

P A R T I C I P A N T S

PRESENT:

Brenda McLahan, Facilitator
Robert Biersner
Noah Connell
Lee Smith

SPEAKERS:

Mario Gonzalez
Keith Miller
Michael Roop
Richard Sanders
Ron Sokol
Gregory Strudwick

I N D E XDEPARTMENT OF LABOR
STAKEHOLDER MEETING ON CONFINED SPACES IN CONSTRUCTIONOctober 11, 2000

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Keynote: "---" indicates inaudible in the transcript.

M O R N I N G S E S S I O N

(8:00 a.m.)

OPENING REMARKS, OVERVIEW AND INTRODUCTIONS

By Noah Connell

MR. CONNELL: Welcome. This is the Occupational Safety and Health Administration's second stakeholder meeting of a series of three on our amendment of the confined space standard for construction. Our first meeting in Washington was on the 4th and our third one will be in Boston on the 23rd of this month.

My name is Noah Connell, I'm the Director of the Office of Construction Standards and Compliance Assistance. With me today is Lee Smith of our office. And also Bob Biersner of the Office of the Solicitor. Brenda McLahan will be our facilitator for today. She is out of OSHA's Philadelphia -- correct?

FACILITATOR MCLAHAN: Correct.

MR. CONNELL: Let me explain a little bit about what the stakeholder meetings are and where we are in the rulemaking process. The rulemaking process involves the government issuing a proposed standard, than having a notice and comment period where you can submit written comments. Then we hold a hearing, usually in Washington. Sometimes we also have hearings across the country for this standard, that will probably will be just a hearing in Washington.

1 Then there's an opportunity to submit comments about
2 the statements that were made in the hearing. We then review
3 everything that came into the rulemaking record. We adjust
4 the proposal that we had issued as appropriate and then we
5 issue a final standard.

6 We have not started any of that yet. We are before
7 that part of the process. This is a early opportunity for
8 stakeholders interested in this issue to tell us what is on
9 your mind about this standard and the problems that you see
10 out in the real world so that we can better understand what we
11 have to deal with.

12 And, hopefully, we'll write a better proposed rule.
13 So this is an opportunity for you to tell us what you think we
14 ought to know before we start this more formal part of the
15 process. So today we are here to listen to you.

16 We have scheduled eight speakers today. And let me
17 tell you how the eight speakers were selected. All eight
18 people who wanted to speak are speaking today.

19 (Laughter)

20 So far we have, I think, four of our eight scheduled
21 speakers. And, hopefully, the rest will show up.

22 We also will have an opportunity for those of you
23 who didn't ask to be speakers to ask the speakers questions.
24 hopefully, we can get a little back and forth going. And then
25 we will probably ask some questions of the speakers as well.

1 As you know from the notice that we sent out, we are
2 particularly interested in five issues on confined spaces that
3 we would like to hear you address. And I'll go over those in
4 a second. I want to mention though that, in addition to the
5 five issues, we would be very interested in hearing if there
6 are additional issues that you would like to address that you
7 think we ought to be aware of, please let us know about that.

8 And I would also like to add, although it wasn't one
9 of the issues that we mentioned. If there is something about
10 the general industry confined space standard that you don't
11 like, that you would not like to see applied to construction,
12 or that you do like, and that you want to encourage us to do
13 the same thing in construction, I encourage you to let us know
14 about that.

15 The five issues, the first one, what are the
16 characteristics of confined spaces in construction. What
17 we're looking for here is just some examples, typical examples
18 that you've encountered. We're also interested in the types
19 of obstructions that you find in confined spaces, particular
20 to construction. Obstructions that prevent people from
21 getting in and out.

22 The second issue is the issue of whether we ought to
23 require an early warning system for spaces where there is an
24 engulfment hazard that you cannot isolate. And one example
25 would be in many sewer situations, where there just isn't a

1 way of effectively blocking off the engulfment hazard. Should
2 we require an early warning system? If so, do you have any
3 ideas about what that system ought to look like, what the
4 options are, what's the feasibility of it? Or is there no
5 need for it?

6 The third issue is continuous monitoring. Right
7 now, in the general industry standard, many situations you are
8 permitted to do periodic monitoring of atmospheric hazards.
9 Since that standard was promulgated, we know that there has
10 been considerable advances in technology, the availability and
11 price of continuous monitors has gone down.

12 We'd like to know has it gone down enough, is it
13 appropriate for us to now simply require continuous monitoring
14 whenever you have an atmospheric hazard? Would that yield
15 savings in labor costs? In other words, with a continuous
16 monitor, you turn it on -- many of them have alarms whereas
17 with periodic monitoring -- you have to have somebody who is
18 going to go do the test, record the test on a periodic basis.
19 So is this an opportunity for us to get us some cost savings?

20 Fourth issue, small business. We are always
21 interested in finding ways to make it easier for small
22 businesses to provide a safe work place. Are there ways that
23 we can make a construction confined space standard more
24 palatable to small businesses? In particular, we want to keep
25 in mind things like capital costs, equipment costs, which can

1 be more difficult for small businesses to bear than large
2 businesses. Do you have any ideas as to what we can do to
3 make it easier for small businesses?

4 The fifth issue, the issue of attendance and
5 monitors, monitoring more than one confined space. Is this
6 something that we ought to allow? Is it feasible for one
7 attendant to safely handle more than one space? Are there
8 factors that we ought to build into the standard that would
9 let employers know, for example, when that is permissible or
10 when it isn't permissible. Or should we just not allow it at
11 all? Should you always have one monitor for every one space?

12 So those are the specific issues that we hope to
13 hear from you on. And as I said, we're interested in anything
14 else that you'd like to bring up. And I appreciate you all
15 coming down to help us do a better job. And I will ask Brenda
16 to take over and, Brenda? Thank you.

17 FACILITATOR MCLAHAN: Okay, good morning.

18 AUDIENCE: Good morning.

19 FACILITATOR MCLAHAN: First, we'll go over a few
20 housekeeping things. The restrooms are out and to your left.
21 You just walk straight out and turn left, you'll see the
22 restrooms. We will break about 10:00 or 10:15 for 15 or 20
23 minutes and resume after that. Everybody will be on his or
24 her own for coffee break.

25 Ground rules for our discussion and presentation

1 today is that one person -- I'll ask that one person speak at
2 a time. The speakers will have 15 minutes each to present
3 their comments and Michelle, who is sitting here in the front
4 row, has some cue cards that will give you an idea of how much
5 time you have remaining so we don't have to pull out anybody.
6 Okay?

7 Our time is flexible. We anticipate that we'll be
8 finished about mid-day but, if not, we are prepared to
9 continue after lunch. Our speakers, the first four speakers I
10 will ask that you come up to the stage, and that is Mr.
11 Michael Roop from the Roco Corporation, Mr. Richard Sanders
12 from Quanta Services, Incorporated, Ron Sokol with the
13 Contractors Safety Council of Texas -- I better put these
14 glasses on, I'm trying not to but, you guys who are in the
15 same tender age understand -- and Gregory Strudwick with Team
16 Safety Consultants.

17 After these four gentlemen have completed their
18 presentations, I will ask the next four speakers to come up
19 or, whichever number you all are here. Okay? Mr. Roop, would
20 you go first please?

21 MR. ROOP: Sure. Can everybody hear me, or do I
22 need this?

23 FACILITATOR MCLAHAN: Yes, you probably need that.
24 And, excuse me, Mr. Roop, I neglected to tell you that we have
25 a court reporter with us today who will be taking a verbatim

1 transcript of our meeting.

2 MR. ROOP: Oh, no.

3 FACILITATOR MCLAHAN: Yes.

4 (Laughter)

5 But we are not concerned about identifying the
6 source of the comments. So that identification is not
7 something that we are concerned with. With just want the
8 information. Okay?

9 MR. ROOP: Okay.

10 FACILITATOR MCLAHAN: All right.

11 **PRESENTATION**

12 **by Michael Roop**

13 MR. ROOP: My name is Michael Roop, I'm with Roco
14 Rescue. It's a company out of Baton Rouge, Louisiana, but I
15 recently have moved here to Houston. We're a company that is
16 involved with providing stand-by rescue services for confined
17 space entries, as well as we do confined space rescue
18 training, provide rescue equipment, and what have you. So
19 that's kind of my background.

20 When I was called and informed about this meeting
21 and asked to speak, my comments are going to be brief.
22 Basically, while I will address some of the issues, mostly my
23 concerns are the -- well, paragraph K of the current general
24 industry standard and emergency response.

25 I have to first tell you that I was diagnosed

1 yesterday with a severely ruptured disk. I'm taking Vicatin
2 like it's going out of style, so I'm having a great time up
3 here all ready.

4 (Laughter)

5 I'm not quite sitting here, I'm floating here. So,
6 excuse me if I'm not completely coherent. Plus, I'm a cajun
7 so that explains that too.

8 First of all, on the definition of a confined space
9 in a construction is, as far as we're concerned, it should be
10 basically about the same. It should have the same
11 characteristics. We've had experiences in the past where
12 spaces that were being under construction there is still --
13 well, the nice thing about being constructed, it doesn't have
14 the -- because the product is not in it yet, it doesn't have
15 the atmospheric hazards and some other problems that could
16 exist in existing space. But also, there is, obviously, other
17 hazards that exist while the space is being built and as it's
18 coming together.

19 So those are, as far as we're concerned from the
20 rescue side of it, it's still rescuing from a confined space
21 or confined -- and dealing with the same type of hazard. We
22 have to protect the rescuers as well as the victims.

23 Our view, basically, is that we would like to see
24 the standard pretty much mirror the general industry standard,
25 for several reasons. Number one, is that we deal with both

1 employers that own spaces as well as contractors -- were often
2 hired. Sometimes, admittedly, they don't want to, but were
3 often hired by contractors doing maintenance or construction
4 on space because the employer requires them to hire us, that
5 they want them to work generally following 1910.146. And
6 we're hired as a stand-by service. And which a stand-by
7 service, basically, we send rescuers in, they pre-plan the
8 space, they're fully equipped and they're standing by ready to
9 do rescue.

10 Sometimes we serve as attendants, most often we
11 don't. And usually we will be standing by like during a turn
12 around, several different spaces, which we have pre-planned
13 all of them and are prepared to make the rescue.

14 Our --- is always to the employer. If there is a
15 rescue call that all spaces are to be evacuated because the
16 rescue service is no longer available to respond to any other
17 spaces.

18 To avoid confusion, I'm also on the ANSI Fall
19 Protection Committee and working with OSHA -- I taught at the
20 OSHA Institute. And OSHA explains to me that at the training
21 institute that, as far as fall protection, that a space that
22 exists that may be being painted or some other type of
23 activity such as that, is considered under construction in the
24 existing space that's being painted, for example. And,
25 therefore, the construction fall protection rule exists inside

1 a confined space.

2 Extrapolating that, for those employers that have
3 existing spaces and they're doing ongoing construction, to
4 have two separate rules -- to have a rule for confined spaces
5 under construction versus a rule for confined spaces that
6 currently exist, it would seem to be would be very confusing
7 for employers to try to maintain two different programs, two
8 different rules. So, certainly, as far as rescuing and
9 emergency response, we would urge that the rule be the same.

10 The other thing about construction is there is an
11 awful lot of trenching going on usually. And we would urge
12 that once a trench is established and a maybe a box is put in
13 for protection, that that also should be considered confined
14 space and follow the confined space rule in construction.

15 I think just yesterday, day before yesterday, in
16 Houston a man was killed in a trench that collapsed. The fact
17 is, and that's considered a construction type activity. We do
18 a lot of standby-by for trench type rescues. Generally
19 speaking, unless that is done properly, often times a trench
20 rescue is more a trench recovery. That you're recovering a
21 fatal injury.

22 We have been contracted by contractors for large
23 construction projects. In those particular situations, we
24 worked in, under the circumstances, that we not only do, we
25 issue the permits, we do baseline assessments, we do pre-entry

1 assessments, we do recordkeeping, tracking, as well as the
2 stand-by and the rescue. For those reasons, we're very much
3 involved often times with the permitting process and making
4 sure that the permit is properly -- that we're properly
5 prepared and there's proper documentation as well we're in
6 compliance.

7 We have not found a problem with doing that on a
8 construction job versus doing it on a regular site, in a
9 general industry site. So as far as small employers being
10 able to provide emergency response for construction type jobs,
11 again, just like the general industry, you can do that
12 yourself or you can use an outside service, or we found most
13 successful is a combination of the two.

14 If you have some rescue capability yourself in-house
15 that you can start a rescue and also expect and count on an
16 outside agency responding to assist you. It seems to work
17 pretty well. But there has to be joint training, and there
18 has to be a lot of coordination of those type of activities.

19 Okay, I can't read this. Oh, one of the things that
20 have come up on our stand-by services for construction is --
21 and with the clarification, the most recent clarification,
22 1910-146, and OSHA urging stand-by rescue for entry into IDOH
23 or atmospheres or situations that could quickly become IDOH,
24 our experience has been in some construction projects where
25 there seems to be a lack of safety concern -- boy, that was

1 wrong to say, I'm going to get pelted for that, aren't I?

2 There seems to be a mindset that the builder is more
3 interested in getting the project done. And when welding is
4 occurring and things like that inside the confined space which
5 could create the hazardous atmosphere, sometimes those are
6 where problems arise in construction versus an existing space.
7 We would urge that this standard consider the fact that
8 hazardous atmospheres can be created by the process itself,
9 whether it's solvents, construction, welding, whatever. And,
10 therefore, those entrants, those workers, those construction
11 entrants must be protected as well.

12 I'm shown that I have five minutes left and I don't
13 have five minutes worth of stuff left. So I would open it up
14 to any questions for emergency response.

15 FACILITATOR MCLAHAN: Does anyone have any questions
16 for Mr. Roop? Yes, sir?

17 MR. : Could you talk about the training,
18 the training aspects of what your company does and how you
19 handle the entrants that are going into these confined spaces?
20 And how you would see that given the workforce that --- today
21 and language issues and, --- education issues ---?

22 MR. ROOP: There is a problem there because often
23 times the workforce in the construction industry can be rather
24 nomadic. Because you may be having a problem with a constant
25 workforce. It is a problem that has to be addressed. And

1 we're addressing that right now at a New Mexico site. And the
2 construction contractor there is choosing to hire local
3 firemen and asking us to come in and train those local firemen
4 and paying them so much an hour to do stand-by, as well as
5 other type of safety activity.

6 So, basically, they're hiring a small group of -- I
7 think they're training 12 folks during the process. And then
8 those people will be rotating in, three at a time. And they
9 pay them "X" amount per hour to do the stand-by type
10 activities.

11 You could do that. You can go to -- there's a
12 zillion rescue companies that offer rescue stand-by services.
13 But to address your question, generally speaking, it's been
14 our experience that people tend to contract in -- in other
15 words, subcontract that service out and pass that cost onto
16 the employer.

17 In this particular case that I'm referring to, the
18 employer is actually urging the company to make sure that they
19 have -- to basically treat these spaces as if they are
20 confined spaces and work under the auspices of 1910.146.
21 Basically, the employer here is saying we know we have to
22 absorb that cost, we will absorb that cost, but we'd rather be
23 safe than sorry.

24 FACILITATOR MCLAHAN: Okay, Mr. Sanders? Thank you,
25 Mr. Roop.

1 MR. ROOP: Sure.

2 PRESENTATION

3 by Richard Sanders

4 MR. SANDERS: My comments today, few and brief as
5 they will be, are looking at the aspect that you mentioned,
6 Mike, in regards to confined spaces when trenching an
7 excavation is taking place. In my 30 years of construction
8 safety, I've worked in other industries, but currently that's
9 the type of work I'm looking at, so I will hold my comments to
10 that.

11 We are contractor, going across the United States
12 doing a lot of installation of telephone, fiber optic,
13 electrical cables underground, where you may be working at
14 depths of 4 to 10 feet, normally. Sometimes open trench,
15 sometimes within duct banks that are installed in the ground
16 and cables run through.

17 Most prudent contractors might just, contrary to
18 your comment, do look at these as confined spaces. Whether or
19 not we look at the hazard, we look at the potential, and we
20 consider these as confined spaces and take steps to control
21 the hazards, even though the hazard may be very slight in
22 nature, especially when you're out in the middle of, let's
23 say, west Texas, trenching excavation work.

24 The things that we've seen in regards to some of the
25 questions being asked by OSHA in this stakeholders meeting

1 though do alarm us if some of these take place, and how they
2 might look at it. The first one being early warning system.
3 If you didn't have methane when you open the hole up, have any
4 more dinosaur's died in the next four hours to where you might
5 have a potential methane hazard that you're going to need
6 continuous monitoring of that space throughout the day.

