

NFPA STANDARDS COUNCIL MEETING
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AFTERNOON SESSION
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P R O C E E D I N G S

1
2 THE CHAIR: If we can come back to order.
3 I'm Jim Pauley, Chair of the Standards Council.
4 We're going to ask the members of the Standards
5 Council to introduce themselves as well as everyone
6 else in the room.

7 I'm also reminding everyone that speaks
8 today that these proceedings are being recorded by
9 our stenotypist, so please be sure to preface your
10 remarks with your name and affiliations so that we
11 make sure we have that captured appropriately for the
12 record. As I'd indicated, I'm Jim Pauley, Chair of
13 the Council.

14 MS. SPENCER: Amy Spencer, secretary to
15 the Council.

16 MS. FULLER: Linda Fuller, NFPA staff.

17 MR. BELL: Kerry Bell, member of Council.

18 MR. CARPENTER: James Carpenter, member
19 of Council.

20 MR. NEWMAN: Michael Newman, member of
21 Council.

22 MR. HARRINGTON: J.C. Harrington, member
23 of Council.

1 MR. JARDIN: Joseph Jardin, member of
2 Council.

3 MR. MILKE: Jim Milke, member of Council.

4 MR. McDANIEL: Danny McDaniel, member of
5 Council.

6 MR. LEBER: Fred Leber, member of
7 Council.

8 MR. HUGGINS: Roland Huggins, member of
9 Council.

10 MR. GERDES: Ralph Gerdes, Council
11 member.

12 MR. CLARY: James M. Clary, member of
13 Council.

14 MR. FARR: Ronald Farr, member of
15 Council.

16 MS. BRODOFF: Maureen Brodoff, NFPA
17 staff, legal counsel to the Standards Council.

18 MS. BEACH: Denise Beach, NFPA staff.

19 MR. MUELLER: John Mueller, New York
20 State Office of Fire Prevention and Control.

21 MR. MAY: Paul May, NFPA staff.

22 MR. FLUER: Larry Fluer, code consultant
23 representing Compressed Gas Association.

1 MR. PHILIPS: Nathan Philips with
2 Code-Making Panel 5.

3 MR. DUBAY: Christian Dubay, NFPA staff.

4 MR. GRESHO: Marty Gresho, Chair of NFPA
5 2.

6 MR. TORBIN: Bob Torbin, Cutting Edge
7 Solutions.

8 MR. COLONNA: Guy Colonna, NFPA staff.

9 THE CHAIR: Thank you. The first item on
10 our agenda this afternoon is Item 09-8-4-a-1 which is
11 an issue on NFPA 52.

12 Can I ask you if you're going to speak to
13 this issue, either for or against, if you want to
14 take a seat at the end of the table down here.

15 The appeal is to uphold the Association
16 action and accept Comment 52-34. And I assume all --
17 Are all of you gentlemen speaking in favor of the
18 appeal?

19 MR. FLUER: Yes.

20 THE CHAIR: Is anyone speaking in
21 opposition to the appeal? Okay.

22 What we'll do is give you about ten
23 minutes to sort of make your opening remarks and get

1 the issue in front of the Council. You can sort of,
2 among you, use that ten minutes however you would
3 like.

4 Then I'll open it to questions from the
5 Council members. We'll take those and then I'll give
6 you an opportunity to just sort of wrap up quickly.
7 So, Mr. Fluer, are you leading this off?

8 MR. FLUER: I have a few written notes,
9 yes, sir.

10 THE CHAIR: Please proceed.

11 MR. FLUER: My name is Larry Fluer.
12 I'm a consultant to the Compressed Gas Association.
13 I'm also a member of six different technical
14 committees in NFPA including VAF which is the NFPA 52
15 Committee; IMG which is Industrial and Medical Gas
16 Committee that publishes NFPA 55, two of the key
17 documents in this discussion.

18 I'm also a member of HYD which is the
19 Hydrogen Technology Committee, a new code being
20 developed for hydrogen, NFPA 2; a member of the
21 Hazardous Chemicals Committee which just finished
22 publishing NFPA 400, and two of the building code
23 committees for industrial storage, miscellaneous

1 occupancies in 5000 and also NFPA 101.

2 CGA I think should be understood as a
3 safety organization with a mission statement of
4 safety.

5 It's also a standards development
6 organization and it was formed in 1913 with a mission
7 statement of safety.

8 And in this appeal CGA is asking that
9 the Standards Council sustain the vote of the general
10 membership and overturn the vote of the technical
11 committee regarding the Certified Amending Motion
12 before you.

13 We feel there are compelling reasons to
14 do so and we recognize this is not a decision that
15 the Standards Council takes lightly.

16 Rationale was provided in a letter which
17 you have as an exhibit under my letterhead,
18 9-8-4-a-1.

19 First and foremost is the Standards
20 Council, over a period of two years, met to sort out
21 the scopes between NFPA 52/55 and some allied
22 committees dealing with compressed gasses.

23 And the Standards Council polled the

1 technical committees involved and polled the general
2 membership for comment.

3 A letter was forwarded to the Standards
4 Council secretary from Carl Johnson who was then the
5 CEO of Compressed Gas Association in support of the
6 recommendations made by the then TC Chair of NFPA 55
7 asking that scopes be coordinated.

8 The Standards Council determined that
9 coordination was required between NFPA 52 and NFPA
10 55. Rejecting the certified motion essentially
11 throws out that decision. It fails to coordinate the
12 documents.

13 The coordination of documents is required
14 to eliminate conflicts between them with respect to
15 the storage component for bulk hydrogen systems.

16 NFPA 55, as the Industrial and Medical
17 Gas Committee, has a responsibility to establish
18 requirements for storage.

19 NFPA 52, Alternate Vehicle Fueling,
20 has a responsibility to establish requirements for
21 dispensing and fueling but not the storage component.

22 The two committees were asked to work it
23 out, determine how to work together, implement the

1 Standards Council decision.

2 The work in a Joint Task Group was
3 documented in a memo from Carl Rivkin, then the staff
4 liaison to both committees. That's also included in
5 your packet as a supplemental, 209-8-4-a-1.

6 The impact on other codes is also a
7 consideration in your decision today. The impact on
8 NFPA 2, which is now an emerging document, is
9 affected. NFPA 2 is extracting from both NFPA 52 and
10 55.

11 The fundamental provisions for the
12 storage component are found in 55. If in fact NFPA 2
13 extracts from 55, now we've got three documents in
14 the mix.

15 If the appeal is rejected, then NFPA 52
16 would be the odd man out. So there's three
17 standards, two of them with one set of requirements,
18 the other with a different set of requirements.

19 The NFPA process was followed by the IMG
20 TC acting jointly with the NFPA 2 TC, supported by
21 function from Department of Energy.

22 Department of Energy provided substantial
23 research funds to determine the technical content of

1 the change that was approved by the general
2 membership.

3 The people doing the work from the
4 scientific side was Sandia National Laboratories.
5 Sandia Laboratories is recognized as a competent
6 authority and research entity throughout the country.

7 The IMG TC was charged with the
8 responsibility in developing fundamental
9 requirements, and the Rivkin memo points to that fact
10 as well.

11 The VAF Committee, which is NFPA 52, had
12 three choices the way we see it. One choice was
13 extract requirements. The second choice was refer
14 back to the NFPA standard. And the third choice was
15 to do nothing.

16 So the committee proposal that was
17 rejected by one third of the voting membership on VAF
18 was to extract requirements.

19 There's a simple solution to this to
20 coordinate documents and that would be to point to
21 NFPA 55 for requirements. That solution is proposed
22 in my letter of July 13th which you have.

23 So rejection of the appeal results, in

1 our opinion, in a further fracturing of VAF TC as it
2 sends a message that the Standards Council directive
3 to coordinate documents is without merit.

4 We're asking the Standards Council
5 enforce the scope statement issued in your letter of
6 April 26, 2006 and by doing so will coordinate ANSI
7 documents and coordinate a package for CGA -- for
8 NFPA on this particular item. Thank you.

9 THE CHAIR: Thank you. Gentlemen,
10 comments?

11 MR. GRESHO: I'll speak next. My name is
12 Marty Gresho. I'm a licensed fire protection
13 engineer, the Chair of the Hydrogen Technologies
14 Technical Committee which is responsible for NFPA 2,
15 a new document coming out soon as Larry mentioned; a
16 member also of the Industrial Medical Gasses
17 Technology Technical Committee responsible for NFPA
18 55; a member of the Hydrogen Industry Panel on
19 Codes -- just HIPOC is our acronym -- which is a body
20 that's primarily interested in correlation and
21 harmonization of all the various codes produced by
22 both NFPA and the ICC related to matters related to
23 hydrogen.

1 And I'm the Chair of the Joint Task Group
2 between NFPA 55 and NFPA 2 that developed the
3 separation distances for bulk hydrogen storage in the
4 first place, so -- And I speak in favor of the
5 appeal.

6 I thought I'd introduce this by just very
7 briefly summarizing what the Task Group 6 work effort
8 was comprised of.

9 First I'll point out that this Task
10 Group, in both setting it up it was a Joint Task
11 Group between the two -- what I thought were the two
12 primary committees that would be interested in this
13 subject and we followed all applicable NFPA processes
14 in both developing the Task Group, implementing what
15 our end product was, and the way that it was
16 ultimately incorporated into NFPA 55.

17 Our challenge was to recreate or revise
18 the basis for the bulk gaseous hydrogen separation
19 distances.

20 This was a formidable challenge because
21 the separation distances had existed in the NFPA
22 predecessor documents to NFPA 55 since the 50's and
23 it was hard to find written basis material.

1 Nonetheless we tried that. We couldn't
2 find any written basis material but we wanted to
3 reestablish a documentable basis.

4 The end result was that we ended up with
5 a -- in my opinion a very well-substantiated code
6 change proposal. It actually came in at the comment
7 phase.

8 It was well documented meaning we
9 created -- in addition to all the proposed code text
10 we created a new annex that spelled out our
11 methodology such that others could come in and repeat
12 it.

13 We had a basis section in there that
14 included the basis statement for each and every one
15 of our assumptions and why the Task Group thought it
16 was a good idea.

17 And it also included reference to several
18 of these -- or to the Sand reports which is the
19 acronym for a Sandia report which is where some of
20 the highly technical information that was developed
21 by the Sandia scientists was published.

22 It's repeatable, meaning the methodology
23 is documented so a different group, a different Task

1 Group, could come in and repeat what we did and
2 probably end up with similar results.

3 It's also revisable meaning since we
4 wrote down everything that we did, it's -- you know,
5 somebody could come back and, as technology develops,
6 as new technology gets implemented, as knowledge
7 increases, you could go back and change the set of
8 base assumptions and tweak the tables as needed.

9 It was also customizable. What I mean by
10 that is we provided four enforcers, both a
11 prescriptive pick chart of separation distances based
12 on a very easy methodology, and we also provided
13 formulas or algorithms to make it customizable,
14 meaning if you want to do something different and
15 it's within the set of what we predicted to be
16 different internal diameters, fine, we give you a
17 formula for doing that and that's all contained
18 within the code so it's a fairly usable result.

19 The end result of all that work was that
20 the NFPA 55 approved the comment, and this work is
21 being incorporated into the NFPA 2010 edition which
22 is a consent document.

23 One thing I'll point out is that this was

1 not a small effort. This was a substantial amount of
2 work that went into that both in terms of cost and
3 time. It was a multi-year effort.

4 We had -- Since the Department of Energy
5 was very interested in seeing hydrogen infrastructure
6 kind of enabled, they were supportive and provided us
7 with access to research and scientists that's
8 probably somewhat the exception for an NFPA document,
9 as a Chair to have that at my disposal, those kind of
10 capacities.

11 So they were actually doing hard physical
12 research out in the field upon which our code changes
13 were based. The support for all of this -- I haven't
14 done a detailed analysis but it probably was --

15 THE CHAIR: If I can, I'm going to ask
16 you to try to wrap things up if you could. I want to
17 give Mr. Mueller a chance to speak and we're sort of
18 past our ten minutes already.

19 MR. GRESHO: I thought it was ten minutes
20 each, I'm sorry.

21 THE CHAIR: Ten minutes for each side.
22 You guys are the only side, so if you would please.

23 MR. GRESHO: Anyway, I would argue that

1 this type of effort that we put into developing this
2 is exactly the type of model that NFPA would like to
3 encourage, meaning creating a detailed scientific
4 reproducible basis for code change reports.

5 And so the way that we can encourage that
6 is to play by the rules and enforce our scope
7 statement such that the entities that are funding
8 these things don't get discouraged.

9 I think Larry already talked about the
10 extract policy a little bit, so I'll -- So NFPA 2
11 comes into this.

12 We're entering our first ROP in two
13 weeks, and so if we enter into this with this appeal
14 being rejected, that leaves us in a quandary, meaning
15 we're a -- the basis for our document is heavily into
16 extract.

17 And so if we can't extract this material
18 that -- we have conflicting material in 52 and 55 --
19 then that leaves us in a quandary as to what material
20 to extract, so that's a problem for us.

21 So I think the Standards Council has
22 probably several choices available to it now. One
23 might be to return the document to committee, but

1 that would -- in my view I think that would revert
2 the entire document back to the 2006 text and retain
3 the conflict between 55 and 52.

4 You could reject the appeal, which
5 maintains the 2006 text just for this subject matter,
6 just for this table, which also retains the conflict.

7 You could approve the appeal which
8 overturns this minority contingent of the technical
9 committee but does not remove -- and it removes the
10 conflict, and it also agrees with the majority of the
11 technical committee and the general assembly.

12 Or you could revise the appeal, which is
13 to change the extract to a reference as the appellant
14 has referred to in his letter which seems like a --
15 maybe a favorable choice. Thank you.

16 THE CHAIR: Thank you. Mr. Mueller?

17 MR. MUELLER: I'll be brief because I
18 also thought we had ten minutes each. My name is
19 John Mueller. I'm the Deputy State Fire
20 Administrator of the New York State Office of Fire
21 Prevention and Control, and an enforcer of fire
22 prevention and building codes. I'm also a member of
23 the Hydrogen Industry Panel on Codes.

1 I just want to talk a little bit about
2 the practical effects of what has happened, the
3 situation that's arising and that if this appeal is
4 not successful, the potential conflicts and the
5 difficulties that regulators are going to face in
6 using the NFPA codes and standards.

7 Jurisdictions that are responsible for
8 adopting codes and standards and for administering
9 and enforcing them need standards that don't have
10 conflicting provisions and that are coordinated so
11 that requirements for materials themselves, for their
12 use, for their use in particular occupancies, for
13 fire protection requirements, which are often
14 contained in separate documents, separate reference
15 standards, are all coordinated and all work together,
16 and we face a situation where that may not be the
17 case.

18 The subject at this hearing is to deal
19 with the potential conflict in the two standards, the
20 distance separation tables in NFPA 52 and NFPA 55.

21 And it really comes back and sets up a
22 problem for NFPA 1, the Uniform Fire Code or whatever
23 fire prevention code that a jurisdiction may adopt.

1 If you look at the potential use of
2 hydrogen as a motor vehicle fuel, NFPA 1 -- if you're
3 dealing with a fueling facility, motor vehicle
4 fueling facility, NFPA 1 sends you to NFPA 30A in
5 Chapter 12 of NFPA 1.

6 It also has additional requirements for
7 whether it's CNG, LNG, hydrogen, or LPG, although the
8 chapter in NFPA 1 only contains specific provisions
9 for CNG, LNG, and LPG. It doesn't have any specific
10 provisions for hydrogen. It just says goes to NFPA
11 52.

12 Now NFPA 1 also contains provisions
13 pertaining to compressed gasses and cryogenic fluids.
14 They're contained in Chapter 63.

15 So if we face a motor vehicle fueling
16 facility that's going to use hydrogen, it's also a
17 situation involving compressed gasses or cryogenic
18 fluids, so we have to go to Chapter 63 in NFPA 1 and
19 that sends us to NFPA 55.

20 So in terms of looking at the material
21 itself, the use of hydrogen, NFPA 1 is sending us to
22 NFPA 55 for requirements.

23 If we're looking at the use and occupancy

1 in NFPA 1, it's sending us to 30A which ultimately
2 sends us to 52 for the provisions.

3 So because of that, if this appeal is not
4 successful, when we look at the material itself,
5 looking at the use of hydrogen as a compressed gas or
6 cryogenic fluid, we go to -- it requires us to use
7 NFPA 55 and that will have a distance separation
8 table that's the subject of this appeal.

9 When we look at the use and occupancy
10 requirements, because it's a motor fuel dispensing
11 facility it sends us to 30A which sends us to 52 and
12 now we have different requirements in the distance
13 separation table.

14 And the question is how do we enforce
15 both, how does somebody comply with both, and that's
16 a great difficulty.

17 So what that means is jurisdictions that
18 are looking to adopt the codes, that are looking to
19 adopt the standards as reference standards to
20 whatever code they use, if they're looking to update
21 their reference standards, they're now faced with a
22 situation where, in this particular situation, they
23 have significant conflicts in the requirements,

1 between the requirements for the material itself and
2 for its use and occupancy.

3 And so then what happens? What falls
4 back on that jurisdiction, that governmental agency
5 or I guess it could be a private organization that's
6 looking at adopting these standards or updating the
7 additions of the standards that they do use? What
8 happens then?

9 Well, they could make a decision, Well,
10 we're going to disregard one and only use the other,
11 and that really doesn't work, because I said one
12 deals with -- NFPA 55 deals with requirements of the
13 material, the compressed gas or cryogenic fluid, and
14 NFPA 52 deals with the use and the occupancy as motor
15 fuel dispensing.

