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TECHNICAL COMMITTEE

REPORTS SESSION

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HEARING (VOLUME I of II)

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TAKEN AT: Salt Palace Convention Center

Salt Lake City, Utah

DATE: May 26, 2004

TIME: 8:00 a.m.

REPORTED BY: Alicia Bagley, RPR, CRR

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APPEARANCES

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Presiding Officer: Kenneth Isman
.
Staff Coordinator: Leona A. Nisbet
.
Secretary of the Standards Council: Casey Grant
.
Chair of the Council: Phil DiNenno
.
NFPA Vice President and General Counsel: Maureen
Brodoff

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1 Hearing (Volume I of II)

2 May 26, 2004

3 PROCEEDINGS

4 CHAIR ISMAN: Good morning, ladies and
5 gentlemen. My name is Ken Isman, and I have the
6 distinct pleasure and privilege of being a member
7 of your Standards Council. I now declare that a
8 quorum exists and convene the Technical Committee
9 Report session of the 2004 May Association
10 Technical Meeting. To assist me is Leona
11 Attenasio Nisbet of the NFPA staff, who is serving
12 as our staff coordinator. I'd also like to
13 introduce Casey Grant, secretary of the Standings
14 Council; Phil Dinneo, chair of the Standards
15 Council; and Maureen Brodoff, who's our NFPA vice
16 president and general counsel. This session will
17 be recorded by Alicia Bagley of Thacker & Company.

18 First let me address our safety issues.
19 Let's take a minute and note the exits from this
20 room. Now that you've noted the closest exit to
21 you, I would like to inform you that the fire
22 alarm signal for the Salt Palace Convention Center
23 is a horn that produces an electronic tone along
24 with flashing strobe lights and followed by a
25 voice announcement.

1 Now that we've got the safety
2 addressed, for your convenience, the food service
3 in the hall will be open all day.

4 As with any organization, we have
5 certain rules and protocols. First of all,
6 recording devices are not allowed to be used
7 during the technical report session. I'd like to
8 call your attention to the Guide for the Conduct
9 of Participants in the NFPA Codes and Standards
10 Development Process. As a participant in the
11 process, you should review this guide. I'd also
12 like to call your attention to the NFPA Convention
13 Rules. The Convention Rules set the process to be
14 followed today. Copies of both documents are
15 retained in the NFPA Directory, which is available
16 at the NFPA registration desk. The reports will
17 be taken in the order printed in the program on
18 pages 88 through 90.

19 I'd like to say a few words about the
20 actions that can be taken and the voting
21 procedures. At this session you are being asked
22 to adopt certain actions proposed by NFPA
23 technical committees. These actions are contained
24 on the Report on Proposals; NEC Report on
25 Proposals, Volume 1 and 2; the Report on Comments;

1 and the NEC Report on Comments. The documents in
2 these books were subjected to public review and
3 comment prior to October 10, 2003, and for the
4 NEC prior to October 31, 2003, for the other
5 documents.

6 As a result of public review, some of
7 these reports were modified by the technical
8 committees involved. These modifications are
9 found in the book entitled "Report on Comments."
10 This book contains the committees' actions on
11 public comments.

12 The primary regulations governing the
13 NFPA codes and standards development process,
14 including processing of reports at association
15 meetings, are the Regulations Governing Committee
16 Projects. These regulations are published in the
17 NFPA Directory.

18 All proposed amendments must be brought
19 here to the association meeting. Any motion ruled
20 out of order by the Chair, in accordance with the
21 Regulations and Convention Rules, may be filed as
22 an appeal with the Standards Council.

23 In accordance with the change approved
24 by the board of directors on November 10, 2001,
25 to Section 4-5.9 of the regulations, if a quorum

1 is challenged and found to be no longer present--
2 and a quorum is 100 members--the session must be
3 terminated without further action on the reports.
4 The remaining documents shall be forwarded
5 directly to the council without recommendation.
6 Notwithstanding the foregoing, any motions to
7 amend or return the report that have passed prior
8 to the loss of a quorum shall be processed and
9 forwarded to the Council.

10 Any appeal based on action by the
11 association of this meeting must be filed with the
12 Standards Council within 20 days of today, that
13 is, by June 15, 2004. Any amendment accepted at
14 this meeting that fails to pass committee ballot
15 will automatically be docketed as an appeal on the
16 Standards Council agenda in accordance with
17 1-6.1(b) of the regulations.

18 The votes cast in this technical
19 session today and the discussions that lead to
20 that voting are an integral and important part of
21 the NFPA consensus process. The technical session
22 is the forum where the membership considers the
23 reports prepared by the NFPA technical committees
24 concerning proposed new or revised NFPA codes and
25 standards. Through the motions, debate and voting

1 at this session, the membership makes
2 recommendations to the Standards Council. The
3 Standards Council, under the NFPA rules, is the
4 official issuer of all NFPA codes and standards.

5 The majority vote of the persons
6 present here today is for the sole purpose of
7 making a recommendation to the Standards Council
8 on the disposition of the report.

9 The Standards Council will meet on July
10 16, 2004, to make a judgment on whether or not to
11 issue a document based on the entire record before
12 the Council, including the valuable discussion and
13 vote taken at this NFPA meeting.

14 Under limited circumstances, following
15 action by the Standards Council, a petition may be
16 filed with the board of directors. Any such
17 petition must be filed within 15 days of the
18 Council action in accordance with the Regulations
19 Governing Petitions to the Board of Directors From
20 Directions and Decisions of the Standards Council,
21 that is, by July 31, 2004.

22 With respect to the voting procedures,
23 the regulations state that voting at NFPA meetings
24 shall be limited to the following: one, those
25 members who are present are designated

1 representatives of organization members, that is,
2 those with yellow ribbons attached to their
3 badges; and two, those present who are voting
4 members of the association, that is, those with
5 the white badges with a red border.

6 If you are not a member of either of
7 these groups, the Chair asks that you refrain from
8 voting. You need not be a member of an NFPA
9 section in order to vote. You must, however, be
10 a voting member of record of the association. Only
11 voting members of record should be seated in these
12 front sections. Those seated in the back sections
13 will not be counted during a vote.

14 Voting will be undertaken in the
15 following manner. There will be no voice votes.
16 The first vote will be by raising of hands. If
17 that vote is not conclusive, we will proceed to
18 the written organization ballot and the standing
19 count of regular voting members.

20 I want to say at the outset that I will
21 not cast a vote today. Therefore, in the event
22 of a tie vote, the issue automatically fails.

23 Once a report is open for discussion,
24 anyone in the room has the privilege of
25 participating. The Chair asks that you preface

1 your remarks with your name and your company or
2 organizational affiliation. I'll repeat that for
3 emphasis. Please start your remarks with your name
4 and your company or organizational representation.

5 I would also ask that you state at the
6 beginning of your remarks whether you are in
7 support of or in opposition of the motion on the
8 floor. Please be aware that no one participating
9 in the floor motions and debate at this meeting
10 is authorized to act as an agent of or speak on
11 behalf of the NFPA, and the views expressed during
12 motions and debate, including those expressed on
13 behalf of NFPA technical committees or other
14 entities operating within the NFPA system, do not
15 necessarily reflect the views of the NFPA.

16 I must insist today that each speaker
17 limit their remarks to not more than five minutes
18 on any given subject before the assembly, and that
19 you avoid duplicate presentations of technical
20 material.

21 The Chair reserves the right to hear
22 any new speaker before yielding the floor to
23 anyone wishing to address the same issue a second
24 time.

25 You will notice we are experimenting

1 with a light box that's up here on the front
2 table to monitor the five-minute remark rule. It
3 will turn yellow at four minutes and red at five
4 minutes. So please adhere to this time limit. We
5 will not start the timer for the person who makes
6 the motion until the motion has been clarified and
7 seconded and we're ready to proceed.

8 If you intend to make a motion to amend
9 a report, please state your name and affiliation,
10 the proposal or comment number that you're moving,
11 and the page in the ROP or ROC where the proposal
12 and comment is published.

13 Motions that are in order at this
14 meeting are described in the NFPA Convention Rules
15 that are available at the NFPA registration desk.
16 I do need to clarify the matter of a motion of
17 return a proposal and a related comment. This
18 motion is in order only when the given proposal
19 has been modified by action taken by the technical
20 committee to accept, accept in principle or accept
21 in part a comment. That is, a change has been
22 made between the ROP and ROC documents. In this
23 case, I would ask that the person making the
24 motion identify the comment or comments that
25 modified the proposal in question.

1 Each of you has been asked to fill out
2 and return to us a white card for each report on
3 which you intend to make a motion. The purpose
4 of this request is that in the event of a cloture
5 motion on a particular committee report, I will be
6 able to make an announcement as a point of
7 information of the number of motions that are
8 outstanding prior to voting on the cloture motion.
9 If a cloture motion passes, no one, including the
10 Chair, will be allowed any further discussion.

11 So now that we've described the rules
12 that we're going to work under, I'd like to
13 introduce Phil Dinneo, chair of the Standards
14 Council, who has some committee service awards to
15 present.

16 (Off-the-record discussion.)

17 CHAIR ISMAN: And now for the first
18 report of the morning, the Committee on Aircraft
19 Maintenance Operations is here to present the
20 committee's report, and here is Chair Nathaniel
21 Addleman of the RJA Group, Houston, Texas.

