harbor.

And he told me the story of how on 9/11, a young electrician from local three was on the job for the first time. It was this young man's first job, his first day on the job and he was at World Trade Center. His life was lost on that day.

And so this really meant so much to the AFL-CIO, and they were such great partners in helping us succeed and leading the charge for federal money.

The last point I want to make is that aside from the legal issues, the operational issues, and the political issues, don't underestimate – and I think Irv pointed out or made mention of this – the emotional attachment that occurs when this happens.

Again, I was amazed at the emotional strength, short term, that everyone could demonstrate when this sort of act occurs.

Everyone responded. How can I help? How can I do this? Whether it was the responders and the volunteers; whether it was the agency personnel; whether it was other partners in the community, you can underestimate the short-term emotional strength that flows from a disaster such as 9/11.

At the same time, don't overestimate the long-term fragile nature of the event. I note those numbers that Jim pointed out from Mount Sinai regarding the respiratory conditions are there. In addition, I think you are going to see a number of long-term stress cases, in the future.

In conclusion, let me just say, as you build your programs, as you assess your risk – and it's going to be different for everybody. And I see Bob Steggert sitting here from Marriott. And Marriott had a facility right at World Trade Center. It changed their company, I'm sure, forever. It changed Cantor-Fitzgerald. It changed AON. It changed the Port Authority. It changed everybody.

You're not an island. And as Irv pointed out, you're a community. You must realize that when a tragedy strikes a community it strikes everyone to one degree or another. You need to recognize that if my business trading partner is impacted then I am impacted.

As Christine I think mentioned, it's a partnership; you have to look at these programs from a partnership. You have to have your risk-management program constantly reviewed, and if you deal in multiple states, you have to do multiple reviews, which leaves me to conclude – I really truly believe that these risks for terrorism have to be extracted from our state systems and put into a federal system.

I think Shelby left already so someone can give him the word that his system is going to absorb all of these according to me. (Laughter.) But I mean, the feds really should absorb these cases. These acts of terrorism, if they do become more numerous, if they do become more destructive, they threaten our system because then we start to take and adjust these systems that we have for industrial accidents to cover acts of terrorism.

So those are the points that I wish to leave you with. And, again, thank you for staying awake, and I think we'll make the reception. I hope I didn't bump into that. And thank you for a great conference. It was a fantastic conference.

(Applause.)

Discussion

MS. BAKER: Thank you all for giving us so much to think about. You all will have the opportunity to ask questions of our panel members. Please come to the microphone and identify yourself and ask your question if we have any questions at this point.

Q: I'm just going to make an observation on the New York workers' compensation situation. When the World Trade was built, it was built by the Port Authority of New York, New Jersey, and so on, as a public entity. They didn't have enough clients to fill up that building, and so for many years, the New York workers' compensation board was in the World Trade Center. And it was only after they began to fill up with paying renters that they moved them out to Brooklyn. But can you imagine what the situation would have been if that is where you still were, because I have no idea whether you had redundant records or not, but you certainly didn't have enough redundant staff to even begin to deal with the problem.

MR. SNASHALL: Yeah, you're right, John. For years, when the towers were built, the private market didn't fill the towers, so government filled the towers. And I was reminded before 9/11 that the prior chairman's office had this wonderful corner office that overlooked the Statue of Liberty and just this panoramic view. And we moved out of the Trade Center in 1986 or something like that. But, you may have read in the paper recently that there has been a commitment from city and state government to lease a great deal of footage in the Freedom Tower. And I would not be surprised to see more state agencies and city agencies moving into the Freedom Tower when that work is completed.

Q: Hi. Eric Nordman with the National Association of Insurance Commissioners, question for James. I would like to hear your opinion on whether you think the insurance industry would be willing to lend its sort of claims handling, claims paying ability with the notion that you would have some sort of federal backstop for workers' comp and the nuclear, biological, chemical scenarios.

MR. MACDONALD: Right, I mean, the insurance industry has a huge role to play in any solution with thousands and thousands of loss inspection and claims adjusters out there. I like the write-your-own-NFIP plan, frankly. The national flood plan allows insurers to do write-your-own programs so that the private sector performs the claims and risk management functions, and the federal backstop re-insures the insurer to optimize the use of the private sector's capabilities.