7 Also, you know, your primary hazard, other than
8 methane, is engulfment hazard if you don't do your work
9 correctly. Like I said, if you use trench boxes, if you do
10 sloping correctly, keep your spoil back, that's where the
11 engulfment hazard came from. What type early warning system
12 is going to prevent that hazard? So we're looking at
13 definitions and ways and things that OSHA might put into the
14 standard that might be applicable to other type confined
15 spaces, but are really not applicable to this type of work
16 activity.

17 Also, when you're looking at this type of work,
18 you're looking at small crews, three to five men crews. And
19 if a contractor is considering this as a confined space, why
20 cannot the supervisor of the work crew be the confined space
21 attendant as well? You're clearly out in the open, no one is
22 blocked from view, there's no need for an additional person on
23 the crew to not be able to look at this type of work and gauge
24 it to make sure it's safe and being done correctly.

25 So, as I said, my comments are very few, when doing

1 this type of work, but like I said, we in the construction
2 industry prudent contractors do consider these confined
3 spaces. We do our best to protect our workers to make sure
4 the work is done safe, but we just look at some of these
5 potential questions that are being asked by OSHA that would
6 put a very undue burden on us.

7 And in this type of work, it may not be prudent at
8 all, and it would add tremendous cost to us. And really not
9 provide the added protection to the workers. The protection
10 in this type of work is to keep the contractor, really protect
11 themselves because if a contractor does his work correctly,
12 the work will be safe. Thank you.

13 FACILITATOR MCLAHAN: Thank you, Mr. Sanders. May I
14 ask that if you have questions or comments, that you step out
15 and use one of the isle microphones so that our court reporter
16 will be sure to capture every word of wisdom that we exchange
17 today. Okay.

18 Does anyone have a question for Mr. Sanders?

19 (No response)

20 Okay, Mr. Sokol?

21 **PRESENTATION**

22 **by Ronald Sokol**

23 MR. SOKOL: My name is Ronald Sokol and I'm
24 representing a couple of groups. First of all, to tell you a
25 little bit of my experience, I'm a certified safety

1 professional and I currently am the General Manager of the
2 Contract for Safety Council in Texas City, which is a
3 contractor safety training organization. Prior to that, I had
4 approximately 11 years of experience with the Bechtel
5 Corporation, working on large construction projects, really
6 across the whole world.

7 Today, I'll be representing really two groups.
8 Principally, the American Society of Safety Engineers. I
9 serve as the Administrator for the Construction Practice
10 Specialty, which was formally known as the Construction
11 Division of the American Society of Safety Engineers. And I
12 also will be representing the Contractor Safety Council, Texas
13 City, which is a 501(c)(3) not-for-profit safety Training
14 organization located in Texas City, which was established in
15 1987 to train contractors in petro-chemical safety processes.

16 Currently, we train approximately 25,000 contract
17 employees a year for our area, petro-chemical facilities,
18 which we serve six different companies.

19 Thirdly, a group that I'm also affiliated with is an
20 organization called ARSC. It stands for the Association of
21 Reciprocal Safety Councils. This is a network of over 20 like
22 non-profit safety training centers located principally across
23 the Gulf coast area that provide petro-chemical safety
24 training, which confined space is one of the services that we
25 offer. Within this network of 20 safety councils located

1 across the Gulf coast, in 1999 we trained over 150,000
2 contractor workers across the Gulf coast area. So that is
3 quite a significant effort.

4 As far as OSHA's questions and some opinions of
5 confined space in construction, first of all, from a viewpoint
6 of my area industry, which are the seven petro-chemical -- six
7 or seven petro-chemical facilities in Texas City, there is a
8 general consensus among our group that the 1910.146 permit
9 required confined space standard is utilized within that
10 industry. Whether it is a permit required or non-permit
11 required confined space, our industry has chosen to utilize
12 the 1910.146 standard for compliance.

13 Another interesting aspect regarding them using that
14 is within our region, our area petro-chemical plants do not
15 allow the contractors to perform any confined space rescue.
16 All confined space rescue services will be done by the in-
17 plant emergency response team.

18 The second comment I have is just a general comment.
19 Is that there is currently an ANSI standard governing confined
20 spaces. That standard is ANSI Standard Z-117.1. It was
21 established in 1995. And it is a consensus standard which
22 ASSE has served as the secretariat for this standard. It's
23 interesting to note that the committee that developed this
24 consensus standard recently met on September 13th and 14th and
25 is still active in looking at this standard.

1 ASSE feels that this would be an excellent source
2 document for OSHA and an opportunity for OSHA to increase the
3 synergy with the private sector professional organization,
4 which is currently involved in many standard development
5 projects. The ASSE feels that the ANSI Z-117.1 standard would
6 be an excellent place to start for confined spaces in
7 construction.

8 When looking at the ANSI standard Z-117.1, the role
9 of the qualified person to conduct surveys is instrumental in
10 the success of standard, a qualified person as defined in this
11 standard is a person who by reason of training, education and
12 experience, is knowledgeable in the operation to be performed
13 and it competent to judge hazards involved with specific
14 controls and/or protective measures. It is the opinion of
15 ASSE that the qualified person should be a safety
16 professional, i.e., certified safety professional or also a
17 construction health and safety technologist, or a person whose
18 experience has worked extensively in confined spaces. The
19 qualified person in the standard is required to evaluate
20 hazards identified in corrective actions for safe entry. The
21 qualified person in the standard is responsible for
22 determining if the space is a permit required confined space
23 or a non-permit required confined space. A qualified person
24 is also the person under the control of determining a
25 reevaluation of that space and reclassification of that space

1 if necessary.

2 The second component within the ANSI Z-117 standard
3 is a role of a competent person. This is one who is
4 knowledgeable of the standards associated with the hazards and
5 can take prompt corrective measure to abate them. The
6 competent person would fill the role of, basically, an entry
7 supervisor that is spelled out in 29 C.F.R. 1910.146. It is
8 imperative that this new standard must have a clear
9 delineation of the responsibilities of a qualified person, a
10 competent person, entry supervisor, all the way down through
11 the entrant and attendant to ensure the safety of all people
12 involved.

13 Regarding the OSHA questions that were up on the
14 board, confined spaces can vary in different construction
15 sites. Confined spaces can be as detailed as going down into
16 a caisson, 85 feet below the surface to inspect rock, which
17 has occurred on a job that I was at where a geologist had to
18 go into a 48 inch caisson, 85 feet down below the surface, is
19 an example of the confined space in construction. It could
20 also be as small as a two-by-two catch basin that will house
21 some valve assemblies for temporary piping to construction
22 powerplant assembly that can fill up with argon. That a
23 person could open that up and just looking to try to find the
24 leak put his head down in there and become a fatality. So
25 that is another example of a confined space that may not be

1 seen that could happen.

2 Confined space is such things as a welding inspector
3 having to go up into a main steam piping 30 feet above a
4 scaffolding to inspect a well in a very limited condition.
5 There is difficulties in many of the confined spaces that you
6 can see in a powerplant construction as well. One thing that
7 needs to be considered is the responsibility of controlling
8 the program.

9 In the general industry standard, a host employer is
10 given the overall responsibility to ensure that the confined
11 space program works correctly. Many times in construction you
12 can find the disjointed workforce from contractors,
13 subcontractors. And it is ASSE's position that there be some
14 clear standards written on who is responsible for the site
15 control in a confined space. Would it be the general
16 contractor, is it going to be alleviated for the contractor
17 itself, or the subcontractor, the owner. So there needs to be
18 some establishment on who is responsible for an overall site.

19 I was involved in an incident where this did not
20 occur correctly. It was a near miss incident where there was
21 miscommunication between the different contractors, the
22 mechanical contractor, electrical contractor. And the
23 mechanical contractor was not fully aware of all the isolation
24 points on an IB fan during start-up operations. It was a
25 confined area. They were not aware that this could be started

1 remotely and it was by the electrical contractor during the
2 testing phase. And there was a near miss incident. So it is
3 imperative that there be some clear guidelines for general
4 contractors and the subcontractors on defining confined
5 spaces.

6 I have little experience in the area of question
7 number two about isolation, proper isolation in sewer work,
8 that I can make a comment with proper isolation. If it cannot
9 be achieved and an early warning system must provide proper
10 controls.

11 Question number three deals with the redundancy of
12 systems in continuous monitoring. Continuous monitors are
13 available. My experience has shown them to range anywhere
14 from \$1500.00 to \$3,500.00. In the ones that I've seen, and
15 they become more expensive as you go, to try have one
16 developed for different contaminants. I feel that that amount
17 of money, \$1,500.00 to \$3,500.00 for a small contractor could
18 be excessive and it is important that they have proper
19 training in the use of these monitors.

20 I am personally aware of a double confined space
21 fatality in which a individual went to test a confined space
22 and they felt that their monitor was not calibrated properly.
23 They left it unattended, it was purged with 100 percent argon
24 environment. Two workers went in and resulted in a double
25 fatality.

1 since 1985 in education safety, actually networking with other
2 contractors to solve some of the problems that we feel are
3 existing in the field. Not because there's any real pressure
4 from OSHA but because we are very concerned and always have
5 been concerned about the safety of our people in the field.

6 We feel like that if we take care of our safety
7 needs, we take care of the OSHA minimum standards. And so
8 we're real satisfied with the 1910.146 standard. In fact, we
9 developed a training program --- awareness program that can be
10 extended to 40 hours if we need to back in 1993, when they
11 enacted the 1910.146 standards. I personally, myself, teach
12 that program. And we probably teach in excess of -- or taught
13 in excess of 50,000 different people in our crews. Whether
14 that's Hispanic or whether that's English speaking guys.

15 We would like to see a mirror image of the 1910.146
16 because we feel like 1910.146 has addressed the permit
17 required standard that Ron's referring to, and the non-permit
18 required standard. In all of my construction years that I've
19 been out in the field, I can probably count on both hands the
20 permit required confined spaces that I've had to make entry
21 into. Or any of my people have had to make entry into.

22 The reason for that is in most cases, a contractor,
23 a good contractor, prior to getting involved in the project
24 itself, will do a tremendous analysis during the bidding
25 process. And during that bidding process, if there are rescue

1 needs or if there is any type of remote possibility that we
2 can't control what happens in the field, than we put money in
3 there for that. And that come sunder the heading of personal
4 rescue teams, professional rescue teams, which are very
5 effective in our business, and available in our business.

6 And so from a contractor's standpoint, we make sure
7 that prior to going into that project that we don't have any
8 surprises available to us. And so 1910.146 clearly identifies
9 the permit required space, the non-permit required space, and
10 allows us the flexibility as a qualified person on site to
11 make those decisions, okay, in the field.

12 And what we tell our people in field, from a
13 general industry standard, and I say general industry, I mean
14 from a permit required necessity to a construction non-permit
15 required necessity, because I think that's clearly defined
16 there too, is that most of our permit required spaces are
17 general industry permit required spaces. Because any time the
18 space itself goes into service, we feel like that that's
19 already there. It's already done and the hazards increase
20 ten-fold.

21 But in the non-permit required spaces where we can
22 ventilate and eliminate any possibility of any type of toxic
23 atmosphere, or we can control the fall hazard that might occur
24 in a manhole or a vault, we feel like that is clearly
25 identified. And that we can handle that from an installation

1 standpoint.

2 The early warning, the second part of this? We've
3 done that. As a contractor, we have had to go in and make
4 repairs on existing sewers, we've had to make tie-ins, we've
5 had to divert tremendous loads that could cause engulfment or
6 entrapment. We station people upstream -- one thing about
7 sewer lines, everything flows downhill. Okay? And with
8 exception to a lift station situation that we can lock-out,
9 tag-out, that kind of situation. But everything flows
10 downhill. So 9 times out of 10, there are existing manholes
11 upstream that can be monitored along with radio contact that
12 we can plug and block off. And believe me, --- industries and
13 the number of different people have made some tremendous
14 equipment that we can use to isolate and block and plug the
15 sewer lines. And then we can also bypass pump from those
16 situations.

17 So we can monitor and we can do the early warning
18 and have in the past. In it's not a real problem. The
19 problem comes when somebody doesn't really understand the
20 whole situation, takes a chance, doesn't have the money in
21 there for the plugs and for the bypass pumping and decides
22 that five minutes is long enough. And then they get in there
23 for 15 minutes and boom, something happens and we're all
24 thrown in the same basket as ignorant people that can't
25 control themselves in the field.

1 On an overall basis, the contractors that we are
2 associated in the National Utility Contractors Association are
3 not that type of contractor. Okay? I have yet to meet a
4 contractor in any of the classes that I have taught or have
5 been involved in that would look me in the eye and tell me
6 that he'd take the chance on the life of one of his individual
7 employees. Most of our contractors are family-owned. Most of
8 those contractors are working people that are brothers and
9 very close to their employees. Nobody, nobody that I have
10 ever met, is willing to take a risk on a life. It's mostly in
11 ignorant situations.

12 Continuous monitoring, we do that in a lot of cases.
13 We do continuous monitoring when it's necessary. Training, it
14 goes back to the training. What we find is a lot of the guys
15 will test the atmospheric conditions to the point where the
16 little hose runs out, you know, on the monitors? And they
17 don't get it down far enough to get into the hydrogen-sulfide.
18 Okay, where the hydrogen-sulfide can be at the bottom of a
19 manhole or infrastructure. And so we have to continuously
20 train these guys. They forget, I forget.

21 Believe me, once I reached 40, and that's been
22 awhile back, it becomes a situation that in any new type of
23 entry situation, we have to go back and do a pre-construction
24 meeting prior to that entry taking place. And if there's not
25 every part of the permit addressed, and we do have the permits

1 in a comprehensive permit aside from the 1910 permit that is
2 in the standard itself, than it's time-out. And we get
3 everything addressed prior to making those entries. You
4 cannot forget what you need if you follow the rules of the
5 permit itself.

6 As far as small business is concerned, hey, I'm one.
7 Have been. I don't know, what do they define a small business
8 as, less than 200 people, or less than \$1 million a year?
9 I've always been one. There are more small businesses out
10 there than huge businesses. And if it's not the huge business
11 controlling as the host employer, controlling the
12 subcontractor as a small business, than it's the subcontractor
13 hiring other subcontractors that darn sure is a small
14 business.

15 It's our responsibility as host employers, whether
16 we're the subcontractor that hires a subcontractor, or the
17 general contractor to make sure that we have their permit
18 required confined space entry plan in our hand and we do a
19 briefing like we're required to do under 1910.146. Of all of
20 the hazards associated with that entry and what they can
21 expect when they're there.

22 And then we require them to come back and be
23 debriefed, tell us what they've done, or to tell us if they're
24 hot --- permit or if their operations created any other kind
25 of hazards as far as that was concerned.

1 So small business is there. There are places where
2 you can rent monitors. There are people like Michael that
3 they can hire to perform rescues or even to train them. There
4 are people like myself and associations that have a number of
5 different training programs that are available at a very
6 inexpensive cost.

7 And then the last one that we have up here,
8 attendants and supervisors. Again, 1910.146 is clearly
9 defined the training for attendants, supervisors, entrants.
10 And if you look real closely at the training that's required
11 for a supervisor and an attendant, it's pretty much mirrored.
12 It's pretty much the same.

13 There may be a few things, but I can't really
14 honestly tell you that there's an awful lot of difference.
15 Now, I will tell you, reading through the yellow sheet and the
16 issues to be discussed, that I'm real concerned about anybody
17 allowing somebody to monitor more than one confined space at a
18 time. And I'm going to tell you it can't happen. If it's a
19 real permit required confined space, and the way I define that
20 is absolutely uncontrollable. In other words, we are having
21 to put into place some type of a system or some kind of a
22 protective system that is monitored from above that the
23 entrant has got to be monitored. Whether that's an air supply
24 situation, or continuous monitoring situation. It's a real
25 dangerous permit required confined space. In that instance,

1 one attendant, one supervisor, one entrant, one rescue team on
2 site, or a rescue team off site -- and to be able to be
3 responsive within a five to ten minute period, is necessary.
4 I don't see any way around it.

5 And one way to know that we have that accomplished
6 is to brief everyone on our emergency action plan prior to
7 those entries so make sure that all of the necessary agencies
8 are notified. In some cases, that's the private emergency
9 response team. In some cases, we feel like that should be the
10 fire department. We've done extensive training with the fire
11 departments ourselves, as far as an association is concerned.
12 And we're convinced that the fire departments are becoming
13 more capable of doing confined space rescues all the time.

14 I do a lot of training as far as OTI is concerned
15 for underground tunnel standards. The 1926.800 standard. And
16 in that standard, it relates to the availability of a rescue
17 team. That availability is for 15 people and under. Thirty
18 minutes to the portal. Okay. I think that's stretching it a
19 little bit, but I'd like to see something in the new standard
20 that relates to the local emergency rescue services. Okay,
21 the local people, the fire department, where they could be
22 contacted prior to the permit required confined space entry
23 being made and to be able to respond within 15 minutes.