16 So having a government or other authority
17 having jurisdiction disregard one or the other is
18 really not good practice.

19 Or they could say, We could start
20 tweaking them. We could say, Well, in this
21 particular situation we're only going to use parts of
22 this standard, in this situation we'll use parts of
23 that.

1 And again, is the best place for that
2 to happen as part of the governmental rule-making
3 process or is that something that should happen in
4 the technical committee process of whatever
5 standards-making organization is handling -- is
6 developing a standard, in this case NFPA.

7 This belongs in the NFPA standards
8 development process, not really out there in the
9 government ruling-making process where, again, now
10 governments are then faced with the cost of that and
11 code adoption processes.

12 It involves technical -- establishing
13 committees to review, review things, what's missing,
14 what's not missing, public comment period, responding
15 to the public comments.

16 All of those things are now complicated
17 because instead of adopting a standard as it is
18 because it does what the government needs it to do
19 because it's coordinated with the other standards
20 that are being utilized or referenced, because there
21 are now differences, now that complicates the rule-
22 making process.

23 That adds time which means the standards

1 that are used that are referenced, they're out of
2 date or a cycle out of date or more, and it adds cost
3 to the government of doing that.

4 So again, if I could stress anything is
5 that the way to resolve these inconsistencies is
6 through the NFPA committee process, resolve it
7 through the issuance of the codes and standards by
8 NFPA and not have this subject to debate, discussion,
9 and whatever revision may happen outside of the
10 technical process of development of NFPA standards.

11 THE CHAIR: Thank you. I'll open it up
12 to questions from the members of Council. Jim
13 Pauley, Chair of the Council.

14 I guess, Mr. Fluer, you've had a chance
15 to see the ballot comments from the 52 committee on
16 that issue, I presume, when it came through.

17 Are there any comments on -- that you
18 would say about the coordination between 55 and 52?
19 There are some of those comments that say 52 needed
20 to have better input into what 55 was doing or that
21 there was some coordination thing that seems to be
22 implied in the comments. Did any of you have any
23 comments relative to that?

1 MR. FLUER: There's two of us that are
2 members of both the 52 and 55 committees. UL has a
3 representative on both committees I'm the other
4 representative.

5 A Joint Task Group was formed between 52
6 and 55 to address the issue and three members were
7 appointed from each committee.

8 The 52 committee had -- At least one
9 member attended each of four meetings. Participation
10 then slacked off from the 52 committee once the
11 agreement was reached as to number one; the Standards
12 Council decision was implementable. The group came
13 to that conclusion as documented in Carl Rivkin's
14 letter.

15 Two of the members on that Joint Task
16 Group did not attend several of the meetings. I
17 can't speak to that.

18 All three meetings were attended -- or
19 all four meetings were attended by the three
20 representatives from NFPA 55.

21 In the negative comments that I've seen,
22 there's been sweeping unsubstantiated statements made
23 by an adversary group. This is my view. And trying

1 to resolve those differences has been a very
2 difficult thing.

3 We have people on the 52 committee
4 that have a good appreciation for what's gone on.
5 They've spent time in studying it.

6 If you review the negative ballots, you
7 can see reasoning such as -- somewhat subjective,
8 more towards the I-don't-like-it kind of a concept
9 rather than technical in-depth comment to the
10 contrary.

11 So I think it's a learning thing. I
12 think it will improve over time. I stand behind the
13 fact that during the ROC meeting when in-depth
14 discussion occurred, out of the negative voters on
15 the ballot very few attended the ROC meeting.

16 Trying to understand the Sandia document
17 takes time and effort and I don't know how much time
18 and effort was really spent there.

19 But when I review the negative ballots I
20 question whether in-depth time was spent with the
21 technical report or not. My view.

22 THE CHAIR: Thank you. Mr. Bell.

23 MR. BELL: Terry Bell, member of the

1 Council. Just a follow-up question related to the
2 comments on the ballot.

3 It looked like there were several of the
4 comments criticizing the 3 percent assumption or 3
5 percent leap rate. I guess the implication was that
6 it could be larger than the 52 application.

7 How does the separation differences in
8 NFPA 55 in the table here compare to the separation
9 distances in the previous edition of NFPA 52? Are
10 they more stringent, less stringent?

11 MR. FLUER: More stringent. 55 is more
12 stringent, yes.

13 MR. BELL: So even though they're
14 criticizing the leap rate, this is a more stringent
15 criteria.

16 MR. FLUER: Yes, and I can't explain that
17 either. The first part of your question on the 3
18 percent leap rate, that wasn't the ballot.

19 The committee was asked to ballot -- to
20 agree with the membership or not and not to get into
21 comments of the technical merit thereof.

22 You saw discussion on 3 percent which,
23 in my view, got off the point of what they were asked

1 to do.

2 THE CHAIR: Thank you. Mr. Huggins, did
3 you have a --

4 MR. HUGGINS: Terry hit it.

5 THE CHAIR: Any additional questions from
6 Council members? Seeing none, gentlemen, any
7 follow-up remarks quickly to wrap things up?

8 MR. FLUER: I guess we've made the
9 statement. Just in a simple sense we're asking that
10 you enforce your own decision and essentially that
11 says, Direct the committees to coordinate documents.
12 And the only coordination that's needed is 52 needs
13 to coordinate with 55.

14 THE CHAIR: Anything else, gentlemen?
15 Great. Thank you. With that we will bring that item
16 to a close.

17 I thank all of you for your attendance
18 here today, for taking the time and effort to be here
19 at this meeting and sharing your insights with us.

20 The decision -- The Council will arrive
21 at a decision. That decision will be issued as a
22 written decision by the Council secretary, Miss
23 Cronin.

1 No member of the NFPA staff, nor member
2 of the Council, is permitted to discuss that issue.
3 The written decision will be how the decision from
4 the Council as conveyed. So with that I'll bring
5 that item to a close. Thank you, gentlemen.

6 And we will move -- As soon as we grab
7 our other appellants we're going to move into agenda
8 item 09-8-7-b which deals with NFPA 99 and I'm going
9 to try to stay on the record.

10 Again, this is agenda item 09-8-7-b which
11 is dealing with the issuance of NFPA 99. The appeal
12 is to overturn the floor action on the motion to
13 return the entire report.

14 I'm going to ask that those of you that
15 just came into the room that were not here before, if
16 you'll introduce yourself, your name and affiliation
17 for the record.

18 MR. ERICKSON: Doug Erickson, American
19 Society for Health Care Engineering, the TCC Chair of
20 99.

21 MS. MOREAU-CORREIA: Jean Moreau-Correia,
22 NFPA project administrator.

23 MR. BIELEN: Richard Bielen, NFPA staff

1 and staff liaison for NFPA 99.

2 THE CHAIR: Anybody else?

3 MR. P. MUMMOLO: Paul Mummolo, Smart Tap,
4 Incorporated.

5 MR. F. MUMMOLO: Felix Mummolo, Smart
6 Tap, Incorporated.

7 THE CHAIR: Go ahead, Doctor.

8 DR. EHRENWERTH: J. Ehrenwerth, American
9 Society of Anesthesiologists.

10 THE CHAIR: And you are the appellant in
11 this case. I would ask if anyone else is going to
12 speak -- Is anyone else speaking for the appeal on
13 this? Are there those speaking in opposition to the
14 appeal?

15 Because I'll ask if you are, if you'll
16 get down to that end of the table, that will help us
17 to speed things up a little bit as we dig into this.

18 I'm going to basically give both sides
19 ten minutes to sort of make their own remarks. We
20 will start with the appellant to be able to do that.

21 After those ten minutes for each side,
22 then I'm going to open it up to questions from the
23 members of Council.

1 When we complete those, then I'll allow
2 any closing remarks that you might have to finalize
3 the issues. So Mr. Ehrenwerth, as the appellant feel
4 free to begin.

5 DR. EHRENWERTH: Thank you. Mr. Pauley,
6 members of the Standards Council, my name is Jan
7 Ehrenwerth. I represent the American Society of
8 anesthesiologists and we are an organization that is
9 primarily concerned with patient safety, personnel
10 safety in the operating room.

11 We don't sell any products. We don't
12 make any products that -- So we have no fiscal impact
13 in this.

14 I'm a member of two of the technical
15 committees on electrical systems and piping. I have
16 spoken with a number of the members of the Technical
17 Committees and I represent them as well.

18 Unfortunately, Mr. Dave Mohile, who is
19 chair of the TC on piping systems, had intended to be
20 here to speak for the appeal but he unfortunately was
21 taken ill and could not be here, but he has sent a
22 letter to be read into the record.

23 Before I start I would like to make one

1 comment, that on the NFPA web site it stated that in
2 the ballot that went around, four of the -- five of
3 the Technical Committees approved the return of the
4 motion and three did not.

5 In fact, that is incorrect. Four of the
6 Technical Committees rejected the return to
7 committee. Three approved the return to committee.
8 And the TCC approved it. So in total it was four on
9 each side.

10 As you know, this process has gone on for
11 five years to revise NFPA 99. Many, many people have
12 spent thousands of hours working on this.

13 Most of us are volunteers and we've put
14 forth a lot of our own personal effort. Very few of
15 us actually get paid to come to meetings, and this
16 volunteer effort is key to the success of NFPA.

17 And what I think is important to realize
18 is that if we extend this process again another two
19 years, it's putting a tremendous burden on all of the
20 volunteers and would lengthen the process from five
21 to seven years now.

22 NFPA 99 is an old and tired document.
23 It hasn't undergone a major revision in over 20

1 years. It's a patchwork of ideas that do not meet
2 current needs.

3 The new document is an excellent
4 document. It has many new improvements and many
5 things that will enhance patient and personnel safety
6 in the hospitals.

7 For instance, in the operating rooms the
8 current document specifies a minimum of six
9 electrical outlets.

10 I don't know how many of you have ever
11 been in an operating room but, as you know, with the
12 dozens and dozens and dozens of pieces of equipment,
13 six electrical outlets is absurd. The new document
14 increases that to 36 and that's almost a bare minimum
15 in most cases.

16 There's new things about increasing
17 electrical safety in the operating room. We have
18 these booms that bring in electrical and gasses into
19 the operating room.

20 And ECRI has brought forth the fact that
21 there have been three fires recently in these booms,
22 one of which resulted in a fatality to a patient.
23 The new document requires inspection of these booms

1 on a regular basis.

2 We've added a section, for instance, on
3 low voltage equipment that is not in the current
4 document.

5 The document adds a risk assessment to
6 the code. It's very important that we do this and
7 it's in line with many of the initiatives that FDA is
8 doing in risk alignment.

9 Now, at the NFPA meeting in Chicago the
10 health care section met on at least three occasions
11 to discuss codes and standards changes and to discuss
12 the Certified Amending Motions.

13 At no time during those discussions was
14 there mention that this document was not ready for
15 publication, and there was no mention that this
16 document may be returned in its entirety to the
17 committee.

18 Mr. Erickson, who's Chair, nor any of the
19 other officers, at no time during any of our meetings
20 was not fully supportive of the document.

21 In fact, I believe many of the people --
22 many of the members of the health care section did
23 not stay for the balloting because they felt that the

1 passing was a sure thing.

2 I'm certain if we had discussions about
3 this document not being passed, that many more
4 members of the health care section would have stayed
5 for the Thursday balloting.

6 Mr. Erickson actually mentioned and
7 strongly argued on one occasion that if Certified
8 Amending Motion 99-1, which dealt with the
9 definitions in the new document, did not pass we did
10 not have a document. So he was very supportive.

11 I feel that many members of the health
12 care section did not fully appreciate or understand
13 the implications of Mr. Mummolo's Certified Amending
14 Motion which was 99-8.

15 Unfortunately Mr. Mummolo did not get his
16 comments in on time to the Technical Committee. His
17 only recourse then was to appeal and have the entire
18 document sent back to committee.

19 The discussion on Certified Amending
20 Motion 99-8 then digressed rapidly to issues that
21 some of the minority opinions were trying to put
22 forth but did not get put forth, and then they
23 suddenly jumped on the bandwagon and started a

1 process that had nothing to do with Mr. Mummolo's
2 issues but simply returning the entire document for
3 various reasons.

4 Another thing happened at the meeting
5 and Mr. Erickson for some reason did what I consider,
6 and what many other committee members consider, a
7 180-degree reversal of opinion and he turned against
8 the document.

9 He openly criticized NFPA staff. This
10 was a totally improper thing to do at this meeting.
11 If there was issues with the staff, they should have
12 been dealt with ahead of time.

13 If he felt that the document was not
14 ready for prime time, that should have been discussed
15 at the health care section meetings. We should have
16 had the opportunity to put this forward.

17 If there was problems with the staff,
18 the Chair I think was obligated to work those
19 problems out ahead of time and get whatever was done,
20 needed to be done, to get it done. That was
21 critical. None of that occurred.

22 As Chair of NFPA, Mr. Erickson's job
23 is to support the work of the Technical Committees.

1 His actions on the house floor were entirely
2 inappropriate and contrary, I believe, to NFPA
3 policies.

4 If he wanted to give a personal opinion
5 on this issue, then he needed to step down from the
6 podium, temporarily relinquish the chairmanship, and
7 go to the audience -- go to a microphone in the
8 audience and make his opinions known.

9 By stating his opinions, his personal
10 opinions, from the chair, I feel that he unfairly
11 influenced the process and resulted in, I believe, a
12 number of members changing their vote.

13 In the ASA, my organization, our house of
14 delegates, a similar type of organization, the Chair
15 must remain impartial at all times. They do not
16 express personal opinions and, in fact, they do not
17 even have a vote.

18 Mr. Erickson stated in his comments that
19 he did not want to throw the Technical Committees and
20 the TCC under the bus, in his terms. In fact, that's
21 exactly what he did.

22 And if he influenced just twelve people
23 to change their vote, then that was enough to sway

1 the rejection of NFPA 99 and return it to committee.
2 Just twelve votes.

3 A great deal of work has gone into this
4 document. It's a very good document. Returning it
5 to committee will delay it another two years at
6 least.

7 It will put our patients and hospital
8 personnel at risk and it will increase the chance
9 that this document will become almost irrelevant as
10 other documents may surface to fill the void.

11 The industry needs this document now and
12 we need it to move forward with the safe, effective
13 operation of our health care facilities.

14 Failure to publish this document will
15 undermine NFPA's credibility and risk its reputation
16 as a leader in health care codes and standards.

17 I strongly ask the Standards Committee
18 to reject the floor action and to publish NFPA 99.
19 Thank you very much.

20 THE CHAIR: Thank you, Doctor Ehrenwerth.
21 On the opposing side of the appeal, gentlemen,
22 however you would like to --

23 MR. F. MUMMOLO: Good afternoon. My name

1 is Felix Mummolo. I was the person responsible for
2 the NITMAM to return the document to the committees.

3 The reason for my action was because of
4 the Piping Technical Committee again attempting to
5 put my company, Smart Tap, Incorporated, out of
6 business.

7 We do medical gas system, live taps on
8 medical gas lines. We've been doing it now for
9 twelve years. We work in major institutions around
10 the country.

11 And we've been here before. In 2005 --
12 For the 2005 code we were directly attacked by the
13 Piping Committee to ban us.

14 I met with this committee and the
15 Standards Council elected to not accept what the
16 Piping Committee wanted to put into the 2005 code.

17 They appealed that and they met with the
18 board of directors in Boston concerning the issue
19 and they rejected the Piping Committee's attempt to
20 put us out of business then.

21 I don't know why I'm here again except
22 for a back-door attempt to come up with a standard
23 for removing old medical gas systems that is in a

1 cleaner standard than installing new medical gas
2 systems.

3 Now, I understand they worked long and
4 hard on this new standard and that four years have
5 gone by and the doctor has put in a lot of time, and
6 I'm sure all the committee members have put in a lot
7 of time, but it's not right. It's not doing
8 something for the benefit of the hospital.

9 Taking away the hospital's ability not to
10 shut down a complete medical gas system to put a cap
11 on the line is not benefiting the hospital.

12 We thought that this issue would be over
13 with, and after the 2005 when the board of directors
14 told the Piping Committee to look at other technology
15 and to open their minds a little bit, apparently they
16 didn't follow that direction so I'm here again.

17 And my only hope was to get the entire
18 report sent back because I had no other options at
19 the point that we found out too late.

20 So I didn't see any members leaving the
21 meeting when I was there before the vote. So I would
22 say that to reverse the national membership vote,
23 which was I believe 73 to 51 in favor of sending this

1 report back to the committees, I think would be a
2 mistake and would send the wrong message to the
3 health care industry. That's all I have to say.

4 THE CHAIR: Thank you. Mr. Isman.

5 MR. ISMAN: Ken Isman with the National
6 Fire Sprinkler Association, and I'm opposed to the
7 appeal. I have no relationship with the Smart Tap
8 people or their purposes for the appeal.

9 My reason for supporting the return of
10 NFPA 99 to committee are twofold. First of all, I'm
11 concerned that NFPA 99's wandered outside of its
12 scope and then, secondly, I have some practical
13 issues that just need to be raised.

14 I think NFPA 99 has gotten into the
15 subject category of writing rules for what rooms get
16 fire sprinklers and I think that's outside of their
17 scope.

18 I think the scope of those rules are
19 handled in some very carefully worked out
20 jurisdictional discussions that the Standards Council
21 has adjudicated over the years between NFPA 13 and
22 NFPA 101. To bring NFPA 99 into that situation is
23 tenuous.