22 MR. ADDLEMAN: Mr. Chair, ladies and
23 gentlemen. The report of the Technical Committee
24 on Aircraft Maintenance Operations is presented
25 for adoption. I would first like to thank the

1 members of the committee for their diligent effort
2 preparing this standard.

3 This report can be found on pages 358
4 through 393 on the Report on Proposals for the
5 2004 May Association Technical Meeting and on
6 pages 57 and 58 of the Report on Comments.

7 The committee proposes for official
8 adoption a complete revision of NFPA 410, Standard
9 on Aircraft Maintenance. The ballot statements
10 can be found on page .358 of the ROP and on page
11 .57 of the ROC.

12 Mr. Chair, I move adoption of the
13 committee report on NFPA 410.

14 CHAIR ISMAN: You have heard the motion
15 to adopt a complete revision of NFPA 410; is
16 there any discussion?

17 Seeing none, we'll move to a vote. All
18 in favor, please raise their hands. Thank you.
19 And all opposed? Thank you. That motion passes.
20 Thank you, Mr. Addleman.

21 MR. ADDLEMAN: Thank you.

22 CHAIR ISMAN: The next report this
23 morning is that of the Aircraft Rescue and Fire
24 Fighting Committee. Here to present the three
25 parts of the committee's report is Committee Chair

1 Brian Boucher of the Air Canada Pilots
2 Association. Captain Boucher.

3 CAPTAIN BOUCHER: Thank you, Mr. Chair,
4 ladies and gentlemen.

5 The Technical Committee on Aircraft
6 Rescue and Fire Fighting is presenting three
7 documents this morning for adoption.

8 The first document is NFPA 405 and can
9 be found on pages 291 through 302 of the 2004 May
10 Association Technical Meeting Report on Proposals
11 on pages 49 through 53 of the Report on Comments.

12 The committee proposes for official
13 adoption a complete revision of NFPA 405,
14 Recommended Practice for the Recurring Proficiency
15 Training of Aircraft Rescue and Fire Fighting
16 Services. This document is being re-titled as
17 "Standard for the Recurring Proficiency of Airport
18 Fire Fighters."

19 The ballot statements can be found on
20 pages 291 through 292 of the ROP and on page .49
21 of the ROC.

22 Mr. Chair, I move adoption of the
23 committee's report on NFPA 405.

24 CHAIR ISMAN: You've heard the motion
25 to adopt a complete revision of NFPA 405; is

1 there any discussion?

2 Seeing none, we'll move to a vote. All
3 in favor, please raise your hand. Thank you.
4 And all opposed? That motion carries. Captain
5 Boucher.

6 CAPTAIN BOUCHER: Thank you, Mr. Chair.

7 The second document is NFPA 408 and can
8 be found on pages 303 through 316 of the ROP.
9 Since there were no public comments, this document
10 is not included in the ROC.

11 The committee proposes for official
12 adoption of a complete revision of NFPA 408, the
13 Standard For Aircraft Hand Portable Fire
14 Extinguishers.

15 The ballot statement can be found on
16 pages 291 through 292 of the ROP.

17 Mr. Chair, I move adoption of the
18 committee report on NFPA 408.

19 CHAIR ISMAN: You've heard the motion
20 to adopt the complete revision of NFPA 408; is
21 there any discussion?

22 Thank you. We'll move to a vote. All
23 in favor, please raise your hands. Thank you.
24 And those opposed. That motion carries. Captain.

25 CAPTAIN BOUCHER: Thank you.

1 The third and final document is NFPA
2 422 and can be found on pages 317 through 335 of
3 the ROP and on page .54 of the ROC.

4 The committee proposes for official
5 adoption of a complete revision of NFPA 422, the
6 Guide For Aircraft Accident Response.

7 The ballot statements can be found on
8 pages 291 through 292 of the ROP and on page .49
9 of the ROC.

10 Mr. Chair, I move adoption of the
11 committee report on NFPA 422.

12 CHAIR ISMAN: You've heard the motion
13 to adopt a complete revision of NFPA 422; is
14 there any discussion? Thank you.

15 Those in favor, please raise your
16 hands. And those opposed. That motion passes.

17 Thank you, Captain Boucher.

18 CAPTAIN BOUCHER: Thank you, Mr. Chair.

19 CHAIR ISMAN: The next report this
20 morning is that of the Committee on Airport
21 Facilities. Here to present the two parts of the
22 committee's report is Chair Gene Benzenberg of
23 Alison Controls, Incorporated, Fairfield, New
24 Jersey.

25 Mr. Benzenberg.

1 MR. BENZENBERG: Mr. Chairman, ladies
2 and gentlemen.

3 The Technical Committee on Airport
4 Facilities is presenting two documents for
5 adoption.

6 The first document is NFPA 409 and can
7 be found on pages 337 to 347 of the 2004 May
8 Association Technical Meeting Report on Proposals,
9 and on pages 55 and 56 of the Report on Comments.

10 The committee proposes for official
11 adoption a partial revision of NFPA 409, Standard
12 on Aircraft Hangars.

13 The ballot statements can be found on
14 pages 337 to 338 of the ROP and on pages 55 and
15 56 of the ROC.

16 Mr. Chairman, I move adoption of the
17 committee report on NFPA 409.

18 CHAIR ISMAN: You have heard the motion
19 to adopt a partial revision of NFPA 409; is there
20 any discussion?

21 Seeing none, we move to a vote. Those
22 in favor, please raise your hands. And those
23 opposed. That motion passes.

24 Mr. Benzenberg.

25 MR. BENZENBERG: The second document is

1 NFPA 423 and can be found on pages 348 to 357 of
2 the ROP. Since there were no public comments,
3 this document is not included in the ROC.

4 The committee proposes official
5 adoption of a complete revision of NFPA 423,
6 Standard For Construction and Protection of
7 Aircraft Engine Test Facilities.

8 The ballot statement can be found on
9 pages 337 to 338 of the ROP.

10 Mr. Chairman, I move adoption of the
11 committee's report on NFPA 423.

12 CHAIR ISMAN: You've heard the motion
13 to adopt the complete revision of NFPA 423; is
14 there any discussion?

15 Seeing none, we'll take a vote. All
16 those in favor, please raise your hands. And all
17 those opposed. That motion carries.

18 Thank you, Mr. Benzenberg.

19 The next report this morning is that of
20 the Committee on Construction and Demolition.
21 Here to present the committee's report is
22 committee member Stephen Leeds of the Lawrence
23 Livermore National Laboratory, Livermore,
24 California.

25 Mr. Leeds.

1 MR. LEEDS: Mr. Chair, ladies and
2 gentlemen.

3 The Report on the Technical Committee
4 For Construction and Demolition is presented for
5 adoption. This report can be found on pages 194
6 through 206 of the Report on Proposals for the
7 2004 May Association Technical Meeting, and on
8 pages 33 through 34 of the Report on Comments.

9 The committee proposes for official
10 adoption of the partial revision of NFPA 241,
11 Standard For Safeguarding Construction, Alteration
12 and Demolition Operations.

13 The ballot statements can be found on
14 page .194 of the ROP, on page .33 of the ROC.

15 Mr. Chair, I move adoption of the
16 committee report of NFPA 241.

17 CHAIR ISMAN: You've heard the motion
18 to adopt a partial revision of NFPA 241; is there
19 any discussion?

20 Seeing none, we'll take a vote. All
21 those in favor, please raise your hands. And all
22 those opposed. The motion carries.

23 Thank you, Mr. Leeds.

24 MR. LEEDS: Thank you.

25 CHAIR ISMAN: The next report this

1 morning is that of the Committee on Emergency
2 Medical Services. Here to present the committee
3 report is Committee Chair Jack Krakeel of Fayette
4 County Fire and Emergency Services in Fayette,
5 Georgia.

6 Chief Krakeel.

7 CHIEF KRAKEEL: Thank you, Mr. Chair,
8 ladies and gentlemen.

9 The Report of the Technical Committee
10 on Emergency Medical Services is presented for
11 adoption. This report can be found on pages 415
12 through 452 of the Report on Proposals for the
13 2004 May Association Technical Meeting, and on
14 pages 75 through 82 of the Report on Comments.

15 The committee proposes for official
16 adoption a new document, NFPA 450, Guide For
17 Emergency Medical Services and Systems.

18 The ballot statements can be found on
19 page .415 of the ROP and on page .75 of the ROC.

20 Mr. Chair, I move adoption of the
21 committee's report NFPA 450.

22 CHAIR ISMAN: You've heard the motion
23 to adopt a new document, NFPA 450; is there any
24 discussion?

25 Gentleman at Microphone No. 8. Can we

1 get Microphone 8 up, please?

2 MR. GLASS: It's on. Thank you.

3 Yes, Mr. Chairman, my name is William
4 Glass. I would like to make a motion to return
5 the entire guide to committee.

6 CHAIR ISMAN: We have a motion to
7 return the entire document to committee; is there
8 a second? I did hear a second from down here.
9 So we have a motion and a second that is an
10 order. Please proceed.

11 MR. GLASS: Thank you. Again, the name
12 is William Glass. I am an attorney from New York
13 representing fire districts throughout the County
14 of Suffolk.

15 Fire districts are the tax paying--
16 rather, the tax-collecting municipality that
17 provide most fire and some emergency medical
18 services.

19 If I may just briefly--the statement
20 indicates the scope of the document, that it's
21 designed to assist individuals, agencies,
22 organizations or systems, as well as those
23 interested or involved in emergency medical
24 services system design. That's a pretty broad
25 statement.