24 FACILITATOR MCLAHAN: Okay. Thank you, Mr.
25 Strudwick. Are there any questions for Mr. Strudwick? Yes.

1 MR. ROOP: I have a kind of a comment. In echoing
2 what Greg was saying that on the attendant --- the regulation
3 requires that the attendant not -- that he could do that as
4 long as he's not taking away from his other duties. My
5 question is and always has been, I --- is that if you're doing
6 --- on emergency retrieval in confined space and we can then
7 evacuate --- how to use a rescue team, the attendant is
8 actually going to do the retrieval using a wench, or whatever.

9 If he's watching several different holes, he needs
10 to be able to evacuate those holes and do the retrieval, which
11 is almost impossible. We don't want to waste precious time on
12 not doing a retrieval, trying to get everybody else out of
13 holes that you're watching as the attendant. So I would echo
14 that, it's very difficult for that attendant to fulfill his
15 duties and do an emergency retrieval at the same time if that
16 was the case.

17 the other thing is if he has a man go down in one
18 space, he really should focus all of his attention on that
19 person that's down rather than trying to focus the attention
20 on the other holes that he's watching and try and get those
21 evacuated, or whatever.

22 The other thing that I would echo is about the
23 training. That the training is available. There's a lot of
24 good training organizations out there. And they can provide
25 competent training for not only firefighters, but also in-

1 plant people too.

2 FACILITATOR MCLAHAN: Okay. Any other questions or
3 comments? Yes sir?

4 MR. : Yes, I'd like to first say that I
5 appreciate the comments and the experience that's represented
6 by the speakers at the table. And I have really two
7 questions. But first I'd like to say that I think I heard an
8 underlying theme from the speakers that represents the fact
9 that any new standard in the construction industry on confined
10 spaces should certainly make sense. That it mirrors what is
11 presently available in 1910.146. And I'd like to support that
12 as well.

13 My question first, Mr. Sanders, you had with your
14 experience and background dealing with trenching and shoring,
15 I thought I heard you say that the trenching and shoring
16 regulations that presently exist under construction were
17 adequate to protect those operations. Did I hear you
18 correctly?

19 MR. SANDERS: Are we talking now about trenching and
20 shoring -- trenching excavation standard or are we talking
21 about the confined space standard?

22 MR. : The trenching and excavation
23 standard, specifically?

24 MR. SANDERS: Are they adequate to protect the
25 workers?

1 MR. : Yes.

2 MR. SANDERS: Yes. If the contractor does what is
3 required and what's needed of them, it is sufficient to
4 protect the workers, yes. I believe so.

5 MR. : And so application of those would
6 take the place of a developed construction standard for
7 confined spaces?

8 MR. SANDERS: Well, see, that's the question we have
9 and our concern. With that type of work and some of these
10 questions being looked at, you know, what will it do to that
11 type of work? We think that's a unique gamble, and it's
12 worked. It is not, you know, as I have worked in the past,
13 it's not the type of hazard you're going to find in the petro-
14 chemical industry and the power industry.

15 You know, trenching and excavation, even though it
16 might take place in those facilities, most of the work I'm
17 involved in is out in the middle of, you know, the
18 countryside. It's not inside of anybody's facility. It's
19 outside of the highway, it's out through the middle of the
20 fields. You're talking about the only construction activity
21 that's digging up dirt and putting in, like I said, different
22 types of cable.

23 Like I said, maybe just an open cable and, like I
24 said, you may be putting in some type of box as well. But to
25 put definite requirements of some of these on that type of

1 work, to a prudent contractor, looks at that as a confined
2 space when it's required, does takes steps necessary to
3 protect the workers. But to put requirements of continuous
4 monitoring, early warning systems, those hazards aren't there
5 in that type of work. And if you put those type of
6 requirements on the contractor who is doing that type of work,
7 is a burden that should not have to be borne. There's not
8 going to be any extra added protection afforded to those
9 workers.

10 The only problem that exists in that type of work is
11 just the stupidity of some of the contractors doing the work
12 when they don't do the work correctly.

13 MR. : Thank you. And Mr. Sokol, you had
14 referenced the ANSI standard, Z-117.1. And had made specific
15 reference to the definitions of a qualified person and a
16 competent person. Was your comment directed at the adoption,
17 or at least the starting point for that standard, that a
18 recommendation was to incorporate those two definitions into a
19 proposed construction standard on confined spaces?

20 MR. SOKOL: Yes, it was. When looking at the ANSI
21 Z-117.1 standard, if you've read that, and to 1995 it came as
22 a consensus standard for the construction industry. It's much
23 easier to read than the 1910.146. So, maybe some of the
24 definitions aren't there. The Z-117.1 doesn't go into the
25 responsibilities as they're outlined of a host employer,

1 entrant, attendant and entry supervisor. And I think if this
2 was a starting document or would be used, the definitions as
3 lined out in 1910.146 should be included in the ANSI Z-117
4 standard to further delineate responsibilities and training
5 requirements.

6 MR. : Okay. Thank you. And I would agree
7 that qualified and competent individuals certainly play a
8 significant role in not only a confined space application, but
9 many applications across many of the standards that OSHA
10 presently has. And certainly, again, I would like to offer
11 the support that in those definitions, the construction
12 standard has definitions for qualified and competent
13 individuals that I believe, and forgive my ignorance, I
14 believe reside in .32 under the constructions standard, and
15 certainly, again mirror the fact that for those of us who have
16 to apply the regulations across construction work and general
17 industry work that in the development of the pro-standard that
18 it certainly mirrors and tends to reflect what presently
19 exists in regulations. Thank you.

20 FACILITATOR MCLAHAN: Thank you. Before we break,
21 I'd like to check to see who of our next four speakers is
22 here. Mario Gonzalez, would you -- okay, thank you. Keith
23 Miller? Okay, thank you. Gale Van Hoy? And Wilson Yancey?
24 Okay. We will break and we will reconvene at 10:30. Yes?

25 MR. : 9:30?

1 FACILITATOR MCLAHAN: Oh, I'm sorry. Hold it. No
2 break yet.

3 (Laughter)

4 MR. SOKOL: I'd like to make one more comment.

5 FACILITATOR MCLAHAN: Okay.

6 MR. SOKOL: The one additional comment I would like
7 to make that, regarding combined spaces, whether it's in a
8 petro-chemical facility or whether it's in a renovation or a
9 sewer project. The one thing that we can't lose sight of is
10 those conditions which may be good at some point in time can
11 turn bad, really with very little warning.

12 So one thing that I want to make sure that we get
13 through there is what could be a safe space in the morning can
14 turn to be a deadly space, whether there's a toxic chemical,
15 whether it be H2S, whether it be methane, whether it be argon
16 from purging, or whatever, that we cannot lose sight that
17 those conditions can change and they can change very rapidly.
18 And they can jeopardize the lives of the people in there. So
19 I wanted to make sure that that comment was on the record.

20 FACILITATOR MCLAHAN: Okay. Excuse me, one minute.
21 Mr. Gonzalez is your name?

22 MR. GONZALEZ: Just a clarification. You said
23 10:30. Was it 9:30 or 10:30?

24 FACILITATOR MCLAHAN: Oh, you know what, I'm still -
25 - my watch is still on east coast time.

1 (Laughter)

2 Thank you very much. Okay. Yes, Noah?

3 MR. CONNELL: I just wanted to ask, with respect to
4 temporary containment structures, do you all feel that those
5 ought to be considered confined spaces?

6 MR. STRUDWICK: Can you be more specific when you
7 say --?

8 MR. CONNELL: Sure. For example, bridge work where
9 a bridge is being repainted, sandblasted, a temporary
10 containment structure will be set up to contain the debris,
11 that type of structure.

12 MR. STRUDWICK: Well, every job is different. Okay,
13 from a standpoint of the hazards associated with the job. In
14 the case where someone has to where some type of apparatus
15 inside, that increases the danger to his life, no matter how
16 it's applied. And this is one thing that the new respiratory
17 program addressed. Was the fact that should somebody have to
18 be outfitted with a respirator or any type of protective
19 device, SCDA's or anything of that nature, they have a
20 physical, and be in good physical shape first.

21 So those contained areas, more than likely, are
22 going to contain some type of an airborne situation or
23 possibility of an airborne situation contaminant. And the
24 respiratory program comes in and addresses all of those issues
25 without getting it muddled into the confined space.

1 The 1910.146 program right now defers back to the
2 other standards if, in fact, those exposures exist. Including
3 trenches. I've dug ditches all my life. For 30 years I've
4 dug ditches and have yet to really feel uncomfortable in a
5 ditch or a trench box as far as it being a confined space.
6 Now, do we consider those confined spaces? You bet, if we're
7 doing some type of a bore or a tunnel. From that area, than
8 those spaces are monitored just as frequently or as often as a
9 continuous monitored space, and enclosed vessel, something of
10 that nature.

11 But if you go back and look at 1910.146, or even in
12 the ANSI standard, they refer back to those other standards
13 when an exposure exists that is identified as a confined space
14 or as a possible respiratory problem.

15 MR. CONNELL: But should we attach all the
16 additional requirements that go along with the space, being
17 considered a permit space, to these types of containment
18 structures? Is that necessary?

19 MR. SOKOL: Well, I would think the 1910.146
20 standard delineates between permit required and non-permit
21 required. And when you have a permit required confined space,
22 it's a space that you could have a potential hazard there,
23 atmospheric, whether it be work-related hazards from
24 activities. I think that the requirements on the permit
25 required confined space should be maintained. What you do

1 with a non-permit required confined space is not going to have
2 the same safety precautions and safeguards, just by the very
3 nature of how you've defined it. So, --

4 MR. CONNELL: Well, I guess --

5 MR. SOKOL: What I'm saying is, I really think in
6 the 146 standard, you have a way to be able, by a qualified
7 person, to determine what level of safety and precautions and
8 safeguards you need by the way that you define it when you
9 analyze it and that being by a qualified person.

10 I think -- I don't know if I've answered your
11 question, what you've --

12 MR. CONNELL: Well, I guess what I'm asking is are
13 these types of enclosures by the nature of the work that's
14 done in them, does that create a difficulty in getting out of
15 the space or in rescuing somebody from a space like that?

16 MR. SANDERS: I'll comment on that because in my
17 previous work experience, I had a lot of exposure to
18 enclosures, both in painting activities as well as what you'll
19 find in asbestos abatement or other lead abatement activities.

20 They're not all the same. When you're talking about
21 painting, most of the time you're talking about a living
22 breathing enclosure. I mean, those are not sealed in plastic
23 to where the containment inside, you know, the air is held
24 within that contained space. Those are breathable type
25 structures to where there is air flowing throughout that at

1 all times.

2 Now, when you're talking about asbestos abatement or
3 lead abatement type work activities going on, those are fully
4 enclosed in a plastic so that you have exposures in there that
5 remain with inside of that contained space. So you're looking
6 at different activities. You would look at those different if
7 it's in a breathable structure and you don't have other type
8 of exposures that are out there, you're really only exposure
9 you're talking about is maybe the painting and sandblasting
10 going on and you're in a breathable structure, you might not
11 look at that as a permit required confined space. But when
12 you're going into an asbestos abatement or lead abatement
13 area, you have it fully contained. Especially, if you're in a
14 chemical plant or facility where there is, you know, some type
15 of release or whatever it's going to stay within that area,
16 yes, you would look at that totally different and I think it
17 would come into what you're asking about.

18 So I think you would have to be open to not just
19 saying any type of temporary, you know, enclosure would come
20 under that. I think you'd have to look at what type you're
21 talking about and what's actually taking place inside of that
22 contained area.

23 MR. ROOP: If I can add also that it's really going
24 to -- there's a couple things to consider. Number one is the
25 ability of the entrants to set up a rescue team to get out of

1 the space by itself, while a lot of --- covered --- spaces
2 them seem very easy to get out of, sometimes they're not. It
3 depends on how thick the --- is, whether the man has an
4 instrument to cut through it. It really depends on the
5 entrant's ability to be --- to get out of the space by
6 himself.

7 The other thing is I'm familiar with a lot of
8 asbestos abatement programs. Before we --- asbestos is really
9 not considered immediately dangerous ---. It's a long-term
10 hazard so it's not something that they're -- exposed to the
11 asbestos, that could actually put it into a --- space.

12 But as far as rescue, we're kind of --- itself out,
13 that's what we want first of all. That's the first rescue
14 that you should always consider is self rescue and then
15 retrieval. Going to get him out from outside the space. And
16 lastly, entry rescue --- space to ---.

17 So as far as a temporary structure, it has to be ---
18 asbestos and it's going to eventually be determined on the
19 ability of the entrant to get out on a ---. --- respiratory
20 profession, obviously, 1910.134 is going to come into play.
21 But it may be that the contractor has to think about, well,
22 we're going to supply them with exacto knives or something
23 like that. If you get in trouble just cut your way out.
24 That's, basically, the determining factor.

25 MR. CONNELL: And I guess I'd just like to know if

1 any of you see any aspect of 1910.146 that you think is not
2 well suited to the construction industry?

3 (No response)

4 Okay, thank you.

5 FACILITATOR MCLAHAN: Okay. All right, yes?

6 MR. : I have a couple of questions. One
7 for Mr. Roop, and others feel free to answer it too if you
8 want to. What's been your experience with, in the
9 construction industry, with how much employers rely on public
10 safety rescue services, such as fire departments or other fire
11 and rescue services? And then how well trained that these
12 services are, given the situation that currently they don't
13 have to comply with 1910.146, in the construction industry,
14 how well can we rely on their training to perform the rescue
15 services that would be required in a permit required confined
16 space situation?

17 MR. ROOP: Well, a comment was earlier that fire
18 departments are becoming better and better trained in this
19 country and I agree with that. However, I disagree that the
20 fire departments are prepared to do industrial confined space
21 rescuing in general. The fact is, that most fire departments
22 in this country are not prepared to face the hazards that you
23 guys deal with on an everyday basis. These are --- people
24 that are highly skilled in fire fighting and hazardous
25 materials and other type of hazards, but it's been my

1 experience that these guys come to our classes and other
2 classes across the country with a lack of a great deal of
3 knowledge in the hazards they have to deal with. And some of
4 the specialized equipment that comes into play working in
5 confined spaces.

6 So I think, it's my experience that the other answer
7 to your question is, how often do they rely on them? Too
8 often. Often we're finding employers just writing 911 on the
9 front of the permit. Well, OSHA in a clarification just
10 addressed that. They specifically said that's not in
11 compliance. You have to have some sort of arrangement with
12 the fire service or the --- service, whoever you're using to
13 make sure that they're aware of your hazards and come and look
14 at the spaces that you're dealing with and what have you.

15 So, I think fire departments have a long way to go.
16 Most fire departments are addressing that, they are
17 recognizing the problem and they --- approached by employers
18 and, --- in the last year or two, it's starting to change.
19 But for new employers, or those employers out there that are
20 totally relying on the fire department without checking with
21 that fire department, the new clarification specifically says
22 the employer has to determine that the fire service or the
23 outside agency, the outside rescue service, is indeed capable.

24 One of the things about that I really appreciated is
25 that OSHA put in a new clarification for 1910.146 that

1 frustrated me before, was there was a regulation that said
2 that you have to have a rescue service, but never did it say
3 the rescue service had to be able to do a rescue. I know it
4 sounds ridiculous, but nowhere did OSHA say that you have to
5 make sure the rescue service is capable of doing a rescue
6 safety and efficiently. They clarified that. Now they're
7 saying you have to ensure that. You have to ensure that to an
8 evaluation of -- actually, two evaluations. You've got to
9 look at them on paper and then you've got to look at them as a
10 performance evaluation to see that your rescue service is,
11 indeed, capable.

12 I think that clarification, when it really takes
13 hold in this country, will automatically require fire
14 departments throughout the country -- and that's what we're
15 talking about mostly, while there are some ambulance services,
16 some cities the police might respond to confined space
17 rescues. But I think it will require publication --- step up
18 and be as capable as the regulation require.

19 And remember this, there is -- half of the states in
20 the nation are state plans. And those state plans have to
21 comply with paragraph (k). So there are many states that fire
22 departments do fall under the regulation. Not the full
23 regulation, --

24 FACILITATOR MCLAHAN: Some of it.

25 MR. ROOP: -- but a portion of the regulation.

1 MR. STRUDWICK: I have a comment. One comment on
2 that. And, in fact, that we've done so much training with the
3 fire departments in the last five to six years as far as
4 confined space and trench rescue training is concerned,
5 because we think they go hand-in-hand, based on the competent
6 person training, or subpart (P), the excavation training, that
7 requires that the competent person on site handle any type of
8 permit or non-permit required entry when it concerns new
9 manholes, new construction, or even exiting.

