THE U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH SERVICE
CENTERS FOR DISEASE CONTROL AND PREVENTION
NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH

convenes the

TOWN HALL MEETING

NORA

NATIONAL OCCUPATIONAL

RESEARCH AGENDA

The verbatim transcript of the Town Hall Meeting of the National Occupational Research Agenda held in Salt Lake City, Utah, on February 27, 2006.

C O N T E N T S

February 27, 2006

TRANSCRIPT LEGEND

The following transcript contains quoted material. Such material is reproduced as read or spoken.

In the following transcript: a dash (--) indicates an unintentional or purposeful interruption of a sentence. An ellipsis (. . .) indicates halting speech or an unfinished sentence in dialogue or omission(s) of word(s) when reading written material.

-- (sic) denotes an incorrect usage or pronunciation of a word which is transcribed in its original form as reported.

-- (phonetically) indicates a phonetic spelling of the word if no confirmation of the correct spelling is available.

-- "uh-huh" represents an affirmative response, and "uh-uh" represents a negative response.

-- "*" denotes a spelling based on phonetics, without reference available.

-- (inaudible)/ (unintelligible) signifies speaker failure, usually failure to use a microphone.

TOWN HALL ORGANIZERS

KURT HEGMANN, MD, MPH
Associate Professor
Director, Rocky Mountain Center for Occupational and Environmental Health

MAX LUM, EdD, MPA
NIOSH

SIDNEY SODERHOLM, PhD
NIOSH

P R O C E E D I N G S

(9:00 a.m.)

OPENING REMARKS

DR. MAX LUM, NIOSH

DR. LUM: Good morning, and thank you very much for sharing some of your day with us. I appreciate you being here and taking time out to be with us. I'm Max Lum. I'm the Communication and International Coordinator for NIOSH in Washington, D.C. NIOSH is the National Institute for Occupational Safety and Health. Not OSHA is what we frequently say. We are a research organization associated with the Centers for Disease Control and Prevention in Atlanta. We're one of the centers of the Centers for Disease Control. The mission of NIOSH is really research and workplace safety and health. That's workplace safety and worker safety, which is the focus of the Institute's work. It's my pleasure, really, to welcome you to this town hall meeting. This is the eighth town hall meeting that we've done. As we move across the country, we're doing 13 of these around the United States to really receive input about our research agenda; The National Occupational Research Agenda, the NORA project.

NORA is a concept that the Institute took on about ten years ago to kind of guide its research. We needed stakeholder participation in deciding our research agenda and our director at that time put a committee together and we formed up in 1996 this NORA approach to setting our research agenda. As part of that approach it has major stakeholder input, real input, from people in the field about our research agenda. It's broader than one particular agency's agenda. It's really an agenda for the nation. It's the National Occupational Research Agenda, not our NIOSH's occupational research agenda. Why that is important is NIOSH is a small agency and small in funding. It has about 1200 employees around the country. What's important about NORA is it allows us to leverage funds. When we do a research project we can reach across to other federal agencies, to the NIH, to the Department of Energy, to the Department of Defense and we can broker our research plans with other agencies. That really makes it a National Occupational Research Agenda.

We're also pleased today that we have some

guests that will be with us, and there have been some changes in the program. I think Kurt will introduce those later. I just want to thank the ERC, the Educational Research Center, here. Kurt Hegmann is the director of this Center. These projects and these town hall meetings take a great deal of work. I guess four months ago when we floated this idea up about doing a town hall meeting here, Kurt jumped on the idea. At least I remember it that way. He got behind it and we appreciate all of the hard work that went into the meeting.

The groundwork for NORA was laid ten years ago in setting our research agenda. Through these town hall meetings in 1996, we heard directly from our stakeholders. They spoke eloquently about the issues that mattered most to them, and the input was instrumental in shaping the first ten years of the agenda. In all, I think that original agenda ten years ago -- We probably had the input of 500 diverse organizations and individuals. We conducted three town hall meetings around the country. We appreciated the time that they provided and

then stayed with us -- many of those organizations and we'll ask you the same, which is to stay with us as we develop our research agenda.

Based on the input from the original town hall meetings, NORA set out a research agenda, which included 21 priority areas. This is changing and we'll have some speakers talk to you about what those changes are in NORA for the next ten years. The future was really shaped by those town hall meetings. We can point to real successes regarding NORA over the last ten years. And actually I want to come back to the importance of this town hall meeting. I just want to share a little story with you.

I remember being at the one in Washington and there was a group of nurses that came from a large hospital in Philadelphia to testify at that town hall meeting. They brought a patient with them who was also a nurse. They talked about a subject that we were aware of, but really wasn't a part of our research agenda at that point. And that was the problems of latex allergy and wearing latex gloves all day. Several nurses had acquired an allergic

reaction to the latex in the gloves and really were debilitated. They could not work anymore and certainly couldn't work in a hospital setting. I just think it calls to mind how important these town hall meetings are. We think that through a whole process of surveillance activities that we understand what we should be researching and what our research agenda should really focus on, but we come to the town hall meetings and we talk with folks who are in the field and who are actually workers, worker organizations, academics, and we get a whole different perspective about what we should be looking at, or we get confirmation that we're doing is the correct approach.

I think that's why we're here today. We're here to really hear from you today. Your comments in the afternoon after working at the tables this morning -- we'll ask you to come to the podium and speak about a summary of what you discussed, what are priority areas for you, concerns or issues, problems.

We have a court reporter taking your notes and it will become a part of the NORA public docket. This information will be passed onto

the governance bodies of our research program to deal with. So it's a direct input into our research agenda. Also, we will put your comments up on our website. It's a totally transparent process. We're not going to do a lot of editing of comments. It goes up for everyone to see. We are asking you to do some work here today and we have some NIOSH folks who have been instrumental in helping us on this town hall meeting that will be circulating and be at the tables, mostly as guides, not as scribes, not to really provide anything other than guidance and some suggestions and a little background on what the Agency has been working in in that particular area.

So I think I'll turn it over to our local host, Kurt. He'll have some instructions and some background to provide. Again, we thank you very much for being here and for giving your time this morning. Please know that to us it's extremely useful. Thank you.

KURT HEGMANN, RMCOEH

DR. HEGMANN: Well, thank you, Max. I appreciate it very much. Most of you who know me know I tend to be a little on the outgoing

side, especially when I get an enthusiastic subject. You'll see that I'm more enthusiastic today than normal, and I'll explain why in just a minute. On behalf of the Rocky Mountain Center for Occupational and Environmental Health at the University of Utah welcome to this NORA town hall meeting. The Rocky Mountain Center is one of the 16 NIOSH sponsored education and research centers in the United States. As such we cover, basically, the inter-mountain west. We're the only one in Region Eight.

Max mentioned that this is not a frequent occurrence. This is a rare event. I will tell you that I remember 1996. At that time I was in Milwaukee. I remember the call going out to go to these meetings and I thought Chicago O'Hare is 90 miles away; is it really worth my time? I literally was going through that kind of calculus. I am so glad that I went because my skepticism was almost -- even though I was living in Wisconsin at the time -- I almost had the western attitude -- we'll have to edit some of these comments out -- that I'm from the federal government and I'm here to help.

I will give you a couple of examples. Now, Max mentioned one about the latex, but I'll mention another one that came directly out of this meeting that I participated in. We participated in a similar manner of developing these ideas. And at that time I was not funded in terms of NIOSH research, and I was learning the ropes clinically. I kept on coming against one obstacle after another after another regarding how are we supposed to treat people. We don't know. We don't know what the diagnostic tools are. We don't know about ergonomic evaluations to the extent that we should. We don't know about what factors cause musculoskeletal disorders, which was my particular area of interest. So that was actually the concept that I thought well, I'll go to this meeting and if I'm going to go then I'm going to participate. So I dug in and said okay, we do not have cohort studies on musculoskeletal disorders. That was pretty much the agenda that I was pushing.

Here we are ten years later and there are several of these studies, which have been funded. And this past Thursday and Friday for

the first time we have begun returning the results. Now, cohort studies take years to actually implement, develop, and get the data. We've actually got the data going back into the companies, the occupational safety and health individuals. There are a number of people in this room who actually attended those conferences. So they're here listening to me for a third day. Sorry. We're actually at that point of extremely meaningful data being returned. Obviously, we don't have all of the answers, but we've got a few of them. And let me give you a few of those topics.

Coming out of these studies is information that posture may be irrelevant in job evaluation methods and the cause of things like carpel tunnel syndrome. I said irrelevant. Most of the job evaluation methods emphasize posture over anything else. Our studies -- more than one of them -- say force is the main issue. Can you imagine how many years we're going to have to work on this if these studies in fact continue to show these types of results and how long it's going to take us to change the whole world in these areas? It came out of that NORA

town hall meeting in Chicago where I sat at a table and I pushed that subject and people wanted to push it down, but I wanted to push it up. We had a little light back-and-forth. We pushed it up towards the top of the list because other people started looking at it and saying yeah, that's right.

So now here we are ten years later with actual real data coming out, real meaningful results that have enormous impact in terms of occupational safety and health, as well general public health, quite frankly. These data are so cut-to-the-core data and that's why I'm so excited that you're here. That's why we were rebel rousing to get you here because unlike my skepticism back in 1996 this is the only example I know of of a truly very responsive federal agency. Again, we need to edit these comments. I mean, this is just tremendous. So again, it's a wonderful, wonderful aspect of how NORA has changed occupational safety and health.

I'm going to go over these other slides in a moment because if I go over those right now it will be a little too early. What we are going

to do now is just transition and I'll give you those last couple of slides on what we're going to do in a moment.

The idea is that you're going to have an opportunity to participate in more than one of these round tables. The way you're going to do that is you're going to be able to participate in the one you're at right now. Those of you that are going to be able to hang on for the afternoon, you'll have an opportunity to comment on other areas and say gee, you missed X, Y, or Z from my perspective or something like that in the afternoon. There are also going to be opportunities for you to write in comments separately if you cannot wait for that. So that's the cut-to-the-chase version of this.

With that, I'd like to turn this microphone over to our first invited guest and I thank Alan Hennable very much for his willingness to step in the shoes of Commissioner Ellertson who was unable to attend due to a family emergency. Alan Hennable is the Deputy Commissioner for the Labor Commission for the State of Utah. Alan?

ALAN HENNABLE, LABOR COMMISSION OF UTAH

MR. HENNABLE: I'm happy to participate. I apologize for Commissioner Ellertson not being able to be here, but his father-in-law passed away yesterday. So he's involved in family matters, as you can imagine. But I am happy to participate in this meeting. The Labor Commission, among other things, administers the Utah Workers' Compensation Program and also the Utah Occupational Safety and Health Program. So we're involved in this at both ends. We do everything we can to insure that workplaces are safe and that workers are healthy, but we also have to deal with the consequences when that hoped for situation doesn't actually exist. So from our standpoint there is nothing more important than making sure that when a worker goes off to work in the morning to support himself, or herself, or family, that they come back at the end of the day healthy and whole. We recognize that Utah and the rest of the country has profited from this process that you're engaged in. The results of this have benefited people over the last ten years. It's already been mentioned that latex was an

unrecognized problem and this brought it to the surface. Now, action has been taken on that point. We know from our view of the situation that progress is made. There are many, many more workers in Utah now then there were ten years ago. The rate of occupational death has decreased and we know from our workers' compensation experience that we are not seeing more reportable injuries than we were ten years ago. So we have a vast increase in the number of workers, but we are not seeing a proportionate increase in accidents, at least through our workers' compensation system. So we take that as a very hopeful sign.

We see the benefit of what's happened in the past, but we also know that there is more to be done. We see these emerging problems through our operations at the Commission. A few of those that we note -- first of all you can categorize some as ergonomic issues. What's the effect of typing on keyboards? We know that there is research on both sides of this issue, but it's a controversial question, but it's very important in the modern workplace. The same questions could be asked about the

work that a grocery clerk does in checking groceries. So we know that there is whole field of ergonomic issues that cries out for investigation.

Secondly, the coal mining industry. Although it's been quite a long time ago, Utah has had direct experience with the tragedy that can occur in the coal mines, not just to families, but to whole communities because they can be so widespread and so devastating when they occur. Even this year we've had a death in Utah's coal mines. So this is something that will always be of concern to Utah because Utah has a lot of coal and we depend upon miners and we owe it to miners to make their conditions as safe as possible.

Third, there is a developing field of chemical exposures in the context of emergency personnel. For example, when a firefighter fights a fire what kind of chemicals are they being exposed to and what's the effect of that exposure upon them? There's a proposal in the Utah legislature this year to study this issue. It started out as a proposal to just presume that that exposure led to a variety of cancers.

Now that the initial has morphed into a study proposal, it's obviously something that's of great concern, not just to the fireman, not just to the cities and counties that employ them, but it's risen to the level of a concern to the State of Utah and its legislative body. By the same token, what are the effects of the exposures that drug enforcement agents receive in the course of busting methamphetamine labs? We know that we're being deluged with workers' compensation claims coming out of that situation. We are desperately going to need good scientific studies on that point.

The fourth thing that I'll mention is we need at the Commission good information on medical treatment for circumstances after they do arise. Narcotic use, a tremendous expense and there's a grave concern that the use of these narcotics is in the best interest of the injured worker. We just don't know, but we know it's a problem. The same can be said of a lot of different medical-treatment areas. In our workers' compensation program just a couple of weeks ago we had a case where the injured worker was probably not totally disabled

because of the work injury, but over the course of eight or ten years she became permanently and totally disabled because of the medical care that she had received. So this is one clear and discrete example of a person whose life was made worse and it could have been avoided. Maybe the accident couldn't have been avoided, but what came after that could have been and should have been.

Well, these are just a few items that we know are problems for the Labor Commission. I know it's just the tip of the iceberg. I also know that these are things that have risen to a certain level of importance. They've gone through different screening processes and they've come before the Commission now. We know that there are other things that you're seeing that are just emerging. The iceberg hasn't even broken the surface yet. There's just a roiling of the water that you're seeing, but within the course of ten years these things will be problems as well. We're in no position to identify those things, but we know that you are and we think that's a tremendous value of this kind of a conference. So with that, we

wish you well and we look forward to the progress that will come out of this over the next years just as there has been progress in the past. Thank you.