1 Back when this document was first being
2 talked about, there was a conference of--you know,
3 I believe it was in Orlando. And at that time
4 this was advertised as being something that would
5 only involve fire department emergency medical
6 services. At that time I raised the question as
7 to whether or not that was appropriate because
8 this--in this country--I don't know about the
9 international front--but in this country the
10 majority of emergency medical services are not
11 provided by fire departments.

12 The person who is chairing that
13 particular function agreed with that and indicated
14 that they thought it was a problem. Apparently
15 this is the result, which is to now broaden it,
16 and now it encompasses all emergency medical
17 services and systems.

18 The articles of organization of the
19 NFPA indicate that it is to promote the science
20 and improve the methods of fire protection and
21 prevention, electrical safety and other related
22 safety goals. I would point out that this
23 document does not contain any science, nor does it
24 meet the definition of a related safety goal.

25 Furthermore, and I think possibly more

1 significantly, this organization would be hard-
2 pressed to defend this as a consensus document.
3 While admittedly NFPA membership is open to
4 anyone, EMS providers historically do not belong
5 and, in fact, have no real reason to do so. They
6 did not participate by and large in this process.

7 Therefore, my question is how we can
8 call this a consensus document when we know the
9 majority of those interested, at least in this
10 country, have not been consulted, have not
11 participated?

12 In closing, I would just note again
13 that I believe that the document is outside the
14 scope of the NFPA's purpose for charter and that
15 it is not scientific in nature and not a related
16 matter.

17 Lastly, I would point out that it's not
18 a census document for the reasons I have stated.

19 Thank you very much.

20 CHAIR ISMAN: Thank you.

21 Chief Krakeel, would you like to
22 respond?

23 CHIEF KRAKEEL: Yeah. The Guide is
24 intended and designed to be a template for local
25 agencies and decision makers. It's not intended

1 to be a standard or a recommended practice. The
2 Guide was developed with consensus from across the
3 industry, including representation in various
4 professional organizations such as the National
5 Association of EMS Physicians, the American
6 Ambulance Association, the International
7 Association of Firefighters, the International
8 Association of Fire Chiefs, and others with an
9 interest in emergency medical services.

10 You are correct that this document is
11 not intended to be a template for a fire
12 department. It is in fact intended to be an
13 template and a guide for decision makers,
14 policymakers, enforcers and users of EMS services
15 in systems and communities. The Guide is intended
16 to bring together the best recommended or the most
17 optimum elements of EMS system design so that
18 agencies can use the Guide to assist them in
19 improving medical services in their communities.

20 CHAIR ISMAN: Thank you.

21 Is there any additional discussion?

22 Okay. I wasn't sure if that gentleman
23 was headed for a mike.

24 Okay. Seeing no additional discussion,
25 those in favor of the motion to return the entire

1 document to committee, please raise your hand.

2 And those opposed to the motion. Thank you.

3 That motion does not pass.

4 Is there any additional discussion on
5 NFPA 450? Seeing none, we'll move to a vote on
6 the main motion, which is to adopt a new
7 document, NFPA 450. Those in favor of that
8 motion, please raise your hand. Thank you. And
9 those opposed. And that motion passes.

10 Thank you, Chief.

11 CHIEF KRAKEEL: Thank you, Mr. Chair.

12 CHAIR ISMAN: The next report this
13 morning is that of the Committee on Emergency
14 Service Organization Risk Management. Here to
15 present the two parts of the committee's report is
16 committee member William Radcliff of the Science
17 Applications International Corporation in McLean,
18 Virginia.

19 Mr. Radcliff.

20 MR. RADCLIFF: Mr. Chairman, thank you.

21 The Technical Committee on Emergency
22 Service Organization Risk Management is presenting
23 two documents today.

24 The first document is NFPA 1201 and can
25 be found on pages 169 through 179 of the 2004 May

1 Association Technical Meeting Report on Proposals.
2 Since there was no public comments, this document
3 is not included in the ROC.

4 The committee proposes for official
5 adoption a complete revision of NFPA 1201,
6 Standard For Developing Fire Protection Services
7 For the Public. This document is being re-titled
8 "Standard For Providing Emergency Services For the
9 Public."

10 The ballot statements can be found in
11 on page .509 of the ROP.

12 Mr. Chairman, I move for adoption.

13 CHAIR ISMAN: You've heard the motion
14 to adopt a complete revision of NFPA 1201; is
15 there any discussion?

16 Seeing none, we'll move to a vote. All
17 those in favor, please raise your hands. And all
18 those opposed. Thank you. That motion passes.

19 Mr. Radcliff.

20 MR. RADCLIFF: Thank you, Mr. Chairman.

21 The second document is NFPA 1250 and
22 can be found on pages 580 through 588 of the ROP.
23 Since there was no public comments, this document
24 was not included in the ROC.

25 The committee proposes an official

1 adoption of a complete revision of NFPA 1250,
2 Recommended Practice in Emergency Service
3 Organization Risk Management.

4 The ballot statement can be found on
5 page .509 of the ROP.

6 Mr. Chairman, I move for adoption of
7 this standard.

8 CHAIR ISMAN: You've heard the motion
9 to adopt a complete revision of NFPA 1250; is
10 there any discussion?

11 Seeing none, we'll take a vote. All
12 those in favor, please raise your hands. Thank
13 you. And those opposed please raise your hands.
14 That motion passes.

15 Thank you, Mr. Radcliff.

16 MR. RADCLIFF: Thank you.

17 CHAIR ISMAN: The next report this
18 morning is that of the Committee on Fire and
19 Emergency Service Organization and Deployment-
20 Career. Here to present the committee report is
21 committee member Steve Kreis or Kreis of the
22 Phoenix Fire Department, Phoenix, Arizona.

23 Steve, I apologize for mispronouncing
24 your name.

25 MR. KREIS: Kreis

1 CHAIR ISMAN: Kreis, thank you.

2 MR. KREIS: Thank you, Mr. Chair,
3 ladies and gentlemen.

4 The Report of the Technical Committee
5 on Fire and Emergency Service Organization and
6 Deployment-Careers is presented for adoption.

7 This report can be found on pages 589
8 through 620 of the Report on Proposals for the
9 2004 May Association Technical Committee, and on
10 pages 108 through 110 of the Report on Comments.

11 The committee proposes for official
12 adoption a complete revision of NFPA 1710,
13 Standard For the Organization and Deployment of
14 Fire Suppression Operations, Emergency Medical
15 Operations, and Special Operations to the Public
16 By Career Fire Departments.

17 The ballot statements can be found on
18 pages 589 through 590 of the ROP and page .108 of
19 the ROC.

20 Mr. Chair, I move adoption of the
21 committee report on NFPA 1710.

22 CHAIR ISMAN: You've heard the motion
23 to adopt the partial revision of NFPA 1710; is
24 there any discussion?

25 Seeing none, we'll take a vote. All

1 those in favor of the motion, please raise your
2 hands. And all those opposed to the motion.
3 That motion passes.

4 Chief Kreis, thank you.

5 The next report this morning is that of
6 the Committee on Fire and Emergency Service
7 Organization and Deployment-Volunteer. Here to
8 present the committee's report is Committee Chair
9 Peter A. McMahon, Town of Grand Island, Grand
10 Island, New York.

11 Mr. McMahon.

12 MR. McMAHON: Thank you, Mr. Chair,
13 ladies and gentlemen.

14 The Report of the Technical Committee
15 on Fire and Emergency Service Organization and
16 Deployment-Volunteer is presented for adoption.
17 This report can be found on pages 621 through 646
18 of the Report on Proposals for the 2004 May
19 Association Technical Meeting, and on pages 111
20 and 112 on the Report on Comments.

21 The committee proposes for official
22 adoption a complete revision of NFPA 1720,
23 Standard For the Organization and Deployment of
24 Fire Suppression Operations, Emergency Medical
25 Operations and Special Operations to the Public By

1 Volunteer Fire Departments.

2 The ballot statement can be found at
3 pages 621 and 622 of the ROP and page .108 of the
4 ROC.

5 Mr. Chair, I move the adoption of the
6 committee report on NFPA 1720.

7 CHAIR ISMAN: You've heard the motion
8 to adopt a complete revision to NFPA 1720; is
9 there any discussion?

10 Seeing none, we'll take a vote. All
11 those in favor of those motions, please raise your
12 hand. And all those opposed to the motion. That
13 motion passes.

14 Thank you, Mr. McMahon.

15 MR. McMAHON: Thank you.

16 CHAIR ISMAN: The next report this
17 morning is that of the Committee on Fire
18 Department Ground Ladders. Here to present the
19 two parts of the committee report is Committee
20 Chair Brian Berchtold of the Galloway Township
21 Volunteer Fire Department, Germania, New Jersey.

22 Mr. Berchtold.

23 MR. BERCHTOLD: Good morning, Mr.
24 Chair, ladies and gentlemen.

25 The Technical Committee on Fire

1 Department Ground Ladders is presenting two
2 documents for adoption.

3 The first document is NFPA 1931, and
4 the committee report can be found on pages 647
5 through 667 of the 2004 May Association Technical
6 Meeting Report on Proposals, and on pages 113
7 through 114 of the Report on Comments.

8 The committee proposes for official
9 adoption of a complete revision of NFPA 1931,
10 Standard on Design of and Design Verification
11 Tests For Fire Department Ground Ladders. This
12 document is being re-titled as "Standard For
13 Manufacturer's Design of Fire Department Ground
14 Ladders."