1 It's difficult enough for the industry to
2 deal with two NFPA documents and juggling those and
3 trying to figure out which one has control over the
4 sprinkler requirements, but suddenly for 99 to get
5 into the fight doesn't seem appropriate.

6 It appears to me that we should be able
7 to handle the rules for what rooms get sprinklers in
8 either NFPA 13 or NFPA 101.

9 To deal with it in NFPA 99 adequately
10 we'd have to start putting sprinkler industry people
11 on NFPA 99 as well. And we haven't gone that route
12 before but if that's what the Standards Council
13 decides, that the scope of that discussion is within
14 NFPA 99, then that's something I guess we're going to
15 have to address.

16 They also got into the issue of dealing
17 with telecommunication facilities and information
18 technology rooms that really I think is in the scope
19 of NFPA 75 or 76.

20 So, again, we spend time in the industry
21 trying to get those documents correct. If we have to
22 also get on NFPA 99, it's going to be a problem.

23 If the Standards Council decides that

1 NFPA 99 is allowed to address these issues of what
2 rooms get sprinklers, then the NFPA 99 committee
3 needs to be reminded of the Standards Council
4 directive that if you're going to take exception to
5 NFPA 13, you have to write an annex note saying why
6 you're deviating from NFPA 13 and what your
7 substantiation is for doing so, and NFPA 99 has not
8 followed that Standards Council directive up to this
9 point. So those are our scoping concerns.

10 Our practical concerns are that in
11 reviewing the ROP and ROC, we can't figure out what
12 NFPA 99 is supposed to say.

13 So we're not sure what the appellants
14 really want processed at this point in terms of if
15 they see NFPA 99 being published right now, what are
16 the actual words that NFPA 99 is going to say?

17 Because if you actually put the ROP
18 together with the ROC, it doesn't make a whole lot of
19 sense.

20 The committee started the problem by
21 creating three new chapters in the standard in the
22 ROP; a new chapter on Features of Fire Protection
23 which it labeled Chapter X and started all of the

1 section numbers with X point whatever point whatever
2 for the new Chapter X.

3 Then they wrote a new section on heating
4 and they called that Chapter X. So all of the
5 section numbers in that chapter start X point
6 something point something.

7 And then they wrote a third new chapter
8 on Information Technology and Communication Systems
9 and they called that Chapter X, so all of the section
10 numbers are X point something point something in that
11 third new chapter as well.

12 Then in the ROC when people submitted
13 comments on these section numbers which are very
14 difficult to follow because they all start X point
15 something point something, the committee started
16 moving sections from chapter to chapter without
17 telling you where they were going to go.

18 So they moved stuff from the
19 telecommunications chapter to the Features on Fire
20 Protection chapter, but it's hard to tell where
21 they're supposed to go because we don't know what the
22 section numbers are.

23 To make matters worse, the committees

1 duplicated section numbers. So if you look at the
2 proposal, for example, on page 99-176 -- this is the
3 proposal on the telecommunications chapter, so this
4 is Chapter X as opposed to Chapter X or Chapter X --
5 the committee's written on the left-hand column about
6 halfway down a new Section X.3.1.2.2.10, a new
7 section on fire suppression systems which talks about
8 limitations on the fire sprinkler system or fire
9 suppression system you can install in this new
10 information technology communication system space.

11 And then on the right-hand column on the
12 same page and the same proposal, the committee has
13 proposed a new section with the same number,
14 X.3.1.2.2.10, with the same title, Fire Suppression
15 Systems, with different requirements for the fire
16 suppression system you could install in a
17 telecommunication facility.

18 So which language is the committee
19 intending to actually move forward with? Is it
20 Section X.3.3.1.2.2.10 or Section X.3.3.1.2.2.10? We
21 have no way of figuring that out from the ROP or the
22 ROC.

23 And then when comments were submitted on

1 this, the committee said, Well, you're right, so
2 we'll agree it's a problem, but they didn't clarify
3 how they were going to solve the problem. They just
4 said, Move it to the Fire Protection Features
5 chapter. In both places they said, in both places,
6 Move it to the Fire Protection Features chapter.

7 So it would appear the committee really
8 wants two sections with the same section number in
9 the Fire Protection Features chapter that says
10 different things.

11 I doubt that's what they really wanted
12 but that's where we are. That's what they've done
13 with this document.

14 So in tracing the requirements through
15 the standard, through the ROP and the ROC, I can't
16 figure out actually what the document's going to say
17 so I find it hard to believe that we can actually
18 move forward with publishing the document.

19 THE CHAIR: I'll open it up to questions
20 from the members of Council. Mr. Gerdes.

21 MR. GERDES: Ralph Gerdes, Council
22 member. Comment and a question for Mr. Mummolo.
23 This is the third time I think I've seen you since

1 I've been on the Council, and you weren't happy with
2 the results of the committee action.

3 I'd like to think by now you've become
4 familiar with the NFPA process and would participate
5 in the process.

6 As I understand it -- I mean, this
7 committee's dead set against your product but yet you
8 haven't submitted any proposals or comments now
9 through this third cycle to try and get recognition
10 for your stuff.

11 MR. F. MUMMOLO: The service that we
12 provide is really -- it does not fall in under
13 installation although when we install a piece of -- a
14 new medical gas valve in a facility, we demo a short
15 piece of pipe, maybe 20 inches in length, and put in
16 a -- replace it with a new medical gas valve.

17 So we fall in under all the NFPA
18 installation requirements. We do everything in
19 accordance with the standard for installing new
20 medical gas pipe.

21 So there was no need for us to come and
22 get permission or approval of installing medical gas
23 pipes because we do it identical to what the standard

1 requests.

2 MR. GERDES: But yet there's revisions to
3 the standards that you say is going to put you out of
4 business. I would think you'd want to monitor that
5 and participate in it.

6 MR. F. MUMMOLO: Well, we thought we did
7 and we didn't think they would come up with a
8 standard on how to demo medical gas piping.

9 Because the only time a certifier is
10 present for a demolition of a medical gas piping is
11 when we're there to install a new valve, because we
12 demo that 20-inch piece of pipes and we put in a new
13 valve which has to be recertified.

14 So now what they're proposing is that
15 they're going to have to -- a hospital is going to
16 have to hire a certifier when they're going to
17 renovate a floor.

18 Every time they're going to cut a medical
19 gas pipe they're going to have to have a certifier
20 there who cannot use -- and the plumbing contractor
21 or mechanical contractor cannot use a piece of
22 equipment that, if you follow NFPA's installation
23 requirements, there isn't a cutter available that can

1 be used to demo a piece of medical gas pipe because
2 the standard for demoing is actually cleaner than the
3 standard for installing new medical gas pipe.

4 So we didn't expect that they would come
5 -- After meeting with the board of directors the last
6 time, we didn't expect that we would have a problem
7 again. We've been doing this for ten years around
8 the country, thousands of times. So we --

9 MR. GERDES: I would encourage you to
10 monitor the process and participate in the process.

11 MR. F. MUMMOLO: We'd like to sit on the
12 Piping Committee if possible, so we will make an
13 attempt to do that.

14 THE CHAIR: Doctor Clary.

15 DR. CLARY: Shane Clary. Just to follow
16 up, obviously these changes that affect your piping
17 occurred during the ROP process so this would be new
18 material. Didn't you -- You didn't monitor the ROP
19 to send in comments?

20 MR. F. MUMMOLO: No. What happened was
21 that Mr. Bielen sent us a letter. We had moved and
22 the letter was not received. We did not receive the
23 letter.

1 DR. CLARY: Did you -- You didn't go to
2 the NFPA web site to download the ROP which is
3 publicly available and --

4 MR. F. MUMMOLO: No.

5 DR. CLARY: Okay. Thank you.

6 THE CHAIR: Further questions? Seeing
7 none, gentlemen, I'm going to give you an opportunity
8 for some closing comments. Doctor Ehrenwerth is the
9 appellant so you'll have the first opportunity to
10 make some closing remarks.

11 DR. EHRENWERTH: Well, I think I've made
12 most of my comments. I would just encourage -- I
13 realize that it's not a perfect document but it's a
14 very good documents.

15 I think there's ways we could fix some of
16 the problems in it from various processes, and I
17 think to wait another two years to issue this
18 document is just not something that we should be
19 doing. It would make it seven years since the last
20 issue.

21 And it's something that we really need to
22 have and I would encourage the Council to go ahead
23 and do it and let us fix the problems that are there.

1 THE CHAIR: Mr. Mummolo, Mr. Isman, any
2 closing comments?

3 MR. ISMAN: No, thank you.

4 THE CHAIR: We'll bring this hearing to a
5 close. I will remind everyone involved that -- Well,
6 first I'd like to thank all of you for your time and
7 attendance at this meeting. The information you
8 provide to the Council is very important to our
9 deliberations.

10 As we move forward I will remind you that
11 the decision of the Council will be issued by written
12 decision by the secretary of the Council, Miss
13 Cronin.

14 No member of the Standards Council nor
15 member of NFPA staff is permitted to discuss or
16 provide any information on that decision. That
17 written decision will be how the Council will
18 communicate on the issues. So I thank you again for
19 your participation.

20 And we will move directly into the next
21 item which is item 09-8-11-b, if they are here. Our
22 next group of appellants are coming in so let's hang
23 on for just a moment.

1 (Discussion off the record.)

2 THE CHAIR: We're on agenda item
3 09-8-11-b. This is on NFPA 501 and the issue that we
4 have is the appeal is to overturn the floor action
5 and accept Comment 501-8.

6 So I'm going to ask quickly anyone who
7 was not in the room when we sort of went around the
8 room last time, if you would just introduce yourself
9 quickly for the record.

10 MS. O'CONNOR: Jean O'Connor, NFPA staff.

11 MR. SHANNON: Jim Shannon, president of
12 NFPA.

13 MR. MARTIN: Shawn Martin, Plumbing
14 Manufacturers Institute.

15 MR. LONG: Tom Long, fire protection
16 engineer, Exponent.

17 THE CHAIR: Thank you. And I guess,
18 Mr. Martin, you're the appellant in this case, so if
19 you'd like to take a seat at the end of the table.
20 And Mr. Long, are you also speaking in support of the
21 appeal?

22 MR. LONG: Yes, sir.

23 THE CHAIR: If you want to grab a chair

1 there also. Is anyone speaking in opposition to the
2 appeal? Is anyone else speaking for the appeal? I
3 should ask that, too. Very good.

4 For both of you gentlemen, I'll give you
5 about ten minutes total, if you just want to kind of
6 take that ten minutes and provide some opening
7 remarks for the Council.

8 And then I'm going to open it up to
9 questions from the Council and then we'll do a quick
10 wrap-up. So Mr. Martin, I'll hand it over to you.

11 MR. MARTIN: Very good. Thank you,
12 Mr. Chairman. Ladies and gentlemen of the committee,
13 thank you for this opportunity to offer this appeal.

14 What I wish to explain to you is a
15 situation that's risen from what we believe to be an
16 incorrect statement in a substantiation that was
17 provided for an original proposal.

18 The substantiation incorrectly stated
19 that a proposal to be made in Log 20 was, frankly,
20 editorial in nature and contained no substantive
21 changes when in fact the opposite was true.

22 When you look at Log 20 you'll see that
23 the change resulted in a substantial change to the

1 flame spread rating resulting for plumbing products.

2 As a result of that incorrect statement,
3 our assertion is that the committee failed to
4 adequately consider the ramifications, the
5 justifications, and the coordination of the proposed
6 change with other changes in the existing document.

7 So my point would be that the committee
8 seriously consider this change. What was proposed
9 was in -- that Section 5.3.2.6 be changed.

10 Now, the proposer's original intention,
11 as I understand it, if I correctly understand it
12 here, was to change 5.3.2.6 and largely move those
13 requirements to a new section entitled 5.4.

14 That was handled under another change
15 which is entitled Log 22. This gets a little bit
16 complicated here, so by all means if you have
17 questions as we -- when I wrap up I'd be happy to
18 address them.

19 But essentially the current requirements
20 that are in the current version of the document have
21 been moved from 5.3.2.6 to 5.4.

22 And those requirements require that
23 plumbing fixture materials exhibit a flame spread

1 index of 200 as indicated by two tests, ASTM E-84 and
2 the other being E-162.

3 Now, that's been moved to 5.4 and there's
4 a reason for that, and this is where it gets a little
5 complicated.

6 In the original 5.3 they've eliminated
7 the allowance for E-162 and they've made an exception
8 for plastic plumbing products in the new 5.4.

9 But getting back to my original point,
10 where we have a difficulty is the Section 5.3.2.6 has
11 been changed to say that interior finish materials
12 must exhibit a flame spread index of 50.

13 So not only has the item to be impacted
14 changed -- it's not just plumbing fixtures, now it's
15 interior finish materials on surfaces of plumbing,
16 bathtubs and so forth -- but the number has been
17 changed from 200 to 50.

18 And then what's stated in the
19 substantiation is that the proposed language is
20 basically an editorial rearrangement and that there
21 are no changes in the requirements.

22 This is patently untrue and obviously I'm
23 not going to speculate as to whether it was

1 intentional or not. It's not important to this
2 point.

3 But my point is, though, that the
4 committee has essentially been given incorrect
5 information and they acted on incorrect information,
6 and as a result we have requirements that are
7 unclear.

8 It is not possible for my members, who
9 are plumbing fixture manufacturers, to ascertain when
10 the number 50 applies and when the number 200
11 applies. It's simply is not clear as a result of
12 this.

13 And I feel that the committee, because of
14 this incorrect information, has failed to adequately
15 consider all the ramifications of the change.

16 I would also highlight, because of the
17 fact that it was rendered as an editorial change
18 no justification for the serious change from 200 to
19 50 was provided.

20 So we have essentially a solution to a
21 problem which has not been stated, nor has it been
22 justified in any sense.

23 So I know I've painted for you a picture

1 that involves actually three logs; 20, 22, and 18.
2 They all go together as they involve intermeshing
3 changes, but it all relates back to what is
4 essentially an incorrect statement relating to Log
5 20. And with that I'll turn to my colleague.

6 MR. LONG: Tom Long again. Thank you for
7 this opportunity. If you look down Log 20 and you
8 decipher what's going on here and you look at the
9 main subsections, 5321 through 5324, they are, as the
10 substantiation says, simply an editorial
11 rearrangement.

12 When you get to 5.3.2.5 and 5.3.2.6 where
13 I'd like to draw your attention, it's very clear that
14 the requirement has been changed from 200 to 50, so
15 there's been a 75 percent reduction in the flame
16 spread index for these materials with no technical or
17 scientific justification whatsoever.

18 An analogy that I would draw here, this
19 would be like going into NFPA 13 and cutting the
20 density in half or by 75 percent for a light hazard
21 occupancy.

22 Then in 5.3.4 under Log 22 it's back to
23 200 for this flame spread index. So now we've got

1 two places in the same document for the same material
2 with two different competing criteria.

3 One is for material used on the surfaces
4 of plastic bathtubs. The other applies to materials
5 used for plastic bathtubs.

6 I would encourage you, if you haven't
7 yet, to go to Section 5.2.3 which is the definition
8 for interior finish material. To me this is where
9 the rub is coming.

10 That definition I do not believe is
11 adequate to draw down on the detail of what materials
12 are used on the surfaces of plastic bathtubs and what
13 materials are used for the surface of plastic
14 bathtubs.

15 So as the standard sits right now I
16 believe that there is a huge opportunity for
17 misapplication because we've got two different sets
18 of requirements on the same material. That's it. If
19 I could just make one closing comment, Mr. Chair, if
20 you will.

21 THE CHAIR: Please.

22 MR. MARTIN: I should also note to you
23 that the issue that Mr. Long's noted of being on or

1 for -- or used for materials is important because
2 when you think of a plastic bathtub or a shower unit,
3 for example, you're not talking about a monolithic
4 unit that's homogeneous. It's not composed, in most
5 cases, of the same material all the way through its
6 density.

7 So the question that my manufacturers are
8 asking is, does the -- if it's made up of multiple
9 layers, for example, a situation where we're talking
10 about on, is that the outermost layer?

11 Is that subject to one requirement
12 whereas the innermost layers are subject to a second
13 requirement? We're not clear on this.

14 The other thing I would note is in many
15 cases these devices are also not monolithic in that
16 they're composed of an assembly of multiple parts.
17 And, again, a lack of clarity.

18 Are certain parts subject to one
19 requirement and certain parts subject to another?
20 We're simply not clear.

21 It's our obvious desire to conform to the
22 requirements of the standard and we wish to make a
23 good faith effort to do so. We're simply precluded

1 by the present language. Thank you, sir.

2 THE CHAIR: Thank you. I'll open it up
3 to questions from members of Council. Doctor Clary.

4 DR. CLARY: Thank you. Shane M. Clary,
5 member of Council. Mr. Martin, when I looked at your
6 comments that you sent in which is Log No. 1, in your
7 substantiation you did not challenge the committee
8 regarding the change from the flame spread from 200
9 to 50 and you didn't appear to go into an in-depth
10 discussion that you just did about the fixtures not
11 being monolithic.

12 So I don't -- You did challenge, you
13 know, not to -- basically to remove the language they
14 did, but you're asking -- at one point you bring up
15 that they made the change from 200 to 50 and you're
16 saying that's not editorial, but in your comment,
17 though, you didn't -- doesn't appear where you
18 brought that up.