10 We've worked real closely with a lot of different
11 fire departments. We've been told, as long ago as 1994, 1995,
12 where we were doing some entries into digesters where they
13 were going to be cleaned and repainted, that the fire
14 department would not make entry into those digesters, that we
15 had to have our people out and on the ground before they would
16 actually become involved.

17 Since then, things have made a dramatic change.
18 Most of your major metropolitan areas, and I'm talking about
19 major, metropolitan areas. I'm talking about Houston, San
20 Antonio, Dallas, Los Angeles, Phoenix, Miami, Dade. We have
21 as a association, NUCA, provided training to the fire
22 departments themselves. Now, whether or not that makes them
23 perfectly qualified, or qualified better than a private rescue
24 situation, I don't know.

25 I have a problem with the standard when they say

1 I've got to go and qualify my fire department. Because I've
2 know that when the fire department steps off that truck, on
3 site, during an emergency, the command structure goes
4 directly to the fire department. Not to the police
5 department, not to me. I'm asked to stand aside or to be used
6 as a resource. The commander is the fire department
7 lieutenant or captain. And I expect him to know everything
8 he needs to know about how I would handle that type of an
9 emergency now.

10 As I referred to in my 15 minutes, it's the
11 contractor's responsibility to know that he's making the
12 hazardous entry. The permit required entry and to take
13 measures, and it's spelled out in OSHA, that you will have an
14 emergency action plan. And that plan will include response
15 times and the people that will make rescue if a rescue becomes
16 necessary. And so it's up to the contractor or to the entity
17 making entry, whether that's a contractor or inside a plant
18 doing a maintenance situation to make darn sure that those
19 people can be retrieved or can be assisted, no matter what
20 happens within a prompt period of time. Meaning, 10 to 15
21 minutes.

22 MR. BIERSNER: Mr. Sanders, I think you wanted to
23 speak?

24 MR. SANDERS: My comments echo what Greg has said.
25 I think we have many well-trained, well-qualified fire

1 departments across the U.S. The trouble being, it's just like
2 we've mentioned, how was I as a contractor, gauge the
3 effectiveness of that fire department? If we know when that
4 metropolitan area -- that that fire department has been
5 trained, they know how to do confined space rescue, what am I
6 do to? And I have to have them come out? They're not going
7 to come out to me on my job site and do a test run for me to
8 gauge their effectiveness. That's just not going to take
9 place.

10 So, you know, I think these people are well
11 qualified. True, we have a lot of volunteer fire departments
12 across the U.S. and many good Americans put their, you know,
13 life on the line every day. But, you know, we do have well
14 trained and qualified departments and I think we ought to be
15 able to rely on these people to do rescue and certain
16 operations. But it should not be left up to the contractor to
17 get, you know, possibly open for an OSHA citation because he
18 can't wholeheartedly say he knows in earnest that that person
19 is qualified.

20 You know, he can't go out and observe the training
21 these people take place. And just as Greg said, once they
22 come on board, they are in total command of the situation. If
23 they make a mistake in performing that risk, should the
24 contractor be held responsible then because, you know, we're a
25 litigious society. Someone might think they did inappropriate

1 action or did something incorrectly. Should I be held
2 responsible for that as well.

3 So I think these people can be held responsible or
4 be asked to perform rescue for the contractors in certain
5 situations. But we as contractors shouldn't be held
6 responsible for their actions.

7 MR. SOKOL: I'd like to make a comment on that. And
8 my concern with using the fire departments, outside agencies,
9 is the promptness of the rescues. And many times in confined
10 space situations, you're in an IDOH situation and you're
11 looking at a matter of minutes regarding a person's life.

12 In our petro-chemical industry in Texas City, our
13 plants down there didn't even want that responsibility to be
14 given to the contractor. They felt that it was so critical,
15 and OSHA within their 1910.146 standard recognized that. But
16 66 percent of all confined space fatalities were occurring to
17 would be rescuers. So, in order to eliminate that particular
18 problem within our region, they just don't permit it. It
19 would be done by the plant emergency rescue people that are
20 dealing with that on a daily basis in order to perform a
21 successful rescue. Or even companies like ---.

22 MR. STRUDWICK: And to go one step further, I agree
23 with your plant situations. In other words, where somebody
24 has to respond within minutes. The problem we have is that
25 when we put our employees in a training class, we have the

1 option of telling them to create or to try and do a rescue,
2 you know, and handle it all themselves. And in a lot of cases
3 with our entries, they're vertical, so it's a matter of maybe
4 cranking somebody up out of the hole.

5 But we hesitate at all to suggest that because of
6 the two out of three individuals that die in confined spaces
7 being potential rescues or under trained rescuers, we hate and
8 hesitate to say anything but contact the local rescue service
9 if, in fact, something becomes out of control or to the point
10 where you feel like that a rescue is needed -- in other words,
11 we don't now when someone's down in the hole whether or not
12 they've had a heart attack, a stroke, or whether they've
13 actually been overcome by some type of atmospheric condition.
14 We don't want our guys to go down in there and try and figure
15 all that out.

16 They should have had their air test monitor and all
17 that prior to that. And if, in fact, that still shows as a
18 negative and the possibility exists that they can try and make
19 entry, we still recommend that they call the fire department
20 and get that service out there prior to making that entry. Or
21 trying to perform any type of rescue. We feel like if we can
22 keep them out of that hole until they get someone there that
23 at least can be a back-up situation to them and help, two
24 minds are better than one in a lot of cases like that simply
25 because of the excitement going on at the time, that we're

1 going to save those two out of three people. At least those
2 will be saved.

3 And then more than likely, possibly half of the
4 other group that's involved in the entry itself would be
5 saved. We just don't want to see people go in helter-skelter
6 in on top of each other and having three fatalities instead of
7 possibly one.

8 MR. BIERSNER: Could you give me an idea if you have
9 a stand-by rescue service properly trained accordingly to,
10 let's say 1910.146, to perform a rescue what the hourly cost
11 would be on that item?

12 MR. ROOP: I'll send you ---

13 MR. BIERSNER: Because, the reason I ask that is
14 because of course --

15 MR. ROOP: The cost range is, I guess, in the
16 Houston area here it ranges from about \$135.00 to \$160.00 an
17 hour, somewhere in that area. It depends on the entry. For
18 example, we send a three man team that's fully equipped and we
19 tell our employer, whoever hires us, that we also expect them
20 to provide what we call -- since it's a technical rescue term,
21 we call it goober labor. That's a joke folks.

22 (Laughter)

23 That they supply us some goobers. They supply us
24 some people that if we say pull on that rope, hold this, do
25 that, and a three man team. That way we can have one entrant

1 go in as trained and if he should go down we have another
2 trained entrant that can go in after him.

3 Different companies do it different ways. But, I
4 would say somewhere in that neighborhood of \$135.00 to \$160.00
5 an hour. It could get more expensive, we've done some level A
6 standbys where we're in level A protection and highly toxic
7 atmospheres. And, obviously, the price goes up as the hazards
8 increase, our exposure increases so the cost increases.

9 MR. BIERSNER: I have a question for Mr. Strudwick.
10 you talked about the use of bladders and other blocking
11 devices in sewer systems. Could you, and other people,
12 perhaps, in the audience or on the panel tell us what your
13 experience with these have been? How extensive they are and
14 how reliable they are? And how often they're used? Because
15 this has been one of the controversial issues, or in 1910.146,
16 at that time, I don't think the technology was that well
17 developed. And, certainly, come up in our discussions at
18 OSHA. Could you give us a little feel for these systems and
19 how much you would rely on them?

20 MR. STRUDWICK: We didn't get involved with the
21 bladders or the plugs, you know, until the early '80s, late
22 '70s. Mid-70s, early '80s, when they started to require air
23 testing for the sewer mains. Prior to that it was all visual
24 inspection and all that kind of situation.

25 Well, then once we started to require air testing,

1 well than Churney and, there's another group out of California
2 that makes a great big plug -- the costs are associated with
3 the size, okay, of the plugs themselves. Small plugs can cost
4 as little as \$70.00 to \$80.00 for six and eight inch line.
5 Large diameter plugs, 72 inch plugs, big plugs, can cost as
6 much as \$6,000.00 to \$7,000.00 to \$10,000.00.

7 They are reusable. In other words, there's quite a
8 number of different people that handle plugs on a rental
9 basis. And you can rent them on a per use basis. We've done
10 all different types of lock-out, tag-out type of situations
11 with those plugs. They're flow through plugs where they have
12 a large diameter inside bypass through them. Where you put
13 them in there, they inflate and then you can take and actually
14 flow the sewer right between the end flow and the out flow.
15 So that you actually isolate the space in a manhole situation
16 where you're not exposed even to the flow. Okay?

17 We've throttled plugs where we've hung them from
18 tripods on upstream manholes. And inflated them only to slow
19 the flow down. Okay, so that we could actually go in and
20 perform whatever type of maintenance that there was to be on
21 the downstream side. In the case of running cameras through
22 the wires, we might not be able to run a camera where the line
23 is running three quarters full, so we'll throttle that line
24 with a large diameter plug and slow it down to where the flow
25 will go down and then we can actually run the cameras through

1 the lines to take a look at them.

2 So, there's multiple uses. There's great
3 manufacturers that make these inflatable bladders or plugs.
4 And like I said, pre-planning is the name of the game. And
5 when you pre-plan, they can give you all of the
6 specifications, all of the capabilities of what the plugs will
7 do and they, in fact, have turned out great training tapes. I
8 know in the case of Churney Industries they've done that to
9 make sure that everyone understands the operation of the plug
10 and the potential for engulfment or injury should a plug blow
11 out and/or fail.

12 So as contractors, we're very familiar with that. I
13 can give you names and enough phone numbers for a lot of the
14 different manufacturers.

15 MR. BIERSNER: I mean do you use that as your sole
16 safety mechanism or do you also have a monitoring set up up
17 stream from them?

18 MR. STRUDWICK: No. Never use it as a sole safety
19 situation.

20 MR. BIERSNER: Okay.

21 MR. STRUDWICK: In fact, in a lot of cases where we
22 know that in large diameter where a man's exposed to a
23 engulfment hazard, say in a 42 inch line, we'll have multiple
24 blocks, lock outs in the manholes upstream from the manhole
25 they're in. And probably have two to three monitors working

1 in that so that if there's a failure upstream, the first guy
2 tells the second guy, the second guy tells the third guys.
3 We've got plenty of time to evacuate the space in the sewer
4 industry.

5 Not only that, but like I said earlier, is we have
6 the capability of bypassing. There are a lot of companies
7 now, especially here in Houston. Ranference is one of the
8 them and I can't remember the other ones. But provide six
9 inch, eight inch, twelve inch bypass pumps, trash pumps, that
10 we use to actually take the head off of a sewer line to keep
11 that possibility of blowing that plug out.

12 For every foot of head that you develop, you develop
13 about a half a pound of pressure. Okay, .433 PSI for every
14 foot over the top. So a manhole that is filling rapidly with
15 water that's 20 feet deep is going to have about 10 pounds of
16 head pressure on that plug. And most of these plugs that are
17 being manufactured will withstand that.

18 In other words, that actually let the manhole run
19 over and relieve itself. So even if the bypass pump does go
20 down, there's still a certain amount of safety factor
21 involved. But we've been very much involved in the last 15
22 years, since I would say 1985, with bypass pumping with
23 plugging and eliminated the possibility of engulfment in that
24 manner. It's easy to do, it's not hard to do.

25 MR. BIERSNER: Anybody else have any experience with

1 these devices that wants to speak or say anything about them?

2 MR. STRUDWICK: Did I answer your question?

3 MR. BIERSNER: Yes. Yes, that certainly did.

4 MR. STRUDWICK: And I have those numbers if you'd
5 like to talk to the manufacturers.

6 MR. BIERSNER: Okay. Finally, I guess, touching on
7 an item that's already been discussed a little bit before.
8 Several of the standards under 1926, which is the construction
9 standards, already have their own sort of confined space
10 provisions. They have monitoring requirements, atmospheric
11 monitoring requirements, rescue attendants, particularly
12 trenching and excavating underground construction, power
13 transmission and distribution I think are three big ones that
14 had some sort of provision like that.

15 We already know, I guess, what the opinions are on
16 trenching and excavating regarding how effective that might
17 be. Does anybody want to speak to the other standards and the
18 need for a full fledged confined space requirement like
19 1910.146 and underground construction or in power distribution
20 and transmission and some of the other major subparts that may
21 have already got their own confined space provision?

22 MR. SOKOL: I'd like to just address that within the
23 American National Standard Institute, the consensus was to
24 come up with safety requirements for confined spaces that
25 dealt with construction related work activities. So, by even

1 having an effort and a consensus on the part of the
2 construction industry to come up with a consensus standard,
3 such as ANSI Z-117.1, I think that pretty much would tell you
4 that there's a need for it. And it's a shame that I don't
5 think that there are contractors that are even aware that ANSI
6 does have a standard that addresses these issues. So.

7 MR. : Okay. I don't know what ANSI is.

8 MR. SOKOL: So I think that there is a need for a
9 standard just addressing this and pulling it out of the
10 separate standards.

11 FACILITATOR MCLAHAN: Okay, Mr. Gonzalez, I think I
12 saw you had your hand up.

13 MR. : Well, I've been standing here for a
14 minute or so.

15 FACILITATOR MCLAHAN: Okay.

16 MR. : That's okay. Contractors do
17 understand ANSI. It's when it's going to rain and the job's
18 getting late, but other than that, my question's for Mr.
19 Sokol. In your comments about qualified person, did I
20 understand you to say that that should be a certified person?
21 And I would interpret that to be someone certified by the
22 board of certified safety professionals such as a CSP.

23 MR. SOKOL: It would be our position of ASSE that a
24 certified person be somebody through experience. And one of
25 those would be work experience as well as academic schooling,

1 certification through the Board of Certified Specialists,
2 would certainly qualify somebody.

3 But I don't want to say that that's the only type of
4 designation that could be a qualified person. A CIH could
5 handle some of this, a CHST person with years of experience
6 could as well. I like it --- the scaffolding standard that
7 talks about a qualified person designing scaffolds. And it
8 does not require a professional engineer until you get over
9 125 feet in height, or you exceed the duty ratings that are
10 assigned of heavy duty, light duty, and medium duty.

11 The experience would be a key, certification would
12 definitely be a plus.

13 MR. : Thank you for that clarification. I
14 represent a large corporation with many certified safety
15 professionals. But for small businesses to require a CSP or a
16 CIH, I think, would be an undue burden. They do need to have
17 that work experience so that they can safely prepare that job,
18 but it does not necessarily need professional certification.

19 FACILITATOR MCLAHAN: Okay. Yes, sir?

20 MR. SANDERS: I'd like to just comment on that as
21 well, because this is something in our industry that's a very
22 hot topic with the possibility of an ANSI standard being
23 developed just for safety professionals. I would like to say
24 exactly what you have said, that there's not a need for
25 certified people. There's a need for qualified, trained, but

1 not certified. There are not enough certified people in the
2 United States to take care, if we put a requirement of CSP or
3 CHST or CIH monitoring all this type work, the industry would
4 be bogged down and shut down because there are not enough of
5 these people in the United States to monitor all of these type
6 work activities going on across the U.S.

7 And we're looking at putting a real undue burden on
8 the construction industry if we required that. But, yes,
9 individuals should be qualified and trained, but not
10 certified.

11 MR. : I'd like to give my thanks to the
12 comments and the caliber of folks that are up there on the
13 audience. Not to take away from that, but I've had a couple
14 of experiences where that caliber is of the persuasion that if
15 a cockroach can live when you take the top off that manhole
16 cover than it's okay for you to get in it. That's the other
17 side of the equation that we're dealing with. What you talked
18 about doing, how you're doing it is the right way. But I'm
19 talking about municipal people that work in the sewer business
20 every day, being of that mentality.

21 I think the clarification, the way that this final
22 wording has to come out is more important to address that type
23 of individual and the problems that are going to be faced
24 there than what you're talking about with where you stand in
25 your processes right now.

1 And I think we may be hitting a little high right
2 here and we want to make sure that that lower reach is really
3 the target audience.

4 MR. STRUDWICK: Well, the key word that you used was
5 municipality. Okay, from a standpoint --

6 MR. : It's scary.

7 MR. STRUDWICK: -- well, but OSHA has no
8 jurisdiction over municipalities. And that is a mentality.
9 Okay, now what we do, and believe me, there are a lot of
10 municipalities that attend our classes and they send their
11 people, because like I said earlier, they're not interested in
12 complying with OSHA, they're interested in the safety of their
13 individuals. And nobody, I will again say that nobody that
14 I've ever met would intentionally create a situation where
15 somebody would die in front of their face. And believe me,
16 I've been there when it's happened. And it's a bad situation.
17 But we do have to address the field. It won't help
18 to do all of this work in here and not be able to address the
19 people in the field. So we do have to keep it simple. That's
20 why when we started training with regards to 1910.146, we
21 didn't have to do that. Construction was excluded from
22 1910.146. But it's not excluded from the moral responsibility
23 we have to get out there and make sure that we don't have
24 someone hurt or killed on site.