15 The ballot statements can be found on
16 page .647 of the ROP and 113 of the ROC.

17 Mr. Chair, I move for adoption on the
18 committee report on 1931.

19 CHAIR ISMAN: You've heard the motion
20 to adopt a complete revision of NFPA 1931; is
21 there any discussion?

22 Seeing none, we'll take a vote. All
23 those in favor, please raise your hands. And all
24 those opposed. Thank you. That motion passes.

25 Mr. Berchtold.

1 MR. BERCHTOLD: The second document is
2 NFPA 1932, and the committee report can be found
3 on pages 668 through 688 of the ROP and on pages
4 115 through 116 of the ROC.

5 The committee proposes for official
6 adoption a complete revision of NFPA 32, Standard
7 on Use, Maintenance, and Service Testing of Fire
8 Department Ground Ladders. This document is being
9 re-titled as "Standard on Use, Maintenance, and
10 Service Testing of In-Service Fire Department
11 Ground Ladders."

12 The ballot statements can be found on
13 page .647 of the ROP and page .113 of the ROC.

14 Mr. Chair, I move the adoption of
15 Committee Report NFPA 1932.

16 CHAIR ISMAN: You've heard the motion
17 to adopt the revision of NFPA 1932; is there any
18 discussion?

19 Seeing none, we'll take a vote. All
20 those in favor of the motion, please raise your
21 hand. And all those opposed to the motion. That
22 motion passes.

23 Thank you, Mr. Berchtold.

24 MR. BERCHTOLD: Thank you.

25 CHAIR ISMAN: The next report this

1 morning is that on the Committee on Fire Tests.
2 Here to present the two parts of the committee's
3 report is Committee Chair William Fitch of Omega
4 Point Laboratories of Elmendorf, Texas.

5 Mr. Fitch.

6 MR. FITCH: Thank you, Mr. Chair,
7 ladies and gentlemen.

8 The Technical Committee on Fire Tests
9 is presenting two documents for adoption. The
10 first document is NFPA 271 and can be found on
11 pages 207 through 211 of the 2004 May Association
12 Technical Meeting Report on Proposals, and on
13 pages 35 and 36 of the Report on Comments.

14 The committee proposes for official
15 adoption a partial revision of NFPA 271, Standard
16 Method of Test for Heat and Visible Smoke Release
17 Rates for Materials and Products Using an Oxygen
18 Consumption Calorimeter.

19 The ballot statements can be found on
20 pages 207 and 208 of the ROP and on page .35 of
21 the ROC.

22 Mr. Chair, I move adoption of the
23 committee report on NFPA 271.

24 CHAIR ISMAN: You've heard the motion
25 to adopt a partial revision of NFPA 271; is there

1 any discussion?

2 Seeing none, we'll take a vote. All
3 those in favor of the motion, please raise your
4 hand. And all those opposed to the motion. That
5 motion passes.

6 Mr. Fitch.

7 MR. FITCH: The second document is NFPA
8 701 and can be found on pages 212 through 222 of
9 the ROP. Since there were no public comments,
10 this document is not included in the ROC.

11 The committee proposes for official
12 adoption a complete revision of NFPA 701, Standard
13 Methods of Fire Tests for Flame Propagation of
14 Textiles and Films.

15 The ballot statement can be found on
16 pages 207 and 208 of the ROP.

17 Mr. Chair, I move adoption of the
18 committee report on NFPA 701.

19 CHAIR ISMAN: You've heard the motion
20 to adopt a complete revision of NFPA 701; is
21 there any discussion?

22 Seeing none, we'll take a vote. All
23 those in favor of the motion, please raise your
24 hand. And all those opposed to the motion. That
25 motion passes.

1 Thank you, Mr. Fitch.

2 MR. FITCH: Thank you.

3 CHAIR ISMAN: The next report is that
4 of the Forest and Rural Fire Protection Committee.
5 Here to present the committee report is Committee
6 Chair Randall Bradley of the Lawrence Livermore
7 Laboratories Fire Department in Livermore,
8 California.

9 Chief Bradley.

10 CHIEF BRADLEY: Thank you, Mr. Chair,
11 ladies and gentlemen.

12 The Report of the Technical Committee
13 on Forest and Rural Fire Protection is presented
14 for adoption. This report can be found on pages
15 546 through 568 of the Report on Proposals for
16 the 2004 May Association Technical Committee, and
17 on pages 98 through 107 of the Report on
18 Comments.

19 The committee proposes for official
20 adoption a complete revision of NFPA 1150,
21 Standard on Fire-Fighting Foam Chemicals for Class
22 A Fuels in Rural, Suburban, and Vegetated Areas.
23 This document is being re-titled as "Standard on
24 Class A Foam Chemicals for Fire Fighting."

25 The ballot statements can be found on

1 page .546 of the ROP and on page .98 of the ROC.

2 Mr. Chair, I move adoption of the
3 committee report on NFPA 1150.

4 CHAIR ISMAN: You've heard the motion
5 to adopt a complete revision to NFPA 1150; is
6 there any discussion?

7 Seeing none, we'll move to a vote. All
8 those in favor, please raise your hands. And all
9 those opposed. That motion passes.

10 Thank you, Chief Bradley.

11 The next report this morning is that of
12 the Committee on Handling and Conveying of Dusts,
13 Vapors and Gases. Here to present the committee
14 report is Committee Chair Walter L. Frank of the
15 ABS Consulting Group in Wilmington, Delaware.

16 Mr. Frank.

17 MR. FRANK: Mr. Chair, ladies and
18 gentlemen.

19 The report of the Technical Committee
20 on Handling and Conveying Dusts, Vapors and Gases
21 is presented for adoption.

22 This report can be found on pages 78
23 through 102 of the Report on Proposals for the
24 2004 May Association Technical Meeting, and on
25 page .9 of the Report on Comments.

1 The committee proposes for official
2 adoption a complete revision of NFPA 91, Standard
3 For Exhaust Systems For Air Conveying of Vapors,
4 Gases, Mists, and Noncombustible Particulate
5 Solids.

6 Ballot statements can be found on page
7 .78 of the ROP and on page .9 of the ROC.

8 Mr. Chair, I move the adoption of the
9 committee report on NFPA 91.

10 CHAIR ISMAN: You've heard the motion
11 to adopt a complete revision of NFPA 91; is there
12 any discussion?

13 Seeing none, we'll take a vote. All
14 those in favor, please raise your hands. And all
15 those opposed. That motion carries.

16 Thank you, Mr. Frank.

17 The next report this morning is that of
18 the Committee on Hazard and Risk of Contents and
19 Furnishings. Here to present the committee report
20 is Committee Chair Marcelo Hirschler of GBH
21 International, Mill Valley, California.

22 Dr. Hirschler.

23 DR. HIRSCHLER: Thank you, Mr. Chair,
24 ladies and gentlemen.

25 The Report of the Technical Committee

1 on Hazard and Risk of Contents and Furnishings is
2 presented for adoption. This report can be found
3 on pages 464 to 493 of the Report on Proposals
4 for the 2004 May Association Technical Meeting,
5 and on pages 86 to 87 of the Report on Comments.

6 The committee proposes for official
7 adoption a complete revision of NFPA 555, Guide on
8 Methods for Evaluating Potential for Room
9 Flashover.

10 The ballot statements can be found on
11 page .464 of the ROP and page .86 of the ROC.

12 Mr. Chair, I move adoption on the
13 committee report NFPA 555.

14 CHAIR ISMAN: You've heard the motion
15 to adopt the complete revision of NFPA 555; is
16 there any discussion?

17 Seeing none, we'll take a vote. All
18 those in favor of the motion, please raise your
19 hand. And those opposed to the motion. Thank
20 you. That motion passes.

21 Thank you, Dr. Hirschler.

22 DR. HIRSCHLER: Thank you.

23 CHAIR ISMAN: Next is a report of the
24 Committee on Hazardous Chemicals. Here to present
25 that committee report is Committee Chair Samuel

1 Vanover of the Jefferson Parish Fire Department in
2 New Orleans, Louisiana.

3 Mr. Vanover.

4 MR. VANOVER: Mr. Chair, ladies and
5 gentlemen.

6 The Report of the Technical Committee
7 on Hazardous Chemicals is presented for adoption.
8 This report can be found on pages 394 through 414
9 of the Report on Proposals for the May 2004 May
10 Association Technical Meeting, and on pages 59
11 through 74 of the Report on Comments.

12 The committee proposes for official
13 adoption a complete revision of NFPA 430, Code for
14 the Storage of Liquid and Solid Oxidizers.

15 The ballot statements can be found on
16 page .394 and 395 of the ROP and on page .59 of the
17 ROC.

18 Mr. Chair, I move the adoption of the
19 committee's report on NFPA 430.

20 CHAIR ISMAN: Thank you.

21 You've heard the motion to adopt the
22 complete revision of NFPA 430; is there any
23 discussion?

24 Seeing none, we move to vote. All
25 those in favor of the motion, please raise your

1 hand. And all those opposed to the motion.

2 Thank you. That motion passes.

3 Thank you, Mr. Vanover.

4 MR. VANOVER: Thank you.

5 CHAIR ISMAN: The next report is that
6 of the Committee on Laboratories Using Chemicals.
7 Here to present the committee's report is
8 Committee Chair Brenda Bronson of the U.S. General
9 Services Administration in Denver, Colorado.