19 MR. MARTIN: Fair enough and I'd be happy
20 to respond to that if I may, Mr. Chair.

21 THE CHAIR: Please.

22 MR. MARTIN: I apologize, I'm not sure if
23 I need to respond through the Chair, so please, by

1 all means --

2 THE CHAIR: If he's asking you the
3 question, feel free to respond.

4 MR. MARTIN: Sure. I wasn't sure which
5 version of Robert's Rules you're operating under.
6 What I was simply seeking to do here was -- There's a
7 number of ways in which the definition of interior
8 finish material is insufficient.

9 And so what I was raising there was the
10 fact that that material definition was wholly
11 insufficient.

12 What I provided to you in talking about
13 the fact that it is not monolithic and in fact
14 multi-layered, and that we're dealing with multiple
15 assemblies, and that we're dealing with a number of
16 other accessory products, some of which are not
17 provided directly with the product originally, all
18 those represent areas where this definition falls
19 short.

20 So when I was referring to that I was
21 referring to it in the general terms, and what I'm
22 providing you now are specific examples to help
23 clarify the point I was seeking to make.

1 DR. CLARY: And again, follow-up. Shane,
2 Clary, member of Council. The 200 and the 50 flame
3 spread, again, in your substantiation you did not
4 bring it up in your comment to say, This is not
5 editorial, you know, why did you guys do this?

6 MR. MARTIN: Are you referring to my
7 original comment or are you referring to my NITMAM?

8 DR. CLARY: I'm looking at Log No. 1 of
9 your comments. 501.8 to 5.3.2.6.

10 MR. MARTIN: Absolutely, but I did
11 challenge essentially, if you look at this -- Hang on
12 a second. If you'll bear with me for one second, I
13 want to refer directly to the language.

14 Absolutely. Well, again, in the same
15 circumstance, if you'll follow through, the idea of
16 challenging the definition necessarily infers that
17 there will be different requirements and therefore,
18 again, no substantiation provided.

19 So again, I would fall back on the
20 general theme that was being provided there as
21 essentially stating that there was a serious problem
22 of misapplication.

23 And in fact, that remains true here.

1 Both are connected to the fact that no justification
2 was provided, nor adequate definition.

3 DR. CLARY: Thank you.

4 MR. MARTIN: Thank you, sir.

5 THE CHAIR: Jim Milke.

6 MR. MILKE: Same question.

7 THE CHAIR: Mr. Bell.

8 MR. BELL: Kerry Bell, member of Council.

9 I think you made a statement that you thought the
10 requirements are unclear relative to what components
11 of a bathtub or shower could be subject to this
12 requirement.

13 You mentioned faucets, shower heads, grab
14 bars, soap dishes. Have you ever run into an
15 authority requiring flame spread --

16 MR. MARTIN: Absolutely not. That was
17 meant to be illustrative in this example. However,
18 what I was trying to illustrate was the fact that
19 what we were talking about was a multiple component
20 assembly; multiple layers, multiple items. It was
21 meant to be illustrative and you're quite correct in
22 saying that.

23 However, my point is that what I don't

1 want to see is a situation where authorities would
2 begin to require it on the basis of these ambiguous
3 requirements that are currently contained within the
4 document and my concern is that we could see just
5 that.

6 THE CHAIR: Further questions? Jim
7 Pauley, Chair of the Council and I guess, Mr. Martin,
8 if I could, on the original proposal, 501-13, the
9 proponent appears -- the previous requirements that
10 would have applied to a bathtub/shower unit was a
11 flame spread index not exceeding 200, which I presume
12 that your industry was fine with.

13 MR. MARTIN: We were indeed, yes, sir.

14 THE CHAIR: And then he split that into a
15 flame spread index of 50 and a smoke development
16 index of -- you know, in that case saying it shall
17 not be limited.

18 Any comments from your perspective on --
19 you know, it doesn't explain the rationale, I'm
20 asking you to speculate a little bit but -- why split
21 the two out and what that does with respect to your
22 industry specifically?

23 MR. MARTIN: It's a fair question. My

1 members have not advised me that there's any
2 advantage to them in that respect.

3 We were wholly comfortable with the
4 previous language and the previous provisions and
5 perfectly comfortable standing by the current
6 language as it appears in the current standard.

7 So we would be quite comfortable
8 remaining with the status quo. There's -- As we see
9 it, that's not a change that we would necessarily
10 seek, nor do I know what the basis for it would be.

11 Perhaps Mr. Long can add to that but I
12 have nothing on that count.

13 MR. LONG: The smoke development index is
14 just a second property or value that you get from the
15 ASTM method that's being applied here, so I don't
16 believe that there's any problem with not having it
17 be limited.

18 THE CHAIR: Thank you. Other questions?
19 Seeing none then, gentlemen, any closing remarks with
20 respect to the information that you provided?

21 MR. MARTIN: I'd like to thank the
22 committee for the opportunity again. Excellent
23 questions on all counts.

1 What I'd like to highlight for you is
2 simply the fact that the committee acted on the basis
3 of incorrect information and, as a result of that,
4 has created what we believe to be a situation that
5 will cause a conflict and that will cause
6 misapplication of this documents by the users.

7 Again, I would reiterate, our members are
8 absolutely intent on observing both the letter and
9 the spirit of this.

10 We are uncertain as to what the letter
11 and spirit of this is and I would urge you, for the
12 sake of the integrity of the process and for the
13 integrity of the document, that you act.

14 Incorrect information provided as the
15 basis for action on the part of a committee that is
16 not readily corrected and made clear stands to
17 undermine the entire process.

18 THE CHAIR: Thank you.

19 MR. MARTIN: Thank you for the
20 opportunity, sir.

21 THE CHAIR: Mr. Long, any final comments?

22 MR. LONG: Sure. In summary, there's
23 been a dramatic change in reduction -- or excuse

1 me -- reduction in the allowable flame spread index
2 here, a 75 percent reduction from 200 to 50 with
3 absolutely no scientific or other technical
4 justification.

5 I've never seen a change like this before
6 in NFPA standards. Typically I've seen -- In the
7 processes that I've been in here, they've followed
8 the scientific method and established -- having data
9 or other technical justifications for making
10 significant changes like this. And I think that is
11 absent from this change. Thank you.

12 THE CHAIR: Thank you. With that I'm
13 going to bring this particular hearing to a close.
14 Gentlemen, thank you for your participation in the
15 process. Thanks for being here and providing
16 information to the Council on this issue.

17 I would remind everyone that the
18 Council's decision will be issued as a written
19 decision by the Council's secretary.

20 No member of the NFPA staff, nor member
21 of the Council is permitted to discuss that issue or
22 provide any information. That written decision will
23 stand as the Council's conveyance of the response on

1 the issue.

2 With that I want to move directly into
3 the next item which, Mr. Long, I believe you're here
4 for, which are 09-8-11-a-1.

5 And I want to ask you a question because
6 the appellant is actually not here. You're here
7 speaking in opposition to the appeal and I'm
8 interested -- from your viewpoint can these two items
9 be combined and be discussed as one? Are they the
10 same issue in different sections or --

11 MR. LONG: Absolutely.

12 THE CHAIR: That's really what I would
13 like to do with items 09-8-11-a-1, 09-8-11-c-1. And
14 I'll ask, is there anyone here to speak in support of
15 the appeal on either of those issues?

16 And anyone besides Mr. Long that's going
17 to speak -- and Mr. Martin, you are also going to
18 speak --

19 MR. MARTIN: I would like to do so.
20 Thank you, sir.

21 THE CHAIR: Anyone else speaking in
22 opposition to those appeals? So, if you will, let's
23 consider those two items combined together. That way

1 we won't sort of go over the same ground twice.

2 And Mr. Long, I'm going to allow you to
3 make any opening comments just as we did before.
4 We'll do that, open it up to questions, and then any
5 closing remarks. So please proceed.

6 MR. LONG: Sure. I'll be brief. So in
7 summary, this request is to add language to NFPA 501
8 that describes how the material will be mounted in
9 the ASTM E-84 which is the tunnel test.

10 The author chose to include one way to
11 mount this specimen in NFPA 501, whereas ASTM E-84
12 has three ways to mount the specimen.

13 I support the committee's action and
14 believe that this mounting should be regulated by
15 ASTM E-84 and not by NFPA 501.

16 MR. MARTIN: As a member of the Technical
17 Committee I voted against the floor action on this
18 item for exactly the same reason that Mr. Long has
19 described.

20 ASTM E-84 allows an item to be self
21 supporting and it should fall within the purview of
22 that standard appropriately.

23 Any action taken by this committee to

1 change that would effectively alter the way that that
2 standard is used.

3 If there is an issue with the mounting
4 requirements in ASTM E-84, we believe that it is
5 appropriate for the proponent to take those concerns
6 to that committee as opposed to this committee.

7 THE CHAIR: Thank you. Open it up to
8 questions from members. Mr. Gerdes.

9 MR. GERDES: Yes. I mean, there's been
10 a long history in the last couple decades about
11 plastics and testing.

12 And if you look at the substantiation
13 statement that Marcello made, I mean, he refers to a
14 recent NIST study and, you know, self supporting
15 basically the material is going to melt away and
16 you're not going to get a flame spread down the
17 tunnel. Do you guys disagree with this test or --

18 MR. LONG: I don't disagree with the
19 test. If it's self supporting, no, I don't believe
20 it will fall away. If it's self supporting it will
21 remain in place.

22 And we support samples that are self
23 supporting. It's just that in the proposal put forth

1 by Mr. Hirschler it only allows for your material to
2 be self supporting.

3 ASTM E-84 specifically says the specimen
4 shall either be self supporting by its own structural
5 quality, held in place by added supports along the
6 test surface, or secured from the back side.

7 Mr. Hirschler's proposal doesn't allow
8 for the last two which is the addition of the
9 supports or being supported from the back side.

10 MR. MARTIN: If I could just respond to
11 that too. The other side of this is we need to rely
12 upon reputable certification agencies and test
13 laboratories to carry this out in a manner consistent
14 with the intent.

15 And the intent is indeed one whereby the
16 smoke is to be collected in the tunnel. If it's on
17 the floor, obviously that's not going to happen.
18 It's outside of the intent of the document.

19 So again, this document seems to do a
20 good job of providing for the various scenarios that
21 might be encountered, and it's appropriate to allow
22 the certification bodies and the test bodies to
23 employ it in a way that achieves the desired outcome.

1 THE CHAIR: Additional questions? Jim
2 Pauley, Chair of the Council. I guess, Mr. Long,
3 since you're sort of speaking against the appeal in
4 this case, the particular item that was moved on the
5 floor was an attempt to -- was to -- I'm sorry -- was
6 an attempt to revise 5.3.2.6 and it was only adding
7 that item.

8 I just wanted to clarify to make sure
9 that I understood. The remainder of that section was
10 really the subject of the last appeal, is that
11 correct?

12 MR. LONG: Yes, sir.

13 THE CHAIR: Thank you. I just wanted to
14 make sure we were only dealing with that one-sentence
15 issue on the specimen. Mr. Harrington.

16 MR. HARRINGTON: J.C. Harrington, member
17 of Council. Just to follow on Mr. Gerdes's question.
18 In looking at the proposal that Mr. Hirschler made,
19 it seems that he's trying to say you acknowledge that
20 there's three different methods that you can use for
21 mounting.

22 With this type of material that we're
23 trying to test, it seems that he's trying to make a

1 point, at least from his view, that this is the only
2 one of the three available methods that would provide
3 for a valid E-84 test result, if you will.

4 At least that's how I'm reading it. So
5 do you folks read it differently, that that's not the
6 case? Using any of those three allowed test methods,
7 at least as it relates to this type of product, would
8 result in a valid E-84 result?

9 MR. LONG: I'll try to answer that. I
10 disagree with what Mr. Hirschler said in the summary
11 that's been given of that. I think the summary was
12 accurate but, yes, I agree that if you follow one of
13 these three ways, that will keep the specimen in
14 place.

15 This tunnel test is a device I'm sure
16 many people here are familiar with, but the sample is
17 mounted on the ceiling and then flames are applied to
18 it.

19 If it falls away and it falls onto the
20 floor of the test apparatus away from the flames, it
21 achieves an excellent frame spread rating because it
22 doesn't burn and that's not what we're looking for.

23 You need to keep it in place but you need

1 to be able to use one of these three options, and
2 Mr. Hirschler's language is only allowing you to have
3 it be self supporting.

4 THE CHAIR: Further questions? I'll
5 leave you to any closing remarks that you'd like to
6 make on the issue.

7 MR. LONG: No, none from me.

8 MR. MARTIN: I stand on the committee's
9 action. I feel it was an appropriate response.

10 THE CHAIR: Thank you again. My thanks
11 to both of you. Since both of you are sitting at the
12 end of the table I won't repeat myself with regard to
13 the decision but the same applies. It will be a
14 written decision from the Council.

15 And I do thank you again for your
16 participation in the process, both at the committee
17 level and here at the Council meeting. So thank you.

18 And I will move on to the next agenda
19 item. This is item 09-8-3-a which is an appeal on
20 NFPA 20, and if you're going to speak to this issue
21 if you would take some seats at the end of the table
22 down here.

23 And anyone that perhaps is not speaking

1 to the issue but came into the room since we last
2 went on the record, would you just introduce yourself
3 quickly for the record.

4 MR. CHOINIERE: Paul Choiniere, NFPA
5 staff.

6 MS. HENDERSON: Carol Henderson, NFPA
7 staff.

8 MS. WARREN: Mary Warren, NFPA staff.

9 MR. FULLER: David Fuller, FM Global.

10 MR. TREBISACCI: Dave Trebisacci, NFPA
11 staff.

12 MS. SHEA: Kimberly Shea, NFPA.

13 THE CHAIR: Thank you.

14 MR. SOLOMON: Robert Solomon, NFPA staff.

15 THE CHAIR: Thank you. And I
16 understand -- Let me try to capture for those
17 speaking in favor of the appeal --

18 MR. PENNEL: Gayle Pennel.

19 THE CHAIR: TC Chair, correct?

20 MR. PENNEL: Correct.

21 THE CHAIR: Anyone else speaking in favor
22 of the appeal? Those speaking in opposition to the
23 appeal.

1 MR. ISMAN: Ken Isman, NFSA.

2 THE CHAIR: Anyone else speaking in
3 opposition? Very good. Again, gentlemen, if you
4 weren't here, we're following basically the same
5 format.

6 I'm going to give each side basically ten
7 minutes to do your opening comments and remarks to
8 the Council.

9 After both sides complete that ten
10 minutes, I'm going to open it up to questions from
11 the Council members and then I'll allow some closing
12 remarks.

13 Are there any statements from Council
14 members on this issue? Mr. Harrington.

15 MR. HARRINGTON: J.C. Harrington, member
16 of Council. For the record, I'm recusing myself from
17 this agenda item and I will not participate as a
18 member of the Standards Council in the hearing,
19 deliberations, or voting on this matter.

20 THE CHAIR: Thank you. Any other
21 statements from Council members? Mr. Bell.

22 MR. BELL: Kerry Bell, member of Council.
23 I would like to note for the record that I am a

1 member of the TC on Fire Pumps. As a TC member I
2 would participate in voting on issues that appear to
3 be related to this appeal.

4 I have therefore reviewed my obligations
5 under the Guide of Conduct for Participants in the
6 NFPA Process and considered whether there was any
7 reason for me to recuse myself from consideration of
8 this appeal.

9 I have concluded that I do not have any
10 views that are or would appear to be fixed concerning
11 the issues and I am fully able to give open and fair
12 consideration of this appeal.

13 For the record, therefore, I have
14 considered the matter and believe that I can fully,
15 fairly, and impartially fulfill my role as a Council
16 member on this appeal. Thank you.

17 THE CHAIR: Thank you. Any other
18 statements? Mr. Pennel, I'm going to turn it over to
19 you for the opening remarks. And if you'll get the
20 issue in front of the Council and provide your
21 comments, we'll go from there.

22 MR. PENNEL: This issue is to reverse the
23 Technical Committee floor vote which had the effect

1 of allowing vertical staging of fire pumps.

2 Part of the -- A major part of the reason
3 for adding a new chapter dealing with high-rise in
4 NFPA 20 was to deal with series pumping and vertical
5 staging of fire pumps.

6 It was the overwhelming opinion of the
7 NFPA 20 members that the decrease in reliability
8 associated with vertical staging of pumps was
9 inappropriate for high-rise buildings where the
10 occupants cannot be evacuated and the only water
11 available for fire fighting in the higher buildings
12 must come from the fire pumps.

13 It is also the belief of NFPA 20 that
14 many of the statements made during the floor fight or
15 floor action were very inaccurate and misleading, and
16 I have prepared a document -- I think it's
17 09-8-3-8-1 -- that provides a detailed description of
18 these issues.

19 One of the items, the floor motion lacked
20 adequate consideration on the impact on related
21 items. One of the considerations was every time you
22 put a fire pump in series, it does decrease the
23 overall reliability.

1 And there was a discussion about what was
2 appropriate and what was inappropriate, and the final
3 decision was based on the assumption that all the
4 fire pumps would be in the same room.

5 And when you vertically stage them the
6 reliability decreases even more, and I think if we
7 were to reconsider that based on vertical staging, we
8 very might well cut it back to two fire pumps.

9 Another item that is not addressed at all
10 is the control wiring that is required between the
11 fire pumps.

12 The lower zone fire pump must start
13 first in order to supply water to the higher zone
14 fire pump and control wiring is required between the
15 controllers to accomplish this.