Q: Okay, so do you think then – I assume that the insurance industry really doesn't have much appetite for the nuclear, biological, or chemical, but on workers' compensation, would there be a risk sharing in your ideal scenario?

MR. MACDONALD: Well, we do have a metric to go back to if TRIA had gone away. It did say that we're not going to dispute whether a loss is terrorist or not terrorist

if the property in shared value is 25 million or less, and then for a liability if there were 50 serious injuries.

So in other words, some line has got to be drawn in the sand. The PWG report incorrectly infers from that terrorism must be insurable. But the truth is that we don't know who did those anthrax letters yet, and the next time something happens, we may never know whether it was a criminal act or a terrorist act. So the thinking generally is there has got to be some kind of line in the sand, and below that, we'll consider it vandalism if you will, right, and the insurance industry has already been willing to do that.

Q: And do you think that line needs to be raised or do you think \$25 million threshold for an aggravated event is adequate?

MR. MACDONALD: Probably it does need to be raised. You know, if you exclude 9/11, the average of the 10 largest terrorist attacks ever is about \$500 million. So it's unlikely you're going to have a terrorist attack that is anywhere close to the \$50-million or \$100-million-minimum coverage triggers under the extension act. And so there is probably a higher benchmark that they could live with, and probably by reinsurance board too.

Q: And then we keep hearing that the reinsurance isn't really interested that much in terrorism. They put maybe 6 to 8 billion as far as capacity. Are you seeing any change in that?

MR. MACDONALD: Not much, virtually no capacity for NBCR and about 6 to 8 billion in traditional reinsurance capacity. I'll tell you, if TRIA had gone away, there were rumors about some hedge funds being interested, but not more than 5 to 6 billion in additional capacity at a very high price, likely from hedge funds.

Q: And what is your perspective on maybe getting a voluntary mechanism sort of like what they do for the nuclear liability, nuclear property damage. Do you think something like that is feasible for terrorism?

MR. MACDONALD: You mean like the American Nuclear Insurers' program?

Q: Yes.

MR. MACDONALD: Is that what you're referring to? I think that is a very good model to consider, the pool that was created with the American nuclear insurers. I know a lot of people don't like that, but it was a successful response to the crisis we had. You know, in the '50s, the fear factor was a lot higher.

Q: Well, I think the fear factor in the '50s for the nuclear events is the same sort of thing you're getting with the terrorism events now.

MR. MACDONALD: Yeah, I think some kind of pool make sense, speaking personally. There are some insurance companies really opposed to pools, but I think some kind of pool with the federal backstop and lots of room for private-sector involvement makes a lot of sense. That is probably where we are headed.

Q: And mandatory coverage or mandatory offer of coverage.

MR. MACDONALD: (Chuckles.) You know, the RAND people wrote a report where they suggested mandatory might be necessary, but in critical-infrastructure companies, it may be a smart idea. If you are one of the 13 critical infrastructure companies – that does not, by the way, include hotels and leisure, which have about a 70-percent take-up rate on property, right.

Yeah, I think there – for critical infrastructure companies, some consideration about mandatory purchase. But I personally like the idea – and this has come up on coastal flood, wind insurance, integrating with minimum mitigation efforts – just like the NFIP works. If you want NFIP insurance, you have to do certain mitigation things, right, and why not just agree as to some minimum preparedness issues to qualify for the plan.

Q: Thanks.

Q: Jim Ellenberger. I'm president of the AFL-CIO Retirees Association, formerly with the safety and health department at the AFL-CIO. Bob, I want to add my thanks and thanks to the National AFL-CIO, along with that of Art for the work and the leadership that you did following the terrorist attack in September of '01. And as a former administrator myself, I know it's not just the leaders who make that happen; it's the men and women who staff the agencies. So I know you're no longer at the board, but we should all recognize that there are a whole lot of dedicated people that work in this system who make the things happen that need to happen.

John, I really think you hit the nail on the head talking about the importance of making sure we take the right actions both before and during and after catastrophes. Somebody has got to be in charge, and as we see the continuing unfolding of the catastrophes – the results of the catastrophe from the World Trade Center attack, and perhaps even the Pentagon attack in terms of exposures to concrete dust – I would just like you to elaborate a little bit on who should be in charge of making sure that we take whatever measures we can to make sure that we hopefully eliminate but at least contain the exposures and the harm that results?