DR. HEGMANN: Well, thank you, Alan. I appreciate the insights from the Labor Commission. It's interesting to hear the view from the Labor Commission on what's being seen. Our next guest speaker is Natalie Gochnour. Natalie is from the Salt Lake Chamber of Commerce and Vice President for Public Affairs and Communication. Natalie, join me on stage. I appreciate the fact that you could break away from those business meetings you guys have on Monday mornings. Welcome back to Utah.

NATALIE GOCHNOUR, SALT LAKE CITY CHAMBER OF COMMERCE

MS. GOCHNOUR: Good morning. The real business meetings as you all might know are happening up on Capitol Hill today. We have three days left in the legislative session and the Salt Lake Chamber has a lot of hot issues up there, some of which are important to this audience. But I'm going to step back for just one second and introduce myself to you a little bit and describe to you some relatively recent

experiences I've had that relate to occupational health and safety.

Many of you might remember when Mike Leavitt resigned as governor and went to lead the Environmental Protection Agency that there was a small group of his staff that left with him, and I was one of those. I served for 15 months at the Environmental Protection Agency with Mike Leavitt and then had the ten months at Health and Human Services working right in the Humphrey Building and working on a lot of issues as a counselor to Secretary Leavitt. Because of that, I have some interesting experiences as of late working with some of the best in the world in occupational health and safety. I didn't work with these issues directly, but worked among people that did. And I want to just describe to you the real privilege it was to work side-by-side with people at the EPA and HHS in our nation's capital. I'm going to do that by describing to you the differences in the two federal agencies for just one moment. I want you to just think about it this way. Think of really, really bright people. Think of at the Environmental

Protection Agency people that in high school would have been A students, but they were the type that didn’t attend all of the time. They knew how to slip away out the backdoor and go skiing, or mountain climbing, or kayaking, or something. They have a dual passion for a love for experiential types of professional endeavors, and then also their incredible commitment to their job. But they are very smart and very dedicated.

Then you head down Pennsylvania Avenue and take a little right and you’re in the Humphrey Building of Health and Human Services. Again, you’re with very, very bright people; straight-A students in high school that never missed a day. These are the kind of people that would have gotten the 100 percent attendance at the end of the day purely because of their commitment to their work. You end up having two very remarkable federal agencies that are very, very different in character.

One of the real privileges of working there was to watch former governor Leavitt work in those environments and muster the momentum and enthusiasm for the mission of each of the

agencies.

While Administrator Leavitt was at the EPA our nation passed new clean diesel standards, where they took the sulfur out of diesel, much like we've taken the lead out of gasoline. They passed the most protective air-quality standards in our nation's history during his 15 months there. When you go to Health and Human Services, I worked Mike Leavitt from day one and he began devoting all of his creative and strategic energy toward this pandemic flu problem. And also spend a lot of time working on electronic medical records, health IT, and those sorts of things. In the process, I believe, you have at the head of Health and Human Services, of course, where NIOSH is a leader who is deeply devoted to protecting the health and safety of America's workers. He is someone who will always have an open door and always have a hands-on effort given to anything of importance to our country's health and safety. That's a personal testimony, but one that I think is earned in the sense that I spent so many hours, and days, and weeks, and months in backrooms watching this man work.

I want to talk to you a little bit about Salt Lake Chamber. Salt Lake Chamber is our state's largest and longest serving business association. We have members in all 29 counties of the state. So we're statewide in our reach. In fact, we have 22 states that have members in the Salt Lake Chamber, if you can believe that. These are people in states that have a business interest in Utah and join the largest business association. We have over 2,000 members. We have a full-time lobbyist, who is working day to day on a couple of legislative initiatives that you might find interesting and you ought to watch as the session walks towards a close on Wednesday. One of them is healthcare costs. We have a business committee on healthcare costs. It just started and your leader, Kurt, is represented on that, I understand. We have staked out a mission that both workers' compensation fees and healthcare costs and the like are going to be a major priority for the Salt Lake Chamber in the coming year. While we do not have at the session this year, a bill that is representing the collective interests

of this committee we expect to have next year. And you can count on the Salt Lake Chamber to be a very active and productive voice on that matter.

The second legislative issue that you've probably heard a little bit about that does carry a bill with it is something called the Utah Science Technology and Research Initiative, or USTAR. USTAR is the economic development initiative that is endorsed by the Governor's Office, the Salt Lake Chamber. It's endorsed by chambers as far south as the St. George Chamber. It is endorsed by the Utah Information Technology Association and the Life Sciences Association, which I understand have now merged. It is essentially an effort after about two years of study to figure out what is it that we can do in our state to ensure prosperity long term. Many of you might know that our wages as a percentage of the national average -- I should say our pay, our average annual pay. Think of it as an average salary for the year. It has been declining for years in this state. In other words, we are losing ground with respect to our national

counterparts on how much money we make. That concerns business leaders and USTAR, we believe, is the right way to invest money for the long term for the state's economy. What they do in USTAR is essentially go out and recruit world-class research teams to come to our state and focus on the areas that we already have a competitive advantage in. From that, they then commercialize new technologies that will create high-paying jobs and provide income to Utah families.

The reason it should be of interest to this group is that this group, of course, could be a beneficiary of some of these research dollars in terms of the science, technology, and research that we want to bring to bear. My understanding is that some of these grants have already come to people in this room who have an interest in cutting-edge occupational health and safety research. And the Salt Lake Chamber will be working hard until midnight on Wednesday to make sure that this legislature passes both ongoing and one-time funding for the USTAR Initiative. What that will amount to is a new facility here at the University of

Utah and one at Utah State University, our two premier research universities, to recruit world-class scientists and also to purchase state-of-the-art equipment to make our research dreams transition to actual money in people's pockets. So these are two exciting initiatives that I encourage you to be a part of and to follow. The hope would be that through attention to a prosperous economy and safe workforce that we can be prosperous over the long term in the state. I leave you with that message and want to wish you well in the remainder of your town hall meetings. Thank you.

DR. HEGMANN: And next I'd like to turn over the mic to Dr. Soderholm. Dr. Soderholm is from NIOSH. Thank you for being with us.

INTRODUCTION TO RESEARCH AGENDA PROCESS

SID SODERHOLM, NIOSH

DR. SODERHOLM: Well, thank you Kurt. It's a pleasure to be here. We've had a number of these town hall meetings around the country and this is a unique one. We're very much looking forward to the kinds of input that we'll be able to receive today to help guide the

research in the nation on occupational safety and health.

We've talked a little bit about the fact that NORA has been around for a while. If I had to sum up the vision of NORA, it would be that it's a national partnership effort to define and conduct priority research on occupational safety and health. So some of the elements of this vision are that we seek stakeholder input at least once every ten years and really on an ongoing basis in different ways. We identify research priorities, not just for the research that NIOSH will do and NIOSH will fund through the allocation through congress, but research priorities for the whole nation. So when corporations and organizations around the country and around the world have resources to use on occupational safety and health research they can look at this set of priorities and see what this process has come up with at some of the major areas where additional information and work is needed.

Working together -- the partnering happens at all stages of this. Working together to address the priorities, to conduct the

research, to make sure we're working with the right people in industry, and in labor, and in professional organizations to be able to conduct the research and to have the information that's generated be used effectively in workplaces to reduce the hazards to workers and therefore the cost of doing business.

Finally, I think as Max mentioned and I think Max has heard my talk so many times at these meetings that the ended up giving part of it; so some of this may sound a little familiar. Another aspect of the NORA vision is to leverage funds. To not just say that the funds that we have available for occupational safety and health research are the funds that come directly to NIOSH through DHHS and through CDC, but that through NIH there are many health questions that are of interests to the National Institute of Health Institutes and to the EPA. We've done some joint work with them and many others, including, again, those corporations that feel that they can invest some of their earnings in research on occupational safety and health.

So we're heading into the second decade of NORA. In fact, the end of April is the tenth anniversary of the National Occupational Research Agenda. And the promise always was that the initial research agenda -- Max mentioned the 21 priority areas would be there for ten years and then we would need to look at the process again and to go back to stakeholders again and make sure we were in the next ten years working on the most important issues. So some of the main elements that I've gone over for NORA are still there. They're still the same. There are some changes. We're focusing now -- our subtitle is we're moving research to practice in workplaces through sector-based partnerships. So it's still research. It's still partnerships. We really want to make sure that we're working with the right people to get the information generated and effectively used in workplaces.

So what is a sector-based approach? Well, we understand this to be that we're going to address the most important problems in each sector and each part of the economy. I'll talk a little bit more about how we might define

problems. There are a lot of different ways we think of them in terms of exposures, or diseases, or injuries, or even failures of the safety and health system. The sector-based approach will have one or more separate research strategies for each of eight major sector groups. I'll talk about those sector groups a little bit in a minute, and in addition, to focus on the needs within sectors. There are many, many issues that cross sectors. The 21 priority areas of the first decade of NORA really were cross-sector issues; issues of hearing loss. Hearing loss is a problem for some workers in every sector in the economy. So that's a cross-sector issue. So the fact that we're focusing on sectors doesn't mean we're going to lose research on hearing loss and musculoskeletal diseases and all of those issues that cross many sectors. It just means that we're focusing a little different to make sure that we have the right partners involved to have the best effect.

So why are we going this way? Well, workplaces are organized by sectors. Every one of us works somewhere and has some identity with the

kinds of companies, the kinds of organizations that do similar kinds of work. Many research needs differ by sectors, although many are very similar across sectors; as I mentioned the cross-sector issues. We think that focusing on the sectors will really help us focus on the goals, the overall goals, how we're going to get there, and then how those results can be used. And that will really help us make sure we're working with the right partners. One of the most interesting aspects of these town hall meetings is that we become familiar with new organizations, individuals who have a passion and an interest in occupational safety and health and self-identify by coming to the town hall meetings or talking to us and saying I want to stay involved. And these partnerships are some of the most important and most valuable things that we gain by having these town hall meetings.

We think the sector-based approach is going to be an efficient approach. We need to be focusing our efforts and focusing on what we can do to make a difference. So I keep talking about these sectors and here in brief are the

sectors in abbreviations. These sector groupings actually come from the North American Industrial Classification System, which is a system used by the United States, Canada, and Mexico to categorize all companies as far as what sector they work in. Their system is quite detailed, but it comes to about 20 two-digit codes that they call sectors and then we've grouped some of those because 20 is just too many to deal with. We've grouped some of those that we think will have similar issues into eight sector groups. And you can see agriculture, forestry/fishing, construction, mining, public and private services. These are very broad categories, and are the types of sector groupings that we have come up with. The NIOSH role is to provide the stewardship for the process. We know the process wouldn't go forward without us, but we don't own the process. The process is a partnership process where we work together with others to define and conduct this research. The cross-sector research councils is really sort of the executive committee of these research councils and will be making sure that everybody is able

to move forward. I'll talk a little bit more about the research councils and who'll be on them. They will be making sure that they're making progress, that there is some consistency across the different research councils, and also looking for those opportunities where it's most effective to look at issues across sectors. You know, the basic biology of hearing loss. If that's an issue that will really help solve the problem in a number of sectors, that isn't a sector-specific issue, but that can be dealt with across sectors. So let's talk a little bit more about the research councils, these eight groups. We anticipate having diverse input, including the input today that will lead to robust research strategies. So the initial work of these research councils -- these research councils will be co-lead. One leader will be a NIOSH person. One leader will be a stakeholder representative. And probably two-thirds of the members of these councils will be stakeholders. They will be researchers, occupational safety and health practitioners, members of professional organizations, members of labor

unions, members of trade organizations that have stepped forward and say that they want to help define the research strategies within these sectors and help make sure the work gets done and is used. The initial work of these research councils -- front and center will be the stakeholder input that we're receiving through the town hall meetings, through the website.

One of my closing messages to you if you remember noting else, then remember these messages. One of them is that we have a website and I'll give you the website address. This is where you go to the NIOSH website and look at NORA and you can actually type into a textbox that the main concern in the construction industry from my point of view is such and such. And that input will go into the NORA docket and that docket will be shared with the NORA research councils. So there will be the stakeholder input through what's said today, through the docket, through e-mails that are received to the docket. So we're trying to provide a number of ways for people to have input. And we certainly encourage you as you

give input today -- also if you have another thought or want to reinforce something, go to the website and find a way to get that information into the docket. We've tried to make it fairly easy.

Besides the stakeholder input, if we get a group of people around the table they have their own expertise, and that's why they were chosen to be part of the research council. And we don't live in a vacuum. We have workers' comp data. We have all kinds of data lumped under the general heading of surveillance data that tells us who's getting hurt, where they're getting hurt. It tends to be stronger in the injury area than it is in the area of these long-term health effects that are hard to attribute to occupational exposures. The surveillance data will provide a lot of information, too.

So the initial work of the NORA research councils will be to take all of this input, go through a priority-setting process, and come up with a draft research strategy. So this will actually set overarching goals, like reduce the silicosis in mining. And then what steps will

need to be taken? What are the intermediate research goals? Where's the missing information? What has to be done in the shorter-term periods? So if all of those intermediate goals are successfully, then you will have met your overarching goal. And finally, who needs to be at the table? Who needs to be doing this work? And once the information is gathered, who needs to be disseminating it, putting it into practice, so it will really make a difference in the workplace? These are all aspects of this draft-research strategy, which will then be put on the web. Another thing we'll ask you to do is to self-identify, even if you don't feel you can be on a research council, let us know that you'd like to be on the mailing list. When the draft-research strategy for one or more of these sectors comes out, I'd like to be notified so I can go look at it and have some input about it. It's meant to be a very open and transparent process with lots of stakeholder input.

So I've been talking about all kinds of ways, but how can you participate? Certainly through

providing input and volunteering. So as I mentioned, your input will be entered into the NORA docket. It's actually a set of files in Cincinnati, where somebody can travel to Cincinnati and look through this set of files. It's a public docket. But most of the information, everything that's in text form is going to be displayed on the web. So there's the website for the NORA website. If you look through there there's an opportunity to click on a place for input, and that brings up ten boxes. You can put in text information that you'd like to go into the docket at any of the eight sector groups or there's a box for cross-sector issues and then there's a box to talk about the process. If you look to the left of each of those boxes on that input page, you'll see this little unassuming link called view comments by others. Well, this has been up for something like eight or nine months now and that's getting to be a nice rich little source. So if you're interested in construction, then you can look on that input page and click on view comments by others and see what everybody else has been saying about

construction, and that may prompt you to agree with some of them, add additional input, disagree, have a different viewpoint; that would all be valuable.