16 If they are in the same room, then they
17 are not subject to a fire or damage from outside the
18 fire pump room.

19 When they are 20 floors apart, that means
20 this wiring now has to transverse 20 floors and there
21 is no guidance provided for any requirements that
22 this wiring be protected in any way.

23 The requirements that we came up with

1 for the fire pump test header was also based on fire
2 pumps being in the same room.

3 We put in a requirement for the test
4 header to be on the outside wall to make testing of
5 these pumps easier.

6 In vertical stage fire pumps, unless
7 you've run the pump test header back to the ground
8 floor, it would make no sense to put it on the
9 outside wall, and if you run it back down to the
10 ground floor, then there is a series of issues on
11 additional pressure that is going to be built up in
12 the pump test header that has not been addressed.

13 And in this document I took the actual
14 wording -- reported wording that was stated before
15 the committee. One of the statements was, You can
16 increase the reliability of a fire protection system
17 by separating pumps because a single event can't take
18 everything out of service. The second pump at a
19 higher level can be fed from a fire department pumper
20 or a redundant separate pump at the lower level in
21 another location.

22 The statement is just incorrect and
23 extremely misleading. If this is primarily talking

1 about an intentional harm event, and if the fire pump
2 at the lower level is taken out of service by an
3 intentional harm event, there's no reason to believe
4 that the fire department connection itself will not
5 be damaged and will have to take a considerable time
6 to isolate.

7 In addition, there's no code requirements
8 or any design reason in any situation that I can
9 think of to put a redundant fire pump on the first
10 floor, and that also changes the whole comparison
11 from two fire pumps to now comparing it to three fire
12 pumps.

13 Putting this kind of a statement out in
14 front of an audience that has limited understanding
15 of the actual issues and no real documentation to
16 look at, it's very hard to follow. It's very hard to
17 trace. And it just seems like it is a total attempt
18 to skew the reliability issues.

19 It was also stated that the committee did
20 do a reliability analysis which does not appear in
21 this comment, 20-2, but it appears in the committee
22 action on Comment 20-13 which has also dealt with the
23 subject.

1 So you might want to take a look at the
2 committee's reliability analysis in Comment 20-13,
3 but you will see that they did not take the
4 reliability of separating the pumps into account in
5 that analysis.

6 Apparently this statement is kind of a
7 tie-in to the earlier use of a separate pump. The
8 reliability analysis put into the justification or
9 committee substantiation is valid.

10 And, again, going back and comparing
11 three pumps against two pumps really just makes no
12 sense and just seems to be an attempt to skew
13 figures.

14 It was also stated that the cost of
15 structural improvements, some of the consequences of
16 this may in fact be that should upper zones require
17 pumps that cannot be vertically staged from these or
18 series staged from the same pump, then a separate
19 water supply should be provided in an upper elevator
20 to serve another pump.

21 "The cost of elevating these water
22 supplies structurally in areas subject to the
23 strictest seismic engineering standards could cost

1 millions of dollars in structural steel upsizing."

2 This statement was made without any
3 documentation and it is just dubious on the face.
4 20,000 square foot building, six inches of concrete
5 weighs approximately 3 million pounds. The water
6 tank would weigh about a tenth of that.

7 And we actually did get comparisons back
8 from a 50-story building that was built. The
9 building was built and the fire marshal decided that
10 he wanted water tanks on the top floor.

11 All that they had to do was resize the --
12 upsize the rebar and provide pads under the tanks.
13 So this whole statement about the cost of it is just
14 totally out of line.

15 There is a cost differential for
16 additional tanks but it's certainly not in the
17 millions of dollars as was stated.

18 It was also stated that, "But again,
19 nothing in series pumps in the single-room
20 requirements suggests that the lower zone pump is
21 fail-safe. If it fails within the same room, the
22 upper zone is still impaired, it will not work, and
23 it will cavitate and fail just as surely as if it

1 were vertically staged."

2 This is totally inaccurate. A fire pump
3 in series on the same level will not cavitate at
4 churn or low flow pressures, and if there's a bypass
5 provided it will not cavitate.

6 If the fire pump is vertically staged on
7 an upper level and the low zone pump fails, the pump
8 will fail in three to five minutes according to the
9 pump manufacturers.

10 THE CHAIR: You've got about a minute to
11 wrap things up please.

12 MR. PENNEL: Okay. There was also a
13 statement on pressure control which is pretty
14 distorted. In reality, whatever is put in the
15 standard we're going to use all the pressure when we
16 design.

17 There was a big comment made about lack
18 of interface with NFPA 14 which is just totally
19 non-factual. There was a significant amount of
20 interface and they were included on the committee and
21 this whole requirement was in there from day one,
22 from the first cut of the standard.

23 Monitoring of the fire pump, you can see

1 what's going on from a central control panel but you
2 cannot control it.

3 If you want to actually have control over
4 the fire pumps in a high-rise fire, you need people
5 in the room, and trying to control two pumps on two
6 different levels under fire conditions is difficult.
7 Thank you.

8 THE CHAIR: Thank you. Mr. Isman.

9 MR. ISMAN: Thank you. I thought long
10 and hard about how to prepare this discussion. I
11 stand behind everything I said during the floor of
12 the NFPA meeting and I'm fully prepared to address
13 all of the technical issues that the Chairman has
14 raised in his document that he's provided to you in
15 the discussion he's just made.

16 But I don't think it would be an
17 economical use of our time for me to go item by item
18 through that list, so I'm not going to, but I'm going
19 to hope that if you have any questions about that
20 that you'll bring it up during the question and
21 answer period of our discussion.

22 Instead what I'd like to do is make three
23 brief technical comments and then three brief

1 procedural comments about what's going on and then
2 I'm going to wrap up by actually asking a question to
3 clarify something based on an earlier discussion we
4 had.

5 But first my technical concerns. In
6 my opinion the committee has addressed this issue
7 with blinders on.

8 You heard the Chairman say in his opening
9 comment that their concern is vertical separation of
10 pumps in buildings that are so tall that occupants
11 can't be evacuated and the only water available for
12 fire fighting can't come from the fire department,
13 but that's not what the committee wrote in NFPA 20.

14 The committee is missing the fact that
15 the words they've written in NFPA 20 apply to many
16 other pumps-in-series situations than just virtually
17 staged pumps in really tall buildings.

18 If the committee had written the rule to
19 say, We're only going to allow vertically-staged
20 pumps in buildings over a certain number of stories
21 in height -- 20 stories or 30 stories, pick a number
22 where you think a building becomes a really tall
23 building -- then we probably wouldn't be here right

1 now.

2 But that's not what the committee said.
3 The committee said, You're not allowed to have pumps
4 in series in any arrangement in any building higher
5 than 75 feet in height unless all the pumps in series
6 are in the same pump room.

7 So that's a different situation and it
8 applies to different conditions than just vertically-
9 staged pumps in really tall buildings.

10 Now, if you address the issue of
11 vertically-staged pumps in really tall buildings, the
12 committee shouldn't have any concern at all because
13 they've already addressed the issue in rules that we
14 did not challenge on the floor of the NFPA meeting.

15 The rules that they wrote for their
16 high-rise chapter has a special portion of the
17 high-rise chapter set aside for buildings that are so
18 tall that the fire department can't provide water in
19 at the street level and it requires tanks to feed the
20 pumps in those buildings, multiple tanks, so that
21 even if one tank is out of service, the tank still
22 has water available for fire protection and the tanks
23 have automatic refills that can refill them as fast

1 as the water is being used for fire protection.

2 And so the really tall buildings that the
3 committee is worried about are already covered by
4 this rule about putting tanks in the pumps and once
5 you put tanks on to feed the pumps, they're not pumps
6 in series.

7 So this pump-in-series rule that the
8 committee's created has no bearing on the really tall
9 buildings because they're already not allowed to use
10 pumps in series under the new rules that the
11 committee's written.

12 So my concern is for the -- I was going
13 to say mid-rise buildings, they meet the definition
14 of high-rise business -- the seven, eight, nine, ten-
15 story buildings where fire fighters can provide water
16 from the street level and yet we still, for a variety
17 of reasons, sometimes put pumps in series in a
18 variety of orientations, not necessarily always
19 vertically staged but potentially vertically staged.

20 My third technical comment is that the
21 committee's proposed a TIA, and Gayle didn't get to
22 it because he was cut short on time, but in his
23 written documentation they've proposed a TIA.

1 So I've had two comments I wanted to make
2 on that TIA. First is according to the committee I
3 lied to the NFPA membership and I misled people when
4 I said that what the committee has written would
5 affect campus-style arrangements where you have a
6 pump house feeding a number of buildings.

7 And yet the committee Chair is proposing
8 a TIA to deal with the issues that I brought up which
9 he said were factually incorrect and misleading.

10 I wonder how misleading they could have
11 been if the TIA is being proposed to fix the
12 problems, but let's put that aside for a moment and
13 examine the technical merits of the TIA.

14 If you uphold the appeal and propose this
15 TIA and you also uphold that, then what you end up
16 with is a statement in NFPA 20 that it's okay to
17 separate fire pumps in series when they're in
18 separate buildings thousands of feet apart, but it's
19 not okay to separate them in the same building ten
20 feet apart in separate rooms.

21 And that just doesn't seem to make sense
22 to me to follow what the Chair is asking for in his
23 document, to uphold the appeal and then pass this

1 TIA.

2 I also want to bring up some
3 reliability -- procedural issues, and the first of
4 the procedural issues is this reliability statement
5 that the Chair spoke about.

6 From a procedural point of view this
7 reliability analysis that the committee conducted --
8 actually it was conducted by a Task Group of the
9 committee and inserted into a committee comment --
10 should have been included in the ROP stage of this
11 document, not the ROC.

12 There was no opportunity to review this
13 reliability analysis and provide any kind of written
14 commentary where we could have had some discussion on
15 the subject with people sitting around a document and
16 looking at it.

17 My only opportunity to discuss it was
18 on the floor of the NFPA meeting. And I agree,
19 that's a really awkward place to discuss that kind of
20 difficult reliability concept, but the committee
21 didn't leave me any choice.

22 Even though they put this rule in the
23 ROP, they didn't include their substantiation with

1 the reliability analysis until the ROC.

2 Second, I want to talk procedurally about
3 this document that the Chairman actually read from.
4 The best word that I can give this document is that
5 it's extremely awkward for me to discuss.

6 A number of people have tried to
7 represent it as the feeling of the committee, but
8 this document was put together by the Chair and, yes,
9 it was put together with the opinions of many members
10 of the committee, but it really shouldn't be viewed
11 as the position of the committee.

12 This document, a draft of this document,
13 was sent to committee members by the Chair with an
14 opinion already in place.

15 The Chair took a technical position
16 during a time when balloting was open on this subject
17 which I think was inappropriate for a Chair to do, to
18 take a technical position and not remain neutral.

19 And then the Chair scheduled a meeting
20 to discuss this appeal document which I could not
21 attend. Now, in 22 years of being on 14 different
22 NFPA committees, I've never had a committee meeting
23 called to discuss the development of an appeal

1 document but, okay, the Chair has the right to try
2 and call a meeting.

3 But since the purpose of the meeting was
4 to address my subject, my motion that I'd made, I'd
5 wished for the courtesy of being able to be at the
6 meeting.

7 The Chair could have somehow contacted me
8 and let me know and we could have found the time to
9 have an opportunity for me to get involved in this
10 meeting, but the Chair refused to do that. Even
11 after I asked for that courtesy, I was denied.

12 The Chair then decided to handle sending
13 the meeting announcement for this meeting out on his
14 own rather than going through the NFPA process and,
15 in doing so, used incorrect e-mail addresses for
16 people that happened to be on my side of this issue.
17 So they didn't receive the committee notice.

18 And when I pointed this out to the Chair,
19 his response was it's not his responsibility to check
20 e-mail addresses of committee members every time he
21 sends an e-mail.

22 Well, with all due respect, I think it is
23 your job, if you're going around the NFPA process and

1 calling your own meeting and sending out your own
2 announcements of the meeting, that you do use the
3 correct e-mail addresses for the committee members.

4 Once this appeal document was finalized,
5 the Chair then confused everyone by asking for a vote
6 on this appeal document, then rescinding the request
7 for the vote, then having Jason our staff liaison
8 send out a request to vote on this appeal document.

9 I'm still not sure exactly where that
10 informal vote of this appeal document stands, but I'd
11 like to know how the Council is going to be told what
12 that informal ballot was and how we're going to sort
13 out who gets to vote on informal votes like that,
14 whether alternates get to vote in addition to their
15 principals, or whether alternates are not going to be
16 considered voting if they're principal votes.

17 I don't know what the rules are for this kind
18 of an informal vote, and I asked the staff liaison
19 and didn't get a very good answer to that question.

20 My last procedural comment is that an
21 official ballot of this issue did occur after the
22 NFPA meeting and the official ballot is that 18 out
23 of the 29 members of the committee agree with the

1 Chair, but that's less than the 66.7 percent that you
2 need. It's less than the two-thirds you need to
3 actually make a change to the NFPA standard.

4 So the right thing to do right now, since
5 we can't get two-thirds of the committee to agree on
6 changing the standard, is to actually return to the
7 last place there was consensus which was the 19 --
8 I'm sorry -- the 2007 edition of NFPA 20 and let the
9 committee address this again in the next cycle.

10 No harm will come from this decision.
11 Really tall buildings have been built in accordance
12 with NFPA 20 for more than 70 years.

13 There are new rules in the document that
14 will apply to really tall buildings and not even let
15 them be installed in series anyway, so I think it's
16 fine to just let this go back to committee.

17 And lastly, I said I had a question at
18 the end. Given that we had a discussion on an
19 earlier appeal as to what happens when a very small
20 piece of a proposed or a comment gets sent back, I
21 want to clarify that the only thing that's being sent
22 back here is Section 4.3.1 that deals with pumps in
23 the same room.

1 I'm hoping that all the rest of the
2 proposals and comments on this new high-rise chapter
3 still continue to go through in the 2010 edition of
4 NFPA 20.

5 I think everybody involved in the subject
6 wants that whole new chapter to go through and just
7 this one section to be the subject of the appeal.

8 THE CHAIR: Thank you. I'm going to open
9 it up to questions and I think what I'm going to do
10 is to start by making the clarification that you've
11 asked for.

12 And since this was the Certified Amending
13 Motion on the floor that returned an identifiable
14 part of this, that that is the issue that we're
15 dealing with.

16 So unlike some of the previous
17 discussions where we've had an attempt to sort that
18 out, this pathway is a little bit clearer so I'll
19 note, Mr. Isman, if that answers your question, but
20 it is that identifiable part we're talking about.

21 At this point I'm going to open it up to
22 questions from members of Council. Mr. Huggins.

23 MR. HUGGINS: Roland Huggins, Council

1 member. I'm curious on Gayle's response about
2 changes that, you know, cannot identify that
3 effectively -- the new requirement effectively
4 eliminating the pumps in series anyways.

5 MR. PENNEL: Dead wrong. He made a
6 statement that once you put a water tank in, that
7 eliminates the pump in series.

8 It does not eliminate the pump in series.
9 It starts a new series. And once a water tank goes
10 in, the typical designs that are done in Chicago have
11 series pumps downstream of the water tank.

12 In addition, the comment on series pumps
13 in seven-story buildings, you don't use them. The
14 building is not high enough to have series pumps
15 within the building.

16 MR. HUGGINS: Ken, can you follow up on
17 that?

18 MR. ISMAN: I apologize, I don't have the
19 ROP and ROC with me. I couldn't carry all those
20 documents coming over here. I already have two
21 briefcases.

22 But the committee specifically defined
23 pumps in series and specifically said pumps in series

1 is not pumps attached to tanks or pumps attached to
2 break tanks.

3 The committee specifically said that's
4 not pumps in series in their definition. So you
5 can't say that I'm dead wrong when I say pumps with
6 tanks are not pumps in series.

7 The committee specifically said in the
8 definition of pumps in series, pumps in tanks are not
9 pumps in series.

10 MR. PENNEL: You're missing the whole
11 point.

12 THE CHAIR: Gentlemen, we're going to do
13 this through the Chair. If Mr. Huggins has a
14 follow-up that he's looking for further information
15 on his question, I'll certainly allow that.

16 MR. HUGGINS: I'm done, thank you.

17 THE CHAIR: Additional questions from
18 members of Council? Doctor Clary.

19 DR. CLARY: This is to clarify.
20 Mr. Isman, are you a member of this Technical
21 Committee?

22 MR. ISMAN: I'm an alternate to
23 Mr. Victor.

1 DR. CLARY: Thank you.

2 THE CHAIR: Additional questions. I'm
3 going to allow five minutes for each side for any
4 closing comments that you have.

5 And Mr. Pennel, I'll have you go first
6 since you're the appellant in this case.

7 MR. PENNEL: As noted, Ken's comments on
8 pumps in series are incorrect. The definition of
9 fire pumps in series basically does not include pumps
10 that have the water tank between them, but you can
11 have pumps in series downstream of a water tank.

12 And there's nothing in the definition
13 that prevents you from having pumps in series
14 downstream of a water pump -- or of a water tank.

15 And, again, a seven-story building you
16 just don't need pumps in series. A single pump is
17 enough for a seven-story building. Up to 15 to 20
18 stories you're okay with a single pump.

19 The procedures did get a little confusing
20 on this. However, when Ken sent me the reply telling
21 me that I had used the wrong e-mail, he also used the
22 wrong e-mail address in that reply to me.

23 Terry Victor was -- When I took the

1 e-mails off of the web site, I took the current
2 e-mail address of Terry Victor and I used it, and it
3 was incorrect.