10 Ms. Bronson.

11 MS. BRONSON: Thank you, Mr. Chair.

12 Mr. Chair, ladies and gentlemen, the
13 Report of the Technical Committee on Laboratories
14 Using Chemicals is presented for adoption.

15 This report can be found on pages 15
16 through 77 of the Report on Proposals for the
17 2004 May Association Technical Meeting, and on
18 pages 3 through 8 on the Report on Comments.

19 The committee proposes for official
20 adoption a complete revision of NFPA 45, Standard
21 on Fire Protection For Laboratories Using
22 Chemicals.

23 The ballot statements can be found on
24 page .15 of the ROP and on page .3 of the ROC.

25 Mr. Chair, I move adoption of the

1 committee's report on NFPA 45.

2 CHAIR ISMAN: You've heard the motion
3 to adopt a complete revision of NFPA 45; is there
4 any discussion?

5 Seeing none, we'll move to a vote. All
6 those in favor of the motion, please raise your
7 hand. And all those opposed to the motion. That
8 motion passes.

9 Thank you, Ms. Bronson.

10 The next report this morning is that of
11 the Committee on Lightning Protection. Here to
12 present the committee's report is Committee Chair
13 Mitchell Guthrie of Universal Systems, Blanch,
14 North Carolina.

15 Mr. Guthrie is stepping down as chair
16 due to our tenure policy, and I would like to
17 take this opportunity to give our thanks to Mr.
18 Guthrie on the Lightning Protection Committee.

19 MR. GUTHRIE: Thank you, Mr. Chair,
20 ladies and gentlemen.

21 The Report of the Technical Committee
22 on Lightning Protection is presented for adoption.
23 This report can be found on pages 494 through 545
24 of the Report on Proposals to the 2004 May
25 Association Technical Meeting, and on pages 88

1 through 97 of the Report on Comments.

2 The committee proposes for official
3 adoption a complete revision of NFPA 780, Standard
4 For the Installation of Lightning Protection
5 Systems.

6 The ballot statements can be found on
7 pages 494 and 495 of the ROP and on page .88 of
8 the ROC.

9 Mr. Chair, I move the adoption of the
10 committee report on NFPA 780.

11 CHAIR ISMAN: You heard the motion to
12 adopt a complete revision of NFPA 780; is there
13 any discussion?

14 Seeing none, we'll take a vote. All
15 those in favor of the motion, please raise your
16 hand. And all those opposed to the motion. That
17 motion passes.

18 Thank you, Mr. Guthrie.

19 The next report this morning is that of
20 the Mining Facilities Committee. Here to present
21 the four parts of this committee's report is
22 committee member Matthew Bujewski of Marsh USA,
23 St. Louis, Missouri.

24 Mr. Bujewski.

25 MR. BUJEWSKI: Bujewski.

1 CHAIR ISMAN: I apologize. Thank you.

2 MR. BUJEWSKI: Thank you, Mr. Chairman.

3 Mr. Chair, ladies and gentlemen, the
4 Technical Committee on Mining Facilities is
5 presenting four documents for adoption.

6 The first document is NFPA 120 and can
7 be found on pages 132 through 170 of the 2004 May
8 Association Technical Meeting Report on Proposals,
9 and on pages 21 through 31 of the Report on
10 Comments.

11 The committee proposes for official
12 adoption a complete revision of NFPA 120, Standard
13 For Coal Preparation Plants. This document is
14 being re-titled the "Standard for Fire Prevention
15 and Control in Coal Mines."

16 The ballot statements can be found on
17 page .132 of the ROP and on page .21 of the ROC.

18 Mr. Chair, I move for adoption of the
19 committee's report on NFPA 120.

20 CHAIR ISMAN: You've heard the motion
21 to adopt a complete revision of NFPA 120; is
22 there any discussion?

23 Seeing none, we'll take a vote. All
24 those in favor of the motion, please raise your
25 hand. And those opposed to the motion. That

1 motion passes.

2 Mr. Bujewski.

3 MR. BUJEWSKI: The second document is
4 NFPA 121 and can be found on pages 171 and 172 of
5 the ROP. Since there were no public comments,
6 this document is not included in the ROC.

7 The committee proposes official
8 withdrawal of NFPA 121, Standard on Fire
9 Protection for Self-Propelled and Mobile Surfacing
10 Mining Equipment.

11 The ballot statement can be found on
12 page .132 of the ROP.

13 Mr. Chair, I move adoption of the
14 committee's report on NFPA 121.

15 CHAIR ISMAN: You've heard the motion
16 to adopt a withdrawal of NFPA 121; is there any
17 discussion?

18 Seeing none, all those in favor of the
19 motion, please raise your hand. And all those
20 opposed to the motion. That motion passes.

21 Mr. Bujewski.

22 MR. BUJEWSKI: The third document is
23 NFPA 122, it can be found on pages 173 through
24 191 of the ROP, on page .32 of the ROC.

25 The committee proposes a complete

1 revision of NFPA 122, Standard for Fire Prevention
2 and Control in Underground Metal and Nonmetal
3 Mines. This document will be re-titled "Standard
4 for Fire Prevention and Control in Metal/Nonmetal
5 Mining and Metal Mineral Processing Facilities."

6 The ballot statements can be found on
7 page .132 of the ROP and on page .21 of the ROC.

8 Mr. Chair, I move adoption of the
9 committee report of NFPA 122.

10 CHAIR ISMAN: You've heard the motion
11 to adopt a complete revision of NFPA 122; is
12 there any discussion?

13 We'll take a vote then. All those in
14 favor of the motion, please raise your hand. And
15 those opposed to the motion. That motion passes.

16 Mr. Bujewski.

17 MR. BUJEWSKI: The fourth and final
18 document is NFPA 123 and can be found on pages
19 192 and 193 of the ROP. Since there were no
20 public comments, this document is not included in
21 the ROC.

22 The committee proposes the withdrawal
23 of NFPA 123, Standard For Fire Prevention and
24 Control in Underground Bituminous Coal Mines.

25 The ballot statement can be found on

1 page .132 of the ROP.

2 Mr. Chair, I move the adoption on NFPA
3 123.

4 CHAIR ISMAN: You've heard the motion
5 to adopt the withdrawal of NFPA 123; is there any
6 discussion?

7 Seeing none, we'll take a vote. All
8 those in favor of the motion, please raise your
9 hand. And all those opposed to the motion. That
10 motion passes.

11 Thank you, Mr. Bujewski.

12 MR. BUJEWSKI: Thank you, Mr. Chair.

13 CHAIR ISMAN: The next report this
14 morning is that of the Committee on Motor Craft.
15 Here to present the committee report is committee
16 member Philip Cappel of the United States Coast
17 Guard in Washington DC.

18 Mr. Cappel.

19 MR. CAPPEL: Thank you, Mr. Chair,
20 ladies and gentlemen.

21 The Report of the Technical Committee
22 on Motor Craft is presented for adoption. This
23 report can be found on pages 223 to 290 of the
24 Report on Proposals for the 2004 May Association
25 Technical Meeting, and on pages 37 to 48 of the

1 Report on Comments.

2 The committee proposes for official
3 adoption of a complete revision of NFPA 302, Fire
4 Protection Standard For Pleasure and Commercial
5 Motor Craft.

6 The ballot statements can be found on
7 page .223 of the ROP and on page .37 of the ROC.

8 Mr. Chair, move for the adoption of the
9 committee's report on NFPA 302.

10 CHAIR ISMAN: You've heard the motion
11 to adopt the complete revision of NFPA 302; is
12 there anything discussion?

13 Gentleman at Microphone 3.

14 MR. MARHEVKO: Mr. Chair, good morning.
15 I am Thomas Marhevko of the National Marine
16 Manufacturers Association and a member of the NFPA
17 Committee on Motor Craft.

18 This amending motion is being made on
19 the Report on Comments, ROC. I refer you to page
20 .45 and 46 of the ROC and Comment Nos. 302-38 and
21 302-40. I move that these two comments, 302-38
22 and 302-40, be rejected.

23 CHAIR ISMAN: Just a moment, please,
24 while we find those. We really need to take
25 these as separate motions, so which one would you

1 like to take first?

2 MR. MARHEVKO: 302-38.

3 CHAIR ISMAN: Okay. I apologize for
4 taking a little time here.

5 There was no action taken by the
6 committee on 302-38, so we really should go to
7 302-40. Would you like to make a motion to
8 reject 302-40; is that what you would like to do?

9 MR. MARHEVKO: Yes, Mr. Chairman.

10 CHAIR ISMAN: Okay. Now that we've
11 clarified the motion, do we have a motion to
12 reject Comment 302-40 in the ROC? Do we have a
13 second? I hear a second from down in front.
14 Please proceed.

15 MR. MARHEVKO: As presently written,
16 these proposed actions would require smoke
17 detectors on all recreational boats over 26 feet
18 in length with accommodation compartments.

19 Acceptance of this motion will move
20 these actions back to the appendix of the 302
21 standard, as was previously accepted by the
22 Committee on Motor Craft in the report of
23 committee.

24 The NMNA is a trade association of
25 recreational boat builders and associated

1 industries having a membership of over 1500. Of
2 those, about 450 members are boat builders, and
3 these builders account for over 80 percent of
4 boats built in the US.