Shane Cox here is working very hard to make a transcript of the public parts of this meeting. What you say around the tables won't be caught in the transcript, obviously. But what we say this afternoon and the summary reports will be in the transcript. And Christy Forrester, who is sitting here at the front table, has the job of parsing that transcript and actually putting it into the website for you so it will show up in the docket. So as soon as we can work through that whole process, you'll see the summary reports showing up in the docket on the website.

Now, the docket information -- this input -- is going to be provided to the NORA sector research councils. They're going to get every word of it. They're going to get the individual comments, but in order to help them sort through it and be able to focus on what they want to focus on at any given time, say again, I go back to hearing loss in

construction, if there's a subgroup of the construction research council that wants to look at hearing loss issues then we will have it grouped and indexed so that they can find the comments that they want when they're ready to look at them.

In addition, the comments will be outlined at the NORA symposium. This is really the celebration of the first ten years of NIOSH. It also happens to be the celebration of the 35th anniversary of the Occupational Safety and Health Act that formed NIOSH and OSHA. And it will be the kickoff of the second decade of NORA. The kickoff really is going to happen in a set of workshops where we'll provide a brief summary of what's gone into the docket in each of the eight sector areas and asked those assembled to process that information and to do some initial priority setting themselves and some initial voting on what the priorities are. Then, in the afternoon we'll go into a set of workshops to look at the cross-sector areas. So the cross-sector areas that we keep hearing about are things we sometimes call health disparities or the special populations that

seem to be at special risk. Often it comes up as women workers, youth workers, or Spanish-speaking, or other workers who don't speak English at the workplace. Those are some of the issues that are coming up there. Musculoskeletal diseases are coming up. So we'll have workshops in eight of these cross-sector areas. They will have heard the input from the different sectors and they can focus on what's the next step in this area to really make a difference in the workplace. So we're quite excited about the symposium. We hope that you can travel to D.C. at the end of April and participate. The website is there for that.

So in general, what kinds of information do we think is going to be very useful in this process? Well, as I mentioned we're most interested in hearing what your experience and what you know of as the issues; the top problems. It may be formulated in terms of diseases, or injuries, or exposures, or populations at risk, or failures of the occupational safety and health system, or you may have your own way of formulating what the

top problems are. But we're most interested in hearing about top problems. And then if you happen to be a person who's more familiar with where the research field is and so on we'd like your ideas on what kinds of research is going make a difference. If you're familiar with what's already known, where's the unknown information that we should be going after? And who are the partners? Who's going to help us plan the research, conduct the research, and make sure the results are obtained and presented in a form that they can actually be useful in the workplace? So those are the kinds of information in general that we'd be interested in hearing about. And yet, the reason we're going through all of this introductory material is so that you know where we're trying to go with this. Tell us what you think we need to hear. That's the bottom line. So my last slide, my take-home messages is if you haven't already signed up then NIOSH has something called the eNews. Most of us have an e-mail account these days and if you go to this website you just type in your e-mail address and you receive once a month a newsletter in

your inbox from NIOSH. It's a Sesame Street generation newsletter. It's short stories; 100 to 200 words on a number of different topics. It will help you keep up with what's going on at NIOSH, but specifically if you just look at the section of that that has to do with NORA, you can keep track of what's happening at NORA. We have something about what's going on at NORA every month in that. And if you get tired of having one more thing in your mailbox then you can always unsubscribe. So provide additional input.

We appreciate you being here today. It's wonderful to have the room full and the tables full. But if you have additional thoughts, come back as an individual and provide your input through the NORA website. You can learn a little bit more about NORA there and as time goes on you'll be able to track in some detail what's happening with research councils there. But for now the main action on that page is the opportunity for you to provide input and to view the comments of others who have provided input. And my role in NIOSH is NORA coordinator. This is the NORA coordinator

mailbox. There are cards on the front table. You can send me e-mail directly. If you have any questions, issues, input please feel free to contact me directly about anything related to NORA. So I thank you and I think Kurt's going to give us the details of what we're doing at the tables today.

DR. HEGMANN: Thanks, Sid. I will take two minutes and we will get going and describe exactly what we're going to do. The next section is a very important part. This is the roundtables. This is where we're going to mix it up a little bit here. This is brainstorming, okay? At least for the first hour do not criticize each other. This is time for letting small comments come out, big ones, puffy ideas, anything goes. That's how we ultimately can get a useful agenda. Later on this morning towards the end, say 11:30 or so, then you can start grappling with things like prioritization. What are the top ten items that your group is coming up with? You can see why I'm getting kind of excited about this and why we've got you here. It's time to really actually put the rubber on the pavement.

During this roundtable session we're going to have our students, staff, typing all of these comments up. So we'll actually produce over the lunch hour a document with everything from all of these other roundtables all split out. That way you can actually take a look at it in the afternoon. I can't promise at 1:00 o'clock, but 1:30 or something like. So you can look at other sectors that you didn't participate in. And in the afternoon -- by the way, this is lunch that's provided and it's free. So we would like for you to hang around. In the afternoon for each group we need one person to be identified and actually present for maybe about ten minutes or so what you talked about and what the prioritizations you thought were. Then we're going to have five minutes for others to chime in with other ideas. That's an opportunity to vocalize what you think could be another topic that was not covered. We're also going to provide a piece of paper in case there's any other things that you see that you want to have entered into it and don't want to necessarily to go to the docket. What we're going to do now is you're

all kind of signed up for roundtables. What you need to do is grab a flipchart in the back and bring it up to your table. Each group will need to get a facilitator and maybe somebody who will write. If there is too many in one group, it's okay to have either one large table or if you want to split up into two tables, that's okay too. We will go with the flow. That's about it. Any questions on the process here? We'll have a sheet with instructions on the tables too. We'll let you know when lunch is ready and if you want to keep going through lunch, that's okay too. Thank you.

REGIONAL AND LOCAL STAKEHOLDER PRESENTATIONS

MODERATOR: DON BLOSWICK, UNIVERSITY OF UTAH

DR. BLOSWICK: Thank you very much for your participation this morning. Well, the way we're going to do this is that I had initially setup an order of presentation, but I think the simplest way to do it would be to go in the order that has been presented in the handout that we're supposed to have now. In a minute when we have time, I will go and mark those numbers on that sheet up there just so we'll know. Basically, we're going to follow through

the same order in the sheet that I have. We have small business, initially, and then transportation, utilities and warehousing is second. So we'll go in that order and what we'd like to do is to have the assigned volunteer for each group to come up and present. My understanding is that the AV system requires that person to present either at the podium or at this mic up here, or the mic that Kurt is holding up, the cordless mic. You can't do it from the back of the room, unfortunately, because of some AV issues. So we're going to ask that person to come up and that person will have ten minutes to present. We'll try to let them know at five minutes and two minutes how they stand with respect to time. At the end of ten minutes Kurt has a big hook that he will use to pull them off the stage, if needed. Yes?

DR. SODERHOLM: We would actually prefer people to use the two microphones up here because our transcriptionist had to put his own microphones in. He couldn't hook into the overall system. So it's only these two places that he can really pick up.

DR. BLOSWICK: So just to be consistent, let's ask that person to come up and present from this stage right here. So for those of you who thought your ten minutes going to be from the back of the room, you've lost out. You're going to have to be up in front of the entire group for that ten minutes.

So with that, let's go ahead and we have about 15 minutes for each group. Approximately ten minutes of presentation by the assigned group presenter and then five minutes of additional discussion by the group. I'll try to keep us on track as much as possible within that 15 minutes. So our first presenter will be from small business. What we'd like you to do is when you come to the front of the room, if you have no reason not to do so, please state your name for the record. I understand that if someone simply doesn't want to state their name, it's okay.

DR. HEGMANN: Small business is eating right now.

DR. BLOSWICK: So there goes my plan already. Transportation, utilities, and warehousing, would that person please come up? And then

assuming that small business is finished eating in 15 minutes, we'll get back to that order.

MR. WOOD: I'm Eric Wood. I'm at the Rocky Mountain Center for Occupational and Environmental Health right here up the street. Our group had transportation, utilities, and warehousing. It was a relatively small group, but I think it had excellent representation. We had a gentleman from one of the local utility companies. Also, we had a gentleman representing the warehouse industry, and a woman that was in charge of a wellness program for a local transportation bus company.

The top priority on our list turned out to be shift work. Particularly the areas of health concern with fatigue and injury rates that occur with shift-work employees. Some of the rationalization and justification that we talked about with respect to that included the changing shifting work patterns. The lifestyle effects that that had both on the development of the injuries and health effects with that socialization patterns, and also how that affected people's dietary exercise lifestyle habits as well. We also briefly talked about

what kind of solutions there is to that in terms of addressing how can we change the patterns most appropriately to either circadian rhythms or other such things, or medications that might be in the forefront of solutions as well.

One of the other high-priority areas are health and wellness programs that are being developed. We talked about how those can influence injury rates in terms of whether the health and wellness programs that are established already are really necessary to help reduce those types of injury rates, as well as its impact upon absenteeism and presenteeism (*). We also talked about how medical conditions might interact with the health and wellness programs in preventing those issues as well. I guess we also discussed fitness concerns with improving the health of workers in the diet and exercise programs.

We discussed the changing nature of work over the past century in terms of hard labor being replaced with more sedentary-type activities and what things need to be done to influence the health and wellness of the workers. I

think one of the higher priority areas that we looked at was ergonomic concerns, particularly with respect to musculoskeletal disorders in the warehousing industry. One of the things that was brought out was often times in the warehousing industry is they have prepackaged materials that comes in that they have to deal with and what kind of controls they have over dealing with oversized and overweight objects to move around, and what kind of ergonomic programs can come into play to help assist with that. We talked about some of the musculoskeletal safety ergonomic issues within the transportation industry as well. And how there seems to be a lot of obesity amongst the driving population. One comment was made that was having the wheels such that they were able to be operated in a safe fashion with the girth of the drivers. Some of that also comes into play in terms of engineering of the safe driving cabs.

I guess another thing that was discussed was the psychological components of developing ergonomic workstations and how to get people to use those stations appropriately. Another area

we looked at was training and how do we go about training all of our employees. The culture of safety and the empowerment of individuals concerning what programs work and what programs don't work and how to pay attention to both language and cultural issues, as well as literacy itself. Another area that came up was what kind of screening limits are there to predict risk factors within workers, and what can safety personnel and physicians use to hopefully help predict who's going to be at higher risk for injury and disease. Also, when is it safe to return them to work and fitness-for-duty issues as well. So that was our top five.

We had four additional ones. Some of the things that came up were environmental factors, particularly for the utility workers outside, and high-stress factors come in during the weather. In our part of the country we have a lot of issues with snow, ice, rain in making it difficult and hazardous for the employees. As well as the issues of what happens in the particularly cold storage in the warehousing industry where some of these workers are

working in routinely full shifts in minus 29 degrees Fahrenheit temperatures coming in and going out as well. We also talked about the heat issues as well for the summer time work. Another thing that was brought up was the environmental factors coming to the forefront on insect-borne diseases, particularly we're thinking of the West Nile virus and what other emerging diseases might develop in the future and what kind of preventative measures might be considered for attacking that.

Another area we talked about is the aging workforce. We talked about the high-risk co-morbidities amongst the elderly or aging population, as well as the safety risks for the teen workers, the young workers, the new workers.

I guess the final thing we talked about independently are commercial drivers. A number of issues that came up in terms of the commercial drivers included the musculoskeletal disorders, issues of fatigue, sleep apnea, shift work, and other contributing factors for fatigue. We discussed a little bit that the issues with whole-body vibrations, particularly

with respect to low-back disorders and carpel tunnel syndrome in the drivers. We talked about the use of drugs, both prescription and over-the-counter drug usage and how that affects safety issues within the driving population. Again, we discussed aging in this population, as well as wellness programs and the particular demands of establishing a wellness program for not only local drivers, but for long-haul drivers. I think that sums up most of our priority areas that we looked at.

DR. BLOSWICK: Great. That leaves us with a couple of extra minutes if we have any comments from the group. We have a comment and I think Kurt is going to try the handheld and we can see if it's going to work.

MR. LAHR: I like the ideas that you're talking about, especially with the fatigue in relation to driving and transportation. I think a lot of work has been in done in that, and I just want to make sure -- I'd like to see it get spread out into other areas and other industries as well.

DR. BLOSWICK: Those issues to be considered in

other sectors; is that what you're saying?

MR. LAHR: Exactly.

DR. BLOSWICK: Great. Let's make a note of that. It's a great comment. We also would like the people from the group to speak their name if you have a comment from the floor. It may be your only chance to get in the federal registry. Good or bad. We would ask the last person to state his name if he doesn't mind.

MR. LAHR: My name is Greg Lahr.

DR. BLOSWICK: Great. Thank you, Greg. Are there any other comments? We have one here and since you're close, would you just come on up and grab the mic?

MR. GRIPPA: I guess one thing that I didn't see up there and talked about was the exposures to chemical hazards and the training that goes along with them carrying things that they might have to -- if there was an accident or something like that exactly how that would affect them.

DR. BLOSWICK: Okay. Is small business ready? Please be sure to state your name.

MR. THISE: My name is Matt Thise and I was actually the scribe for the group for small

business. There was only one individual who came to talk about that. So I will speak for him because he had to take off early. He also wanted me to say that one of the big issues that we discussed was affordability in small businesses for any types of interventions. He mentioned that he's out with a lot of small businesses that have very limited resources and they cannot afford to implement any or very many programs, if they can afford to implement any at all.

He's worked with the EPA and they have standards that influence occupational health and safety factors. So he would like to see some more coordination between research that addresses both occupational and environmental research and concerns in the small business. We also talked about the need for simple canned programs that small businesses can use, particularly programs in ergonomic safety, also psychosocial issues, and work organizational factors; so simple programs that can be easily accessed and easily implemented in small businesses. And the need for those canned programs to be researched, constructed, and

evaluated, and then disseminated out to everybody. They also need to be easily implemented.

We also talked about health promotion in small business and how important that is, and if there are differences between issues that small businesses face versus large businesses. If there are differences what those differences are and then why are there those differences. Is it a lack of knowledge? Is it a lack of ability to implement controls?