MR. HOWARD: Well, I think it depends on the phase. Obviously in a pre-deployment phase for the emergency responders in the traditional sense, it falls to local governments to ensure that their responders are properly outfitted and have the right kind of equipment. During the response, it is the responsibility of the instant command structure. And we have tried to educate all local responder communities, because in these large-scale disasters where multiple agencies come, in the 9/11 and other situations, those

agencies are very reluctant to let go of their own equipment inventories and safety management structure.

And unless it's integrated at the top of an incident command structure, it really doesn't work very well. I think that is really key. Safety management has to be integrated into the incident command structure such that the safety manager has the decision-making authority over the influx and afflux of responders out of a site. The issue of the exposures that occur in any large-scale event is critical for management at the time and order at that real-time point, that point of influencing the exposure, having the ability to do something about it then. If you don't take advantage of that at that time, then you have to deal with the consequences after. So the real decisionpoint has to be safety management at the incident command structure during deployment.

It is very difficult, as everyone knows, in these situations, to prevent professions whose professional and emotional dedication to their job is to rush into extremely hazardous situations. That is what people do. But we don't send firefighters into burning buildings without proper equipment. And I think that when you have trapped individuals, and in this case of the 9/11 situation, we had trapped brothers and sisters of firefighters, it became a very different situation. They were in charge of the site, remained in charge of the site for many months, and it's a very difficult tragedy now to see that those people are the ones that are primarily affected by the consequences of what happened there.

And I think that the balance between taking the initiative in an emergency and having some command structure say, no, you can't go in there right now; we need to do the following things before you go in, I think that is really the key in any disaster, and it's probably the most difficult situation now dealing five years later in the World Trade Center situation.

The thing that I have been impressed with the most is what I heard today from experts in insurance and that I have experienced myself, is the absolute failure of the traditional workers' comp situation to deal with a situation of this magnitude and complexity. There has to be, and there have been these adjustments. We have just seen one with the New York state legislature and the extension of the filing time for cases. And that is a small extension; it's a 12-month extension. And it may not yet be enough for us to capture claims. People may not file because they feel well now, but there may be health events that have not yet occurred.

That amount of energy and inefficiency in a system that spends all of this time money and resources, and the terrific human tragedy that is still going on post-event, again, emphasizes the issue during the deployment. Unless you fix it then, you really don't have any truly efficient way of handling the events that happen afterwards.

So I think that from my perspective, the workers' comp system, given its jurisdictional complexity in any state, and doubly so in New York, the absence of the necessary authorities on behalf of the state workers' compensation board to make mandatory certain actions by a self-insured carrier, such as the city of New York, further

complicates the situation. It is an extremely complex situation now when you're dealing with the natural propensity of systems to doubt individuals' illness situations.

You know, the system works I think quite well for instantaneous or short-term injury situations where the event occurs and the injury occurs very close thereafter. For illnesses that come on years later, we all know that the system doesn't work very well. And this is the most difficult situation we're encountering now. And it's really corrosive in terms of the systemic attitude of workers' comp systems, and the people that we are trying to take care of.

Q: Tom Rankin, California Labor Federation.

For anyone on the panel, in California, the insurers through the workers' comp insurance rating bureau have proposed several times to include a factor for earthquake, the risk of earthquake into the workers' comp premium calculation, as well as for terrorism. And the insurance commissioner has rejected those attempts. And I just wondered what you folks thought of that.

MR. MACDONALD: Are you saying that California has refused loadings for terrorism and quake in the filings of admitted insurers?

Q: Pure premium.

MR. MACDONALD: In the pure premium.

Q: Pure premium.

MR. MACDONALD: They have denied that? Now, I didn't know that. I don't want to change the subject, but there is a crisis right now in wind insurance, for instance, in the Gulf and in Florida, and the insurance industry would like the admitted market to be deregulated. Now, Illinois has apparently deregulated most of its commercial sector. Most states have deregulated large accounts for pricing. The insurance industry ideally would like deregulation so they don't have to deal with those issues that don't seem very logical at times as to why these loadings aren't allowed.

But some form of deregulation of commercial pricing is needed for small accounts and personal lines. Large accounts are frequently bigger than insurance companies. If you're dealing with a Fortune 100 account, it probably has more net worth than most of the two thousand insurance companies in this country.