5 Let me first say that the NMNA is not
6 against smoke detectors on recreational boats. We
7 highly endorse the use of smoke detectors.
8 However, we want the marine unit tested, approved
9 and listed for use on recreational boats, not only
10 evaluated for use on motor homes, as is presently
11 proposed.

12 The current situation is this: there is
13 no UL approved marine smoke detector test
14 standard, no UL listed marine smoke detectors
15 available to the industry and no US Coast Guard
16 listed or approved marine smoke detectors for use
17 on recreational boats.

18 By approving this motion and placing
19 the smoke detector requirement back into the
20 appendix of NFPA 302, you will allow for industry
21 development of a marine smoke detector test and
22 installation standard, and you will allow industry
23 to develop a smoke alarm suitable for use in the
24 marine environment.

25 By approving the motion, the Committee

1 on Motor Craft can work with the US Coast Guard
2 and UL to develop the appropriate test standard.
3 You will also allow for members of your own
4 National Fire Alarm Code Committee in NFPA 72 to
5 provide input to this task, something that has not
6 been done in the past. If any group has data of
7 testing smoke alarms in a marine environment, your
8 approval of this motion will allow this data to
9 be fully reviewed by the Committee on Motor Craft.

10 Once again, I'd like to stress that the
11 NMNA is not against the use of smoke alarms in
12 recreational boats. We are against the false
13 sense of security that would be given boaters who
14 would depend on components not tested or approved
15 for use in the marine environment, not listed by
16 UL, and not approved for use by the US Coast
17 Guard.

18 I urge a positive vote on this motion.
19 Thank you.

20 CHAIR ISMAN: Mr. Cappel, would you
21 like to respond?

22 MR. CAPPEL: The Coast Guard already
23 has a regulation requiring a smoke detector
24 meeting UL Standard 217 for recreational vehicles
25 be installed on small passenger vessels. And

1 since this has not been found to be a problem on
2 these vessels, the adoption of this revision to
3 include it on very similar vessels, meaning boats
4 greater than 26 feet in length having berthing
5 aboard, as proposed by the committee is simply an
6 extension of that Coast Guard policy.

7 CHAIR ISMAN: Thank you. Microphone 4.

8 MR. POWELL: Mr. Chairman, I'd like to
9 speak in support of the obvious here. Let me
10 introduce myself first. My name is Wayne Powell.
11 I'm one of the serving members--

12 CHAIR ISMAN: Just a moment. I'm
13 sorry, first can we get your name and affiliation.

14 Can we also get Microphone 4 turned up
15 a little bit?

16 MR. POWELL: I'm Wayne Powell, longest
17 serving member of the United States Fire
18 Administration here to support the formal adoption
19 of what you're hearing about today.

20 This is the last frontier in our
21 country that you can sleep without a smoke alarm.
22 There can't be a person in this building today,
23 especially in this room, who doesn't understand
24 the importance of that. And you'll hear in just
25 a moment, I believe, the full explanation that

1 you've not heard.

2 I'm here today speaking on behalf of
3 the United States Fire Administrator, the highest
4 commission in the United States government, the
5 long-time prior chief of Miami- Dade County Fire
6 Department.

7 Boat fires as fire chief in America
8 today. Knowing of this challenge and this last
9 absolutely kind of nutty frontier without smoke
10 alarms, it is clear that this is the right
11 action.

12 Again, on behalf of people who
13 understand the importance of smoke alarms in our
14 society, it is the right thing to do, and I'm
15 speaking in support of the motion of the adoption
16 the committee chair brought forward.

17 CHAIR ISMAN: You're speaking in
18 support of the committee and against the motion on
19 the floor at the moment?

20 MR. POWELL: That is correct.

21 CHAIR ISMAN: Thank you. Microphone
22 No. 3.

23 MR. LEICHT: Good morning. My name RT
24 Leicht representing the International Fire
25 Marshals Association. We speak in opposition of

1 the motion on the floor.

2 CHAIR ISMAN: Could we get you to speak
3 up just a little bit?

4 MR. LEICHT: RT Leicht, International
5 Fire Marshals Association, speaking in opposition
6 to the motion on the floor.

7 The Fire Marshals Association opposes
8 the motion on the floor. We feel that smoke
9 alarms provide a means of early warning to
10 residents who while sleeping may be unaware of a
11 developing problem. We feel that without smoke
12 alarms residents are in unnecessary jeopardy.
13 It's of little difference to the fire services as
14 to whether or not these residents happen to be
15 sleeping on a boat or down at the beach or in a
16 beach house. In either case, it's still people
17 that are not aware of the developing fire. We're
18 looking to get them some kind of an early warning
19 to get them out of the area of the fire or take
20 some action to reduce the jeopardy.

21 CHAIR ISMAN: Thank you. Microphone 7.

22 MR. McDEVITT: My name is John
23 McDevitt. I'm a member of the 302 committee. My
24 affiliation with the committee is as a consumer.

25 I own a 100-ton master's license, and

1 I've worked self-employed in the pleasure boating
2 industry with dealers, manufacturers and the
3 consumer for most of my life, and I'm a member
4 and past chief of a fire department.

5 The RV industry over 20 years ago put
6 in place the proper listing requirements, et
7 cetera, and afforded their consumers the
8 protection of smoke alarms as a requirement in
9 NFPA 1192 since 1993. The boating industry does
10 not have basic smoke alarm protection for its
11 consumers.

12 The Underwriters Laboratories avoids in
13 the UL217 document is a reason, along with the
14 fact that the industry's consumers--consumer
15 protection industries have a lack of interest in
16 putting one aboard.

17 In the 1990s, using taxpayer dollars,
18 the Coast Guard contracted Underwriters
19 Laboratories to investigate the capability of
20 smoke alarms when used in water craft.

21 Underwriters Laboratories, with an
22 industry advisory group, issued a report called
23 Fire Detection in Recreational--I'm sorry, "Fire
24 Detection in Recreational Vessels." The tests
25 consisted of an environmental and smoke

1 performance test, shock, vibration, salt fog, a
2 48-hour salt spray test.

3 The Underwriters Laboratory report
4 states, "...some presently available models
5 successfully completed the test. Thus it is
6 possible that at least some manufacturers may not
7 need to produce special marine use models, thus
8 minimizing the cost to the boat builders and
9 ultimately to the customers." In these findings
10 Underwriters Laboratory and marine safety
11 organizations failed to act and the industry still
12 lacks the smoke alarm requirement.

13 The industry, as Mr. Cappel pointed
14 out, on the commercial side does use a UL217
15 requirement which is mentioned in CFRs and
16 approved by the Coast Guard in the same size of
17 inspected vessels.

18 Every year there are a number of large
19 marina fires that cost millions of dollars in
20 losses and severe environmental damage. These
21 fires start undetected on a boat. A smoke alarm
22 requirement is long overdue for the boating
23 industry and a couple of decades behind.

24 As stated in the above-mentioned UL
25 study, there is no need for consumers to buy off-

1 the-shelf alarms. Failing to publish this
2 requirement or moving it to the annex will
3 seriously compromise the fire safety of the entire
4 boating community for another four years.

5 I'd encourage Underwriters Laboratories
6 to make a decision about the future of its marine
7 interest, particularly in this document, and would
8 strongly urge the members of ABYC and UL to
9 provide the boat consumer with the same protection
10 in America.

11 I strongly recommend this organization
12 pass the requirement per the committee vote and
13 recommendation.

14 CHAIR ISMAN: Thank you. Microphone 5.

15 MR. MacCARTNEY: My name is--

16 CHAIR ISMAN: Can we get Mike 5 up? Do
17 you want to try a different mike? Let's try
18 Microphone 4.

19 MR. MacCARTNEY: My name is Kim
20 MacCartney. I'm with Inamar, the largest marina
21 insurance company in the United States. We're the
22 largest yacht insurer in the United States
23 insuring approximately \$180,000,000 in premiums,
24 several hundred billion dollars in value.

25 We speak against the motion on the

1 floor to do away with the smoke detectors. Our
2 primary concern is not only the safety of life,
3 but also the safety of property. There's
4 approximately 25 to \$30,000,000 lost every year,
5 and it's only conjecture as to how much of that
6 could have been saved had there been an early
7 warning such as would be provided by a smoke
8 detector on a boat.

9 Normally the first warning that you
10 have a fire in a marina or on a boat is when the
11 flames start coming out the side of the boat and
12 anybody who knows anybody in the fire service
13 knows fighting a fiberglass boat fire is like
14 fighting an oil fire: once it gets out of control
15 it's almost impossible.

16 The conflagrations that occur at
17 marinas and in boatyards because there are no
18 early warning detection devices is what we see
19 every year, and it effects the insurance industry
20 in a very negative fashion. That is why I would
21 hope the members of this committee and the members
22 seated here would vote in objection to the
23 proposal on the floor. Thank you.

24 CHAIR ISMAN: Is there any additional
25 discussion on this motion? Microphone 7.

1 MR. LOESER: Excuse me. My name is
2 Robert Loeser. I am an emeritus member on the
3 302 committee, and I would vote to defeat the
4 proposal. I think fire detection equipment is
5 very much needed, and I have investigated--
6 investigation of accidents is my job. I have
7 investigated accidents where two people, for
8 instance, have slept through and died in a fire.
9 It just doesn't make any sense when we have the
10 technology to not put equipment on the boat. I
11 think they are adequately tested by UL, and I
12 would propose that the motion be defeated. Thank
13 you.