25 And in every case, we find that there is ignorance

1 involved. And from a standpoint of the person on site, one
2 example, Fort Worth, Texas, three years ago. A guy named Juan
3 Garza, I'm pretty sure it's Garza, was a Hispanic laborer
4 working in a hole outside of a manhole. He had been in the
5 country for 30 days. He was working for a foreman that I knew
6 named Ali Anzo. They didn't even take time to have him legal.
7 In other words, he had no green card or anything. He just
8 wanted to come up and work for a little while to make enough
9 money to go back and plant his bean crop in Mexico. And he
10 was like a relative to Ali Anzo.

11 He was outside the manhole. They were making a core
12 drill. They were drilling a hole in the manhole. The drill
13 got stuck, he grabbed the hammer and he went down in the
14 manhole. Unbeknownst to him, the manhole had a 900 part per
15 million concentration of hydrogen sulfide. Right off the bat.
16 And the manhole was large enough, it was a five foot diameter
17 manhole and it had a 24 inch main running through the middle
18 of it. It was large enough so that when he became
19 unconscious, which was immediate, that he fell in and he was
20 swept away.

21 And Ali Anzo ran to the manhole, he looked inside,
22 the man was gone. Juan was already gone and what did Ali Anzo
23 do? He went in after him. So there ended up being two
24 fatalities. And they found them three hours later. And
25 during that period of time, their wives were on site and all

1 this, you know, where did they go and oh my. And it was -- I
2 have no doubt in my mind, knowing Ali Anzo, that he knew
3 better. But emotion takes place when these kind of things
4 happen.

5 And that's why when we train now, we go to the field
6 and train, tool box stops, whatever you want to call them.
7 But we actually physically go on site, we use Spanish
8 translated videos, all those kind of things in the field to
9 try and get across to the guys in the field to stay outside
10 those spaces. And if somebody does becomes overcome, or if
11 there is an uncontrollable situation occur where they can't
12 figure out what to do, they better dial 911 and I mean in a
13 hurry.

14 Okay. But then again, it goes back to that
15 contractor, it's his responsibility to know that those hazards
16 exist, it's his responsibility as far as OSHA's concerned that
17 all of his workers are trained in the hazards associated with
18 their job. And that contractor that lost those two men, even
19 though he is a great guy and I've known him for 25 years, he
20 was still cited with willful citations. Because the fact is
21 he was a utility contractor. And if you are a utility
22 contractor, you are a professional. And as far as NUCA or any
23 of the rest of us is concerned, you better act like a
24 professional. And that mean training your people correctly
25 and making sure they understand exactly what the hazards are.

1 And if there is something that happens in the field that's
2 unfortunate, we'll deal with it.

3 But we can't continue to have this happen. And so
4 you're correct. We've got to deal with the lower eschelance
5 of the people in the field and for OSHA's benefit, we need to
6 include the municipalities. Everybody needs to be on the same
7 playing field here. Because we have guys that go and work in
8 municipalities, they get lazy, and they come back and work for
9 us. They haven't been doing it there, now they're over here.
10 So we just need to make it the same for everybody.

11 MR. STRUDWICK: Could I just make a brief comment as
12 an attorney regarding jurisdiction? OSHA does have
13 jurisdiction over private contractors who work for
14 municipalities.

15 MR. STRUDWICK: Exactly.

16 FACILITATOR MCLAHAN: Okay. Yes?

17 MR. GONZALEZ: I need to take one of my hats off and
18 put another hat on right here. I am on the industrial side,
19 but I also happen to be a local safety officer for a local 911
20 service and I'm also a training officer that deals with
21 community colleges that train new starting out EMS folks. And
22 I realize we're somewhat preaching to the choir here, and I'm
23 glad to hear that, especially the folks up here do what they
24 do. However, the reality of it is as someone -- I've got over
25 20 years 911 experience as a volunteer.

1 And I can't tell you the number of times that we get
2 the 911 call that we have somebody having a heart attack. And
3 a couple of times we walked up and it's someone inside an
4 asbestos or a lead abatement bridge job and they expect our
5 folks to go in and get them. Or we've had the people in
6 sewers, we've had the cave ins, and it's real easy to sit here
7 and say, yes, we're giving hundreds of thousands of dollars in
8 training to large municipalities.

9 Our folks cover a region that is as large a city as
10 Houston, but it is not incorporated. And those folks do not
11 get the training. Our response, and what I tell the folks, I
12 train these folks and I tell them, you do not go into the
13 hole. You do not do the rescue. And it's a big thing now,
14 especially here locally, that EMS and fire are two separate
15 entities.

16 And to speak to Ron, Mr. Sokol's point, and I
17 totally agree with this, is response time. We get a 911 call
18 for somebody sick, somebody hurt, somebody with a broke leg,
19 we're going to roll an ambulance. They get there, they
20 realize it's a rescue, they're going to roll the fire
21 department. Then if it's an industrial rescue, we're going to
22 call the City of Houston, 30 to 45 minutes later when that
23 employee is finally being pulled out. I don't think we do
24 enough. I think it all boils back down to site
25 responsibility. And I think that those contractors, I think

1 there are a lot out there, who say call 911.

2 Now, Ron, on the other side, especially with Texas
3 City, Ron has one of the unique opportunities that all his
4 sites do say, we're going to provide -- the owners say we're
5 going to provide rescue. I also happen to sit on the board of
6 directors of Houston Contractors Safety Council and we cover a
7 larger, a more various type of owner. And it is a true
8 question. And I'll speak to some of this when I come up as a
9 speaker, as far as site responsibility.

10 Because there are a lot of sites that say it's up to
11 the contractor to develop their own rescue plan. And that is
12 something that I think needs to be addressed. Thanks.

13 FACILITATOR MCLAHAN: Okay. Yes, sir?

14 MR. : If I could, I'd like to go back and
15 address what I feel is an important question the gentleman
16 from OSHA asked regarding the need to go and put in the full
17 blown confined space requirements for the specific industries.

18 And I can't speak to all of the industries that you
19 mentioned, but I would like to address the power generation
20 side of it. And, certainly, under 1910.269, understanding
21 that is a general industry standard, there were provisions
22 that were put in that recognize that operations that wouldn't
23 ordinarily fit the definition of a confined space, were not
24 necessarily identified as a confined space and without going
25 into all of the verbiage, but basically was given a definition

1 for a manhole and a definition for an enclosed space, which
2 doesn't exist in some of the other industries.

3 And I'd like to say that I think OSHA did a good job
4 in recognizing that those situations existed, particularly for
5 that particular industry.

6 And in addressing that question, I think that
7 certainly if OSHA would work along those same type of lines in
8 recognizing that in each one of these full blown industries or
9 standards that there may or may not be exceptions that
10 certainly need to be addressed. And, again, I'd refer back to
11 the 1910.269 standard where you did that and allowed those
12 situations to occur.

13 And I hope that addresses at least one of the
14 questions that you had. Thank you.

15 FACILITATOR MCLAHAN: Okay. All right. I see some
16 pretty heavy eyelids so I think it's an appropriate time for
17 us to take a break. It's five of 10:00 and we will reconvene
18 at 10:15. The two gentlemen, Mr. Gonzalez and Mr. Keith
19 Miller, if you would come up, we'll have your names up on the
20 podium so that you can -- up on the table so that you can
21 begin to speak. And thank you very much to our speakers.

22 (Whereupon, a short recess was taken.)

23 FACILITATOR MCLAHAN: Can I ask that everyone be
24 seated and we can get started again.

25 Okay, before we get started with our two speakers,

1 Noah Connell has something he'd like to say to you

2 MR. CONNELL: I just want to reassure you about the
3 transcripts. First of all, the reporter is not going to be
4 linking any names to any statements in the transcript.

5 Secondly, the transcript is not going to become part
6 of the rulemaking record. We are going to have a summary made
7 of the comments, again, without names attributed. And the
8 summary will be made part of the rulemaking record, but the
9 word-for-word transcript will not.

10 I understand there's a question about our rulemaking
11 schedule. Right now our schedule calls for us issuing a
12 proposed rule for confined space in July of 2001. That's July
13 2001 OSHA time.

14 (Laughter)

15 FACILITATOR MCLAHAN: Come on, be more optimistic
16 than that.

17 All right, our two speakers for this portion of the
18 meeting are Mario Gonzalez of Austin Industrial and Keith
19 Miller of Chicago Bridge and Iron Company.

20 And we had a request from one of our speakers that
21 when we have questions, if you would identify the organization
22 it would help him to put your question in the proper
23 perspective. It's not necessary unless you want to identify
24 yourself, but we do ask that you identify the organization
25 that you're representing.

1 Okay, we'll go with our first speaker, Mr. Gonzalez.

2 PRESENTATION

3 by Mario Gonzalez

4 MR. GONZALEZ: Good morning. Again, my name is
5 Mario Gonzalez. I am a CHST. I am a safety supervisor with
6 Austin Industrial. I also sit on the Board of Directors,
7 current Vice President, next year's President, Houston
8 Contractor Safety Council. And also on the side I'm also a
9 safety supervisor, safety manager with the voluntary ambulance
10 service and I train EMS folks.

11 So I have a dual interest in this topic. I'd like
12 to thank OSHA first of all for allowing the contractors in the
13 southeast, southwest, to have input into this process.

14 I'd like to start by saying that I do feel that in
15 the area that we deal with here locally, 1910.146 is a fairly
16 adequate standard. However, part of my concern is the fact
17 that there seems to be too vast an area, too wide and all
18 encompassing provision in confined space.

19 We've heard from a myriad of different type of
20 contractors up here already this morning. And I think that
21 leads to some of the problem. There is definitely a
22 difference in a confined space for a trenching shore and
23 utility versus a process safety manager type facility, like I
24 currently am associated with.

25 I feel associations like the Houston Contractors and

1 the Texas City Safety Council and all the --- councils are
2 doing their best to keep our workforce well trained and
3 oriented in these type of procedures. However, when we get in
4 the municipal and utility type construction, it is a totally
5 different world. And I think that's something that we need to
6 keep in mind and realize that there is a difference there.

7 Especially, when we start talking about areas or
8 confined spaces dealing with Process Safety Management, IDLH,
9 non-IDLH and then the whole term permit required, non-permit
10 required. Especially, for a municipal or a utility
11 contractors I think is something that needs some clarification
12 on.

13 As to the actual topics that are up on table this
14 morning, I have over 25 years experience out in the field.
15 I've worked for a specialty contractor, traveled all across
16 the country, dealing with confined spaces. The employer that
17 I was with before, that's all they did was confined space
18 work.

19 And I will tell you this, there is a wide, wide
20 interpretation of a confined space in central, north,
21 southwest and in the east and in the west. They may be all
22 the same standard, but I've worked in line kilns where they
23 didn't lock and tag anything, they didn't consider those
24 confined spaces because they didn't feel there was a potential
25 to build any type of hazardous environment.

1 Even though we were in there tearing out the
2 refractory inside. I think that the 146, again, is adequate
3 and if it is properly enforced and properly trained. I think
4 training is a big issue. However, I think to the core problem
5 is actual site responsibility. I think that that's left
6 somewhat vague in our standard in the fact that several
7 facilities -- Mr. Sokol spoke earlier, most of the facilities
8 in his area do assume total responsibility for their confined
9 space and confined space work.

10 That, however, is not necessarily the case
11 throughout industry. There have been several times that we've
12 gone out and they've said you are going to be the confined
13 space expert. We are asking you to contract our to do a job.
14 We expect you to do the job in a professional manner. Part of
15 that, i.e., is to follow 1910.146, whatever that entails.

16 We've actually been told that we are responsible for
17 rescue. We are told that we're responsible for posting signs
18 and posting the --- of, I don't think we have to actually post
19 our own permit, but there are times when we come real close to
20 that.

21 I think site responsibility, or owner responsibility
22 is something that can be better defined in the procedure. And
23 I've already stressed my concern about the rescue plan and the
24 rescue concern, especially with confined space. And
25 especially permitted required confined spaces.

1 As far as early warning devices, I think continuous
2 monitoring -- I think there needs to be additional
3 clarification, if not education, training on monitoring,
4 especially pre-entry monitoring. Too many times do we see,
5 especially in the petro-chemical and industrial field where,
6 basically, they'll break the --- stick a five inch tube in
7 there and monitor that. And they say, okay, well, we
8 monitored the hole, you can go in.

9 Where they've actually done no level -- and we're
10 going in, multi-layer, multi-level type facilities. I think
11 that that's one area that definitely needs to be addressed and
12 better training in that area.

13 Supervisors and attendants. And again, this is a
14 real big difference here between an excavation municipality
15 utility type and the type of work we deal with. I know that
16 there is currently a provision in the standard that allows
17 multiple unattended, with some restriction, to watch or
18 monitor multiple holes. I do not agree with that. I
19 definitely do not agree, especially in the industrial setting
20 that the supervisor never be the attendant.

21 In times of emergency, I think Ron said it first,
22 but in times of emergency, I can promise you that supervisor,
23 if he is the attendant, is going to become a real, real
24 problem. Pulling the attendant from one hole to another in
25 all honesty in the real world, if there is a problem, that

1 attendant is going to leave whatever other responsibility he
2 has and focus mainly and strictly wherever there is the
3 emergency, i.e., leaving the other hole and the other folks
4 inside that hole to be ==

5 A little bit more, someone asked the question
6 earlier too about the temporary confined space. And I kind of
7 discussed that earlier, as someone whose seen asbestos work
8 and lead abatement and different types of temporary shelters
9 put up that are considered confined spaces, I do believe that
10 those need to be monitored, just like any other confined
11 space. Especially, with the rescue aspect. Especially with
12 the attendant aspect, it is not always easy to self escape or
13 rescue yourself out of those type of situations.

14 I've fear that we have a propensity here in the area
15 to feel that because it is a temporary shelter, it should be
16 easy to get out of. I heard comments earlier about using
17 exacto knives and everything else. One thing we need to
18 remember, there is a reason that that is a controlled
19 environment, away from and hazard to the person. We also need
20 to worry about hazard in the environment and release of
21 whatever the material is that we're trying to control at the
22 time. Giving everybody and exacto knife and telling them if
23 they get in trouble to come out, may not always be the best
24 answer.

25 When we start talking on the continuous monitoring,

1 again, I'm sorry, I feel that in all honesty, there is very
2 little cost differential between initial monitoring and
3 continuous monitoring. I feel that there is a greater need
4 for training on these monitors.

5 Currently, one of the things that several of the
6 committees were looking at, and again this has something to do
7 with more site responsibility, where contractors are asked to
8 provide their own monitors, from time to time it's going to be
9 an issue where if we go into a facility and they say, no, you
10 use ours, or you use your own, are the folks that we're using
11 as hole watchers, or attendants, excuse me, properly trained
12 on that piece of equipment.

13 And then again, the whole question comes up what
14 constitutes proper training for that piece of equipment. I
15 think that if the site responsibility issue was better
16 defined, especially a monitoring issue, and the site used one
17 continuous type of monitor, if folks came out to that site
18 they would be trained at that monitor. Or if the contractor
19 has total responsibility, and was allowed total
20 responsibility, that would give some clarification to that
21 point.

22 The other issue, as far as attendants, and there's
23 always been an issue here, everywhere I go, and that's to a
24 hole watch, or excuse me, an attendant monitoring more than
25 one company, more than one contractor, i.e., a multi-employer

1 site. The contractor comes out, he's going to provide
2 training. Every now and then we are lucky enough to work on a
3 site where we'll have somebody like Roco come out and do
4 professional rescue and also provide the confined space
5 attendant services. In facilities like that, a lot of times
6 they will allow that one company to provide all of the
7 attendant duties.

8 There's also the other side where each contractor is
9 responsible to provide their own attendant. And I've worked
10 on sites where we've had four or five hole attendants, that
11 one hole, and it becomes very confusing. And there's a
12 question of liability. We as Austin, are we going to allow
13 somebody else that we're not sure of their training program
14 since it is such an ambiguous type standard, to do hole watch
15 or be our attendant for our employees. And conversely, are we
16 going to sign and be attendant for someone, another contractor
17 that we're really not sure of their program and they're
18 definitely not sure of ours.