Also, access to employees of small businesses for research purposes. A lot of time there's fear of political issues surrounding research in small businesses. So people are reluctant to provide information or small businesses are reluctant to participate in research for fear of being singled out or having some type of regulations put on them. He also brought up the question of why do small businesses stay small. Is it an issue of economics or are there work factors where the employees were in large businesses and then failed drug tests, or psychological issues, or something where they were then forced into these smaller business

jobs where they don't have quite as stringent of testing?

We also discussed potential areas of small businesses to make significant improvements in occupational health. These are areas that he deemed as being potentially at higher risks for different things than other groups. Those would auto-body refinishers, decorative chrome shops, plastic-reinforced concrete manufacturers, restaurants, and then the home healthcare industry.

We also brought up a question of why are there so many turnovers in small businesses. Are they due to health implications or health issues? And that's both individuals within companies or industries, but also the number of companies within an industry. There's seems to be a lot of turnover there. Then we also talked about substance abuse within small businesses and the research that needs to be done there.

DR. BLOSWICK: Kurt?

DR. HEGMANN: One point of clarification. There was a very clever idea, which is that we need to make sure it's captured. The issue of

controlling environmental exposures in these small businesses, which is actually done by the EPA. So there's opportunity there for synergy between grant agencies getting money together to actually implement an agenda in small business.

DR. BLOSWICK: That comment was by Kurt Hegmann. I take this job very seriously. One thing that I'd like to mention is there are some online resources that are free. The Rocky Mountain Center at one time had some ergonomics training, plus the OSHA webpage has some very, very good ergonomics resources that's all free. There's another company that has some online short courses that if you're interested I will give the name off the record for that company.

MS. MCNEIL: I don't want to lose this opportunity. I'm Kate McNeil and I'm a consultant with OSHA Consultation and our target is small employers. We are largely federally funded. We consider small employers 250 employees or less. I had one company that was issued a temporary license to do business and based on them proving to the city that their emissions were not affecting the

environment adversely. They went to hire an industrial hygienist, but they couldn't afford it so they called me and I said I don't deal with anything once it goes through the stack. We went in free of charge and stayed there for a ten-hour workday and we sent in all the lab samples at no charge to the employer. They were able to prove that in the workplace there were not overexposures. So they took that information to the city and said our employees right here in the building aren't adversely affected. They were granted a permanent license to do business. So they were able to satisfy the EPA through our program free. So I really want to promote the consultation service as a good resource.

MR. BESSER: My name is Brett Besser. I'm with the Department of Labor. I just wanted to get on the record that I think that warehousing and transportation is probably one of the most critical ones that NIOSH can look at because it affects both upstream and downstream. Warehousers (*) are the customers or the producers and in that function have a lot of sway in what they get from the producers. And

if they get an ergonomically desirable product into the warehouse then that will help the customer at the other end.

DR. BLOSWICK: Thanks, Brett. Also, remember we're still talking small business. So if there are any comments based on the comment right before Brett's, I'd like to encourage those people to speak.

MR. PUGH: I'm Charles Pugh with the Worker's Compensation Fund. We actually had some small business owners in our group and the concept came up that they really didn't have awareness of some of the things that they needed to do in the workplace. What workers' compensation insurance is; what's OSHA. So again, emphasizing the small customer I think is very important.

DR. BLOSWICK: Thank you. Are there any other comments on small business or transportation and warehousing? If not, let's move ahead to the next group, which will be training.

MR. ROMNEY: I'm Eldon Romney with R and R Environmental. I won the lottery. We talked about a whole bunch of different things. If you'll notice in the written narrative I think

we have 30 percent more narrative than any of you other groups. There's plenty of stuff there to look over. When we prioritized we came up with four different areas. I'll touch on five really quickly.

The number one area was how can we evaluate the training effectiveness and ensure that our evaluation is accurate? So basically evaluating the evaluation. Some of the topics we discussed were -- it depends on your audience. One of the things that came up with were some people have had experience with Spanish workers who have a supervisor that's Spanish, but there was a rule that everybody spoke English. If some of the workers were caught speaking English to some of the higher-ups, the upper management, the Spanish-speaking supervisor of the workers would fire them. And so there was a real reluctance to communicate anything upstream, other than through a supervisor who was very controlling. So if the owner of the company went down and talked to these people about how things were going, he was going to get squat out of them.

Obviously, support was a big issue; corporate support up and down the line. We discussed if it's better to start with ownership and management and everything comes down from there or if you start with the workers and come up. That became another topic that we'll talk about here in a minute. Open communication in a non-penalized reporting method were also discussed. One of the other topics was what would be the effectiveness of upper management training or owner training? In some areas we do a really good job of training the workers, but when you tell the workers what their restrictions are and then they tell management, sometimes management balks or ownership balks because the worker has bad news. He says we can't do it that way, the rules don't allow it. Sometimes ownership and upper management don't appreciate the restrictions that the workers have been taught about. Again, support up and down the line would aid that. You have to have a culture of safety and open communication. It was talked about with NIOSH and with their credibility could they recommend ownership and management training and would that be bought

off by the owner or management more easily than some other agency or just an individual recommending that. One of the things that we discussed with some of the NIOSH people is that this is a little unique from other town hall meetings that they've had. Could NIOSH have a website access to public domain research that's out there? Could they have a database where they list by topic all of the different public domain research that's been done? For example, if NIOSH worked with a specific company to research something, sometimes that research is published in some obscure journal or some non-obscure journal, but a lot of people don't have access to it. If there was a list by topic of these different research data and then next to it, maybe, a link for different formats such as if it was just a narrative or if it was put into computer-based format, like PowerPoint for example, at least you could go through by topic and research things in one place to try to get some idea of what research had been done out there.

We talked about behavior-based training; evaluating where it's been effective and where

it might not have been. Health behavior therapy, kind of a disconnect in some people from what they know and what they do; immediate versus long terms results. In other words, you can test them after you get done and they all know it, but the next day, the next week, the next month they just don't do what they've been trained to do. Then the multi-cultural differences in how people react. Again, that relates back to that Spanish supervisor who was so controlling.

One of the things that came out that I thought was especially interesting was one of the people in our group had an issue with trying to train short-term workers, heavy equipment operators in specific. There's really no way to train them effectively. They're in a cab that's made for one person. How does a trainer help them get to know that piece of equipment? He said that in one case the trainer would sit on the engine box, put his feet inside the cab, and tell the guy what to do as a means of training. That box is only made for one person. There's only one seatbelt in there. There's some sort of an issue. Could the cab

be expanded and there's some structural issues involved. The amount of training that you can give that person is pretty limited. If you give them a couple of weeks of training sometimes they think they know it all now because they've gone through the training. And some of the problems become you can't train on everything. If you train them on level ground and they get on an incline and things change. Other areas that we talked about are what tools, methods, and resources work best for training? What are the best practices? How to assess what companies of different sizes are currently doing and what works, practical applications of current regulations, and how to assess the effectiveness of OSHA consultation. Again, there's a whole lot of detail in our narrative and I would refer you there.

DR. BLOSWICK: Great. Thank you. Do we have any additional comments in the area of training? One thing that I would mention wondering around during the 10:00 to 12:00 session this morning is I did hear behavior-based safety mentioned at both the training and in the mining group. Here we have

a comment. Please, state your name.

MS. ANDERSON: I'm Dionna Anderson, Salt Lake Community College, and I was in the group of manufacturing. How do you train and are we willing to change our training methods to meet the new learning styles of the younger students? You know, pod casting and I'm not sure what all is going to be done to fight wake. Then tying it together to how do we train the 16 year old and 65 year old who use the other methods and are in the same classroom.

DR. BLOSWICK: Those are good comments. I have no answer. Maybe someone in the group does. With that, we're ahead of schedule and let's move ahead then to our next group, which is manufacturing. Would the manufacturing representative please come up?

MR. COLLINWOOD: Thanks, Don. My name is Scott Collinwood. I'm also with the Rocky Mountain Center just up the street here at the University of Utah. I just sent off my taxes, by the way. So if you want to record that, my accountant should be getting that stuff ready here shortly. Also, with that, I was the

facilitator for the manufacturing group. We have pretty large and diverse group. We took up a couple of tables back there. I'd like to give you just a real brief background of some of the manufacturing industries that were represented there. We had a representative from Utah OSHA. We also had computer and semiconductor manufacturing that was represented. Biotechnology and automotive supplies, specifically airbag manufacturing, clothing manufacturing, distribution warehouse was also represented there, printing, and meat processing; just to name a handful of them. We went through a number of topics and I'll start with what emerged as the first topic that was brought up in our group, which was accommodating the needs of the aging workforce. Specifically, associated with that we talked about was musculoskeletal disorders, strains and pains. Our manufacturers seem to describe that with the aging workforce that number is creeping up in their working population, but still a disproportionately small number of people seem to have a proportionally higher amount of the workman's compensation cost and

such associated with them. Along those same lines, the American Disabilities Act and dealing with that. Also, something that often times comes with the aging workforce is obesity, diabetes, hearing and eye site changes. How do we make those accommodations in the workplace? Trip and fall hazards. They might not be as astute as their younger coworker. Controlling these workplace hazards. Also, to mimic what the training committee talked about with how do we effectively train and educate this aging population -- one of our members commented that we have fairly effective or reasonably effective communication and training methods with regards to health and safety for this aging workforce. One flipside of that, again, these 18 to 20-somethings that want things in short, fast bursts. How do we meet the needs of all of that population? To summarize that, accommodating the needs of the aging workforce emerged as our number one topic.

Not too far off from that was a combination of wellness and workman's compensation cost. Along those lines is how do we change the

mindset for our workers to look at having a safe work life and culture. You know, taking not just the things that we try and drive home at the workplace, but in that drive home are they talking on a cell phone and things like that while they're driving. Are they maintaining a good lifestyle at home and setting a good example for their families? Because what many of these manufacturing representatives were saying is the cost of an unhealthy lifestyle or not an acceptance to a wellness practice outside of work, the company often times bore those costs anyway. So that was something that certainly needed to be addressed.

Obviously, we've got these insurance costs, these lost-time costs, these lifestyle issues. HIPAA was brought up and there was a discussion that in some instances that was reflected as being beneficial. On the flipside, a couple of our representatives said that it was almost a barrier to being able to accommodate somebody that has a health condition in the workplace because their supervisors or management weren't learning about it and therefore weren't able to

administer it. For example, if somebody is on some type of medication that may cause them to faint or something. We're now getting a society where this is personal information and we don't share it, but it has a direct effect at work and it may impact their health, it may impact the health of the workers around them. Just to round out the things that we discussed on workman's comp is that employees are hiding their current health status and the employers ending up inheriting these things and therefore these costs in terms of workman's comp, as well as just regular health insurance, if the company offers that.

To move on down the list, those were our number one and number two. Then in not necessarily any particular order, but one that was quite a ways up there was we had occupational health and safety management systems and this competitiveness. We kind of lumped this all together. Along those lines were a couple of representatives brought up that they are adhering to these ISO 14 or 18,000 Standards; these environment or health and safety standards. That's been forced upon them by the

market that they choose to participate in; essentially this global environment, this global economy that they want to be involved in. One the flipside, it was noted that AIAH and ANSI recently came out with a health and safety program management system. It's a set of guidelines along those same types of lines. Having a broad health and safety management system in place at the workplace. But what was brought up is there seems to be a real lack of skill or education and training on the part of the health and safety managers. The individual or somebody in that health and safety department, if there's multiple individuals there, in enacting this type of thing. And then to add to that, if they want to try and implement one of these types of programs they don't seemed to be armed with the metrics, the measurements that says if we do this type of a program this is how it will affect the bottom line of the company. You know, they need to demonstrate that to senior managers and it's not well known if that information is readily available and readily accessible to them. If that health and safety person is skilled and

astute enough to notice that and to recognize that they need to drive this as a value-added benefit to the company. So there just seems to be a disparity with it and it looks like this is useful, there's a lot of talk about this, but how do we get there and are we going to get the end results to that.

Along with that competitiveness theme and this health and safety management theme, you know, a lot of the buzz words in manufacturing the last couple of decades has been this JIT, this just-in-time manufacturing, or lean manufacturing. We only warehouse just enough that we need to produce that day. Otherwise, our transportation folks that already were up here today are bringing that to our dock doors. So we're running these things in and out of there. But along those lines they talked about the inventory of the employees and that that has been decreasing based on the productivity. If Jane gets sick or ill some day, that really impacts the production. And we might have cross-training, but they can't afford to bring John from this other department over here. Obviously, we didn't throw forth any solutions

to that type of idea, but it was just that's the reality of it. All of these things are tied. If we can increase the wellbeing of our workforce, the health and safety of our workforce, they're not getting ill, they're not inclined to not come into work because they're tired or stressed or hurt, there's a benefit there.

Additional topics that we talked about were old machinery or continuing to use old or outdated machinery, or using a machine to do a job that it wasn't intended for. And how do they deal with what the requirements are there for machine guarding, and ergonomics, and safety injury upgrades. We spent a lot of time talking about education, training, and communication. I'll revisit this again briefly. How do we educate or train this broad spectrum of workers? We've talked about the elderly worker versus the young worker. There's also the diversity issue and the language issue. Along with that goes the culture and cultural differences that our workforce brings to the jobsite.

One of the other issues that was brought up was

some of the health safety practitioners, those coming out of bachelor's or even graduate health and safety programs, might be missing some of the basic skill set that they need. You know, can they properly interpret MSD or regulatory standards for the industry that they're working in. You know, some of our members said that I don't know if it's for somebody coming out of a broad program that they be able to interpret the specific standards associated with our industry, but certainly they should have the basic knowledge and the basic skill set and the basic tools to be able to quickly come up to speed in that. That will take care of that sort of personalized training specific to that industry.

You know, I think with that I will probably hold. We filled up six or seven pages back there and spent a lot of time discussing things, but the big two take-home points were certainly accommodating the aging workforce and then the second was these spiraling healthcare costs. How do we get a handle on that? How do we intervene and get those things in control?

DR. BLOSWICK: Good. Thank you, Scott. I think we already have a comment.

MS. PARADISE: I'm Michelle Paradise. I wasn't able to attend that section, but I have concerns with the rising industry of the new pharmaceuticals and vitamin supplements where there are no regulations and workers are exposed to high concentrations. What may be the hazards and risks with these exposures, the plants that they're working with and also, secondarily, the pesticides, which also may be present.