So I think looking at deregulation in a controlled manner makes a lot of sense. Flex-band rating has been proposed by the AIA as the partial solution to the wind insurance crisis, for instance. And that might be another solution over there. But I'm not sure what their logic is.

Q: I hate to speak for Commissioner Garamendi – (laughter) – but I think the concept of loading the advisory pure premium rates for either earthquake or terrorism or that sort of category was partly in the idea that the pure premium should take care of more operational losses, what you would expect to see on a year-to-year basis, as opposed to something you would expect to see once every 20 or 30 years. And I think that was part of the thinking. The other part of it – and just taking commissioner at his word, is that there is no guarantee that the companies would take that load factor and put it somewhere that then could be tapped should those events occur, and he wasn't willing to do one, which is a lot of load, without something said on the other.

MR. MACDONALD: Well, yeah, and it kind of reminds you of the de-tech filing that the NCCI did, which is for domestic terrorism. So NCCI did a filing for a loading specifically for domestic terrorism and earthquake, right. And that not subject to premium tax, as I recall, it's not subject to the normal loadings. And this is the kind of fresh thinking we ought to encourage. But typically, if an insurance company is going to be allowed to set aside reserves for catastrophes, which is what they want, and which maybe needs to be considered – well, don't you want some way to monitor all of that. And in Europe, they do allow that, by the way, in most European countries, but it is important to monitor it on your balance sheet as to what part of the reserves are set – are there for catastrophes.

Q: I'm not going to say anything that is particularly insurancy, but to go back to this kind of an implication in the room about the respiratory problems and how we should have done something differently. And I just wanted to tell a very brief story about how catastrophes actually happen, which is that I was the city health officer for Anchorage, Alaska, when a volcano exploded. And we had a couple hours' notice, and the question was: what are we going to tell the public, and how are we going to protect everybody from the plume that is coming our way?

And the answer is that when a volcano explodes, you actually don't know what is in the plume, unless somebody goes to look at it. Some of them are toxic and kill people, like in Pompeii; some are just dirt. So in a couple of hours, we had either a potentially life-threatening thing going to happen in Anchorage or a big dud. Now, the answer is that it luckily turned out to be mostly a big dud, but I don't think anybody did anything wrong. I didn't have knowledge ahead of time about what was in the air.

The definition of catastrophe is that it overwhelms human systems. I'm not arguing that by the time we started realizing people at the World Trade Center were having trouble from a respiratory point of view, there probably should have been faster mobilization, but it's like part of what is going to happen with a catastrophe is that you will be overwhelmed, and there is nothing wrong that.

I did a lot of disaster prevention work also in Anchorage, and one of the things that came about was in defining your success as how well you manage the preventable part, and so I guess it's partly just trying to figure out in each situation how well did we manage the preventable part.

MS. BAKER: Thank you.

Q: Just one last kind of comment and question, and that is, shortly after the events of 9/11, we at the Academy put together a little brief that said, this is what workers' comp provides to family, and this is what Social Security provides. Then there is this additional victims compensation fund, which is kind of a one-time special response. And it raised a question, to which we don't yet have an answer: should there be some sort of social insurance coordinated response that deals with victims of terrorism, as opposed to this kind of overlapping and dispersed programmatic response? Do you have observations on that?

MR. SNASHALL: Again, my sense is that according to the profiles that were done in the risk modeling, we know that these acts of terrorism will hit urban areas. And because they will hit urban areas, you going to have a very diverse population that will raise I think too many challenges for any individual workers' compensation system.

When we met with the AFL-CIO to try to compute the \$150 million for the federal action, you know, we had to put together what we thought would happen over the next 20 years from these exposures. We anticipated that there would be significant post-traumatic stress disorders and significant respiratory problems.

Mount Sinai, I think, is primarily focusing on the respiratory problems. You know, Jim raised a great point. The area that I think will be impacted by the post-traumatic stress disorders are the employees from the agency that dealt with taking in those cases, taking in those claims. So, short answer is that there has to be some sort of coordinated approach to make sure that everything is working together. And I see Art is coming up, and he can probably update you better on the status of the – of some of the federal monies as well.

Q: Art Wilcox, New York State AFL-CIO. Bob, what I want to do basically is to clarify the victims' compensation fund piece. The victims' fund only covered people that were injured, I think, up to 48 hours after the collapse, anybody that got hurt after that wasn't covered at all. And the other thing that folks should know is if you accepted the victims' fund money, there were offsets for workers' comp, there were offsets for disability pensions or fatality benefits for pensions, there were offsets for life insurance that people have. So the victims' fund did do a coordination of benefits by doing the offsets.