4 And it was later updated probably before
5 I sent this out, but that was inadvertent and
6 certainly Terry Victor got notice. In fact, Terry
7 Victor actually sat in on the conference call that we
8 had.

9 There was some confusion to me about
10 the Standards Council position on this, and when I
11 reviewed the documentation that this was being sent
12 without a vote of the committee, then I requested
13 Jason to go ahead and poll the committee to see if
14 they did support this document.

15 The results came back about 15 to 5 in
16 favor of supporting the document. So this is a
17 representation of the committee as a whole.

18 There were certain committee members who
19 basically vote -- at least on these issues they voted
20 on whatever the committee -- whatever the current
21 was, keep it that way.

22 In other words, when I polled for the
23 floor motion, there were only four oppositions. The

1 final vote came in with ten.

2 And when I checked to find out what had
3 changed on it, the primary thing that had changed was
4 the NFPA position was now this and they were going to
5 support that, and if the NFPA position was changed,
6 the implication I got was that they would support
7 that.

8 So the overwhelming majority of the
9 committee did support this appeal, and certainly the
10 statements in here are well documented what the
11 inaccuracies in these statements are.

12 And Ken did get a chance to reply by
13 e-mail before we had the hearing. I never refused to
14 hold another hearing. It just didn't occur in the
15 particular time frame because it seemed like after
16 the first hearing everything was set.

17 And Ken got his comments in. He e-mailed
18 his comments in. We looked at them. We considered
19 them. Thank you.

20 THE CHAIR: Mr. Isman, any closing
21 comments?

22 MR. ISMAN: Just Mr. Pennel made the
23 statement that buildings 75 feet tall don't need

1 pumps in series. They are installed for a variety of
2 reasons.

3 There are situations where we do end up
4 with pumps in series for a variety of concerns, one
5 of them being when NFPA 14 was out there years ago,
6 there was a requirement for the pressure at the top
7 of the standpipe to be 65 p.s.i. Then years later it
8 changed to a hundred p.s.i.

9 So when a building's being revamped and
10 people have to come up to the new code, they have to
11 get a higher pressure at the top of the building,
12 sometimes they can't change out the pump so it's just
13 one pump at the bottom giving them the hundred p.s.i.
14 at the top.

15 Sometimes the solution is to put a pump
16 in series later on further up the building so you're
17 not creating the higher pressure lower down in the
18 building. It happens.

19 We get pumps in series in some of these
20 buildings and there's no reason to say that they're
21 not allowed.

22 If the concern of the committee was the
23 really tall buildings, they should have written the

1 document to say really tall buildings.

2 These results of this document coming in
3 at 15 to 5, yeah, but how many of those 15 are
4 members and alternates to each other voting the same
5 way on the issue? I don't know the answer to that.

6 I got e-mail from Jason this morning but
7 I haven't been able to sort through it and figure out
8 how many of those 15's are double counting members
9 and their alternates, so I just don't know how to
10 take that vote on its face value.

11 And then lastly, the statement was made,
12 well, I got to make my written comments to the
13 committee meeting even though I couldn't attend the
14 meeting in person.

15 That's an uphill battle to climb. To
16 have to overcome the technical opposition of the
17 Chair at a meeting where you can't attend, only by
18 doing it in writing, I challenge anybody here to be
19 able to do that, to be able to take a technical
20 position against the Chair who has stated an obvious
21 technical -- an obvious technical position and to do
22 that in writing without being able to actually
23 address people verbally at a meeting. That's a

1 standard I shouldn't have to meet.

2 THE CHAIR: Thank you. That will close
3 out this particular hearing item. I would remind
4 everyone that a written decision on this item will be
5 issued by the Council's secretary.

6 No member of NFPA staff nor any member of
7 the Council is permitted to provide any information
8 regarding that decision. The written decision will
9 be the only way that the decision of the Council is
10 conveyed.

11 And I'm going to move directly into the
12 next hearing. I believe some of the same folks are
13 involved. This is agenda item 09-8-3-b which also
14 deals with NFPA 20 and I'm going to -- Who's going to
15 speak in support of this appeal?

16 MR. SCHNEIDER: Dick Schneider.

17 THE CHAIR: Anyone else speaking in
18 support of the appeal? In opposition to the appeal?
19 Mr. Isman? Anyone else speaking in opposition?

20 Okay. We will follow the same format.
21 Mr. Schneider, I'll have you go first. You'll have
22 ten minutes to make your opening remarks and comments
23 to the Council.

1 I will allow Mr. Isman the same on the
2 other side and then we'll go to questions from the
3 members of the Standards Council.

4 Are there any statements from members of
5 the Council on this? Mr. Harrington.

6 MR. HARRINGTON: J.C. Harrington, member
7 of Council. For the record, I'm recusing myself on
8 this agenda item as well. I will not participate as
9 a member of the Standards Council in hearing
10 deliberations or voting on this matter.

11 THE CHAIR: Thank you. Mr. Bell.

12 MR. BELL: Kerry Bell, member of Council.
13 I would like to note for the record I'm a member of
14 the TC on Fire Pumps. As a TC member I would
15 participate in voting on matters that appear to be
16 related to this appeal.

17 I have therefore reviewed my obligations
18 in this regard under the Conduct of Participants in
19 the NFPA Process to consider whether there is any
20 reason for me to recuse myself in consideration of
21 this appeal.

22 I have concluded that I do not have any
23 views that are or would appear to be fixed concerning

1 the issues and I am fully able to give open and fair
2 consideration to this appeal.

3 For the record, therefore, I have
4 considered the matter and believe that I can fully,
5 fairly, and impartially fulfill my role as a Council
6 member on this appeal.

7 THE CHAIR: Thank you. Any other
8 statements from Council? Mr. Schneider, please
9 proceed.

10 MR. SCHNEIDER: Thank you, Jim. Ladies
11 and gentlemen of the NFPA Standards Council, I'm Dick
12 Schneider appearing here to assist the Chairman of
13 NFPA 20 on the limited controller issue.

14 I am a principal member on NFPA 20
15 representing NEMA. I'm also the Chairman of the Fire
16 Pump Committee at NEMA. I want to thank you for the
17 opportunity to appeal the issue about limited service
18 controllers before you.

19 With only ten minutes' time allocated per
20 issue I thought it best to read the following facts
21 to you: Number one, please be aware that
22 requirements for limited service controllers are
23 contained in paragraph 10.7 of NFPA 20 in 1997 --

1 2007, and that the NFPA 20 committee has accepted
2 Proposal 20-88 and 20-65 to delete that paragraph and
3 thus eliminate the product.

4 This was originally proposed by NEMA so
5 it's gone through a lot of committees that are
6 staffed with knowledgeable people.

7 Number two, in his motion to overturn the
8 committee actions at the general membership meeting,
9 Mr. Isman claimed the following: A, there is no
10 record of loss experiences attributable to the
11 limited service controller and, B, the \$400 cost
12 difference between the limited service controller and
13 a true fire pump controller is significant.

14 Number three, subsequent to my speaking
15 against the motion during the general membership
16 meeting, a small number of speakers both for and
17 against the motion were recognized by Moderator
18 Gerdes followed by Mr. Marcello Hirschler who
19 successfully called the question. This aborted all
20 attempts to correct false claims and to present a
21 balanced position.

22 A, the membership voted to accept the
23 floor motion based on (a) cost and the lack of a

1 record of loss experiences.

2 Number four, documentation exists with
3 this appeal which is your agenda document 09-8-3-b-1
4 which provides a short tutorial on the limited
5 service controller versus a true fire pump controller
6 which most members of this Standards Council will
7 hopefully find useful. That document should be in
8 your computers or in your files.

9 My verbal presentation will address the
10 cost and the loss record claims upon which the
11 membership vote was based.

12 Number five, documentation exists that
13 the cost difference between a limited service
14 controller and a fire pump controller has been
15 drastically reduced by prior committee actions to as
16 little as \$100 depending on horsepower, voltage,
17 options, and commercial considerations including
18 supply chain markups.

19 There is no one number that can be
20 claimed. Let it suffice that Factory Mutual's
21 previously acceptable cost benefit ratio has been
22 transgressed which triggered an FM Approval's
23 decision to no longer approve limited service

1 controllers. In summary, using a single high dollar
2 value by Mr. Isman is incorrect and misleading.

3 Number six, with regard to the record of
4 loss experience claim, testimonials exist from
5 sprinkler contractors and service organizations, such
6 as Bill Harvey & Associates, that parts replacement
7 and service calls on limited service controllers are
8 significantly higher than on fire pump controllers.

9 NFPA 20, ladies and gentlemen, works.
10 And these actions do not get documented into any
11 dossier. Thus, overturning a committee action using
12 that claim is incorrect and misleading.

13 NFPA 20 should remain proactive -- a
14 proactive standard dedicated to good fire protection
15 based on sound engineering principles just like we
16 say in paragraph 1.2.

17 Number seven, we hope the Standards
18 Council agrees that the premature "calling the
19 question" had aborted a balanced presentation of
20 important facts and the exposure of fallacies.

21 The Standards Council should endorse the
22 committee actions, thus deleting the limited service
23 controller.

1 Reverting to the verbiage of the previous
2 edition of NFPA 20 is not an option. We want to
3 delete it.

4 I would be happy to answer any questions
5 that the Board may feel it has. I do have as an
6 attachment the typical letter from a service
7 organization. This particular one has over 35
8 people, technicians, in the field dedicated to fire
9 pump installations.

10 "Dick, you've extracted some good
11 information from your troops. Good work. All right.
12 A couple of points about the revered limited service
13 controller.

14 On numerous occasions over the years we
15 have replaced motors on small pumps using limited
16 service controller units that were damaged due to
17 single phasing. The problem is actually getting
18 worse now.

19 However, many fail to understand that the
20 electrical box in the pump room is a vital component
21 of the sprinkler system.

22 They simply ignore the unit and many
23 times the unit fails because the inspector has

1 limited knowledge of the total system.

2 While performing, inspectors -- I'm
3 reading, these are his wording. While performing
4 inspectors test flows the fire pumps starts and no
5 one is in the pump room.

6 My sons in their businesses replace
7 motors and controllers on at least 20 a year that
8 other contractors destroy. This includes the biggest
9 boys in the business.

10 When we replace a controller we always go
11 back with full service equipment. There simply is no
12 compelling reason to use a limited service
13 controller.

14 A, there is not a cost advantage any
15 longer. It's less than a hundred bucks. B, the
16 limited service controller was never a fire pump
17 controller."

18 Let me digress a second. NFPA 20 never
19 calls a limited service a fire pump controller.

20 "C, approximately 80 percent are used in
21 the wrong application. D, there is plenty of
22 liability to go around when using a limited service
23 controller.

1 It is time to move forward and forget the
2 past except to learn from it. As fire protection
3 professionals we must focus on providing quality fire
4 protection and life safety systems for the public.
5 The bickering that I have witnessed along with you is
6 demeaning to the process."

7 In other words -- This is an unsolicited
8 letter incidentally, but it's typical of the
9 experience out there.

10 The document that I referred to that you
11 people all have, which gives you, for those of you
12 that want this information or possibly need it, the
13 difference between a limited service controller and a
14 true fire pump controller. So I'll leave it at this
15 point, Mr. Chairman.

16 THE CHAIR: Thank you. Mr. Isman.

17 MR. ISMAN: Thank you. Limited service
18 controllers have been used successfully in fire
19 protection for more than 60 years.

20 They came about just after World War 2 so
21 we're talking about a good length of history of
22 experience we have with these pieces of equipment.

23 For the last ten years, every cycle of

1 NFPA 20, manufacturers of controllers have proposed
2 the elimination of the limited service controller.

3 And every time the subject comes up I ask
4 them the same question: Show me the documentation
5 that actually shows that these devices are less
6 reliable than the full service controller
7 alternative.

8 If they are as bad as these manufacturers
9 claim them to be, there should be some study they can
10 point to or conduct that would give us some hard data
11 to actually say these devices are less reliable.

12 The anecdotal material that Dick's just
13 given us is actually the first time in ten years
14 anybody's brought any evidence to the table, but what
15 I'd rather see is something submitted to the
16 committee that's actually some kind of defensible
17 study that says, Yes, these devices need to be
18 replaced more often than the full service controller
19 or that they fail on a more frequent basis than the
20 full service controllers.

21 That should be presented to the committee
22 at the beginning of this discussion, not anecdotes
23 given to the Council at the end of that discussion.

1 Limited service controllers have a place
2 in fire protection. They were originally designed
3 for small fire protection systems where the cost
4 difference would make a difference as to whether a
5 building owner could afford sprinkler systems or not.
6 And limited service controllers still perform that
7 vital function.

8 Now, Dick several times mentioned that he
9 thinks the cost differential is only \$100. That's
10 not our experience buying limited service
11 controllers.

12 I represent sprinkler contractors who buy
13 fire pump controllers all the time and the fire pump
14 controller manufacturers don't sell them to us at
15 only \$100 difference.

16 So I went to Mr. Schneider's employer,
17 Joslyn Clark, and downloaded their fire pump
18 controller and accessories price list from the web
19 site. This is their most recent price list which is
20 in effect right now.

21 According to the official price list, the
22 least expensive across-the-line starting controller,
23 full-service controller, that I can buy is \$5420.

1 That's the least expensive one that I can buy.

2 A limited service controller I can buy
3 for \$3810. That's a \$1610 difference. His company's
4 price list. I'll leave this with you if you'd like
5 to hang on to it.

6 Now, there are some other limited service
7 controllers that are slightly more expensive at \$4320
8 but that would still be an \$1100 price difference,
9 not a \$100 price difference.

10 Now, granted, I understand every
11 contractor doesn't pay list price. Some contractors
12 are given a break from list price, but typically the
13 break would be the same whether I was buying one
14 piece of equipment or another. I'd get some kind of
15 a discount.

16 There is a significant discount
17 difference between the cost of limited service
18 controllers, and it's a whole lot more than \$100.

19 The reality is that the limited service
20 controller makes a difference and some people can't
21 afford sprinkler protection unless they can have the
22 limited service controller.

23 Now, there is some discussion about the

1 use of limited service controllers in aircraft
2 hangars. That came up several times during the
3 meeting and in the written documents that
4 Mr. Schneider presented to the Council.

5 The NFPA 409 Committee gets to make that
6 determination as to what equipment is appropriate for
7 aircraft hangars.

8 They've determined that limited service
9 controllers are okay in aircraft hangars in two ways:
10 First of all, you're only allowed to use a limited
11 service controller in an aircraft hangar if there's a
12 backup, a second limited service controller running a
13 separate pump so in case there is a problem with the
14 limited service controller, there's a redundant pump
15 run by a separate limited service controller.

16 And then you're only allowed to use those
17 limited service controllers on the foam concentrate
18 pumps which are a portion of the fire protection
19 system.

20 But even if everything went wrong and the
21 two limited service controllers failed, you'd still
22 get water on the fire because these pumps don't have
23 anything to do with the delivery of water to the

1 system. They're foam concentrate pumps, not fire
2 pumps controlling water supply. You'd still get
3 water to the fire in the aircraft hangar.

4 So limited service controllers have been
5 looked at, understood by the NFPA 409 Committee and
6 they have a purpose even in aircraft hangar design.
7 So we urge the NFPA not to get rid of them.

8 Lastly, Mr. Schneider claimed that debate
9 was cut short and he wasn't able to address technical
10 issues, but if you look at the transcript you'll see
11 that Mr. Schneider did get to address the group and
12 he goes on for more than three pages where he got to
13 talk to the NFPA during this discussion on this
14 subject.

15 So he might not have gotten a chance to
16 go back a second time but he got his chance to talk
17 on the issue. Lots of people on both sides got a
18 chance to talk on this issue. And when the
19 membership had heard enough, they called the
20 question. Thank you.

21 THE CHAIR: I'll now open it up to
22 questions from the members of Council please.

23 Mr. Bell.

1 MR. BELL: Kerry Bell, member of Council.

2 I guess a question for Mr. Schneider and Mr. Isman.

3 I think there was a statement made that there's a lot
4 of misapplication of limited service controllers.

5 Can you expand on that comment? And I
6 think you indicated it's like 80 percent, and I'd
7 like to know what the basis for that comment is and
8 what type of applications where it's being used where
9 it's misapplied.

10 And also I'd like to know what
11 applications where it's beneficial, it's perceived to
12 be beneficial. To both.

13 MR. SCHNEIDER: The limited service
14 controller is -- My documentation that each of you
15 have which gives you the difference in the
16 performance and reliability and all that stuff came
17 at a time when there was no full service controller
18 produced less than 50 horsepower.

19 And certainly a small concern, like maybe
20 a nursery school or etcetera, should not have been
21 and was confronted with the financial burden of
22 buying a fairly large installation and they couldn't
23 afford it.

1 And at that time it is true what Ken
2 says, and that is the choice was a limited service
3 controller or nothing.

4 Well, nowadays every North American
5 manufacturer of fire pump controllers makes full
6 service controllers all the way down to 3 horsepower,
7 the full range of what the limited service controller
8 was designed for.

9 As far as foam applications are
10 concerned, to me and to the industry, using a limited
11 service controller, which per NFPA 20 requires the
12 stated permission of the AHJ, realizing the
13 limitations, should never be used to protect a hangar
14 or an equally potentially high loss premises or
15 installation, but they are used for that.