DR. BLOSWICK: Good. One other point that I did notice in both Scott's discussion and at least two or three other groups was the aging workforce, which is interesting.

MR. COLLINWOOD: Since this is on record, I want to add one thing that now I'm looking at my three pages of notes that I glossed over. One of the topics we also discussed is emerging technologies, but this probably isn't new to some of the people in the room, but specifically nanotechnology. Where these manufacturers are wondering how they measure, what they have to measure, what the results of

this are. I know that nanotechnology in general is a big buzzword and with that emerging technology was also biotechnologies. So we kind of lumped that all together, but that was a concern of ours also.

DR. BLOSWICK: Good. Do we have any other comments? Okay. Our next session is agriculture, forestry, and fishing. Go ahead.

MR. FERGUSON: My name is A.J. Ferguson. I'm with Utah Farm Bureau Federation. Our concerns started off being as the farmers work long hours and often times they work by themselves alone, which brings up different types of risks in the fact that cell phones have made it more convenient that if they are in an emergency they can typically get the help they need, but that's not always still the case. Cell service doesn't reach to all of the areas where they would be.

That brought up our second concern being emergency response. The fact that a lot of the farms are located far away from any EMS and that does pose some threats or hazards to the farmers in the response time. The golden hour is critical.

Going down through here, we also talked about animal handling and the fact that there are tons of stipulations and regulations in regards to handling animals, but that sometimes farmers feel that they can do it their way better. We know the animals more or we just try to push them through instead of taking our time to get them into a good clearance zone so that way we can avoid injuries occurring from animal-related incidents.

Also, the off-highway vehicles, which are an upcoming trend. We're seeing farmers now going from using horses more and more to ATVs and motorcycles; forcing an increase in injuries in that sector and also with tractors. Some of the other concerns are if we could engineer out some of these problems with power-takeoff shafts. We lost a farmer last year in our state in Smithville, Utah to a PTO shaft. And how to keep instructing the farmers to keep the shields in place and not to remove safety guards. Those are some other concerns that we have.

Also, another concern was the handling of storage materials that we do have on farms;

ammonium nitrate, hydrous ammonia, other pesticides, fertilizers, nutrients that we do use. Most farms are self-sufficient and do store a lot of those; even iodine, where they are starting to use that now to make crystal meth and different things like that. We're starting to see an encroachment of the bad element towards rural Utah.

Some of the questions that we actually had was chronic health effects of OTDS, the organic toxic dust syndromes. What's really happening to our farmers? We don't have very good data on this. We don't know always where to go on it and how to attribute it to a farm-related incident; if it's because they grew up on a farm, or if it's because of the environment that they live. Being able to understand if it's because of mold spores in the air. It might be dust from plowing with an open-cab tractor. We do have some questions about that on how we might be able to get more data there. And then another concern on large farms versus small farms. Are they the same? Is one procedure going work for both sides? Is the ma-and-pa farm going to be able comply with

what the large farm can do or vice versa, will they have the same problems. Then some of the other questions we did have were how else can we continue to increase the education for farm safety. How do we get more out there through communication? In the past, we tried a lot of different things and it doesn't always hit the papers until we have a major incident that involves someone who's been killed. That doesn't always get the best notoriety. Sometimes we portray the wrong image through our media of farming and agriculture being a utopia lifestyle and that nothing wrong can happen there. So those were some other concerns that we had.

Ergonomics, we did have that on there. It was just through our production plants. We're looking at the poultry processing, beef processing, things like that where there's a lot of repetitive motion. It's also probably necessary for the rest of the work as well, but it's not viewed as macho, it's not cool, and so some of the farmers still tend to ignore this issue; and how we can bring that more to them and make it hit home.

Hearing conservation is also another one. Where a lot of the equipment that farmers use in our state and where most of the tractors are about 35 years of age and a lot of the tractors don't have cabs and do not have a lot of the proper protection to protect your ears. Those that do have cabs where sometimes they turn the radio up louder to overcome the sound of the machinery and the vibration. Also, that could lead to potential problems of hearing loss later on in their life. That was everything that we had.

DR. BLOSWICK: Good. Thank you. Do we have any additional comments on forestry, farming, fishing?

MR. RICE: My name is Nick Rice and I'm an industrial hygienist who previously practiced in wood products and forestry products industry. And I'm interested in re-evaluation of susceptible wood dust exposure limits in light of some of the information on wood dust and carcinogenicity.

DR. BLOSWICK: You're talking in lumber processing, for example?

MR. RICE: Specifically in lumber and wood

products manufacturing.

DR. BLOSWICK: Thank you. Good. Do we have any other comments in these areas? We do.

MR. ALCOT: My name is Dave Alcot from ATK. I think we need to look into the crossover from agriculture into manufacturing. I worked in two manufacturing facilities; both had a large amount of farmers working at both places.

DR. BLOSWICK: So are you suggesting that what people do off the job affects what might happen to them on the job?

MR. ALCOT: Absolutely. Especially the hearing conservation is the big one right now. If there's a lot of injuries that happen off the job that go over to the manufacturing job. Also, these people do not have any healthcare and can't get it through their manufacturing job.

DR. BLOSWICK: Thank you, Dave. If there are no other comments our next sector is construction. So would our construction representative please come on up?

MR. THROCKMARTIN: My name is Jeff Throckmartin. I'm senior IH for the industrial hygiene group at the University of Utah on the

staff side. As has been indicated, the group was construction. We had a variety of different size companies at our table. From small to medium size contractors that do a different type of construction, including work for DOD to small independent contracting. There were really five issues that were abstracted from the notes you have.

Just to recap it first, specialized workforce issues, common sense issues, problems with trying to comply with super-sized regulations, accuracy of reporting, and how to deal with unethical operators and the problems they create in the industry. Let’s look at these individually.

The specialized workforce covers a variety of different sectors and different groups. Key among those are non-English speaking workers. This has come up before. There are tremendous issues that come from that. For example, what if you have INS come through and snatch up half of your workers? It creates a burden on the other half. And this has happened where you suddenly have to complete the contract, but you have an extra burden on the remaining ones

behind. What do you do about training? How do you address training? How do you disseminate information to the workers? What do you do about high turnover with that group? All of these impact the safety of the operation. How about other specialized groups? How about extremely young workers? In some cases you may have workers that are less than 18. For example, it was brought up about workers in polygamist communities. You may say that's not regulated. People still get hurt. What about people that work in schools with school projects who get hurt? Do we have statistics on these? Has NIOSH developed adequate statistics to know what's going on?

I may have mentioned older workers. How about MSD in older workers, people who are over 50 who are still doing construction. Do they need a separate set of standards?

Common sense was brought up. Common sense isn't always common as you know. How do you implement a safety culture or safety-based culture? Training people doesn't always work. Sometimes it's the macho thing for the worker to not comply. That still causes injury and

harm. How do you get at that? How do you implement a safety culture across the board? Super-sized regulations. The regulations are so complex now and I don't need to tell you this. Complying with them is very difficult. How do small companies adequately comply? They are trying to bid competitively so they can't always hire a consultant. Sometimes the regulations can place an extra burden on the company in another way. For example, HAZWOPER work, thermal stress, heat stress. Do the regulations create extra hazards? Has this been examined? Should the regulations be scaled down for small companies or abstracts of them created? Something as simple as understanding material safety data sheets may not be simple for a small company.

Accuracy of reporting. There is a lot of distrust in some of the DOL statistics that are gathered. How are they used? There's the lost work time that we all are familiar with. How can the statistics best be gathered and utilized?

Finally, what was termed unethical operators. Contracting is a very competitive business.

Somebody is always going to underbid you for a nickel, and in our society you generally take the lowest bid. So how do you deal with someone that's going to just always stay one step ahead of the regulators and try to have a cheaper bid because they're not complying and people are getting hurt? You may say tougher enforcement. That's not necessarily the answer. These are some of the issues that we came up with. There's kind of a free-flowing stream of consciousness on the page, but the points are there and you might want to read it because we've touched upon more items than that. Those are the items that we came up with.

DR. BLOSWICK: Great. Thank you, Jeff. Do we have some comments in the area of construction? Please.

MR. GALLEGOS: My name is Robert Gallegos. I live in the State of Utah. The comment made regarding undocumented workers and coming in and taking all of the workers and creating a problem with the other employees. The whole issue is don't hire them. Don't hire undocumented workers. A lot of companies are

hiring undocumented workers because they pay cheaper wages. They shouldn't be hiring them and they do hire them. This goes on consistently in the State of Utah. Another issue that you brought up is the drug problem. In the State of Utah, we have a real severe problem with meth. We are having a hard time finding anybody who can pass a drug test. It's a severe problem. People are working and are on meth. They're working on the job. We're having to import people from Russia and China to do the work here in the State of Utah. We have a serious problem. The legislature doesn't address it. The companies are not addressing it. It's a real severe problem and there's a lot of accidents that happen because of the drugs that people are taking and going to work under the influence.

DR. BLOSWICK: Thank you. Are there any other comments in the construction sector? Kurt?

MS. PARTNER: My name is Emily Partner and I'm with Utah OSHA. I'm a compliance officer. One of the things that I see that ties into the issue that we see in construction is construction companies that are flying under

the radar of everybody and hiring various ethnic groups. It may even be people that may be legal who come to this country and they have no knowledge of what is acceptable as far as pay or safety. The things that we take for granted. The unscrupulous company owners hire them and pay them cash daily, so they have no paper trail. These people get up to do construction and a lot of time they don't speak English and they don't know they're being taken advantage up. We come along as a compliance body and they're afraid of us because they aren't aware of us. I think it's a real huge problem.

DR. BLOSWICK: Thank you. If there are no comments from the floor on construction then we have healthcare and social services as our next sector.

MR. RICE: My name is Nick Rice and I'm a practicing industrial hygienist working primarily for the University of Utah healthcare at the Health Sciences Center. Our healthcare and social services group had approximately nine individuals representing hospitals, nursing, physicians, clinical laboratories,

several academic folks, and people interested in wellness programs, and healthcare administration. Just a point of clarification or disclosure here, there was kind of two different interpretations of what the healthcare and social services group was to represent. One being that that was an industrial sector, but there was a fraction of the group that interpreted this as being just a discussion of healthcare in general and providing social assistance and insurance to workers. So there was a little bit of confusion as to what the group represented. What I'm going to do is just provide a list of our top priorities and then expand a little bit on some of the goals or outcomes that the group thought might be important.

The top priority that was identified was musculoskeletal disorders in healthcare. I know that's an issue that goes across many industries. The second priority was stress in the workplace. A lot of discussion on shift work and long working hours. Supportive workplace health and safety culture. A general category of hazardous chemical exposures with

particular interest in hazardous drugs. Workplace violence, particularly in neuropsychiatric settings. Several other folks or industry groups mentioned workplace violence, but in healthcare it's a little bit of a different animal in that we have not just the issue of worker/worker workplace violence, but worker/patient, worker/family/patient. We have the emergency department where we might have trauma cases coming in and you can see other gang members or those kinds of interactions happening in the emergency department; then just workplace violence in the psychiatric setting. There was some interest in economic research into healthcare coverage for all workers. A lot of talk about known and emerging workplace infections, personal protective equipment in healthcare, and an aging workforce.

Some of the specific goals or outcomes that were of interest and were identified were identifying best practices for lifting procedures in healthcare. Quite a bit of discussion about an increase in the number of bariatric patients, and those are very, very

large patients over 300 pounds that healthcare is seeing. Also, developing specific engineering controls to deal with those bariatric patients or other special patient populations such as in a burn trauma unit where you might have somebody covered with an 80 percent burn where conventional lifting devices are not appropriate.

There was interest in evaluating the impact and productivity of musculoskeletal injuries and prevention programs, and the evaluation of the effectiveness of an exercise or stretch-and-flex program in healthcare settings. There was some discussion about stress in the healthcare setting. Particularly, it was identified that there really aren’t any tools available to measure stress in the workplace, and just the evaluation of stress leading to an increased number of injuries.

Quite a bit of discussion of shift work and long working hours. As you all know, healthcare operates 24 hours a day, 7 days a week. Twelve-hour shifts are the norm for many of the nursing staff and support staff.

Mandatory overtime is not uncommon with our shortage of nurses right now. There was an interest on evaluating the effect of those working hours in shifts and the effect that might have on health and safety, including injuries and illnesses.

I mentioned there was confusion about what the group was supposed to talk about; whether we were talking about the healthcare industry or about healthcare in general. There was a large discussion about nationalized medicine. There was some interest out of the group about economic research into benefits of increasing productivity or safety in the healthcare workforce. It was recognized that a barrier might be that this is outside of the realm of NIOSH.

We mentioned workplace violence. The group believes that in the healthcare industry there is quite an aging workforce, particularly in our nursing staff. There was an interest in evaluating how do we keep an aging workforce productive and safe and try to delay retirement for those folks.

Personal protective equipment and best

practices for selecting PPE, particularly for hazardous drugs such as your different chemotherapies, antiviral, and interest in researching the effectiveness of respirators in relation to bioaerosols.

We had one individual who had an interest in nutraceuticals, or the vitamin and mineral industry. It's not exactly healthcare related, but somewhat in just exposures that might occur in manufacturing or preparation of those supplements. That concludes the summary that I've got.

DR. BLOSWICK: Do we have any comments on healthcare, social services? We have a comment from Eric Wood.

MR. WOOD: Eric Wood. I'm an occupational physician at the University of Utah. I want to follow up more on infectious diseases within the healthcare setting and the protection of healthcare workers from both known and emerging pathogens. I'm curious about how much we can learn about what other diseases might be affecting workers. Things like how much work time is lost because of the common cold and how much lost time there is among healthcare

workers because of direct contact with patients who have that. Also, what procedural areas of medicine are the highest risks for production of bioaerosols and where do we need additional protective devices or engineering controls for that.

Finally, what is acceptable for healthcare workers in their work practices for using protective devices and being able to still accomplish the tasks they need to do as clinicians.

DR. BLOSWICK: Thank you. We have four sectors left at this point. Let's take 15 minutes and we'll meet again.

(Whereupon, a recess was taken from 2:15 p.m. to 2:35 p.m.)

DR. BLOSWICK: Let me read the next four off in order so that we all know where we are headed. We have mining, MSDs, public and private services, and multicultural issues. So our first presentation is for mining and it's from Dr. Leon Pahler.