So I think for the cases here forward, we have got to figure out some fix because it's just – it's such a catastrophic situation that it is just too big for one state or a group of carriers or self-insured employer to figure out the fix on it. And I think we have got to come up with some other advice to do that.

And just one other personal point I have got to say about what wasn't expected. I mean, we hear and read a lot in New York that there were a lot of folks and agencies that knew this stuff was bad to breathe, but decided not to put the word out at the federal, state

and city levels. So it wasn't whether it was bad dust or good dust; they knew it was bad dust and decided not to tell people to wear masks. That is one other thing I have to throw in there.

MR. SNASHALL: You know, just one little point too, you know, when you have all of these multiple programs trying to meet the needs, I think it goes to Tom Rankin's point earlier about all of these transactional costs, these frictional costs that come into play. If you have to use legal expenses to get this recovery, administrative expenses, all of the sudden you are depleting the net recovery that goes to one of the victims.

MR. ROSENTHAL: I want to make an observation. It is interesting to note that shortly after Bhopal, several companies in the United States that were using a process similar to the one at Bhopal came under tremendous pressure to change what they were doing and they found inherently safer ways of doing so. As far as I know, the firms that made the change to inherently safer processes all seemed to still be competitive.

The interesting question is why didn't the switch to an inherently safer process take place before the Bhopal accident? And what, if anything, should be done with regard to analogous situations that exist today?

For example, there are a group of firms that use sulfuric acid as a catalyst in certain refinery processes and another group who use hydrofluoric acid as the catalyst to accomplish the same thing. The release of hydrofluoric acid, according to the data filed by the companies with EPA, could kill many thousands of people, whereas a release of sulfuric acid would probably cause much relatively smaller deaths and injuries.

Now, the likelihood of an HF release taking place is extremely small, but it is a cost that is imposed on our society since we will ultimately have to take care of citizens and employees injured by such avoidable Low Probability-High Consequence risks. I think there is something to be said for imposing the social costs of operating with high risks on the firm that profits from such an activity. One of the ways of accomplishing this is via requirement that firms have insurance coverage that applies to all individuals placed at risk by an enterprise and the cost of this insurance would hopefully reflect the magnitude of such imposed risks.

MS. BAKER: I think we have one last comment from Bob Steggert, who was instrumental in September 11th in addressing his company's needs.

Q: Yeah, thank you, Christine.

I do want to compliment Bob and his team. They did an unbelievable job under extraordinary circumstances dealing with the tragedy. We lost a hotel. We lost two employees, and we had about 150 workers who filed workers' compensation claims. The one fatality was very, very unusual because we had an employee whom we thought was single from Yemen. As it turned out, the father came forward and said his son was married. We said, well, let's talk to a widow. And they said, you can't talk to a woman

in Yemen. And since they don't have legal records in terms of marriages, so we looked at pictures. We sent the pictures, we stipulated liability, and we said, okay, we'll pay benefits voluntarily, and this is just one of I'm sure a zillion examples. But you did a good job.

The one claim that we did contest was properly adjudicated after an initial erroneous filing, and frankly it was a worker who wasn't at work and filed a claim because his co-workers died and he was stressed out. That is was the only claim we denied.

A comment about the respiratory situation and post-traumatic stress disorder, we recognized both of those elements on day one, and had nurse case managers on all of our cases, identified mental health professionals in the New York, New Jersey, and Connecticut area, and immediately referred all of our injured workers to mental health workers. As a consequence, we have paid over \$15 million and the clock is still running, and we have certain employees who still are not back to work as a result of that.

But the respiratory piece of it is perplexing to me as a practitioner and as somebody who went out and made certain that these people would get immediate medical care. When this surfaced a couple of months ago, with all due respect to anybody who was legitimately exposed and has got a latent problem that came up, it was kind of perplexing because the law said, if you bring a claim within two years, and you seek medical care, and you have got causal relationship, you are protected and you get the benefits in medical care.

And to my way of thinking, it was kind of unusual not to have symptoms in two years, and then I saw the "60 Minutes" piece and there was one applicant's attorney who had 9,000 claimants, and I just had difficulty believing that there could be 9,000 people who had respiratory problems that didn't make a claim within two years and didn't get medical care that said this is related or possibly related.