14 CHAIR ISMAN: Thank you. Is there any
15 additional discussion on the motion?

16 Also at Microphone 7.

17 MR. McDEVITT: I just have one footnote
18 to add, that this organization--

19 CHAIR ISMAN: I'm sorry, could you
20 please just introduce yourself again to the group.

21 MR. McDEVITT: John McDevitt, No. 302.

22 I have one thing to add. This
23 organization currently in 301, Part 18.4.2 states,
24 "Detection, single station smoke detectors
25 complying with UL217 in single and multiple

1 station smoke detectors shall be provided in each
2 accommodation space," so there is precedent.

3 CHAIR ISMAN: Mr. Chair, do you have
4 any additional comments that you would like to
5 make?

6 Okay. We have another person at
7 Microphone 7.

8 MR. MacCARTNEY: Kim MacCartney again.
9 I just want to--

10 CHAIR ISMAN: I'm sorry, could you get
11 closer to the mike?

12 MR. MacCARTNEY: Kim MacCartney again.
13 I just want to inform everybody that
14 the cost of units is less than \$20 a piece, so
15 we're talking about an item of safety that's less
16 than \$20.

17 CHAIR ISMAN: Thank you. Any
18 additional discussion on this issue?

19 Seeing none, we'll move to a vote. The
20 motion on the floor is to reject Comment 302-40.
21 All of those in favor of those motion, please
22 raise your hand. Thank you. And those opposed
23 to the motion. That motion fails.

24 Is there any additional discussion on
25 NFPA 302? Seeing none, we'll move to a floor

1 vote. All those in favor of adopting a
2 complete--I apologize, I'm moving a little too
3 fast for the body. We have a discussion at
4 Microphone 7.

5 MR. LOESER: I have several items to
6 bring up.

7 CHAIR ISMAN: Please bring up your next
8 item then.

9 MR. LOESER: All right. My name is
10 Robert Loeser, L-o-e-s-e-r, and I'm a marine
11 accident investigator and an emeritus member of
12 the 302 committee.

13 In the 302 standard, 302-1, Log 5,
14 Paragraph 131, Page .38--

15 CHAIR ISMAN: I'm sorry, sir, is that
16 in the ROP or ROC document?

17 MR. LOESER: Now you've got me.

18 CHAIR ISMAN: Is it a proposal or a
19 comment?

20 MR. LOESER: It's a motion that was
21 made and rejected.

22 CHAIR ISMAN: In the ROC, Comment 302-1
23 on Page .38.

24 MR. LOESER: ROC.

25 CHAIR ISMAN: Okay. So we have a

1 motion to accept Comment 302-1 in the ROC, is
2 that correct, sir?

3 MR. LOESER: Yes.

4 CHAIR ISMAN: Is there a second? I did
5 hear a second from up front. Please proceed.

6 MR. LOESER: In the proposal there is a
7 statement in the standard, right up front, 1.3.3,
8 that the standard shall not apply to the control
9 of carbon monoxide and so on. The standard
10 itself puts the NFPA in a terrible position, and
11 I think that this paragraph has to be deleted.

12 It puts us in a terrible position,
13 because the standard itself talks about the two
14 items that control the level of carbon monoxide
15 being discharged by the engine. In other words,
16 if you take any engine in a boat, and if you have
17 a deficit of air to the engine, the carbon
18 monoxide will go sky high. Likewise, if you put
19 any restrictions in the exhaust system, the same
20 thing will happen.

21 The standard deals with the exhaust
22 system and deals with ventilation of engine
23 spaces. So it makes no sense at all to turn
24 around and advise the boat builders how to
25 ventilate their boat, how to put in an exhaust

1 system, and then say, We don't talk about carbon
2 monoxide. You automatically talk about carbon
3 monoxide when you talk ventilation and when you
4 talk about exhaust systems.

5 So I propose that that 1.3.1 paragraph
6 be deleted from the standard. There is no reason
7 for it whatsoever, and I move that that be
8 deleted. Thank you.

9 CHAIR ISMAN: Any further discussion on
10 the motion? Microphone 4.

11 DR. HIRSCHLER: Marcelo Hirschler of
12 GBH International speaking for myself.

13 It appears to me reading through the
14 standard--and, sir, I'm speaking against the
15 motion. It appears to me reading through the
16 standard that there is no discussion in the
17 standard of carbon monoxide at all or of toxic
18 gases. So I think it is appropriate not to--to
19 say in the scope that the standard doesn't apply
20 to carbon monoxide and toxic gases. Thank you.

21 CHAIR ISMAN: Mr. Cappel, I'm sorry, I
22 didn't give you a chance to respond right away,
23 so would you like to respond?

24 MR. CAPPEL: Thank you, Mr. Chair.

25 The committee feels the control of

1 carbon monoxide on recreational boats is outside
2 the scope of the committee.

3 The scope of the committee is to have
4 primary responsibility to documents on fire
5 protection and protection of motor craft. The
6 committee has no interest in expanding the scope
7 of the standard beyond fire prevention and fire
8 protection and feels a statement clarifying this
9 position is necessary to be included in the
10 standard.

11 The control of carbon monoxide through
12 exhaust and ventilation standards is a side
13 effect. The primary purpose of those is in fire
14 prevention. And we want to make that clear that
15 the intent of the standard is not for the
16 manufacturer to be able to control carbon
17 monoxide. The standard would need to have a much
18 different look to it if we went beyond the scope.
19 It would have to be either a new standard or
20 totally revised to include carbon monoxide.

21 CHAIR ISMAN: Microphone 7.

22 MR. MacCARTNEY: My name is Kim
23 MacCartney. I'm with Inamar.

24 I'm speaking in support of the
25 proposal, and the reason being is because the

1 standard as it is currently written gives a boat
2 builder or a boat manufacturer a false sense that
3 if he complies with this standard, that he is
4 doing the best job possible as far as controlling
5 the carbon monoxide emitted out of the exhaust.

6 The ventilation standard was written
7 back in the 1940s or '50s. The exhaust standard
8 hasn't been changed, to the best of my knowledge,
9 since then. I've been on the committee since
10 1985, and we have made no changes to this, even
11 though manufacturers have greatly reduced the
12 amount of air intake to their engine compartments
13 and greatly restricted the exhaust free flowing by
14 putting underwater exhausts that will make
15 multiple 90-degree turns before they exit out the
16 transom of the boat.

17 What this has done is taken carbon
18 monoxide levels that Bob has done testing on and
19 taken it from the 4,000 parts per million that
20 you would normally get on a properly installed,
21 properly ventilated and properly exhausting engine
22 to over 120,000 parts per million. And our
23 standard is what is allowing this to occur,
24 because the standard does not address the fact
25 that if you build a boat in compliance with the

1 standard, these are the results, you get
2 absolutely exorbitant CO levels out the exhaust.
3 Thank you.

4 CHAIR ISMAN: Just to clarify, sir, the
5 motion on the floor is to eliminate this sentence
6 and you were speaking--

7 MR. MacCARTNEY: That's correct. And I
8 gave the reasons why I felt that that was
9 necessary to eliminate that sentence out of the
10 standard so that the--while the standard doesn't
11 address the actual control of the CO through the
12 boat, the way the standard is written currently is
13 so erroneous that if you build a boat to the
14 standard, you are greatly increasing the amount of
15 CO that comes out the exhaust. And Bob's
16 additional address on this will probably address
17 those items.

18 CHAIR ISMAN: Microphone 4.

19 DR. HIRSCHLER: Marcelo Hirschler with
20 GBH International speaking for myself.

21 I think the previous speaker made the
22 point why the motion needs to be defeated, since
23 the standard, according to his words, doesn't do a
24 good job of controlling carbon monoxide, then it's
25 a good idea to state that the standard is not

1 intended to do a good job of that. Please defeat
2 the motion.

3 CHAIR ISMAN: Microphone 7.

4 MR. MacCARTNEY: If you are going to
5 have a standard that encourages people to build
6 boats that create higher levels of CO than is
7 possible through just simple good engineering,
8 then the standard really has very little value.
9 What you are doing is you are saying, Comply with
10 this standard and you build a boat the best you
11 can build it, which is not the case.

12 What Bob is proposing are different
13 tests, very simple tests. When he first started
14 this ten years ago, there was no equipment that
15 could measure the level of CO that was produced
16 by a marine propulsion engine in a normal
17 installation. Now that equipment does exist and
18 the engineering behind this is very simple.

19 So I say either take out the entire
20 ventilation and exhaust system of the standard,
21 which gives a boat builder and a manufacturer a
22 false sense of security that if he builds this
23 he's doing the best job possible, or delete this
24 section.

25 CHAIR ISMAN: I'm sorry, could you just

1 give us your name and affiliation again for the
2 record.

3 MR. MacCARTNEY: It's Kim MacCartney of
4 Inamar.

5 CHAIR ISMAN: Thank you.

6 Any additional discussion on the motion
7 on the floor which is to accept Comment 302-1?

8 Seeing none, we'll move--I'm sorry, I'm
9 moving too fast for you again.

10 MR. LOESER: I have to play basketball.

11 I just want to make it perfectly clear
12 that there is no way to avoid the production of
13 carbon monoxide in any boat. What you can do is
14 reduce it drastically if you understand that every
15 engine needs a surplus of air, not a deficit of
16 air, and you've got to have some way of
17 accomplishing that. This standard deals with the
18 issue; therefore, it deals with carbon monoxide.
19 We must not make a statement that we're not
20 talking about carbon monoxide in this standard.