19 I think site responsibility issue needs to be
20 addressed. I think it is a concern. However, again, I also
21 think that one of the main problems that we have here is this
22 one all encompassing rule. And maybe someone eluded to it
23 earlier today, maybe there should be an exclusion for utility
24 and excavation and have their confined space section apart,
25 and total under excavation and utility type work and take them

1 out of the actual general standard, 1910.146 for confined
2 space. And just put it --

3 FACILITATOR MCLAHAN: Okay. Thank you, Mr.
4 Gonzalez. Are there any questions for Mr. Gonzalez?

5 (No response)

6 Okay, Mr. Miller.

7 PRESENTATION

8 by Keith Miller

9 MR. MILLER: I'm representing Chicago Bridge and
10 Iron here, as well as the Steel Plate Fabricators Association.
11 And I am the Committee Chairman for the Safety Committee of
12 the Steel Plate Fabricators.

13 We have a interesting belief about safety in that it
14 has to be all encompassing, that you can't take one standard
15 or one rule and make it cover everything. We believe that
16 there are many spaces in the industry that do not fit confined
17 space standards, but have been called confined spaces. And
18 they're using inadequate controls to take care of them.

19 We also believe that ANSI standard is, of a confined
20 space in definition, is more complete than OSHA's current
21 standard. We believe that a confined space should be well
22 defined as an enclosed space, whose primary function is other
23 than human occupancy, and has restricted entry, and access and
24 large enough for bodily entry, and may contain potential or no
25 hazards. We believe that under construction there are many

1 vessels and structures that are built that are not confined
2 spaces until they are fully enclosed.

3 We build tanks over 400 feet in diameter, which
4 would be large enough for some football stadiums, down to
5 things that we could not enter at all. And there's a
6 difference as to the hazards that can occur in there, and when
7 they can occur. Many have interpreted the standards to be
8 encompassing such that no matter where in the construction we
9 are, these rules take place.

10 We have at times, found hole watches in construction
11 exposed to falling objects and other things when they aren't
12 needed, but having to be at that particular hole based upon
13 the definition that someone has placed on it.

14 We think the words and are very important in the
15 standard, indicating that all four things need to be in the
16 standard to define that confined space, not just one of them.

17 We believe that the isolation and cleaning and gas
18 freeing of structures is sometimes more important than having
19 the hole watched, or doing other things to eliminate the
20 hazards. The hole watch is the metering and the other thing
21 is telling you something has gone wrong. They are there for
22 when something has gone wrong. If we're doing the things that
23 need to be done prior to entry, seeing that the structure's
24 adequately cleaned, adequately isolated with steel blinds, not
25 with valves, than there is more safety.

1 There is two dangers in confined space. Those from
2 the outside and those from the inside. We do not believe
3 there is adequate meters available to us at this time to
4 handle all of those dangers and recognizing the meter only
5 monitors the place where it's at. Or where it's sensing tube
6 is at. It does not monitor the whole space. It does not do
7 other things. It does not give loud enough warnings to a crew
8 who is depending on to hearing it. It does not give loud
9 enough signals that someone in a noisy area can hear.

10 We are developing some proprietary equipment with
11 another company to overcome these things. And we believe that
12 that can be done. We believe the characteristics of the
13 confined space are described in ANSI. It's enclosed. I don't
14 believe we can take all of these standards and put them to
15 cover trenching, to cover other things that have other hazards
16 that go with them. We need to realize in that area, in that
17 part of the standard, to cover the hazards they are exposed to
18 in trenching. And if there are confined space issues, that
19 would indicate accumulation of gases or other things, they
20 should be dealt with in that standard, rather than one
21 standard trying to cover everything and being misinterpreted
22 by many across different areas of how they apply to their
23 industry.

24 In the sewers and other things, I think we've spoke,
25 the people that are doing that work have spoke quite well to

1 them. I think they have indicated there are safety things
2 that can be done. And, again, in those enclosed spaces, there
3 are things that need to be done to protect the worker to see
4 that they are isolated from products. Whatever that product
5 may be. And by adequately cleaning them, than they won't be
6 subject to gases and other things from the inside.

7 CBNI has built structures since 1910. We were the
8 original designer of the steel tank. The original designer of
9 the steel vessels. We held the patents for those things. The
10 ability to go in and out of them for the workmen is not a
11 problem. To go in and out of a 24 inch manhole everyday is
12 not an issue. That's what we do and we do it very well. To
13 rescue out of it can be an issue for those that do not work in
14 those spaces and do not understand them. And rescuers do need
15 to be trained to deal with those hazards.

16 But the hazards are no different than if someone
17 fell before the structure was enclosed. To get them out, you
18 would need to do the same things before it was a confined
19 space. You would have to deal with those issues and be
20 prepared. And, again, the standards cover those kind of
21 issues. We need construction standards to address
22 construction problems. And need to understand them. The best
23 way, of course, is eliminating hazards. Not putting on more
24 bells and whistles to find out when we haven't eliminated
25 those hazards.

1 So we need a better job of looking at the confined
2 space and defining it, as well as coming up with steps to
3 eliminate the problems that can occur to let product leak into
4 there.

5 Because we firmly believe there is two different
6 places, the inside hazards and the hazards from the outside.
7 We believe controls can be placed on the systems around us so
8 that they don't emit product into our area. And we think more
9 --- should be done in that area, such that the plants and the
10 other places we go into for repair work or building even new
11 structures, that there's more control on those items that are
12 around the worker they can bring things to the worker.

13 And in the case of where a structure is not
14 enclosed, yes, monitoring can be done. And with proper
15 equipment that hasn't been developed yet, we could monitor
16 that space and the workers inside could be made aware of the
17 problems without an attendant telling them about them.

18 We also believe that the outside person has to be
19 aware of what's coming into the structure, or into the area.
20 And that's probably his biggest job, or their biggest job.
21 And if they can do that job, that requires communication with
22 plant people and other things that are controlling those
23 hazards. Because if we have controlled the hazards within the
24 structure, then the only thing that's left uncontrolled is the
25 hazards outside the structure.

1 And that's where the system needs to be looked at.
2 And what's being allowed to come into the air, and how we get
3 those warnings to everyone. And that would make us believe
4 that one person could cover more than one area, because his
5 purpose would be to warn the people that it's time to leave,
6 with adequate warning, before pressure valves or other things
7 relief, where we actually receive warning as those pressures
8 start to reach that area. Where people actually back in the
9 system are aware of those things going on where we've set
10 procedures in place that they let them know they're happening.
11 And that we would know minutes, maybe even hours, before this
12 process relieved, that it was going to do that, and --- proper
13 controls.

14 And then we would not see the dangers inside the
15 space because we would not have the products coming in from
16 the outside. The things that we bring into that space need to
17 be controlled, but as long as they're at the levels, we
18 believe that as you look at the types of confined spaces,
19 there needs to be a definition for a non-confined space.

20 There also non-permit and permit required. Most of
21 us would like to see a better name for non-permit. Because
22 when you write a non-permit permit it kind of confuses the
23 people a little bit.

24 (Laughter)

25 There ought to be another way to name those spaces.

1 And those spaces that are in control cannot just be controlled
2 by ventilation, which the current standard allows that. They
3 need to be controlled at keeping product and other things out
4 of those areas. Again, by proper isolation.

5 So in that, as we look at a non-confined space,
6 maybe it's one where a person can get in there, but maybe
7 we've eliminated access areas and we have to define what
8 access problems are. Because the people that understand,
9 they get in and out of those spaces everyday, they are not as
10 difficult as they seem. And maybe things could be done in the
11 industry to change those things slightly. A lot of it has to
12 do with the customers of the industry in allowing there being
13 adequate access in and out of a structure.

14 Again, that adds cost to that structure. But,
15 again, maybe OSHA can do some things there to where at least
16 two openings are allowed in every structure, such that one
17 could be used for ventilation and one can be used for access.
18 As minimums. Many people have only one access opening, and no
19 place to ventilate. These are the kind of things that OSHA
20 could to help out in the industry to make things more
21 consistent in these places that we go in and out of and the
22 work that's done.

23 As we look at each of these areas, periodic versus
24 continuous monitoring, there needs to be a lot done to do
25 continuous monitoring. Most instruments today will run for a

1 certain period of time and then will stop. There needs to be
2 a way to get power to them safely. And there needs to be some
3 understanding more about those instruments, what their
4 capabilities are.

5 In the industry, I see one of the biggest problems
6 as being the small contractor. The small business. I do not
7 think they should be kept from holding any regulation for any
8 reason. If they can't afford the plugs to do the business in
9 the sewers that are 72 inch or 8 feet or whatever diameter,
10 then they shouldn't be in that business. Or they should find
11 a way to adequately block them. If they don't have the
12 equipment to monitor the confined spaces, then they, when
13 they're truly confined, then they should not be in that
14 business.

15 It was stated here earlier that one of the
16 individuals here had only seen maybe 12 to 15 truly confined
17 space operations and that is a very accurate. Many things are
18 called confined spaces that are not confined. And the
19 employees do not respect those spaces because at other times
20 they're working in places that are not confined and they've
21 been called confined spaces. So they take away from the
22 regulation. They don't believe it's necessary and they know
23 it's not necessary. The things that are being asked to do.

24 We should be able to have a standard that truly
25 describes the hazards that we're dealing with, truly describes

1 the way they should be dealt with. Not with only one remedy,
2 hole watches and monitoring, but with eliminating the hazards.
3 And how we should do that for different types of operations so
4 that we can specifically see that that's being done.

5 That's it.

6 FACILITATOR MCLAHAN: Okay. Thank you, Mr. Miller.

7 Are there any questions for him?

8 MR. MILLER: I hope I raised a few.

9 FACILITATOR MCLAHAN: Okay.

10 MR. : I would like to say thank you to all
11 the panel members and for your input and the expression of
12 your ideas. I'd like to specifically address a couple of
13 comments made by Mr. Miller. I too believe that small
14 businesses should not be exempted from any of the controls or
15 the requirements of the standard. A small business can lose
16 an employee's life as quickly as a large business can. And we
17 can't put a value on the life.

18 I too believe that the ANSI standard holds a
19 sufficient definition for that of confined space, but it may
20 need to be expanded to address other types of spaces. I too
21 agree with the non-permit required confined space. Non means
22 you don't need something, non means it's not important to many
23 people. So I think that definition or that that terminology
24 should be addressed in some way.

25 The main comment that I wanted to make is that

1 confined spaces, no matter how we define them, they need to be
2 controlled. The hazards need to be eliminated and if OSHA
3 could address in their standard if they chose to, the ways
4 that hazards are the most efficient way to control exposures.
5 And number one is elimination. And number two is control.
6 And number three is personal protective equipment. Which is
7 the least expensive and the least effective. So if we can
8 address ways to control it.

9 And finally, I would like to direct that powers that
10 be, attention to the process safety management standard. It
11 reads like a novel. And we're getting ready to write a
12 standard. And the people that are truly exposed to loss of
13 life and limb are the people that are going into it. And we
14 should have input from people that actually go into the
15 vessels. And in some way, get their input. Your company
16 works in and out of it every day. I may not see it for six
17 months. It's fresh in your mind. So input from people, and
18 Mr. Miller's industry, or perhaps his company, I believe would
19 be very, very important.

20 And the process safety management standard addresses
21 that. Among many other things, such as comprehension, being
22 able to understand what your hazards are. It doesn't say
23 specific training only, it says comprehension of the hazards
24 that you'll be exposed to. Thank you.

25 FACILITATOR MCLAHAN: Okay. Yes, sir?

1 MR. : I'd like to make a comment to the
2 record in the form of a recommendation having to do with the
3 last amendments made in December of 1998, when the amendments
4 to 1910.146 went in. Having to do with an API file petition
5 for review in the D.C. Circuit Court. It remains unsettled at
6 this time. With all of the discussions seemingly in favor of
7 mirroring this regulation to the 146, that this draft
8 settlement letter that OSHA has issued in reference to this
9 case be reviewed as part of the process.

10 FACILITATOR MCLAHAN: Okay. Are there -- yes, sir?

11 MR. : One comment to Mr. Miller and his
12 analysis of the permit versus non-permit. I agree with, based
13 on the fact that there are multitudes of non-permit required
14 confined spaces. The thing is, is through the training, and
15 maybe we've been more comprehensive as far as the way we've
16 looked at that permit versus non-permit requirement and the
17 way we train, but there is a definite method to analyzing the
18 space. And that is with the check-list.

19 So it's already there, it's already required by the
20 1910.146 standard, that you perform the check-list obligation
21 to make sure that it's not a permit required space. Every
22 space that we approach, whether it's sewer vaults, whether
23 it's a structure or a tank situation, quote, unquote, it's a
24 permit required confined space until we validate the non-
25 permit required space requirements based on that check-list.

1 And that check-list can be the permit.

2 Well, the difference being is that the check-list
3 can be thrown away at the end of the entry. Once everybody's
4 out it can be discarded. Where the permit has to be retained
5 for a year, you know, so that it can be reviewed just in case
6 there's anything that goes along with it. So, like I said, we
7 may read between the lines some because we've been using the
8 standard for so long, but I think the standard does address
9 the non-permit required spaces.

10 It would be nice if somebody could give us a
11 absolute definition, but based on the definition that we've
12 got in 146, I think we could live with that. I'm kind of
13 anti-more standards. Try and live with what we have and fine
14 tune them and tweak them to the point of being able to focus
15 instead of trying to decide whether that standard is
16 applicable to us or to you or to anyone else. Let's shrink
17 them if we can. But still be as comprehensive in attempt to
18 protect people's lives.

19 MR. MILLER: And I think the question there on
20 confined space and what we believe that ANSI does differently
21 than the current OSHA standard does, is as you look at that
22 space, what are the potential hazards in there. And in our
23 case, when we're building new structures, there's been no
24 product in there and other things that aren't going to cause
25 us a problem.

1 It's when there are other substances, foreign things
2 that get in there. Whether we carry them or in our work or
3 whether they come from the place that we're at working, come
4 automatically being in that structure, makes a lot of
5 difference in defining whether you have to start out as it
6 being a confined space.

7 And I think we need to be a little clearer in that
8 because there's so much confusion and so many things go on as
9 people start going to work and doing things, oh, that's a
10 confined space. Well, no it's not. It doesn't do this, it
11 doesn't do that.

12 And part of the issues are many people have not read
13 the complete standard and if they do read the complete
14 standard, they will find many very interesting and good things
15 in it, but they simply go in and they get one word, confined
16 space. And then they walk away thinking they understand
17 confined space. And we're simply saying there's many issues
18 in there. Whether we need more regulation, we never need more
19 regulation. And I would not want to say that, but what I'm
20 saying is there is some things that aren't addressed in new
21 structures and other things in the current regulations that
22 are quite often misnamed and quite often cause problems in the
23 industry and expose people to other dangers that they don't
24 need. Because of the work going on around them when they're
25 not needed to be there. And, again, I'm back to the --- of

1 eliminating hazards.

2 FACILITATOR MCLAHAN: Okay.

3 MR. : Yes, I had a question for the panel.

4 Should the standard incorporate work practices in multi-
5 employer communication procedures to ensure all employers in
6 and around confined spaces are aware of hazards?

7 MR. GONZALEZ: Again, I think that --- my comments
8 earlier as far as site responsibility. I do agree that there
9 needs to be a better clarification, especially on multi-
10 employer sites. Again, it's somewhat of an ambiguous part of
11 the standard. It allows, or requires, responsibility to the
12 entrant supervisor or the entrant employer. However, it's not
13 always adequate just to say that the entrant employer has all
14 knowing, all knowledge of that confined space and total
15 hazards.

16 I heard some comments earlier, we have sometimes a
17 tendency to overlook the fact that we're working on an
18 evergreen or a new construction project without understanding
19 the entire encompassing area that we're working in. Working
20 in a brand new facility, or working in a brand new area, while
21 we may be working right next to an H2S facility or a chlorine
22 facility. Those things are things that need to be understood
23 and always just saying that the incoming contractor, it's
24 totally his responsibility is not always adequate. So, yes, I
25 think that the multi- -- especially on the multi-employer

1 site, a non-owner facility type structure, there needs to be
2 better clarification.

3 MR. MILLER: At the beginning of 1926, it talks
4 about relationships that have to do between subcontractors and
5 contractors. But there is nothing about the relationships
6 between people who do not have a contract relationship on the
7 project. And many times they're not all going back to one
8 contractor. There is multiple people there on site bringing
9 in multiple things. And, yes, they need to be addressed such
10 that those locations are protected and some kind of
11 qualifications on the people that are doing that.

12 We have experience where we can hire attendants and
13 rescue people through organizations that maybe that morning
14 they were obtained on the street as a contractor worker. And
15 they have been given some sort of five minute training and now
16 they are the person in charge of this space. We would not
17 know what that kind of person -- what their training or
18 anything if we were told to go onto this space and this other
19 contractor is covering it. And so there needs to be some kind
20 of way to deal with responsibility.