I don't know, Bob, do you want to comment on that from your perspective from the board, and why do you think there were so many latent cases that nobody got care within two years within the statute of limitations?

MR. HOWARD: You know, that collection of Mr. Wharbi's cases is a mixed medical bag. It includes over 300 cases of cancer, not respiratory disease, and a lot of post-traumatic stress, mental health, and behavioral health issues, alcohol, abuse, and drug abuse and things like that the plaintiff is connecting to the event. So his cohort is not all respiratory disease problems.

MR. SNASHALL: I think there is no one answer for all of those cases, Bob, but certainly, I think some of those cases are simply filed as a protective measure because when an individual reads that perhaps there were some toxins in that dust, and you know, they are going to file a protective claim. And this extension that was filed was really a registration period where you end up registering that you were at that period.

I don't know what the ultimate numbers are going to be, and which cases will be established, and which cases will give rise to disabilities, and which cases will give rise to deaths, but I think that anybody who was working there for a period of time will probably file a protective claim and then see where the evidence takes it. I mean, that is my sense.

MR. MACDONALD: I'm not sure whether or not any presumptions will attach to that. Obviously in New York, if an attending physician files a medical report that says condition A is due to exposure Z, then that presumption attaches by reason of the medical report, then the employer has to then refute that. And, you know, if you think about it, the injury fund in the state of New York and others around the country were set up for nemo coniosis condition, silicosis, asbestosis, beriliosis, because the notion was you spread it across the entire industry and you don't have any individual employer absorb the entire risk. So then the question is, is to what extent should these claims be spread across the industry as opposed to absorbed by any risk as well?

MR. ROSENTHAL: I would like to make a comment in regard occupational diseases with long latency periods. A firm that I worked for became aware of a significant increase in lung cancer among its employees. It turned out that the excess cancers were associated with exposures to a specific process about 15 years earlier. The only way to establish that these lung cancers were occupationally related to a particular chemical process was via epidemiological studies.

Similar studies might be undertaken in regard to the delayed incidence of disease that may be manifesting itself among persons exposed to the debris and fallout of the Trade Center tragedy

Q: Bob Steggert, again. I would agree with that. But most state statutes on the OD side of it say that the statute of limitation does not begin to run until the person knows or should know that their condition is related to work even though if it's a latent condition that is coming up 10 or 15 years later. That is why I was perplexed by the New York situation. (Laughter.)

Q: I'm John Burton from Rutgers.

The New York situation was triggered this year by an interesting case. The former deputy mayor filed a workers' compensation claim that the city of New York was fighting. And it wasn't until the mayor intervened to call off the lawyers that he ended up I think successfully getting his claim.

Now, what was the problem of New York? Well, the statute of limitations does not run for occupational diseases until – I have forgotten – two years after the date of disablement. However, what is an occupational disease? In New York, it has a very strict definition. It is a disease peculiar to or characteristic of your occupation. There is nothing about being a deputy mayor that makes you particularly prone to having a respiratory disease.

And so he did not meet the definition of an occupational disease; as a result, he had to file his claim as if it were an accident. The statute of limitation for an accident is two years from the date of exposure or the incident. So he was out of the system because of a combination of a restrictive statute of limitations for injuries in combination with a very restrictive definition of occupational disease. And is not unique to New York to have restrictive definitions of occupation disease; it just happened to manifest itself in a very dramatic way with our deputy mayor.

MR. ROSENTHAL: I have to counter. You are absolutely wrong because one of the occupational diseases of Deputy Mayors is meeting in smoke-filled rooms. (Laughter.)

MR.. SNASHALL: Well, we needed you to come in and testify in that case because the board was going along with the city in this case. (Laughter.) So can you give me your card? I'll make sure we get the people in New York City that can have you as an expert with us.

MS. BAKER: I think we can go on and on about this very interesting topic. And it just shows that we need to have more time on these kinds of issues. Thank you again to our distinguished panel.

(Applause.)

And next on the agenda is the reception in the Holeman Lounge. The lounge is down the hallway on the right. Our thanks to the Survey Research Center at the University of California, Berkeley, for providing the food for the reception. A cash bar is available to meet your beverage needs. Our session is adjourned; see you at the reception. Thank you.

(End of panel.)