16 It was quite clear to the NEMA people
17 that misapplication was happening. And NEMA has set
18 out to write articles for publication in magazines
19 likely to be read by AHJ's; for example, the
20 International Association of Electrical Inspectors
21 Magazine, to point out the limitations and that
22 special consideration and limitations have to be
23 exercised by the AHJ.

1 Apparently it hasn't worked. Either
2 they don't read or don't follow or what. So the
3 misapplication continues to this day and the best
4 thing to do is just take this product off the market.

5 In other words, take it out of NFPA 20
6 and if it disappears from NFPA 20, AHJ's won't
7 approve the installation because they can't --
8 there's no connection to NFPA 20 that gives it the
9 authority. With regard -- Okay. I've answered your
10 question I think. I hope.

11 MR. BELL: Are you saying then the
12 aircraft hangar application is a misapplication?

13 MR. SCHNEIDER: Yes, oh yes, and in the
14 opinion of all of the manufacturers in North America
15 of fire pump controllers.

16 MR. BELL: Well, I guess just additional
17 follow-up to both Mr. Isman and yourself. How about
18 the need for this as far as the current use, current
19 application of it? Is there some application where
20 it's being used quite extensively right now?

21 MR. ISMAN: Limited service controllers
22 are used in a number of applications where there is a
23 small horsepower demand for a fire pump; small

1 assembly occupancies like the ones that are trying to
2 be retrofitted after the Station Nightclub fire;
3 small businesses, small mercantile strip centers.
4 Those are the kinds of places that the limited
5 service controllers are used.

6 THE CHAIR: Additional questions? Seeing
7 none, Mr. Schneider, any closing comments?

8 MR. SCHNEIDER: Well, I just want to
9 address this matter of lack of documentation of
10 horrendous failures or whatever Ken is looking for.

11 And just to give you an example on why
12 that is so difficult to produce, now we proved, or we
13 showed in the documents that you have, the limited
14 service controller is very sensitive to ambient
15 temperatures and if the thermal magnetic breaker
16 trips, it takes a long time to be able to reset it.

17 The limited service controller is more of
18 an irrigation pump controller or an industrial pump
19 controller than it is a fire pump controller, and
20 that's why NFPA 20 never called it a fire pump
21 controller.

22 Let me give you an example of what I call
23 Misleading 101. "Fallacious statements on loss

1 experience or performance have been used to support a
2 biased position before.

3 Whereas NFPA 20 standards are true
4 consensus standards, European standards are written
5 by industry and permit fuses to be used in fire pump
6 controllers which they claim -- quotation marks --
7 have served the market well.

8 NFPA 20 only permits non-thermally
9 reactive circuit breakers to be used in fire pump
10 controllers.

11 It is well recognized that only a very
12 small percentage of protected properties catch on
13 fire and equipment failure under fire conditions
14 further reduces that percentage.

15 If a fire pump fails to start during a
16 fire in Europe and a fireman is dispatched to the
17 pump room, he's expected to have electrical
18 competence, a volt meter, diagnostic talents and
19 tools to find which fuse or fuses are blown and hope
20 that there are spare fuses available. That's not
21 likely to succeed.

22 In a smoky environment and when the
23 premises burns down and an investigation reveals that

1 all fuses are charred from the heat of the fire, the
2 blown fuse will never be blamed.

3 Remember that a single or multiple blown
4 fuse prevents all means of manually or electrically
5 starting the pump. Thus, the record remains clean
6 and, quote, have served the market well is
7 perpetuated."

8 We don't want to get into -- We don't
9 want to perpetuate producing a controller that we
10 know has limitations and deficiencies under fire
11 conditions.

12 I'm sure this Council will agree that to
13 eliminate and take that product out of NFPA 20, since
14 a true fire pump controller is now available in all
15 horsepower and voltages that were previously served
16 by the limited service, is a step in the right
17 direction and is a step in improved fire protection.
18 Thank you.

19 THE CHAIR: Thank you. Mr. Isman?

20 MR. ISMAN: I'm not asking for
21 information on limited service controller failures
22 during fires.

23 I'm just saying if the device is as

1 terrible as it is depicted, we should be able to tell
2 from the records of repair and replacement during the
3 regular testing and maintenance of that device.

4 NFPA 25 requires weekly testing of fire
5 pumps. During that regular testing we should be able
6 to figure out whether the controller's working or not
7 and allowing the pump to start.

8 And it should be relatively easy for the
9 manufacturers of these controllers to give us data
10 that says that these have to be repaired or replaced
11 more often than their full service controller
12 counterparts.

13 I'm not asking for any horrendous fire
14 losses to occur before we make a change. I'm saying
15 that we have not experienced the terrible losses that
16 they tell us we should be experiencing from devices
17 that have been in service for more than 60 years.

18 Thank you.

19 THE CHAIR: Thank you. And with that I'm
20 going to bring this hearing to a close. I want to
21 thank all of you for participation not only on the
22 technical committees but also at this Council meeting
23 and providing us the information.

1 We will issue a written decision on this.
2 That decision will only be issued by the secretary of
3 the Council.

4 No member of NFPA staff nor member of the
5 Council is permitted to provide any information
6 related to that decision. The written decision will
7 be the only way the Council will convey their
8 response on the issue. With that I'm going to close
9 out this hearing and go off the record.

10 (Discussion off the record.)

11 (Whereupon at 3:39 p.m. the hearing recessed and
12 reconvened at 3:48 p.m.)

13 THE CHAIR: We're moving into agenda item
14 09-8-16-d. This is an appeal to issue the proposed
15 TIA 941 to NFPA 70.

16 If you're going to speak to this issue,
17 if you'd take a seat at the end of the table and
18 before I get to that I'm going to ask if there's
19 anyone in the room that was not in the room
20 previously that can introduce themselves for the
21 record.

22 MR. COLONNA: Guy Colonna, NFPA staff.

23 MR. EARLY: Mark Early, NFPA staff.

1 THE CHAIR: I think that's probably it.
2 Is there any -- Before I go into this hearing are
3 there any statements from Council members.
4 Mr. Carpenter.

5 MR. CARPENTER: James Carpenter, member
6 of Council. I'd like to note for the record that I
7 am a member of the TCC on NFPA 70.

8 As a TCC member I participated in the
9 consideration and voting on the issues that appear to
10 be related to this appeal.

11 I have therefore reviewed my obligations
12 under the Guide for Conduct of Participants in the
13 NFPA Process, particularly Section 3.5(d) of the
14 guide to consider whether there are any reasons for
15 me to recuse myself from consideration of this
16 appeal.

17 I have concluded that I do not have any
18 views that are or would appear to be fixed concerning
19 the issues and I'm fully able to give open and fair
20 consideration to this appeal.

21 For the record, therefore, I have
22 considered the matter and believe that I can fully,
23 fairly, and impartially fulfill my role as a Council

1 member on this appeal.

2 THE CHAIR: Thank you. Mr. Torbin, I
3 believe you're the appellant in this case, and is
4 there anyone else speaking in favor of this appeal?
5 Mr. Philips, I believe -- are you speaking in
6 opposition to the appeal?

7 MR. PHILIPS: Yes.

8 THE CHAIR: Is there anyone else who will
9 be speaking in opposition? Mr. Brown? And if you
10 could, I want you to come over, Larry, and take a
11 seat. At least it's a little easier for me to not
12 forget that you want to speak on the issue.

13 And we're going to follow the same format
14 that we have. I realize you gentlemen have been in
15 the room but, Mr. Torbin, I'm going to give you ten
16 minutes to do your opening remarks.

17 Mr. Philips and Mr. Brown, any comments
18 you'd like to make over a ten-minute time period.
19 Afterwards we'll open it up to questions from members
20 of Council and then I'll give you an opportunity for
21 some closing remarks. That being said, Mr. Torbin,
22 if you'd like to begin please.

23 MR. TORBIN: Good afternoon. My name is

1 Bob Torbin. I'm the owner and principal engineer for
2 Cutting Edge Solutions.

3 I am a member of NFPA, ASME, ASTM, a
4 number of codes and standards committees, mostly
5 affecting gas distribution for residential
6 applications.

7 And I come here today as a friend of the
8 corrugated tubing industry, corrugated tubing being a
9 new gas piping product that's used for the
10 distribution of natural and LP gas systems.

11 I want to raise two issues regarding my
12 request for a TIA. The first deals with a conflict
13 between codes.

14 In 2009 the National Fuel Gas Code, NFPA
15 54, approved new language requiring the bonding of
16 this corrugated stainless steel tubing product
17 basically with a No. 6 wire at the service entrance
18 to the grounding electrode system.

19 The 2008 National Electrical Code does
20 not have similar coverage and thus we created
21 somewhat of a conflict.

22 As part of that process we've also gone
23 through the updating of the product standard. CSST

1 is listed and certified to an ANSI standard, ANSI
2 LC 1, and the requirements for these bonding
3 stipulations are now being included in that standard.

4 CMP 5 and the Technical Correlating
5 Committee, in their comments to my TIA, recognize
6 that the new requirements in NFPA 54 are not
7 prohibited by the requirements in Section 251.04(b)
8 which covers the bonding of other metal pipe and so
9 that they don't feel there's a conflict.

10 I might also add that the same type of
11 bonding that's being proposed for the corrugated
12 tubing is currently done for other metal systems such
13 as coax cable, radio/TV antenna systems, even for
14 copper water pipe in another section of 104.

15 They still all require these metal
16 systems to be bonded, and that's primarily to create
17 what's called an equipotential state so that we
18 minimize differences of potential between metallic
19 systems in order to prevent any damage that might be
20 caused by some type of failure in the electrical
21 system.

22 This type of bonding is done in Canada
23 for all gas piping and this type of bonding is done

1 in the UK for all types of gas piping.

2 So it's not rocket science and it's not
3 something new. It's a tried and proven system and
4 approach to bonding of metallic systems.

5 I have submitted in the package a letter
6 of support from the American Gas Association who is
7 the secretariat for their version of the National
8 Fuel Gas Code, the ANSI Z223.1, encouraging the
9 incorporation of these requirements into the National
10 Electrical Code.

11 The other point I want to raise is
12 there's a point of confusion in that because we have
13 different requirements in the fuel gas code and the
14 electrical code, we're seeing confusion in the field
15 both in terms of the electrical inspection community
16 not knowing what to inspect or whether they need to
17 inspect.

18 We have the plumbers who are not required
19 to do bonding but they're not really sure who's going
20 to do the bonding for them, and then the mechanical
21 inspector who really may not be coordinating properly
22 between all the parties concerned.

23 Right now the manufacturers of the

1 corrugated tubing have updated their DNI guides and
2 it is a requirement that they have this bonding, and
3 they're looking to the electrical community for some
4 support and assistance in trying to get that done
5 either through an interpretation of the National
6 Electrical Code or, as I have done already, I've
7 submitted a proposal to the 2011 electrical code also
8 requiring a change to make the two codes consistent
9 in terms of the coverage for CSST bonding.

10 This confusion even here in the great
11 Commonwealth of Massachusetts where the Board of Fire
12 Prevention regulations recently ruled that although
13 the bonding of CSST does not violate the
14 Massachusetts Electrical Code, which is based on the
15 National Electrical Code, they don't require
16 electricians to do the bonding because it's not
17 covered in the Massachusetts Electrical Code in their
18 estimation.

19 So just using that as a typical -- but
20 I've seen it around the country that this confusion
21 is my principal cause of concern and that I was
22 hoping through the TIA to rectify that immediately
23 but also through the submittal of a proposal for the

1 2011 to try to get that new coverage to eliminate the
2 conflict and to eliminate the confusion between the
3 two codes. Thank you very much.

4 THE CHAIR: Thank you. Mr. Philips.

5 MR. PHILIPS: I'm an alternate member of
6 Code-Making Panel 5 and our Chair -- I'm alternate to
7 our Chair Mike Johnston who was unable to be here
8 today and asked me to cover for him, so I'll attempt
9 to do that.

10 Our Panel 5 has reached a broad consensus
11 on this issue. I've only been on the panel -- This
12 is just my second cycle and it's been discussed by
13 our panel four times in the 08 cycle and in the 11
14 cycle and in the TIA and in the appeal of the TIA.

15 And the panel has been virtually
16 unanimous in taking the position every time that this
17 enhanced requirement for bonding of this type of
18 piping should not be added to the electrical code.

19 The technical substantiation that has
20 been provided to the panel is not really sufficient
21 to support the recommendation that was made or the
22 request that was made.

23 It wasn't demonstrated that the direct

1 bonding, as they call it, that was requested would
2 prevent the types of failures that have been
3 reported, and the testing that was reported wasn't
4 really representative of the real-world conditions
5 that occur.

6 As Mr. Torbin said, the NEC requirements
7 do not prohibit the installation of this bonding
8 conductor, but they also don't require it.

9 One of the concerns that the panel has is
10 that the NEC is not a lightning protection standard
11 and this is really a lightning problem that is being
12 experienced by this product.

13 And there's a concern that we not go
14 backward and start reintroducing lightning protection
15 requirements into the NEC after a number of cycles of
16 trying to get them out of there.

17 We very much agree with the issue of the
18 conflict with NFPA 54 that it should be resolved and
19 I think this might be a good place to try to do that.

20 CMP 5 was not consulted by 54 when they
21 introduced this grounding requirement into that
22 standard and, of course, being a member of 5 I think
23 that Panel 5 has greater experience and knowledge of

1 grounding requirements and really should be the place
2 where grounding and bonding issues are discussed and
3 resolved.

4 And I think that Panel 5 would like to
5 see the Standard 54 refer to NFPA 70 for guidance on
6 grounding and bonding. Thank you.

7 THE CHAIR: Mr. Brown.

8 MR. BROWN: Larry Brown, National
9 Association of Home Builders. I'm also in agreement
10 with what was just said.

11 I'll also note that actually the same
12 issue's been in front of three different standards
13 committees.

14 One is the Uniform Plumbing Code
15 Committee which also extracts from NFPA 54 into their
16 document. It's been in front of the NFPA 54 or the
17 ANSI Z221 Committee, the combined committee and now
18 Panel 5 of the NEC. And all the committees have been
19 unanimous on not doing what the TIA is asking.

20 I also believe it's somewhat premature
21 right now to issue a TIA when this is still going
22 through the ROC period and the NEC which is coming up
23 and will be discussed later on this year.

1 One thing also I have to mention, that
2 there's a lot of lawsuits involved in this and the
3 NHB was involved in those, and I think the time for
4 filing for the class action is over with now.

5 But the actual product itself is listed.
6 It's a listed product and they have manufacturer's
7 instructions which tell you how to do this
8 supplemental bonding to take care of the possible
9 problem which they were talking about.

10 So I would say at this time it seems like
11 it's premature because it still has to go through the
12 70 process. I will be submitting a comment to maybe
13 put a fine print note in there to go to NFPA 54 for
14 supplemental bonding requirements and we'll see how
15 that works out.

16 But this goes back -- from my own
17 experience goes back over three years ago when this
18 first started raising its head.

19 So I called up staff here to see who
20 actually had jurisdiction over these bonding
21 requirements of gas piping.

22 And it seemed to come out that staff,
23 after they consulted, seemed to think that the main

1 bonding requirements comes from Panel 5 and anything
2 else dealing with the gas piping itself came from the
3 54 panel.

4 So I thought that they said they
5 correlated those things so I was all along thinking
6 this was going to take care of itself.

7 Apparently it hasn't, so there needs to
8 be some correlation between those two panels on who
9 has jurisdiction over exactly what part of the
10 bonding.

11 I mean, you've got it over anything
12 that's possibly energized by a circuit going to the
13 gas piping. Lightning is a different subject under
14 780, but then again the piping itself is under the
15 jurisdiction of 54. So you may need to take that
16 into consideration. Thank you.

17 THE CHAIR: Thank you. I'm going to open
18 it up to questions from the members of Council now,
19 please. Mr. Gerdes.

20 MR. GERDES: Ralph Gerdes, Council
21 member. Mr. Torbin, I'm looking at page 1 of my
22 attachment here on the ballot results of the TIA, and
23 it appears to me that you were not very successful in

1 convincing the Technical Committee or the Correlating
2 Committee on the need for this.

3 Some of the comments seem to be you
4 didn't submit technical justification. What
5 information did you submit that justified your
6 position?

7 MR. TORBIN: Well, this has been going
8 on for some time now and I have been working with the
9 corrugated tubing industry to perform, conduct,
10 evaluate the product under various lightning
11 conditions.

12 That report was not available or was
13 not free for me to submit to CMP 5 when I submitted
14 my original proposal which was then considered in
15 January of this year.

16 I have submitted to this Council some --
17 the latest technical testing data. That data and
18 others I'm preparing a new report which I'll submit
19 to CMP 5 as a comment so that they will have a chance
20 to deliberate that and evaluate that testing data
21 which will be the most complete to date.

22 Having said all that and having read
23 Mr. Johnston's comments through this process, this

1 may be something that you'll never be able to do
2 enough testing to convince enough people.

3 But there should be sufficient technical
4 information provided back to CMP 5, I believe, for
5 their evaluation and determination as to whether or
6 not the type of bonding that's being proposed is
7 effective and safe for the public.

8 MR. GERDES: So is it fair to say that
9 when you submitted the TIA you really didn't give
10 them much justification and then it appears during
11 the cycle that maybe in the ROC period they may be
12 seeing something in the future?

13 MR. TORBIN: Well, I know they're going
14 to see some new information in the ROC cycle. What's
15 safe to say when I filed the TIA, that the real issue
16 before you is one of conflict, that we have a
17 requirement in 54 that's somewhat at odds with the
18 minimum requirements in NFPA 70, and that it was
19 causing a lot of problems in the field and in terms
20 of installation and enforcement and that needed to be
21 resolved.