21 Because as said, it belongs to that employer right
22 this minute and yet he's working on multi-employer sites. And
23 this occurs to the tune of sites where thousands of men are
24 working and maybe even over a hundred contractors are going in
25 and out of different structures for different purposes to get

1 something done.

2 Usually, the numbers are less than 100, but that
3 just gives you an idea of what we're dealing with. And so it
4 becomes the point to where we have six or seven people
5 standing at that hole all trying to watch in there to protect
6 the different person because he has no way to guarantee the
7 other things that the other people are doing the right thing.
8 And that his people are being watched and cared for.

9 And so it becomes almost a site responsibility. And
10 somehow that has to be dealt with. I agree totally.

11 FACILITATOR MCLAHAN: Okay. Any other questions or
12 comments? Yes? Remember, we ask that you identify your
13 organization please.

14 MR. : I'm representing the ASSE and the
15 Contractor Safety Council of Texas City. And a comment on Mr.
16 Miller's comments about the need to ensure that training is
17 not only documented but comprehension is received within our
18 organization of the Association of Reciprocal Safety Councils.
19 We have reciprocity agreements between 20 different
20 organizations. And with that, if you receive the training at
21 a reciprocal council, you'd have to successfully complete a 50
22 question written English examination.

23 We are currently taking that same concept into
24 confined space training, to offer reciprocal training to our
25 industry. And that --- we have set down and looked at all the

1 confined space training programs that are being taught in
2 these 20 reciprocal councils and we've formed a matrix. And
3 we came up with a system to identify that we're covering the
4 responsibilities adequately of an entrant, an attendant, and a
5 supervisor. And we've designed this matrix to ensure that
6 they points are covered and then we're documenting testing on
7 that.

8 Once we receive that, then we're considering that
9 training to be reciprocal for those particular positions that
10 we have. And so designating on a training card to ensure
11 quality of training.

12 MR. MILLER: No where in the United States or in the
13 world is there a concentration of knowledgeable people like
14 there is in the Gulf coast. And training available. And
15 people to give it. But there are many other parts of the
16 country that don't have that uniformity and don't have that
17 across the board acceptance amongst each other. And so that's
18 where the issue comes. And I think we should all recognize
19 the Gulf coast and the heavy industry as trying to do the best
20 in all of these areas than probably some other parts of the
21 country or the world that we work in.

22 MR. : I would like to see OSHA in that
23 standard clearly define the training responsibilities that the
24 contractors could know that they hit the mark to ensure that
25 both the attendant, entrant and even the entry supervisor are

1 trained to the level that they need to be to protect everyone
2 concerned.

3 MR. MILLER: And many of the standards today are
4 adding training issues into them. And, again, we don't want
5 more regulation and maybe there should be something to define
6 what good training is and how that's done in one place rather
7 than 100 places, but in this particular area, you're right.
8 But in the current standard that we have it's called a
9 performance standard. And that's one of the things that we
10 like about the standard is that you don't have to do A, B, C.
11 You have to eliminate people getting hurt inside. And here
12 are the things that you should be doing. And if you're not
13 doing them, you should have a reason why.

14 And I think performance standards are an excellent
15 way to go for OSHA and the way they deal with regulation.
16 Because if we are successful at what we're doing and it
17 doesn't contain or it doesn't do exactly every step, then
18 there won't be a problem. We won't be afraid of that. We'll
19 be doing the right thing.

20 FACILITATOR MCLAHAN: Yes, sir?

21 MR. STRUDWICK: I'm Greg Strudwick and I represent
22 Team Safety Consulting and NUCA, the National Utility
23 Contractors Association. And we have approximately 90 to 120
24 trainers throughout the country that we oversee through our
25 training and education task force. In competent person

1 training and confined space training.

2 And of course we absolutely concentrate on the
3 utility contractor, but I think overall, as an industry
4 construction related, we recognize that some of what we do and
5 how we interpret what we do affects other people. Just on
6 site and every place else. And we, certainly, demand that if
7 we're working in a multi-site employer situation that we
8 identify those that affect us on site.

9 With relationship to confined spaces and whether or
10 not the training is available, it is. With relationship to
11 performance, criteria, the new fork lift standard that
12 actually in the construction business eliminated the earth
13 moving equipment even though they have forks in some of those
14 situations was not a bad way to approach that. From a
15 standpoint of a classroom training situation, for however long
16 that the instructor felt like it should be done. Okay, not
17 really two, three, four hours, but however long it takes for
18 them to understand all of the hazards associated with the fork
19 lift in a classroom setting. And then to go out and do the
20 performance criteria to see if that guy not only could
21 understand what happened inside, but that he's proving that he
22 can utilize his knew knowledge outside.

23 If we're going to have some kind of a criteria
24 situation, that is the way to go and it's very simple. And
25 it's probably one of the fist standards that I was aware of

1 that I thought was something that we could go, oh, well, that
2 sounds okay to me. And to go out and get it done and then
3 eliminate the possibility of an inexperienced or someone that
4 just is not there yet as far as operation of a piece of
5 equipment.

6 Interesting point. I did a situation in San Antonio
7 about two weeks ago where I was on site with a contractor that
8 wanted us to do the fork lift training. We did the classroom.
9 Very intelligent people in there. The awareness programs of
10 all of the hazards associated with operating a fork lift. We
11 took them into the yard and the vice president in charge of
12 the overall operations of the shop and yard area could not
13 operate the fork lift.

14 He's not a qualified fork lift operator yet, until
15 he learns how to run the fork lift under the supervision of
16 one of his subordinants. Okay, so that's where it comes back.
17 And I'm in full agreement with Mr. Miller in the fact that
18 training is not always available as it is here in the Houston
19 area or in the south, but believe me, the more you get
20 involved with training and the more you get involved with the
21 people that do the training, they're very widespread and,
22 honestly, very involved.

23 FACILITATOR MCLAHAN: Thank you.

24 MR. MILLER: Don't misunderstand me. I'm not saying
25 it's not available, I'm just saying it's not as widely and not

1 as consistent, not put together through the organizations the
2 contractors have so that we can back and forth get more
3 information on. Anybody that wants to get training, I'm sure
4 we can find it. It's the people that don't know to even go
5 look for it that there's a problem. And don't know to even
6 read the standard because they've been told for some strange
7 reason, because they're a small business, they don't have to
8 learn how to spell OSHA. And that's not true and that's the
9 biggest misnomer out there.

10 And as OSHA passes separate regulations on different
11 issues, they make all these small business things. This
12 doesn't apply and this doesn't apply. Which is fine, but then
13 the small business guy says, well, OSHA doesn't apply, and
14 OSHA doesn't spend much time with the small business person.
15 And really needs to in their standards and how they're doing
16 it.

17 FACILITATOR MCLAHAN: Okay. Any other questions,
18 comments?

19 (No response)

20 All right. Thank you very much, Mr. Gonzalez. Oh,
21 you do? Okay. Are these questions directed to our --

22 MR. BIERSNER: Oh, yes. Yes. Or anybody else wants
23 to answer them. Mr. Gonzalez, you addressed the need to have
24 effective atmospheric monitoring. I agree. I mean one of the
25 problems in 1910.146 is, basically, there is no way of

1 specifying what monitoring procedures they should use. And I
2 was wondering if you had any -- or anybody else now, so what
3 we need to do in writing the regulation is not get in there
4 and give a bunch of details about how people should monitor.
5 But on the other hand, if we can refer -- and this monitoring
6 is one instance that can occur across the board for other
7 problems with these standards.

8 Are there any written procedures or regulations or
9 provisions that you know of outside of OSHA that would be
10 helpful for us to site as a reference source for people to
11 look at when they have to -- I want an employer, particularly
12 a small employer, is faced with one of these situations. What
13 are they going to know about how to monitor? I mean, we've
14 got to tell them something about -- give them some basic hint
15 about how they're to get in there and what they should be
16 doing to monitor that situation, both initially and during the
17 occupation.

18 And I was wondering if anybody knows of any
19 reference sources that we could cite or reference when we
20 develop this standard?

21 MR. GONZALEZ: I know that NIOSH has some
22 methodologies out there. ANSI. I don't know if they're
23 finished or not but I know that there are currently some
24 standards available through ANSI. Now, I don't know the
25 standard numbers right off hand. I mean, I guess I should

1 have been prepared if I was going to bring that up. But there
2 are some performance issues available.

3 And, again, and I agree with Mr. Miller in the fact
4 that this is more of a performance standard. There are
5 organizations though -- and I don't know, Ron or ---, if ours
6 actually does anything for monitoring. I know we do confined
7 space, and we do somewhat attendant training, but I don't know
8 if we actually do any for monitoring. Do we?

9 MR. SOKOL: No, we don't.

10 MR. GONZALEZ: Okay. Actually, the method at point,
11 part of the concern, part of the problem is the fact that we
12 just recently had an ASSE vendor night a couple weeks ago.
13 And every time I go to an ASSE vendor, there's a different
14 type of monitor, totally different piece of equipment out
15 there.

16 Everybody and their brother can come out with a
17 piece of equipment and, of course, every time they do it's the
18 best out there. And just even as a safety professional, keep
19 up with the different equipment is somewhat of an issue.

20 Mr. Miller brought up the point earlier and it is a
21 part of that same problem. And that's the fact that I don't
22 really think that the technology is there to do an adequate
23 job in monitoring in and of itself. Most of the equipment
24 that is available, and coming from the --- that he was
25 developing something, but to monitor an all encompassing

1 confined space, most of it is spot or point specific type
2 monitoring. Whereas, for the most part, you're doing multi-
3 level or multi-area type entry in the confined space. Unless
4 you do some type of specific actual real monitoring on the
5 individual as they go through the area, you're not always
6 going to have that opportunity.

7 Whereas, for the most part, the performance issue
8 now is that they're going to put a monitor of some type with a
9 hole watcher and attendant outside right where the air is
10 either coming in or going out and they're going to monitor
11 that. That is an issue too.

12 There are some standards out there if you want them.
13 I mean, we can look them up, but I don't have that number
14 right off hand.

15 MR. MILLER: One of the issues, of course, with
16 monitoring is that you're monitoring for the right thing.
17 There are so many toxic chemicals in our world today, at least
18 that we see, that there is no monitor for it. And it will be
19 in our workplace, but none of the continuous reading or ones
20 that will analyze that that will give us the information we
21 need instantly are available. So dredger tubes, other things
22 have to be done.

23 And so just saying that continuous monitoring, this
24 and this, we can stand there pulling dredger tubes every four
25 minutes, but the problem would be is we still wouldn't be

1 continuous. And that's part of the issue, is what we're
2 monitoring for. Because many of these toxic levels are so low
3 that most of the meter's needle won't even move in the crew
4 will be laying there. It will be over.

5 And so that's where we're back to the fact that in
6 the industry, we have to eliminate the hazards. As far as
7 instructions and training, most of the good vendors out there
8 give excellent training, have excellent materials available.
9 And if the people just did what the manufacturer's said,
10 Which was check their meter against gases, do this and do this
11 on a regular basis, which most of them don't do. And then the
12 meters would probably be just fine.

13 And if they met the manufacturer and recommendations
14 or manufacturers organization recommendations, that would be
15 simple enough in that the operator knew these things about his
16 meter. Knew what it does do and what it doesn't do and how
17 often to check it. It would be a lot done there.

18 MR. BIERSNER: I mean, I would really like to have
19 people, you know, eventually when we come out with a proposal
20 feel free to give us any reference sources that you think
21 would be helpful that we can incorporate in the final
22 standard. I mean, I don't want to put you on the spot right
23 now and give me volume and page number and stuff like that,
24 but when the opportunity does come out later to comment,
25 please provide us with, you know, sampling procedures and any

1 other information, reference sources that you think would be
2 helpful. I'll defer to him before I -- Greg, of course.

3 MR. STRUDWICK: Greg, with --- again. Just one
4 comment about the monitoring. And you can't just make it a
5 stand alone issue. You have to include the ventilation,
6 constant ventilation. That in itself will eliminate some of
7 those small contaminants that are in the air. And if you go
8 back and revisit your 1926.800 standard, okay, look through
9 that. And the reason I go back to that is because there is a
10 truly confined space. And it requires continuous monitoring
11 in some cases. You know, gaseous tunnels versus non-gaseous
12 tunnels.

13 The monitors we've been using for years and years
14 and years and years. The first one I ever bought was 1987,
15 which is 13 years ago, which is not that long ago, actually.
16 And they're getting better and better and better. For those
17 people in here that don't know about monitors, the alarm
18 systems are set off very early on in any kind of detection.
19 And if there is no sensor for the particular contaminant that
20 you're talking about, in a lot of cases, and a hygienist can
21 tell you in a lot of cases it will affect the oxygen level of
22 the space that you're talking about.

23 But take both of them into consideration. The
24 continuous monitoring, yes and no. But add ventilation to it
25 because continuous forced in air ventilation is probably

1 what's kept hundreds of thousands of us from dying. Because
2 it's happened in the cleaning process in the sewer, it happens
3 when you do the tunnel work, when you have to provide enough
4 air into the tunnel to keep your engines cool to actually
5 accomplish the tunnel that you're trying to dig.

6 Sounds funny and it's an odd situation, but if you
7 keep enough air in there to make your engines run cool enough
8 for you to actually accomplish the tunnel work, you've got
9 about 10 times as much air as you need for individuals to
10 survive.

11 So, I mean, it all works together. So let's all
12 keep it kind of together and go start to finish and include
13 all the different processes. If you break them up and make
14 them stand alone, I don't think we're going to have a
15 comprehensive program.

16 MR. GONZALEZ: I agree with Mr. Strudwick. I think
17 the important thing to remember is that one of our basic
18 fundamental issues here would be a pre-job hazard assessment
19 to identify and recognize what the hazards are, or potential
20 hazards, in working in the confined space. You've got to
21 remember our first primary goal should always be through
22 engineering controls before anybody goes in the hole.

23 MR. SOKOL: I'm representing ASSE again and the
24 Contractor Safety Council. And regarding the monitoring and
25 the discussions that we had, we go back to having the program

1 controlled by a qualified person. And that is essential
2 within the standard that there, just as within the revision of
3 the 1910.134 respiratory standard, where they now have a
4 program administrator to look at the overall respiratory
5 protection program and be responsible for that, I think it is
6 essential that there be a qualified person over any confined
7 space standard to make sure that the program works
8 effectively.

9 And a qualified person would ensure that there's a
10 calibration system for those field techs and get those reports
11 to ensure that every monitor is calibrated the way it should
12 be and send me the report, does the training of the attendant,
13 the monitors, the one using the equipment, every aspect of a
14 confined space standard needs to be under the control of a
15 qualified person. Thank you.

16 MR. MILLER: Yes, and that would be the same with
17 any program any company has on any issue that the qualified
18 person is looking into those areas and looking for needs of
19 revision and looking for things that are going wrong and
20 taking care of those things. And we're back to the issue that
21 this does take some effort and when we -- I don't want to beat
22 the small business too bad, but it's not a one man thing in
23 dealing with some of these issues. And if they're trying to,
24 then they're struggling. They're not getting it done. And it
25 requires oversight. Absolutely.

1 MR. BIERSNER: I was wondering, Mr. Miller, if you
2 would also amplify on your remarks about external hazards.
3 Hazards outside the confined space that you think need to be
4 controlled. You mentioned pressure as one, I believe, which
5 may be --

6 MR. MILLER: Pressure on systems around us that are
7 going to relief into our area. I don't know -- a relief
8 valves.

9 MR. BIERSNER: They wouldn't be blocked in any way,
10 or?

11 MR. MILLER: It can't be.

12 MR. BIERSNER: It can't be bought?

13 MR. MILLER: In operating systems, they are the
14 safety valves. They are the things that are going to keep the
15 vessel from blowing up that's going to release some product.
16 But again, we think there are things you can do to control and
17 understand what's going on around you. And have the people
18 that are responsible so they understand the hazards that we
19 brought into the workplace that, putting those two hazards
20 together are going to create an issue.

21 If we're inside a structure that is completely
22 blinded, completely open, clean, we don't see a lot of hazard
23 from chemicals until they come from somewhere else. And,
24 generally, the good plants know when that's happening and give
25 you warning, even if it's happening clear across the plant,

1 which may be six miles or farther away, to give you a chance
2 to get out and leave. But if it's happening right next to
3 you, it's another issue and you need warning right then. But
4 it doesn't mean that it has to be somebody special reading
5 these warnings, everybody has to know these warnings when it's
6 time to leave. And everybody has to make sure everybody gets
7 out.

8 There has to be procedures that everything is empty,
9 not just the confined spaces. There may be somebody in an
10 office trailer, there may be somebody here and somebody there.
11 And so to cover all those in a confined space standard won't
12 happen. But we need to do some things just relative to the
13 space, where could things come from and have we got controls
14 on them that could get into that confined space. Because then
15 there's process safety issues and other issues that need to be
16 looked at for the whole plant, as well as the construction
17 hazards that we ring to the site.