DR. PAHLER: Good afternoon, I'm Leon Pahler. I'm with the Rocky Mountain Center. And as was indicated, the topic for our group was mining.

We had representatives from the open-pit mining industry and from the face-and-back or the typical tunnel-type mining, plus NIOSH representatives. We had the OSHA Salt Lake City Technical Center and a couple of people from the industry were there. Basically, we organized our discussion at the table into five different areas. The first one being the disease and injuries, the second one exposures, the third was population at risk, the fourth was failure of some of the occupational safety and health programs, and then last was a miscellaneous that was provided by the attendees at the table.

So the first one under the disease and injuries category -- and these aren't in any priority and I'll provide the priority at the end as far as which one was first and which was the second. Under that first one was whole-body vibration. Basically, providing NIOSH an opportunity to provide some of the regulations, some of the requirements for safety issues regarding what those whole-body vibration issues might be. Typically in the industry, the heavy vehicle where you have the trucks,

shovels, dozers, and other large equipment for the whole body and then related to that -- not necessarily whole body, but you have the hand, wrist, arm, elbow, up into the shoulder for the handheld machinery in the mining industry that they felt that some regulation and guidance should be available as far as the vibration issues.

The next issue that was brought up was basically that a lot of the machinery used in the mining industry is very noisy and that it would be a benefit to reduce that noise. And part of the comment that arose from that discussion was that have the industrial people talked with or communicated with the manufacturers of that equipment and asked them if they are able to reduce noise for that particular equipment.

The next issue, which provides a huge area of research and input from a lot of people is communication under ground. The first would be a wireless communication inside the tunnel to the surface personnel. Then that type of communication would have to be resistant to infrastructure failure. As we've noticed in

the news of late there have been a number of mine emergency situations that would have benefited from this type of communication. The other part of that communication would address personnel tracking underground to know where they are from above ground to those people underground; whether it's an emergency situation or just routine operations. Two-way communication would be a huge boost for the industry.

Another area that was talked about was that the miners themselves should be taught that the first priority in an emergency situation would be to escape from the mine, get away from the situation, get out if possible, and that the last resort is if you're not able to find a way out of a mine then there should be the self-contained self-rescuer that has a longer time for the -- helping the miner to stay alive.

The next issue was there might be in place various sites in the mine that you would have a building or a chamber or something of that nature that is equipped with oxygen, water, first aid, and communication.

The next issue that was talked about was the conventional situations as far as injury and diseases are the dust, the diesel particulates, the dust particulates, the vapors, the fumes, and those issues. As part of that, the next topic as far as leading into the exposure was that it was felt that a real-time monitoring system with speciation and specificity would be desirable and not only have that specificity and speciation, but be low cost so that it would be available to most mining situations. In the real-time situation, another area that was felt that could deserve some research and input was that the toxicity modeling and information for some of the 12-hour shift situations are not really well documented. So that lends itself to some more investigation. The other situations here are ones stemming from the dust-type monitoring and that would be the personal dust monitors or the PDMs. There is a company that will next year be supplying commercially a PDM which will help facilitate those people experiencing exposure and over-exposure situations.

Another issue that came out was the distinction

between the diesel fraction, the carbon fraction, especially in a coal mine and then the inorganic in a metallic-type mine to be able to speciate the types of dust particles. So that was an interesting consideration. Another one was in certain mines that have a sulfuric acid and a sulfate combination. And it would be in this person's estimation a good thing to be able to tell the difference between the sulfate and sulfuric acid. This will be of great help, also.

Another issue that came out under this particular topic was that some coal mines have hydrogen sulfite or gas. Part of that is that they are using the respirator as personal protective equipment and are asking or looking at some NIOSH information and guidance to basically come up with the exposure times and canisters and that sort of information.

Another situation here is a number of canisters typically have a change-out period for it and some canisters have an end-of-life indicator on the canister. Basically, it was brought up for the mining industry that if more of the canisters had the end-of-life indicator it

would be a big benefit.
The other situation was the welding fumes and they're using various respirators and helmets in conjunction with gas masks and looking again for the end-of-life indicator.
The next topic area was the population at potential risk. The first thing that came out of this topic or this discussion area was the situation with the older generation. It seems to be a permeating topic that runs through a lot of these industries, and it's understandable. Some of us are getting are older.
The next issue as part of another topic that has been already talked about is the longer than eight-hour shifts with the odd times off. So shift work is a big issue as far as a population at risk. They're looking at needing more information as far as the youth compared to older people and how they handle it; the immediate versus long-term effects. The other situations being that you have holidays on a regular schedule, but on shift work typically not. I have two minutes left and I have 20 more minutes worth of material. Anyway, moving

on down through this a little faster I see one of the issues in the mining industry is that they found that the new generation and new employees seem to have a work-ethic problem. The highest risk is for the new miner and typically for the first six months. That's when they have the most accidents.

The other issue that we talked about was having a wellness program in the mining situation. The problem with some of that is during a wellness program you either have it during work or after work. And if it's after work the situation typically arises that the employee would rather not engage in a wellness program since it's their time off.

Some of the miscellaneous items that we talked about were that the health providers would like to have an indication of early detection for pulmonary disorders, chronic bronchitis, silicosis, fibrosis; those types of situations. There was an issue brought up as far as carbon monoxide and its impacts or effects on hearing. The last one was ergonomics, which seems to be pervasive throughout.

Then to sum it up, one last one was the

electromagnetic fields, or EM fields, for people working in small power plants for eight hours. Our priorities for these issues was number one, effective communication, which would save lives. The second one was the ergonomics, the whole-body vibration and other ergonomic issues. All the topics were good issues and deserved consideration. That concludes my summary of the mining industry.

DR. BLOSWICK: Do we have any comments from the floor relating to the mining sector? Why don't you come on up here?

MR. ASHMAN: My name is Al Ashman. I'm with the United Steel Workers. I work out at U.S. Magnesium. In regards to the electromagnetic fields, what I was interested in was some research in dealing with high amps and low DC voltage. I haven't been able to find hardly any research in regards to that at all. Our employees are exposed to 12-hour shifts at about 280,000 amps and about six volts DC. We don't have any research on what this is doing to the people.

We also were interested in this shift circadian rhythms. It seems to be an ongoing thing in

just about every industry as it comes up and I would like to see more research in this country talking about people who are in rotating shifts and 12-hour shifts and how that affects their health in the long term. The little bit of research that I've been able to find in Europe indicates that after prolonged exposure the body seems to deteriorate for a significant population. I'd like to see NIOSH identify that.

DR. BLOSWICK: Thanks.

MR. SUSSEX: My name is Richard Sussex and I'm with the Rocky Mountain Center. A couple of issues. One is, is there a relationship between shift length and drug use? We've had a lot of people talk about shift length and drug abuse, but I think there is a relationship between the two. The second thing is the study between the relationship of safety and fines. Specifically, in mining where in 2005 80 percent of national violations were for one miner exposed. I want to know if there's a relationship between fines and the level of safety in the facilities.

DR. BLOSWICK: Rich, your discussion there

about the mines, you're saying that the fines were for one person exposed, but actually there were probably more people exposed; is that what you mean?

MR. SUSSEX: Yes.

DR. BLOSWICK: And then your other comment had to do with is there a relationship between how much a mine has been fined and their overall safety program?

MR. SUSSEX: Just curious, yes.

DR. BLOSWICK: Thanks.

MR. PAHLER: Leon Pahler here, again. I have a couple of other comments and one of them being that was discussed previous to this was the drug problem. Most of the mining-type people who are in the companies represented here do have drug screening. So they do look after that problem and watch out for it. The other issue was that of employees not being conversant in English. That was a major problem also. One person made the comment that in the mining industry in order to stay ahead there needs to be leadership, education, and training.

MR. WOOD: My name is Dean Wood. I had an

interest in finding out if the high-energy drinks that the young people are consuming in large quantities are imposing health problems. We have people working 12-hour shifts and they're drinking six to eight of these energy drinks. I don't know if that is going to influence them over the long haul.

Also, a second item would be communication. I'm wondering if there is significant information on exterior noise for either sending or receiving and if that is a hindrance in the communications of miners.

DR. BLOSWICK: I have no comment on those, but those are good points to have in the record. If there are no other questions or comments relating to mining then our next topic is musculoskeletal disorders.

MR. BESSER: My name is Brett Besser. I'm with the Department of Labor here in Salt Lake. I was the facilitator for this group and had hoped to have somebody else present this, but I just decided that I would do it myself. We had a very large group, two tables' worth. We had academia, healthcare, PTs, government, and I think there was some business people, but once

I told them that I was from OSHA they didn't seem to volunteer that they were with business. Our primary areas of interest -- and these are kind of a circular logic between the area of interest and studies needing to be done to support those areas of interest. So I'll go through the interest areas first.

Because we had some healthcare people on there, they were interested in treatment modalities for injured employees and how far one would have to take the treatment and when would they know that somebody was cured or able to go back to the job. And issues of effective treatment modalities and what's the payback for the medical intervention. The other thing that goes along with that is under a standardization sort of issue is how do you handle the aging workforce. Then most of the analysis tools and things that we use are based on this healthy workforce model. Do we maybe need to develop a secondary model of the weakened workforce or aging workforce? Most of the business people were genuinely interested in coming up with some solutions on how to address this aging workforce issue because these older workers

were their most valuable workers. They were the folks that had the training and ability to get the most profit for the company and they wanted to be able to keep them on the jobs. They wanted to be able to identify ways that they could help them.

I think training was an issue. One of it was when do we train, what do we train to, and how often do we retrain. I think partly another training issue was training of our management staff and the safety and health workers in how to do problem solving that many times we go out and we begin to attack a problem before we've really identified what the nature of the problem is. This is something that NIOSH can help us with; a system for working through problem solving so that we know that we're addressing the right problems.

Some standardization in work-analysis tools and the question that goes along with that is who would do the analysis. Many of the tools right now are designed for the academic large brains to come in and work your workplace, but could we come up with other tools that say somebody with moderate training could do most of the

analysis in conjunction with others in the company, or is there a way to create tools that if you have a motivated workforce that wants to improve can you just use your own workers in an effective manner to analyze and correct situations. Along that same line, the other thing was tool analysis that the tools that you're actually using in your job are quote, ergonomic so you don't have ergonomic head covers for your golf clubs or some of the other kind of silly things that you see. So to get to those we decided that we'd like to see some quality studies, but since you have the problem with our current work situation where many employees are transient and they move between companies, it's very hard to get a cohort for long prospective studies. Is there a way to take multiple short studies and incorporate them together? Basically, a group of success stories and incorporate those together to get some sort of a robust result.

I think the other thing was some assistance to companies in how to design a meaningful study. More of what we have in this room where we have more public input into what do we need. Then

assistance in taking the studies and distilling them down into how should the company owner or operator proceed. What does the data mean and how should they proceed in their own company? Finally, NIOSH's place in this is the communication gap between the researchers and the companies that take the input that's come from good, short-term success stories and get those out and available to the practitioners.

DR. BLOSWICK: Thank you, Brett. NIOSH performed a study five or six years ago that was the most comprehensive review into the relationship between workplace risk factors and outcomes with musculoskeletal disorders. That's available on the NIOSH website, downloadable. Be careful before you hit print because it's about 400 pages. It is the gold standard that we all refer to to determine the relationship between workplace risk factors and outcomes. Do we have any comments? Thank you.

MS. MOFFIT: I'm Jan Moffit. I'm from the Workers' Comp Fund, and I'm an attorney. One of the things that is causing a huge concern is medical management of industrial injury, particularly when it comes to the area of

pharmaceuticals and pain management. That's where we've seen a huge rise in the cost in the last four or five years. What we see is there are very little protocols for physicians for what kinds of medications are appropriate for treating injuries. The kinds of medications that are prescribed now were originally formulated for treating terminal cancer patients. So the focus seems to be more on no pain versus restoring functionality to the individual, and I'd like to see some studies done on that.

DR. BLOSWICK: That's a great comment.

MR. SUSSEX: Rich Sussex, again, Rocky Mountain Center. One of the things that Brett alluded to that I think is important is this idea of case-study templates that could be available to companies to showcase their achievements and share with others and better demonstrate the cost benefits. A lot of companies know that they've gotten something good, but they don't know how to show it off. Maybe make those available online for other companies to see. A lot of people are looking for how did you do that. I think a way to share that and to show

that it is cost effective -- some of the people at our table thought they could really use that.

DR. BLOSWICK: Thanks, Rich. I don't want to sound like a broken record, but once again the OSHA website does have quite a list of case studies where things have worked with recommended abatements and protocols for implementation.

DR. HEGMANN: I think that was another good comment. I would add that there's a functionality and access issue because some websites are easy to use and others are not so easy to use. This is an issue that cuts across all sectors and all areas in terms of good access to programs which effectively have been demonstrated to reducing injuries and work comp cost.

DR. BLOSWICK: Thank you. Once again that was Dr. Kurt Hegmann. There is a document that NIOSH has and I wish I could remember the name of it, but it's something related to musculoskeletal disorders and how to implement a program with various worksheets and templates and things like that. It's also available on

the web. If you go to the NIOSH website and then search for musculoskeletal you'll find it. Do we have any other comments on MSDs?

MR. WOOD: Eric Wood from the University of Utah. I think following up with that treatment question posed earlier, as a clinician I'd also like to have more evidence to studies that deal with how I can determine what a worker that comes up with an injury -- how we can determine what they can possibly do for future work and for disability-type evaluations. There's not very much evidence at all on how we can make those decisions that have a huge impact on that person's employability and vocational capabilities following those types of injuries and surgeries.

DR. BLOSWICK: Thank you, Eric. Before we move into our next section, which is public and private services industry, I'd like to mention that before we move into the prioritization area there's going to be an opportunity for individuals to make comments to the group. Those people are on the agenda and will be on the podium within a few minutes. So for now let's move ahead with our next sector, which is

public and private services industry.

MR. RODRIGUEZ: My name is Tim Rodriguez. I'm the risk manager for the City of Salt Lake. I'm here representing public and private services. Our number one issue really affects everyone in this room. It's meth exposures and clandestine drug labs; especially for the police officers who investigate. Number one, we have these police officers who go through and do their job and investigate these drug labs, and some of them are coming down with cancer. As a representative from the risk management department, my job is to go through and look after the taxpayer's money. We've not found any true scientific studies that have been done to tie these two together. That's why we feel this is an important matter that needs to be addressed by NIOSH. They need to take the lead and go ahead with scientific studies so I can go to you as a taxpayer and say look, we need to pay for these officers because we have proof.