22 I think as we move forward this is
23 a moving target to the degree that more and more

1 information will be coming forth, and I think CMP 5
2 will make a more enlightened review of that
3 information during the ROC cycle.

4 MR. GERDES: Follow-up. You said
5 conflict. As I understand it, 70 is silent on the
6 issue right now. 54 requires it. Where's the
7 conflict?

8 MR. TORBIN: Well, that's a matter of
9 opinion, and we can sit here and talk all we want but
10 when you have to answer a plumber in the field why
11 the electrical inspector won't let him bond even
12 though it's in the fuel gas code and even though it's
13 in the manufacturer's instructions, it's open to
14 interpretation.

15 And a lot of people and a lot of states
16 are not necessarily seeing it as a non-conflict
17 situation. I see it all the time.

18 I get calls every month, every week from
19 these people in the field saying, They won't let me
20 bond. I cannot do that here in the state of
21 Massachusetts. If the electrician says no, he
22 doesn't have to bond that piping system.

23 THE CHAIR: Jim Pauley, Chair of the

1 Council. I guess, Mr. Philips, I wanted to
2 understand the remarks that you had made.

3 In your opening statements you had said
4 that the panel was concerned about putting lightning
5 protection issues back into the code after working
6 for some cycles to try to get those out of the code,
7 but then you went on to say that Panel 5 wasn't
8 consulted by 54 and that the issue should be done in
9 Panel 5.

10 And I'm trying to rationalize those two
11 statements as to if it shouldn't be done by Panel 5
12 or if the issue should not be in the NEC, why would
13 Panel 5 have anything to do with it I guess?

14 MR. PHILIPS: Well, that's a good
15 question. I guess -- And it sort of goes back to
16 what Mr. Gerdes was saying too about where there
17 really is a conflict between these codes or not.

18 And I'd say in the part of the country
19 where I live, there is a lot of confusion about
20 whether this is an electrical code requirement or a
21 gas code requirement.

22 So if it really is strictly lightning
23 protection, then clearly it shouldn't be in the NEC,

1 but if it's because you have inspectors out in the
2 world and installers who have two standards that have
3 different requirements that both involve grounding
4 the same material, this creates confusion.

5 And I think it would be good if the two
6 standards at least made reference to each other and
7 clarified. But if it truly is strictly for lightning
8 protection, then it doesn't belong in the NEC. I
9 would stand corrected.

10 THE CHAIR: Mr. Brown, did you want to
11 comment on that?

12 MR. BROWN: I'll say the problem they're
13 having with the material is actually with the piping
14 itself. It's not really an electrical problem.

15 So 54 dealt with the problem of the
16 material itself to solve what apparently is a
17 potential problem for pitting due to lightning
18 strikes. Part of the material.

19 So it wasn't really directed towards
20 electrical safety. It was a product problem dealing
21 with apparently lightning.

22 So you've got the 54 committee taking
23 care of that problem, but it's already required to be

1 bonded under -- in the NEC no matter what, whether
2 other metal piping systems including gas piping, so I
3 think a reference back and forth would be good.

4 THE CHAIR: Jim Pauley, Chair of the
5 Council. To follow up on that, is your argument,
6 Mr. Brown, that if you did both -- in other words, if
7 you did what the NEC said and you did what 54 said,
8 you might have double something but no -- where you
9 say no harm, no foul? Is that --

10 MR. BROWN: Well, you have bonding
11 requirements for potential energizing from the
12 electrical system. Then you go over here and you've
13 got one dealing with lightning.

14 If they both work together -- I'm having
15 a hard time finding an inspector where there's a bad
16 interpretation because any inspector is going to read
17 what his code requires and what the manufacturer's
18 instructions require, and they should do it all.

19 So from the standpoint of an inspector,
20 that's what I would be doing, so I don't see a
21 conflict.

22 THE CHAIR: Jim Pauley, Chair of the
23 Council. Mr. Torbin, just a follow-up comment to

1 your answer to Mr. Gerdes.

2 You were indicating that it's in the fuel
3 gas code and somehow the plumber, if he's installed
4 the gas piping, is somehow prohibited by an inspector
5 from making the connection.

6 That's not an NEC issue. Is that a
7 licensing jurisdictional sort of issue that's being
8 raised? I'm trying to understand how that relates to
9 the NFPA Code aspects of this.

10 MR. TORBIN: Well, in most states, not
11 all, but in many states this is considered electrical
12 work and it should not be done by the plumber.

13 Even though it's a plumbing requirement
14 of the CSST manufacturer, it's treated as electrical
15 work and can only be done by a licensed electrician.
16 Here in the Commonwealth that would be the case.

17 So the plumber can only say, I need to
18 have it bonded, but he actually cannot bond it. And
19 in Massachusetts if the electrician says, I'm not
20 going to do it because the Massachusetts Electrical
21 Code doesn't say I have to do it, then what happens?
22 We have an unsafe system installed or less safe.
23 I'll put it that way.

1 Let me just quickly refer back to your
2 original comment to Mr. Brown. The bonding that's
3 being proposed is permitted by Section 104(b) which
4 allows you to bond directly to the grounding
5 electrode system.

6 So whether the gas piping is bonded
7 through the equipment grounding conductor or directly
8 to the grounding electrode itself, Section 104(b)
9 requirements are satisfied.

10 If we get extra benefit from that because
11 it will also protect this tubing from indirect
12 lightning strikes, so much the better.

13 But if we keep it all on the same plane,
14 that if we're dealing with ground faults and
15 protecting the consumer against electrocutions,
16 bonding it either way satisfies the requirement of
17 the electrical code.

18 And all we're saying is if we bond it
19 directly to the grounding electrode, it will have an
20 added benefit which would also make it safer during
21 these electrical storms which we have noted have
22 caused, as Mr. Brown pointed out, punctures and
23 perforations in the side of the tubing.

1 So, you know, we are talking nuance here
2 and we are being very technical when we say yes, the
3 electrical code should not deal with lightning
4 protection, but if you allow me to bond it this way
5 I'm going to kill two birds with one stone whether we
6 say it or not. All right?

7 So I mean -- So it's a political hot
8 potato in some areas. I have to deal with the
9 sensitivities of the electrical community, the
10 manufacturing community, and the plumbing community.
11 And they all have a little bit different take on
12 where we should be on this.

13 THE CHAIR: Jim Pauley, Chair of the
14 Council. I'm going to -- Because I'm trying to
15 understand what the code aspect of this is relating
16 back to your issue, so I want to sort of play through
17 your scenario that you just laid out.

18 And that is -- and I'm going to say this
19 in a manner that may be right or wrong but I'm trying
20 to overcome the local politics aspects of it.

21 But if you had CSST installed and you
22 needed, by the manufacturer's instructions or by 54,
23 to run a No. 6 bonding conductor to it, if the

1 plumber hired the electrician to do it -- so you
2 solved the local jurisdictional problem -- and the
3 plumbing inspector inspecting the gas system said,
4 Well, I've met 54, are you arguing that the
5 electrical inspector would say that that No. 6 bond
6 installed from the gas pipe to the grounding
7 electrode doesn't meet the NEC?

8 MR. TORBIN: He won't say that it doesn't
9 meet it. In most states -- and again, we've done a
10 lot of education on this area.

11 He'll say that it's above and beyond the
12 minimum requirements of the NEC. And in some
13 communities, fine, no problem at all, and we go about
14 our business.

15 In other communities, they're instructing
16 the electricians not to put that size wire on there
17 because it doesn't apply with Table 122 which is the
18 normal sizing of bonding conductors.

19 THE CHAIR: It complies beyond Table 122.

20 MR. TORBIN: It goes beyond Table 122 and
21 so they're saying you only have to do the minimum
22 requirements. So if you only put a No. 14 wire or
23 No. 12 wire there, because that furnace has a 15-amp

1 fuse, that's good enough, and you don't need to do
2 the 6 or you don't need to do it at all because it's
3 already bonded back through the equipment grounding
4 conductor.

5 THE CHAIR: Mr. Philips, did you want to
6 comment on that issue?

7 MR. PHILIPS: Well, in my area they're
8 not saying you can't put it in but they're saying
9 that it requires an electrical permit and an
10 electrical -- because it's an electrical installation
11 and it has to be done by a licensed electrician.

12 And this is causing some people some
13 heartburn because of the additional expense of having
14 to get another permit and another trade in there when
15 all they're doing is retrofitting a furnace.

16 THE CHAIR: Mr. Carpenter.

17 MR. CARPENTER: James Carpenter, member
18 of Council. Where did the rationale come up for the
19 No. 6 bonding jumper?

20 MR. TORBIN: The No. 6 wire, from two
21 sources. One is that I've been involved personally
22 with testing done here in Pittsfield, Massachusetts
23 at their Lightning Technology, Incorporated facility

1 here where they can generate these lightning
2 profiles.

3 We have done through our testing
4 demonstrated that a No. 6 wire for the typical
5 residential is the minimum size necessary to create
6 an effective bond that would lower the potential
7 difference between a CSST and a nearby metallic
8 object like a copper wire, copper water pipe,
9 whatever, to the point where the arc intensity is
10 below the threshold where it will actually perforate
11 the tubing.

12 So a No. 6 was the minimum size that
13 would consistently either eliminate the arc
14 altogether or at least reduce its intensity so we
15 didn't get perforations.

16 When we looked at the NEC and we looked
17 at how other similar systems are bonded and Table
18 66 -- and again referring to typical one- and two-
19 family residential structures -- a No. 6 is -- and as
20 I mentioned in my previous testimony, coax cable, TV
21 antenna systems are all done with a No. 6 -- at least
22 a No. 6.

23 But we're not saying it's only a No. 6.

1 It's saying that it can't be smaller than a No. 6.
2 So when you get to commercial buildings it will be
3 bigger than a No. 6 wire.

4 THE CHAIR: Miss Brodoff.

5 MS. BRODOFF: This is for Mr. Philips. I
6 just wanted you to clarify, if you could, did the
7 Panel 5 reject the TIA because it didn't regard it as
8 within its jurisdiction because it's not an NEC
9 issue?

10 MR. PHILIPS: I don't think so. I think
11 if you read the comments from most of the panel
12 members, the discussion had more to do with whether
13 this solution that was being suggested would solve
14 the problem that was described.

15 And if you looked at the accident reports
16 and the testing data that was provided to the panel,
17 it wasn't always grounded metallic systems that were
18 the source of lightning energy.

19 It was often ductwork or flashing which
20 wouldn't normally be grounded, so bonding the two --
21 bonding the gas piping wouldn't lower the potential
22 between the two.

23 And then when you looked at the test data

1 that they provided at that time at least, all of the
2 faults that were introduced were fairly close to
3 where the bond was, and if the lightning energy came
4 into the piping further away it wasn't clear that it
5 would really solve the problem.

6 So I think that the feeling was more that
7 this wasn't a technical solution that was going to
8 work.

9 MS. BRODOFF: Do you have any suggestions
10 then as to how or what role Panel 5 can play in terms
11 of addressing this issue?

12 MR. PHILIPS: Well, I don't know. We
13 were also shown -- A product was shown to us at the
14 panel that has a different type of outer coating that
15 was represented as solving the problem that was
16 described.

17 So I think that, as Mr. Brown said, most
18 of us felt that the problem was with the product and
19 it's not really an electrical problem. I'm not sure
20 that Panel 5 has a role in it.

21 MS. BRODOFF: Just to follow up. So is
22 the appropriate jurisdiction with NFPA 54 or
23 somewhere else? If you have an opinion.

1 MR. PHILIPS: I guess I would say yes,
2 it's within NFPA 54 or somewhere else.

3 MS. BRODOFF: Or somewhere else. What
4 about the lightning protection company? Would they
5 have a role, if you have an opinion?

6 MR. PHILIPS: I don't have an opinion on
7 that. I guess my opinion from -- you know, as I
8 understand it is I question the product.

9 If it's a listed product what kind of
10 testing was done and has it been demonstrated that it
11 can be safely used in these kinds of applications?

12 THE CHAIR: Doctor Clary.

13 DR. CLARY: Thank you. Shane Clary,
14 member of Council. Mr. Torbin, a couple of
15 questions. You mentioned Massachusetts. Obviously
16 that's -- probably you're from this area.

17 Are you seeing this problem, this
18 jurisdictional issue, in other states within the
19 union?

20 MR. TORBIN: You know, it varies around
21 the country. I'll give you a couple examples. We've
22 gone to several states; state of New York, state of
23 Virginia, state of Georgia, have actually just passed

1 state amendments to their electrical codes that
2 would -- or their mechanical codes, I'm not sure
3 which -- but that require this type of bonding as a
4 matter of state law.

5 We have lots of states that have
6 administratively agreed that they will enforce the
7 manufacturer's instructions.

8 And then we have other states,
9 Massachusetts being one of those, that's saying,
10 We're not doing anything. We're just sort of --
11 We're not going to make it a requirement. We're not
12 going to force electricians to do it, or, We're going
13 to make extra permits.

14 They're being obstructionist in the sense
15 that they're making it very difficult to get it done
16 and the manufacturers feel that if they can't get the
17 bonding it's not a safe system. So it becomes an
18 issue in several states.

19 DR. CLARY: Second and final question for
20 me. Do you have any documented cases where without
21 this bonding there's been a loss of life or fire?

22 MR. TORBIN: Yes.

23 DR. CLARY: Thank you.

1 THE CHAIR: Ms. Brodoff.

2 MS. BRODOFF: Just for the record,
3 Mr. Torbin, you indicated at the beginning of the
4 hearing that you were appearing as a friend of the
5 CSST industry.

6 Would you just -- I assume that means
7 you're a paid consultant to the industry. Would you
8 just confirm that for the record?

9 MR. TORBIN: I am an independent
10 professional engineer, consultant. I do work for
11 some of the corrugated tubing manufacturers.

12 I would say, without fear of boast or
13 brag, that the corrugated tubing system was developed
14 under my watch when I used to work up here at Foster
15 Miller, that I am, for all intents and purposes, the
16 father of corrugated tubing systems because all the
17 installation practices, all of the work that had gone
18 into the development of the ANSI standard is based on
19 research that I supervised while I worked for Foster
20 Miller in Waltham, Massachusetts.

21 So that I have a certain personal
22 responsibility. I take that very seriously. As a
23 professional engineer I have a sense of

1 responsibility for this product to make sure this it
2 is installed and used safely.

3 And I continue in an active role both in
4 the codes and the standards community to both defend
5 it and to chastise them when I see things are not
6 going right, and this is the latest thing that I'm
7 involved with.

8 MS. BRODOFF: I'm not questioning your
9 sincerity or qualifications. I just wanted you to
10 clarify for the record if you receive funds from the
11 CSST industry.

12 MR. TORBIN: I have a couple clients that
13 are corrugated tubing manufacturers, yes.

14 THE CHAIR: Any final questions from
15 Council members? Mr. Torbin, any brief closing
16 remarks?

17 MR. TORBIN: I have one quick closing
18 remark. I'm really not here in opposition to what's
19 transpired already.

20 As far as the Technical Coordinating
21 Committee and the Standards Council, the TIA being
22 rejected is really not my primary concern. I don't
23 necessarily disagree that it's being rejected.

1 It's that I would definitely want to make
2 the Council aware and NFPA that we have this
3 potential conflict and that we have this confusion
4 and that it needs to be addressed.

5 And I agree with Mr. Philips and
6 Mr. Brown that maybe a fine print note, and maybe we
7 can deal with this through the comment process.

8 And I will be making comments and I will
9 try to coordinate with Larry and Nathan to make sure
10 that we get something done before the end of the 2011
11 cycle even if it's just a fine print note to make
12 sure the people know that there's requirements on
13 both sides.

14 But I would appreciate this Council
15 assisting in that process and helping us work out the
16 correlation problem here, and I guess I shouldn't
17 call it a problem but the situation so that we can
18 move beyond our current situation.

19 THE CHAIR: Thank you. Mr. Philips?

20 MR. PHILIPS: I don't have anything
21 further to add.

22 THE CHAIR: Mr. Brown?

23 MR. BROWN: No, I'm fine.

1 THE CHAIR: With that we will bring this
2 hearing to a close. I want to thank all of you for
3 taking the time to be here today and for your
4 participation in the NFPA codes and standards-making
5 process.

6 I would remind you that the decision of
7 the Council will be issued by written decision by the
8 secretary of the Council.

9 That is the only means by which the
10 decision will be communicated. No member of NFPA
11 staff nor member of the Council is permitted to
12 discuss that decision.

13 Bringing that particular hearing to a
14 close, we do have one last item on our agenda.
15 That's agenda item 09-8-24-d which is an appeal by
16 Mr. Hirschler to issue proposed TIA 951 to NFPA 101.

17 Mr. Hirschler is not appearing. He has
18 provided written information to do that. Is there
19 anyone wanting to speak to this issue?

20 Seeing no one, then we will close out
21 that hearing as well. And with that, that brings us
22 to the end of the day. We can go off the record.

23 (Whereupon at 4:24 p.m. the hearing concluded.)

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C E R T I F I C A T E

I hereby certify that the foregoing 154 pages contain a full, true and correct transcription of all my stenographic notes to the best of my ability taken in the above-captioned matter held at the offices of the NFPA on Tuesday, August 4, 2009, commencing at 1:15 p.m.

Linda J. Modano, Registered Professional Reporter
My commission expires June 2, 2011