18 MR. BIERSNER: I remember a case that I read in a
19 journal about a year or so ago where they -- there was a
20 construction site and somebody was doing some explosive work a
21 couple hundred yards, I guess, from where the confined space
22 was. Which was basically a sewer hook-up of some type. And
23 it drove carbon dioxide into that confined space and killed
24 the occupants. I mean, it's the last thing in the world you'd
25 expect to happen, but it does happen.

1 So are you saying that you've really got to look at
2 the outside situation and anticipate what some of the problems
3 might be.

4 MR. MILLER: Absolutely. And again, what I'm trying
5 to define is a space may be enclosed, but it may not meet any
6 of the definitions of being confined. But it's still
7 dangerous. And I have to do some things about it where a hole
8 watch and a meter probably aren't sufficient. And if that's
9 all the standard requires me to do to go in there then
10 something's wrong.

11 But if I have to have that space cleaned out, if I
12 have to do other things before I go in there, yeah, it's going
13 to cost some money, it's going to be some issues. But we
14 don't do the work very often that we're required to go in
15 there when that tank is full of product. And trying to fix
16 something. We do it, but we take a number of other
17 precautions and that's somebody very special. That's a very
18 special thing.

19 And the standards seem to think that happens
20 everyday. What usually happens is we have a space that looks
21 perfectly safe, we go in there, everything's fine, and then
22 something turns on us, either an outside thing that we didn't
23 account for, gases, pick-up trucks sitting next to the manhole
24 running, other things that happen that create things to get
25 into our space. Or we bring something into the space that we

1 didn't think about that going to cause the problem. We need
2 to recognize those and deal with them.

3 MR. BIERSNER: Final question. To the panel but to
4 the audience generally. A current issue with regard to
5 1910.146, definition of confined space, is the element
6 restricted access and egress. And that seems to be open to a
7 lot of interpretation. And it certainly has been a legal
8 issue in enforcement of the standard.

9 I was wondering if somebody, people can tell me
10 generally what they think that term means, restricted access
11 and egress from a space? Some examples or, perhaps, the
12 definition would be helpful. because we're going to be faced
13 with that and we'd like to clarify it as much as we can when
14 we write this standard.

15 MR. MILLER: One of the definitions that we use is
16 that person has to contort their body to get into it. One of
17 the problems is most of our people don't have a problem with
18 contorting their body and getting through it, or taking all
19 manners of things through that one hole. And so it doesn't
20 seem quite as restrictive as we think, as a lot of people do.

21 But having to contort the body, so normally what we
22 do on a structure that is contained product, and maybe has
23 product under a bottom or some other place that could get lose
24 in there that hasn't been cleaned up yet. We haven't been
25 able to get to it, we have to expose it so people can get to

1 it. Is we make it a large opening in the site. At least one
2 where a person can walk upright through it. And it changes a
3 lot of things are gone now because we can quickly get in and
4 out, we can bring bigger equipment in there, we can handle the
5 hazards better because we have more access for other
6 equipment.

7 But I think contorting the body -- how much? That
8 becomes an issue. If I'm 6 foot 7, and there's a lot of
9 doorways here that that person would have to contort his body
10 to get through, and so it creates an issue.

11 MR. GONZALEZ: To that point, I mean, some
12 facilities actually say that it only has one point of egress
13 or access that in and of itself constitutes limited access,
14 limited egress. And then other facilities, and I agree that,
15 basically, if you can't walk in and out a majority of the
16 facilities that, especially, in the industrial environment, we
17 feel there may be an opportunity to open more than multiple
18 manways, for the most part, there is going to be a real
19 limited access and there will only be one entry point, one
20 exit point.

21 So, I mean, it's a real ambiguous and a real vague
22 part of the standard, I agree.

23 MR. MILLER: Yes, I agree that number is a real
24 definer as to how well you can get in and out. If you go back
25 to the fire codes when they had the revolving doors in

1 Hollywood where all the people piled up against the revolving
2 door, who would have thought that that was an issue until they
3 discovered that when everybody is pushing on the revolving
4 door it doesn't work.

5 And so now everywhere you see doors beside it that
6 push out and a crowd can deal with it. So not only is it
7 number of exists and entries, but it's the amount of people
8 that are in there.

9 And one of the things that we didn't comment
10 earlier, when we build a structure, it might be a 100 foot
11 diameter, there might be seven crew members build that, do we
12 want three rescue people standing there watching the seven
13 people build it as an economic issue if there are not hazards?
14 And we need to think about how we deal with those things.

15 MR. BIERSNER: Yes, keep in mind that how you define
16 that term will determine whether or not you're going to be
17 obliged to comply with the standard. I mean, that's the
18 broader and the looser to define it, the more likely they are
19 to have to comply with the standard and the more specific you
20 can be and the more narrow you can be in the definition and
21 the less likely you might be to -- the more people will
22 probably be able to avoid being covered by the standard. So,
23 the definition of the term is extremely important.

24 MR. MILLER: Well, for instance, going into a sewer
25 manhole, we have experts here but you would not have to

1 contort your body to go into a sewer manhole.

2 MR. BIERSNER: No, but the entrance to the sewer
3 manhole is 22 inches and you have to have less than a 40 inch
4 waist to go through there.

5 (Laughter)

6 I'm in full agreement and the fact is, is that we
7 have to have a ladder that sticks out three feet. So you put
8 the aluminum ladder in there and then this 38 inch waist might
9 have a problem going through there. The other part of that is
10 that any type of rescue situation with a SEBA attached to your
11 body will not go through there. So I agree with both
12 gentlemen.

13 In fact, I sat back down when Mario started talking
14 because I feel like that it's the definition right as it's
15 written now is adequate. Limited access and egress means one
16 way in and out, in my opinion. If there's more than one way
17 in and out of the space, depending on how many people are in
18 there, then it takes away from the fact that it's actually a
19 confined space. Because I can exit.

20 But I've even seen on a tank situation, an existing
21 tank, where it's a bulkhead situation, where you have to step
22 over, even though the doorway is adequate for you to run in
23 and out, you could still have a hydrogen-sulfide contamination
24 in that 6 inch area. So the guy goes across, or maybe three
25 of them go across into the middle of a 100 foot vessel and as

1 they go across they stir that hydrogen sulfide behind them,
2 they're overcome, they fall into that 6 inches of hydrogen
3 sulfide that's in there and they die even though there's a
4 door wide open that they can exit with.

5 So, multiple openings allow for some ventilation to
6 go through. And go back to that ventilation thing. My idea
7 of a confined space is one way in and out and very difficult.
8 You have to contort yourself to get in and out of there or you
9 have to take special measures to be able to access and egress
10 that space.

11 MR. MILLER: And again, if certain sizes were
12 allowed, and I don't want to look at any more regulation, I
13 just want to think out loud here, certain sizes, for instance,
14 if the sewer manholes were larger, think about how many issues
15 would disappear in rescue, ventilation, other issues? You
16 know, we're worried about expense in situations, but if people
17 were allowed to take the option, if I build, say, a 30 inch
18 manhole, I don't have to meet this regulation, I've got
19 access. If I have a 24, then I've got to do this other thing.
20 Right now there's no decision because there is a little lack
21 of clarity, you're right.

22 What makes this better than another place? And I
23 really like the idea of multiple places to get in and out.
24 And I like that. I still think size is an important thing as
25 far as ability. Because when I go through an 18 inch manhole

1 in the construction business in my tanks, it takes a lot of
2 pushing and shoving for me when I go through a 24 inch manhole
3 I have no problem. And I step through it and I go through it.
4 And a worker that's unused to it, he can't figure it out. But
5 that's another issue.

6 MR. STRUDWICK: Well, the only problem, and I'm not
7 going to take a lot of time to do this, is that when we go
8 into a communication vault it's a 24 inch opening. It's very
9 easy to get in and out of, okay. But they pump their water
10 out into the street. When you have a 24 inch in a sewer
11 manhole and we have heavy rain like in the Houston area, we
12 end up with so much inflow that we have to build more
13 treatment plants and we have more exposure.

14 And so, I mean, the fact is is that at this point in
15 time in the sewer business they're trying to eliminate access
16 into manholes because they are manholes. And they've got a
17 waste water access device now that they can actually introduce
18 cameras and other cleaning equipment into the sewer mains
19 without men going inside. So we'd like to get rid of the
20 manholes completely. That would limit as much inflow as
21 possible. But they're there. And they're there by the tens
22 of thousands. So whatever we come up with has to deal with
23 the existence of what's already there.

24 Yes, we can make improvements down the road, but
25 there are other factors, you know, from a standpoint of size

1 and shape and all that kind of thing. And, actually, it goes
2 back to that initial situation where you analyze the task to
3 be done and you handle it in the safest manner possible. And
4 I think 1910.146 answers a lot of that.

5 MR. MILLER: Many operations that we've developed
6 today are doing what you're talking about in eliminating the
7 ability for people to get in there, but then there's always
8 that one time that person has to go in there and that's
9 special and something needs to be done.

10 And we found that as things have come in on us, you
11 know, asbestos, think about it. Totally encapsulated, the
12 question was asked, is that a dangerous space, could that be a
13 danger? Yes, it could turn on you. That space could turn in,
14 it's encapsulated. We have actually had cases on projects
15 where the nitrogen from the vessel that was being purged as
16 part of the cleaning process went into a tent that was being
17 built on top to encapsulate an operation and the workers
18 inside there did not check that space before they went in and
19 they didn't walk out.

20 And many operations, people asking us to contain
21 well fire now. Well what it does to us in the tank business,
22 whatever we use to contain it, and that's now blowing our
23 equipment around. So we have to be careful that we don't
24 solve one problem and create another in the safety business
25 everyday. Just have to understand the whole process.

1 And whether it's manholes and getting more rain in
2 them or other issues, it's all a factor of what is going into
3 everybody's thought of how to deal with things. And OSHA's
4 done a good job here to come listen.

5 MR. SOKOL: I'd like to comment, representing ASSE
6 again. And the ANSI standard, they do have a definition of
7 confined space. And it requires three things that are -- and
8 as Mr. Miller connected to, that three things have to take
9 place for it to be a confined space. But also in the ANSI
10 standard Z-117.1, they give some interpretations on what they
11 think that the terms mean or what the users should take from
12 it.

13 And they do have a definition of restricted entry.
14 And the definition says, restricted entry and exit means
15 physical impediment of the body, e.g., use of the hand or a
16 contortion of the body to enter into or exit from the confined
17 space.

18 So, one thing that the ANSI standard does do is it
19 attempts to give some guidance to the user of it on what these
20 things mean.

21 OPEN DISCUSSION

22 FACILITATOR MCLAHAN: Okay. Any other questions,
23 comments?

24 (No response)

25 All right, let's go through these issues that were

1 near and dear to us in OSHA and see if -- and thank you very
2 much gentlemen. See if anything comes to mind that you'd like
3 to share with us.

4 MR. BIERSNER: Brenda, could you use a mic please so
5 that the recorder can get your --.

6 FACILITATOR MCLAHAN: I'm sorry. Go through these
7 issues to make sure that there isn't anything that you've
8 forgotten to share with us. And we'll just walk through the
9 list as reminders.

10 Definition of confined space in construction. Is
11 there anything that wasn't mentioned that you'd like to bring
12 to our attention about definition of confined space?

13 (No response)

14 Okay, early warning system? Anything?

15 (No response)

16 Okay. Looks like you guys are hungry. You want to
17 get to lunch, huh?

18 (Laughter)

19 Continuous monitoring?

20 MR. STRUDWICK: I only have one comment about the
21 continuous monitoring and it goes back to the monitors
22 themselves. I've heard a lot of discussion about monitors and
23 what they're capabilities are and all that. And I see that
24 there probably needs to be some manufacturers represented,
25 some people that really actually perform the service to us as

1 providing those monitors to be able to fill you in a little
2 bit on those type of situations. And what we've got coming
3 down in the future, because somebody said it, technology is
4 moving all the time. And, honestly, they're getting much,
5 much better.

6 So I think you really need to seek out some of the
7 different manufacturers. I heard Dynamation, I think, being
8 mentioned. I heard, who else?

9 MR. : --- Systems.

10 MR. STRUDWICK: Yes, right. MSA. A number of them.

11 FACILITATOR MCLAHAN: Okay.

12 MR. STRUDWICK: So, it would be a good idea.

13 FACILITATOR MCLAHAN: All right. Thank you. Anyone
14 else?

15 (No response)

16 Okay, accommodating small business? Any other
17 comments in that area?

18 MR. : No accommodation.

19 (Laughter)

20 MR. STRUDWICK: Sparked a little interest here
21 because everybody has to start somewhere and I'm Greg with
22 NUCA again. And we have a lot of small businesses. But let
23 me tell you, I think that the systems exist. The assistants
24 in a rental type of situation where you don't have to purchase
25 the equipment, the training exists. I think that a small

1 business is probably in pretty good shape.

2 FACILITATOR MCLAHAN: Okay. And the last item,
3 attendants and supervisors?

4 MR. MILLER: I apologize for not covering that.
5 Keith Miller, Steel Plate Fabricators. The attendants and the
6 supervisors are two different people. And they have two
7 different functions. And where we've found that position
8 combined, then they're trying to be the supervisors checking
9 on things inside, going in and out, seeing things are working,
10 as well as doing other things, looking at other attendants.

11 Then when they get tied with that one location,
12 they're staying in that one location, they're drive is to go
13 somewhere else and deal with the other problems in other
14 places. And we've found a conflict there.

15 FACILITATOR MCLAHAN: Okay. Anyone else on the
16 issue of attendants and supervisors?

17 (No response)

18 Okay, now that's our list and we're interested, as
19 you were told a couple of times, in anything that you have to
20 say. And we're coming to the close, so it's kind of speak
21 now. Yes, sir?

22 MR. : Yes, I would like to say just one
23 thing. And maybe for clarification maybe someone has already
24 spoken on the subject. But is this going to be handled
25 through the ACOSH Committee, the writing of this? I sit on

1 one now that's dealing with 1926.550, and the process of re-
2 writing the standard. And is this the way this process is
3 going to be handled through a committee of people who use this
4 system or whatever to write the new standard?

5 FACILITATOR MCLAHAN: Noah will answer that
6 question.

7 MR. CONNELL: Yes, we have worked closely with
8 ACOSH. We will continue to work closely with the advisory
9 committee. We had an earlier draft that has gone back and
10 forth between OSHA and the advisory committee and when we sit
11 down after this process to complete drafting a proposal, we
12 will be consulting with the advisory committee again. So,
13 yes, the advisory committee will very much stay in the loop.

14 MR. STRUDWICK: One final comment. I just want to
15 say that we appreciate the efforts on behalf of OSHA. We know
16 that you are real people. Okay, out there in the field. And
17 we, believe it or not, we use these things constantly. We
18 know that you set minimum standards. We know it's difficult
19 for you to make everyone happy. And whatever we can do to
20 make that job a little easier for you, we'd be more than happy
21 to do. On our own or as an association.

22 So, come and ask. And then if we aren't on the
23 right track, let us know why. And, hopefully, we can do the
24 same thing to you in a format like this where we're working
25 together as a consensus group.

1 I participated in the common ground pipeline study
2 and it's much like what has happened right here. And if we
3 can do more of that, we can solve some of these problems, all
4 being on the same page, and save a number of lives in the
5 field, it's worth it.

6 FACILITATOR MCLAHAN: Thank you.

7 MR. BIERSNER: In that regard, you will have another
8 opportunity to actually speak your peace after the proposal
9 comes out, in addition to a public comment, written comment,
10 requirement. We also will have a hearing associated with it,
11 as Noah mentioned earlier. So if you don't like writing, you
12 can also come in and give us your point of views in the
13 hearing.

14 And it's an informal hearing. There happens to be
15 an ALJ present and there's a bunch of lawyers scurrying around
16 but, basically, you can speak your peace without too much
17 restraint as long as you -- and I'm sure in Texas there's no
18 problem here. You all remain civil.

19 (Laughter)

20 So you will have another opportunity to speak your
21 mind after the proposal comes out. Where we hold that
22 hearing, I'd certainly like to see it outside of Washington as
23 well as within D.C. itself so it gives more people an
24 opportunity to come in. Because, typically, when you get into
25 D.C., you get all the trade associations and everybody else.

1 So, hopefully, we'll have another opportunity to get your oral
2 testimony later on.

3 FACILITATOR MCLAHAN: Okay. Anything else that
4 you'd like to share with OSHA?

5 (No response)

6 All right. Well, thank you very much. That
7 concludes our session today. And we certainly appreciate all
8 of your coming out and taking the time to spend with us. And
9 thank you again.

10 (Whereupon, the meeting was adjourned at 11:35 a.m.)

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