The second issue that was next important comes to firefighters and their exposures to cancer; the same type of issues. They go through and

they protect the public wellbeing. Again, we don't have enough scientific proof to go through and for me to go to you and say look, we need money to pay for these firefighters. That's why we feel this is an important issue. Next, is asbestos exposure and related training, specifically in schools. Long-term, low-level chemical exposures in workplace labs and what are associated with the hazardous problems. Again, more chemical studies. There's just not enough that we know about chemicals yet and their effects long-term. Next on the list we had PPE safety. What types of PPEs are out there? Are they protecting us in the long-term? Hearing loss exposures, especially with our youth. Those new iPods, the walkmans, what is this doing to our youth and our future workforce.

Car-fume exposures in transportation workers. Constant noise and continual low levels of noise. What is this doing to the hearing of our workforce? Insulated air circulation systems in clean rooms. Apparently, the workers' comp fund is seeing more claims in regards to TB outbreaks occurring in these

rooms. Mold exposures. Eye strain. What is happening with the computers? We're all going to a paperless society. What is this doing to our workers? Musculoskeletal injuries, especially we're seeing more injuries in our training than the actual law enforcement or firefighters doing their job. Violence in the workplace. Stress in the workplace and how to handle it. We're seeing more PTSD claims. And then recreation facilities. We're seeing a lot of accidents in other areas of the country. Those were our areas.

DR. BLOSWICK: Thank you. We have a comment.

MR. HALLMEISTER: Jim Hallmeister with the manufacturing sector. I brought a question in from another sector that couldn't be here today. She asked if I would relay this to the NIOSH folks. That's I'd like to see the NIOSH group take up the challenge of second-hand tobacco smoke with regard to it being an environmental toxin and establish permissible exposure levels. This would help business owners in addressing the needs of the hospitality industry.

DR. BLOSWICK: Thank you for that comment.

MS. BLACKCUT: I'm Susan Blackcut and I represent approximately 40 police officers here in Utah. Many of these officers have worked in the narcotics field for a number of years starting in the 1980's. I just wanted to add a few comments to what Mr. Rodriguez had said. Many of these officers are now coming down with various forms of cancer. Many of them are coming down with forms of esophageal cancer, kidney, liver cancer, and leukemia, and so on so forth. These gentleman and woman did a lot of the methamphetamine drug busts through the 1980's and 1990's, and they had virtually no protective gear whatsoever. They did a lot of this work with nothing but latex gloves. They were in flip-flops, shorts, tee-shirts, and that was it. They were exposed to all of these various dangerous chemicals for hours and hours doing this kind of work.

What we're now seeing is that they're getting very, very sick and we believe it's as a result of their prolonged exposure to these chemicals. We don't think Utah is the only place where this is occurring. We think that we are really the first place where it's really becoming an

issue. We really do think that NIOSH should take this issue very seriously. We hope that they will engage in some serious studies of this issue. Meth is the number one drug problem in our country. It's been mentioned here several times by various groups. These brave officers that have done so much to try to eradicate this drug from our communities deserve to have this issue studied to put to rest whether or not there is a medical and scientific relationship between these illnesses that they're coming down with and their exposure while they did this very important for us. I hope NIOSH will take this seriously and dedicate some funds to researching it. Thank you.

DR. BLOSWICK: Thank you.

MR. SUSSEX: Another comment on meth labs. The scale is not just with our police officers and firemen. That's our concern. We want to make sure they're safe in the workplace, but it also affects families in communities who are moving into homes and other places where they have cooked methamphetamine. It could affect children that were living in the home with

their parents who are using meth. An article came out in Newsweek not too long ago showing the number of busts across the nation in 2004. We only had 69, which was down from hundreds in years past. Other places had many more busts. Newark, 574 busts; Minneapolis, 270; New Orleans, 507 busts of drug labs. This is a major charge across the country that's affecting our communities. Some have even called it the epidemic of the age. I'd just like to tell NIOSH that Utah stands ready to be at the forefront to study these issues and to take care of our police officers and our firemen. Thank you.

DR. BLOSWICK: I'd just like to take this time to note that there's another population exposed. I have a daughter that worked for the Division of Child and Family Services that accompanied a lot of these teams into the meth labs during the busts, and so you have a social services overlap with the group that presented a few minutes ago that's also been exposed to meth. It's giving me some concerns after listening to the comments. If we have no other discussions on this area our last group is

multicultural.

MR. PUGH: Thank you, Don. I'll introduce this topic by first off saying that we had a real lively discussion on this issue. I think that prefaces this topic in the fact that it's something that's not well defined. If I ask you what it meant, I would probably get a lot of different answers from this room. We're talking about culture, ethnicity, race, minority, affirmative action. These are all things that come up associated with this topic. We had a real lively discussion. I'll introduce the members of our group. Robert Gardner representing insurance, Robert Gallegos representing RAZPAC, Francine Barber with SWC Consultants, Sandra Plazas (*) and Gladys Gonzalez who are two small business owners, and representing myself, Charles Pugh with Workers' Compensation.

First, I would like to say that we would look to NIOSH for leadership on this subject. I think this is a great opportunity. If you look at all of the topics that we've discussed today, there seems to be an underlying theme in all of those, and this would be one of those

topics that touches all of the different areas that we discussed today. I'd like to think ahead to NORA ten years from now and ask you how many of you are going to be in this room ten years from now. So we're changing and the dynamics of our workplace is changing. Who will replace you? That's the issue. If you look at the United States of America and our gross national product, we're going to need workers and those workers are going to come from foreign countries. So we're going to have a lot of people coming into our society. It's a timely issue.

To summarize our comments we would like NIOSH to take a look at this subject and particularly help us identify it. What do we call it? I don't think there's standardization. In Utah, when we gather workers' compensation injury data there's no place on there to record ethnicity or race. Typically, if you look at government forms you'll ask someone for race. What does that mean? If I'm a Bosnian who moved here to Salt Lake City to work for a company and they asked me for race I would probably mark Caucasian. Does that mean that

there's not a multi-cultural issue with myself? Or if I get injured would that statistic go unreported based on if it was a communication issue? So there are a lot of issues. You can study demographics in the State of Utah and we talked about with the Hispanic population and some of the challenges associated with that. We would like NIOSH to take a look at that and say what is the problem. Can we champion data collection? Can we gather some statistics? Can we report this on injury and illness logs? I think the information is out there, but I think it's flawed because we don't even look for it in some cases. When I look at this data, I look at names. I can tell you that there's a larger percentage than I think there should be of Hispanic workers getting injured in construction. What does that mean? Is it communication? Is it cultural? It's a tough issue.

Another thing that we would like to see is NIOSH really champion OSHA and let OSHA take a look at where we're having cultural issues in the workplace that are causing us problems. One of things that we thought would be a very

good theme is to go out and benchmark business and say who are the businesses who are preferred employers with respect to this. I think those are the people who are going to be the future of business in the United States. Those are the people who are going to grow and be successful. Can we develop a business model and develop that in terms of the CEO? That they would look at that and say hey, this makes business sense. Let's take this business plan and implement this in the workplace and say this is what the preferred employers are doing with respect to culture and celebrating diversity rather than labeling it as a problem because it's not a problem, it's an opportunity.

We also would like to take a look at the education mission of NIOSH and try to develop a way so that we can develop within the multicultural workplace safety and health professionals that are bilingual and can speak in languages of the population that might be represented from an industrial manufacturing process or something like that. I'm a product of NIOSH education and I couldn't have gone to

graduate school without the help of NIOSH and I appreciate that. We would like to see that actually mirror the population in where we are going in the future.

We'd also like to see some partnership development with organizations that are successful at this point in helping integrate ethnicity in the workplace, and go out and find models that are successful and have NIOSH partner with those so that we can bring those types of organizational change into our society. In my opinion, if I were to predict the future and go five years down the road -- we know it's here now, but if you take a look at population dynamics it's a large concern from a safety and health perspective. I think that's one of the things that we ought to do. I believe that I've covered all of my points.

DR. BLOSWICK: Thank you, Charles. Do we have any additional comments? I'd invite anyone who has any comments about any of the sectors to give their comments now before we move into our individual presentations.

MR. GARDNER: I'm Rob Gardner. I'm a loss prevention consultant with Liberty Mutual

Insurance Group. One of the things that seemed to be a common thread in virtually every one of the discussions and presentations has been communication and how can we actually motivate people to do what they need to do. In our discussion one of the things that came up was how effective are these behavioral-type programs. Do they really work? How can we find out if they do? Who does it well and can we model that? So I would like to request that NIOSH consider doing some studies to find out who does it best, does it really work, and can we incorporate that into our best practices models. That's the main point that I would like to request.

DR. BLOSWICK: Thank you, Rob. That's a great comment. I second that. I would also like to know if it works and if it does, what's the best way to make it work. Great comment. Do we have anything else? We now have presentations from six people. I'm going to read their names off in the order in which we'll ask them to present. We have William Bentley, Chris Cage, Susan Dunn, Jeff Rawley, Tom Vanderwalker, and Duane Harris. We will

have it in that order.

DR. HEGMANN: If people have already had their input and that sort of thing, it's okay to pass. If you have not then we certainly want to hear it. Some of the folks have already spoken.

DR. BLOSWICK: Thank you. Come on up front, please.

MR. BENTLEY: Well, this has been very informative. I was with the manufacturing set today. I was amazed with how much we came up with and then seeing that we all have similar cross-sections. I'm William Bentley and I'm the manager of safety and health environment for welfare services of the Church of Jesus Christ and Latter Day Saints. We have approximately 4300 workers. We are in manufacturing. We deal with crops, agricultural. We're into what we call second-hand operations. So we're in harvesting, and I'm up on silos 165 feet high doing safety inspections. I'll be down into a processing plant of canning products the next thing. We work with those who are looking for a job. My tenure of about 13 years on this job

-- these are the things that I see as challenges upcoming, but there are some solutions.

For example, the Internet. What a change and what a help that has been. Language. The Bureau of Labor Statistics has been very helpful in giving business reports. We've had people giving good educational formats of helping to train people on aging. I think that there has to be a change of attitude. That's something that has to get down into the cultural, whether they're Hispanic or whatever language they are. There has to be an attitude that we do something.

There's another thing that I want to say. It seems as though the employer is responsible of why they're not safe. That's not true. It came out strong in our manufacturing that it begins at home. We've got to do a better job at home. We've got to train our children to be multi-level skilled. They've got to know the difference in safety. If you were to look at the last booklet that came out on facts and the statistics from the Bureau of Labor of Statistics -- and by the way, the National

Safety Council has that annual book and it does cover Hispanics. It does cover some of the other ethnic groups. You know, there's a lot of practices that people and children have watched their parents do and they carry it right on into the workforce. As a result, they don't know any different. If I couldn't speak a language and I went to a person in a job, I'm going to assume that my supervisor or somebody else is doing it the right way, I'll do it and then I'll get the owie (*). Only to find out that wasn't the way it was to be.

The next one is commitment by management. I think in all of the research that we do that we have to have a buy-off of management. Then all of the things that we have will help us. I wanted to mention that as we have worked with these groups and we've been able to actually have some models where we've had 50 to 90 or 80 percent reduction. I actually have under my stewardship approximately 18 different NAICS categories. Like I said, that's a real challenge to follow that. So what I want NIOSH to do is to continue to do the research and I just want to emphasize that I think there's

some accountability that we need to take. Thank you.

DR. BLOSWICK: Of the next group of speakers I think we have Tom Vanderwalker.

MR. VANDERWALKER: Good afternoon everyone. Can you hear me out there? I appreciate the opportunity to be here and speak with you today. I want to thank my supervisor, who's the president of our company, for having me have the opportunity to come up here and speak with you today. Of course we're here today to talk about the future of NISOH research for safety and health in America. This meeting, as I understand it, is to give input and feedback as stakeholders in this arena to place focus on areas to improve the safety and health of our workers in every facet of the work environment. I want to congratulate those who coordinated this meeting. I think mission accomplished today. I think we ought to give them a big hand.

I currently work in safety, risk management, and employee training in the following business lines: I'm in the aggregate mining and gypsum mining industry. Cement manufacturing and fly

ash distribution in the construction and mining industry in the southwestern United States. I stand here today as a participant in your past research as a reviewer, facilitator, and implementer of that research. Your organization has made a difference in the safety in my industry. That will continue on into the future if I have any say in the matter. What you do does work. We need to continue this effort with people, ideas, and resources. I work for a company that has resources and interact with many other safety professionals that have resources. I currently represent the largest accredited mining society in the world. In other words, professionals who have the field laboratory for making things happen in research. I think that’s a very important part. If you do your research you’ve got to have some place to put it into practice. As safety professionals we have the employees, the properties, and the forum that could and would provide the field application of your research. The people in the research will often tell you what you don’t want to hear. What we want to do is make a difference and

that will tell you what the success or failure of a project would be. We want to ask those questions. This will clarify what works and what doesn't. Then you get buy-in on your project from the end user, and that's why I'm here today. I have seen the face of the worker in the field that recognizes that his or her input made a difference. They have ownership now because they help create it and put that research into practice.

I started my working career in the mining field over 36 years ago. I have been able to see the creation of OSHA and MSHA in my working career. I have also seen a transition of the Bureau of Mines into NIOSH. What a tragedy that was to take that whole situation and do what they did to that, but we're going to move on from that concern.

I can honestly say over the years the people that I have worked with in NIOSH have been top-notch and professionals in every way. Why would I not want to come here today and not say let's keep working together and make a difference for the American Worker.

I guess I had two thoughts in mind when I heard

about this meeting. My first thought is that I wanted to go on record for my support for the efforts of NIOSH as a stakeholder and end-user of your research. The second thought, as the current chairman of the International Society of Mine Safety Professionals and representing over 650 certified mine safety professionals, I wanted to make a statement about our support of NIOSH research in professional mining society. This is an accredited mine safety society that has certified mine safety professionals in all areas of mining and other related industries in construction, manufacturing, but primarily in mining in one form or another in the United States and in the international mining community worldwide. So we're not only dealing with the issues here in America, but we're also dealing with professionals that are working in foreign lands and doing some of the training and education there. One of the things that we do do is we train and educate safety professionals. The ones that want to say well, I'm a safety person, but I want to go to the next level. We test people to a body of knowledge.

So let me tell you what the mission of our society is. To promote the development of safety professionals throughout the international mining community to save lives and reduce injuries through better leadership and understanding of the mining industry in all countries of the world. The International Society of Mine Safety Professionals shall be the conduit of which all mine safety disciplines are improved. The Society shall develop and support the social economic wellbeing of all safety practitioners while at the same time fostering the technical, scientific, and managerial proficiencies of all safety and health professionals.

Today, I want to reach out to the NIOSH community with an opportunity to fortify the efforts of your organization along with ours to establish an alliance. As NIOSH approaches the next ten years of research and application of that research in various areas of mining, manufacturing, and other industries, this can be a great benefit to our industry and to the mining profession. I propose today that the International Society of Mine Safety

Professionals and NIOSH enter into an agreement that will establish an alliance between both organizations. That agreement would be such that the International Society of Mine Safety Professionals and the National Institute of Occupational Safety and Health recognize the collaborative efforts of sharing resources and fostering an enhanced relationship to promote a safe, healthy, and productive working environment in industry.

ISMSP and NIOSH hereby would form an alliance to use the collective expertise of certified mine safety professionals of the ISMSP along with NIOSH to promote a workplace of prevention, best practices, and assistance for research and application of that research to further protect and educate the workforce. Upon agreement by the NIOSH leadership and the board of directors of the ISMSP, a final alliance document would be drafted to incorporate the mission of the alliance. Many of us, including myself, spend time in the boardrooms and executive staffs of large corporations. We can be a great influence to raise the bar of safety and health of many

companies and corporations. We want your efforts to further that success to protect every person working in industry. We need your expertise. We as a professional mining society want to be a partner with NIOSH to further any and all efforts to stop injuries and deaths in all industry. As a Society, we want to make a bold statement that we, the Society, want to be part of the solution going forward in the 21st century. Thank you for your time and I look forward to the future research and reply on this statement concerning the alliance.

DR. BLOSWICK: I certainly can't speak for NIOSH, if there are any NIOSH people in the room that want to respond we would welcome that. If not, we now have Duane Harris. Are you in the room? Okay. So we are then at the point for prioritization, and I'm going to ask for your help with this.

DR. HEGMANN: Well, thank you. I appreciate it. This is quite a remarkable document. It's breathtaking in terms of its scope. The exercises today have exceeded my expectation. The concept now is not necessarily a duke-it-out kind of -- somebody wants to win

the funds or something. On the other hand, there are some things that are, perhaps, of higher priority or you would recommend them to be of higher priority. So we'd like to spend a few minutes soliciting some of the feedback. So ideally what I'd like you to do is one at a time give us what idea that you think is something that should be of higher concern and a priority so that NIOSH hears that feedback because I think that would be valuable. So again, what is the topic and a little bit of rationalization behind your selection. We'll circulate the mics through the room as well. I think Jeff has his hand up in the back.

MR. RAWLEY: Just to recap, we hope and recommend that NIOSH will approve funding to support studies for the protection of our police officers who are involved in clandestine drug operations, as well other public safety workers, including firefighters and their exposures to chemicals on the job. Thank you.

DR. HEGMANN: Thanks, Jeff.

MR. ROMNEY: Eldon Romney. I would like to encourage NIOSH to facilitate via the website or however they can just the information that a

lot of stuff that we talked about here -- I think certainly industries have answers to a lot of the questions that have been raised. If there was one place where we could go that would have links to the information where would could get those and try to find that would be very, very helpful.

DR. HEGMANN: Thanks, Eldon. I agree. I think that's another wonderful suggestion. It's the usefulness of the web page issue that I think you're getting at.

MR. GALLEGOS: The thing that we're interested in and that I'm very concerned with is multicultural training in the workforce. You have a population shift going on. You have immigration and people coming in from other countries. Our workforce is changing. We have to gear-up for this change. We're not doing it, and then we complain because we have all of these accidents. In the construction industry, Hispanics are 35 percent of the construction industry as workers. In the service departments, they've taken over the majority of those positions. In the health department, they're going in there and they're taking a lot

of positions there.
I feel bad because I'm an American citizen and these jobs are going to a lot of people out of the country, but that's the template of our economy today and that's the way it's moving. We need to move with the times. We need to look at the problems with Latinos, Hispanics concerning having injuries. Why are they having injuries? It's because we're not giving them the proper training as to what the safety regulations are on the job. A lot of these people are not understanding that. Then there are companies out that they go and red-tag a piece of equipment and then go tell that Spanish worker to go get on that tractor and bring that over here. He doesn't know that it's red-tagged. We've got training going on in English. We've got training going on in Spanish. That training has to be a bilingual education training. It has to be in both languages so that the people fully understand what that training really is. It's an extremely important topic and a lot of people don't want to deal with it. It's something that we have to address and that's the movement

of where our job force is going.

DR. HEGMANN: Next, Charles is standing.

MR. PUGH: I'd like to speak that one of the things that we need to do -- again, I emphasize the standardized reporting. We may have issues that aren't reported. So if we look at standardized reporting with especially ethnicity then we can see if we have problems. So I'd really encourage that as well to develop some kind of standardized system.

MR. COLLINWOOD: I think I can -- hopefully I summarized the manufacturing group and got this right. One of the things we've heard again and again and we felt was relevant in manufacturing was research on emerging technology, and nanotechnology, and biotechnology. Maybe NIOSH needs to be on the forefront with the National Institute of Health in finding out what the health outcome might be upon these new exposures to something like that. I need NIOSH to disseminate and give me tools that I can put to work in my workplace. The common theme of the manufacturing is we need research into practice and we need usable tools that they can use on an everyday basis.

MR. HALLMEISTER: Jim Hallmeister. We're facing the issue of the aging worker. I guess I'd like NIOSH to take a shot of that in some form or another. We're seeing workers stay on the job longer and the Chamber of Commerce reports the real wages are decreasing in Utah and healthcare costs are increasing obligating workers to stay on the job longer. So I'd like NIOSH to assist us in determining the best practices to deal with the aging workforce.

DR. HEGMANN: Anybody else? Yes, Dana?

MS. HUGHES: I appreciate the drug problems and the meth labs and the impact on firemen and other emergency responders. I also think this is a problem that's more widespread and touches all of the industry sectors. We're seeing problems with drug abuse on the job or pre-employment problems with drug abuse in terms of businesses not being able to find qualified employees. I think the scope of the research on drug abuse in the workforce needs to be broader than just one particular segment.

MR. WOOD: In our group we came up with the potential for wellness programs to help overall health and safety programs in the workplace as

well. I guess I'd like to see if we can devote more resources to the availability to see if those really can help.

DR. HEGMANN: If I can also interject that the interaction between the occupational factors and the personal health factors increasingly pops up as a problem, both musculoskeletal and otherwise.

MR. GRIPPA: Yeah, I guess I take a look at what we're talking about in the workforce and understand that what we're talking through here today is going to be accomplished ten years down the road. I think it's really important that we take a hard look at what a lot of people felt like was the younger workforce is really feeling endowed for their work, but we need to pay attention to how we're going to involve those people and make sure that they understand and learn how safety is going to work for them.

One of the things that we really are seeing is and we're getting this back from our employee assistance programs is that as they continue to work we're seeing an increase in that age group of depression, stress, issues like that. I'd

really like to see NIOSH start looking into how that's going to affect them down the road.

DR. HEGMANN: Very nice. Another visionary comment.

MR. WOOD: Dean Wood with the Industrial Safety Group. The other day we had a meth officer come in and talk to us and one of the things that he pointed out to us was that -- I'm sure nobody here stays in hotels or motels. Meth labs many times are being used in hotels and motels. What would we look for in a room to determine if that has served as a meth lab before? So it isn't just the police officers and the firemen that are concerned with this. We should be concerned now. We need to understand that you and I are being exposed to those same effects. It's important to understand about those factors and how long those dangers are going to be in those areas.

MR. BENTLEY: As this research is being done I know a challenge that we do face and that is when you go to translate from English into Spanish -- I hope that NIOSH would write it in the language that is simplified so that we can understand it. There's just a lot of people

that wouldn't understand the technical terms. And then if it could be put into a tool kit where you could have your whole listing of topics, whether it's a over a website and you could just punch into those and it would simplify it. We've got to remember to KISS the training. Thank you.

DR. HEGMANN: Very good. Anyone else? Dana?

MS. HUGHES: One other priority that I think we should study across sectors is the shift work; health problems associated with shift work. Somebody had suggested that we needed to look at the increased use of drugs among shift workers because I think that potentially is a problem, too. We need more information regarding this.

MR. GARDNER: As I had mentioned earlier, I had an idea about taking a look at behavior-based safety initiatives and finding out do they really work or not. Just to expand that a little bit, if you look at the document it's got all kinds of references to leadership, communication, and all of those sought skill things. I guess as part of that behavior-based safety I would encourage NIOSH to take a look

at these sorts of initiatives. Are these just nice things to do that make you feel good or do they really work. We need to have the authoritative voice of NIOSH to help us understand if they really do or not. I think that would be a big help for all of us.

DR. HEGMANN: Very good. Nice comment. Any others? Okay. If not, we are almost done. Again, on behalf of the Rocky Mountain Center for Occupational and Environmental Health I want to thank you. We're going to have NIOSH give a few comments of response to what they've heard, which I think will be very valuable to hear. We are going to finish early, which is a goal of mine.

I did want to reflect from my own view point that this has been extraordinarily informative. The number of people in attendance has surpassed all of the other cities. I think that is something that we should all pat ourselves on the back about. We are going to take this document that you have, the one that we produced over the lunch hour, tune it up with your comments and we will post it up on the web. We'll also send you a thank-you

letter for those of you we have addresses for. As far as some of the smaller ideas and that sort of thing -- and smaller doesn't necessarily mean less important -- I give you my commitment that we will try to get these things listed out and get our graduate students involved in actually trying to solve some of these issues. This is not a meaningless process at all. It's a very meaningful process. So with that, I'd like to turn the microphone over to Max.

DR. LUM: This is where I like to say thank you for coming, but if you'll look around thank you for staying. It looks like we have the same amount of people as we did early this morning. So I think motivation is not a problem in this field. We're motivated as an agency to come out and ask for your comments and you're motivated to give it. We have to work together to make sure things do happen. I think the fear is Leon or James or Libby will call me in two years and say do you remember that town hall meeting? I had that idea that we put forward in our group. Where is that idea? What happened to that idea? So I have to know

the answer to that question and I think we did a pretty good first round and the first ten years we did have answers to that. But we're getting input from 13 town halls all around the country. We're going to code these in a way that we can understand what we've heard. It's interesting comparing just ten years ago that there was nothing about immigrant workers. Nanotechnology, what was that? Even the aging working issue that I'm very close to, I must say. It's just amazing how things do change, but how much of the same problems are around, like in construction, that we still have. We still have silicosis issues and mining issues. What we did see in that last ten years is the Bureau of Mines doing away with their scientific review and safety program and NIOSH picking that up, and aggressively picking that up to save that program. I think also, again, being the Communications Director at NIOSH I think a lot of what I heard today and I've heard it at other town hall meetings is this issue of knowledge management. We know a lot and we know a lot together. We know a lot together as case studies. OSHA certainly has a

wealth of data in its consultation program and they use our materials. We work with them closely. What do we know and can we get it in a format that really is better so you can use it. I think if there's any one area that I would look in the next ten years is our effort to work with our partners to make our information more available and useful.

With that being said, I want to have a little post script to this. This is very near and dear to my heart and it concerns how do we package, how do we work on the Net, how do we get our information, how do we have a research portfolio so people can find this information. Yet, even at this meeting we have Al Munson, our director of hard science from Morgantown. So what happens to that? What about the hard science? It seems to me that part of that research-to-practice issue is also to understand and to build up the science; the body of knowledge that we need. We understand what it is, but what do we need? What body of science do we need to build up? In the past it was musculoskeletal. So it's not like it's immediately affecting this particular

workplace, but this whole issue of building up a body of knowledge is important because off of that body of knowledge we learn and are able to make due and improve a lot of workers and workplaces. So it's the balance that we're talking about. Certainly what I've heard here and all across the country is you need to get with it NIOSH. You need to bring your stuff down so we can get at it and understand it better. That being said; end of sermon.

I think I would just like to thank Kurt again, and we have a small token of our affection for the effort that everyone has put in here. When we first raised this issue at the ERC meeting, Kurt was the most enthusiastic person that said yes, we need to do this. We really need to do this. I thought this guy does not have a clue. He has no clue, but welcome to the fold. He also told NIOSH that you need to change the format and this is what you need to do. You need to provide this source of information for us and we'll work with you, and he did that.

So looking around the room, thank you for coming, thank you for staying. Just to leave a little token of our affection for your work and

your staff's work, it's a plaque that says the National Institute for Occupational Safety and Health, Rocky Mountain Center for Occupational and Environmental Health, for your leadership in organizing a town hall meeting for NORA. We appreciate your dedication in advancing the safety and health of workers in your region and throughout the nation. Thank you very much, Kurt.

DR. HEGMANN: That's a very nice plaque, Max. I appreciate it very much. It's an honor to have had the opportunity to host this town hall meeting and to work with you and the NIOSH staff. As I indicated at the beginning, ten years ago I was the skeptic and I got totally converted by what is truly the most responsive agency I know of. Shortly, I'll have to do my taxes and deal with the least responsive agency. We have some more editing to do on these comments. Again, thank you for coming and we always look forward to input and your involvement in our Rocky Mountain Center for Occupational and Environmental Health. Thank you.

DR. LUM: One more thing. Take a moment and

fill out the evaluation form. I always forget this. Fill it out, please. Give us your honest thoughts and leave it at the front desk. Thank you.

(Whereupon, the meeting adjourned at 4:15 p.m.)

CERTIFICATE OF COURT REPORTER

STATE OF GEORGIA

COUNTY OF COBB

I, Shane Cox, Certified Court Reporter, do hereby certify that I reported the above and foregoing on the day of February 27, 2006; and it is a true and accurate transcript of the testimony captioned herein.

I further certify that I am neither kin nor counsel to any of the parties herein, nor have any interest in the cause named herein.

WITNESS my hand and official seal this the 25th day of March, 2006.

_____

SHANE COX, CCR

CERTIFIED COURT REPORTER

CERTIFICATE NUMBER: B-2464