21 CHAIR ISMAN: Mr. Cappel, do you have
22 any additional comments?

23 MR. CAPPEL: I just want to repeat that
24 the committee strongly feels that it's beyond the
25 scope of the committee, and we feel it necessary,

1 especially in this day and age, for liability
2 purposes for NFPA to include this statement in
3 these standards.

4 CHAIR ISMAN: Thank you.

5 Microphone 7 again. Please give us
6 your name and affiliation. I'm sorry.

7 MR. MacCARTNEY: Kim MacCartney from
8 Inamar.

9 I strongly disagree with that
10 statement. The committee was not emphatically
11 against this. In fact, when I presented it at
12 the second meeting of the review cycle, it failed
13 by a very small margin. Now the margin on the
14 ballot is much greater. But a lot of those
15 people were not present and did not vote--did not
16 hear the entire argument. All they saw was what
17 was published.

18 So originally when Bob presented this,
19 the chairman cut him off early and he wasn't
20 allowed to present the entire issue. I presented
21 it at the second meeting of the review cycle, and
22 at that meeting it failed by--I think it was two
23 votes out of the 15 people that were there. So
24 it did not fail by a large margin.

25 MR. CAPPEL: It did on the ballot.

1 CHAIR ISMAN: Mr. Cappel, would you
2 like to respond?

3 MR. CAPPEL: On the final balloting it
4 was 21 to nothing to reject it with one non-vote.
5 I don't know what else to say on it.

6 CHAIR ISMAN: Thank you. Is there any
7 further discussion on this issue?

8 Seeing none, we'll move to a vote. All
9 those in favor of the motion to accept Comment
10 302-1 please raise your hand. And all those
11 opposed to the motion. That motion does not
12 pass.

13 We move back to a discussion of NFPA
14 302. Is there further discussion? Microphone 7.

15 MR. LOESER: Robert Loeser.

16 I was talking about other aspects of
17 the same problem. Now, having defeated that first
18 deletion of Paragraph 1.3.1, I don't know whether
19 this makes any sense or not.

20 Other changes are needed to measure the
21 carbon monoxide being produced by any boat, and
22 there are two proposals here that do just that
23 and look at ventilation and put it in a form
24 where you know exactly what the engine is
25 producing under normal operating conditions and

1 when you put in--open the hatch and allow more
2 air to the engine or you put in a straight
3 exhaust system.

4 CHAIR ISMAN: Yes, sir. It's up to you
5 to decide if you'd like to make a motion on these
6 other issues or not.

7 MR. LOESER: I don't understand how
8 that vote went at all. I think it is ridiculous
9 and it puts NFPA in a terrible position.

10 CHAIR ISMAN: Well, it was the vote of
11 the body, sir, so I have to ask you to decide,
12 would you like to make another motion or not?
13 Your comments are on the record for the Standards
14 Council to consider.

15 MR. LOESER: Well, I'll go--I will take
16 them one at a time and present them so it's part
17 of the record.

18 CHAIR ISMAN: Okay, sir, so what's your
19 next motion?

20 MR. LOESER: All right. 302-6, Log 12,
21 Page .40.

22 This is to do--the motion is designed
23 to add a performance requirement for exhaust to
24 determine that the exhaust pressure is not
25 excessive, the parts per million should not exceed

1 what I'm proposing, 15 percent.

2 CHAIR ISMAN: I'm sorry, just a second.
3 We have a motion to accept Comment 302-6 on Page
4 .40 of the agenda; do we have a second? I'm
5 sorry, did we have a second? Yes, we have a
6 second. So now please proceed, sir.

7 MR. LOESER: All right. I want to
8 inject a test into the standard by using a simple
9 carbon monoxide analyzer that is capable of
10 reading high levels of carbon monoxide. You can
11 test--you can put the instrument, connect it to
12 the intake manifold in the dry section before
13 water injection and determine exactly what's
14 happening in that engine as far as its production
15 of parts per million of carbon monoxide. And
16 this proposal deals with limiting the excess of
17 parts per million to 15 percent above what you
18 would get with a straight simple exhaust system.

19 What has happened, as pointed out by
20 Mr. MacCartney, we have added water lid mufflers,
21 we have installed exhaust systems that discharge
22 under the water. We have created a problem with
23 the type of exhaust systems being installed in the
24 boats. And they do show up as CO poisonings and
25 deaths out in the field, and it's becoming

1 increasingly a major concern.

2 Now, the Coast Guard was primarily
3 concerned with houseboats, but almost every boat
4 that I have tested over the past few years has
5 been a cruising boat or a ski boat. It goes way
6 beyond the houseboat. The houseboat is a special
7 interest because of its design. So I propose
8 that this 15 percent--that the test be conducted
9 on the exhaust system to determine that it is
10 within acceptable limits.

11 That's that proposal, and it's 302-6,
12 Log 12.

13 CHAIR ISMAN: Thank you.

14 Mr. Cappel, would you like to respond?

15 MR. CAPPEL: The Coast Guard is working
16 with another volunteer standards organization that
17 does have several carbon monoxide standards, and
18 they are also working with MIOSH to do testing.
19 We're very heavily engaged in testing for carbon
20 monoxide to reduce it on recreational vessels.

21 As a matter of fact, we are planning to
22 attempt to validate Mr. Loeser's proposal he's put
23 forth here, but if there is a use for this, and
24 we find it necessary to be implemented, we would
25 work with the other voluntary standards

1 organization that does have a carbon monoxide
2 standard.

3 Eventually if NFPA did decide to want
4 to expand the scope from fire prevention to carbon
5 monoxide prevention, it could possibly be included
6 in that standard. But right now we feel that
7 there is a voluntary standards organization out
8 there that we're working with, and we'll continue
9 to work with them.

10 CHAIR ISMAN: Thank you. Microphone 7.

11 MR. MacCARTNEY: Kim MacCartney,
12 Inamar.

13 I would like to speak in support of the
14 motion. I'd also like to say that the Coast
15 Guard and ABYC has known for at least ten years
16 that this is an issue and has done nothing to
17 date. It was only after the deaths in Lake
18 Powell and I think it was Lake Havasu that actual
19 action has been taken.

20 The recommendations that Bob is making
21 are very simple that can affect the boat and the
22 consumer of the boat immediately. It's not
23 something that has to wait to be studied and
24 tested and run through the entire process of the
25 Coast Guard and the American Boat and Yacht

1 Council, which by the way does not have a
2 standard for CO. They have a technical report,
3 and that's it. And that does not carry any
4 weight as far as the standard goes.

5 If NFPA were to adopt this proposal, it
6 would be the first time that anybody has done
7 anything as far as getting boats and boat builders
8 to recognize that there's more to putting in
9 ventilation than just complying with the Coast
10 Guard regulations as they now exist and the NFPA
11 standard as it now exists. Both the regulations
12 and the standard are identical, and they have to
13 be. But it does not prohibit the NFPA from
14 coming out with a standard that requires
15 additional ventilation that reduces the amount of
16 CO produced by these engines. Thank you.

17 CHAIR ISMAN: Thank you.

18 Any additional discussion on this item?

19 Seeing none, we'll move to a vote. All
20 those in favor of the motion to accept Comment
21 302-6, please raise your hand. And those opposed
22 to the motion. That motion fails.

23 We continue in our discussion of NFPA
24 302 as presented in the committee reports.
25 Microphone 7.

1 MR. LOESER: Again Bob Loeser.

2 This deals with--one moment. All
3 right, 302-3, Log 14, page .38. This motion--I'm
4 Robert Loeser, an emeritus member of the
5 committee. This motion is adding performance
6 requirements--

7 CHAIR ISMAN: I'm sorry, just a second,
8 sir.

9 We have a motion to accept Comment
10 302-3 on page .38 of the ROC, do we have a second?
11 I did hear a second. Now please proceed.

12 MR. LOESER: Thank you.

13 This motion is designed to add a
14 performance requirement. Again, we've got to do
15 something out in this field to measure at the
16 boat-building level whether the boats are
17 producing a CO problem by their construction. And
18 if we don't do this, we're just spinning our
19 wheels in trying to correct the problem. The
20 boats could have a reduction. And incidentally,
21 boats cannot use catalytic converters as used in
22 automobiles simply because of the fire hazard, and
23 so we've got to turn to more effective means of
24 lowering the carbon monoxide count.

25 If the cloud that's released from the

1 exhaust is less poisonous, more lives will be
2 saved. I have been getting these cases, and I
3 have two more now. And it's not necessary, but
4 the standard must deal very specifically with the
5 issue.

6 Now, if you take a boat and put a
7 carbon monoxide analyzer on the exhaust system
8 into the dry section and you take the boat out,
9 simply run across the water at a slow speed,
10 which is where most accidents occur, you will get
11 a reading of parts per million of carbon monoxide
12 in that exhaust gas. If you now take the boat
13 and simply crack the hatch open, you will see
14 that number drop. And I've seen it drop in half
15 just by doing that. When you lift the engine
16 hatch and the carbon monoxide count drops
17 drastically, you know right at the moment that you
18 have a lousy ventilating system.

19 Every engine needs a surplus, and our
20 engines that are out in the field under the NFPA
21 standard and under the ABYC standard are not what
22 we should have out in the field for the boating
23 public, because when the engine hatch is closed,
24 the engine itself is sucking air into the
25 compartment through a couple of holes in the side

1 of the hull. That's the ventilating system that
2 we provide, and it's a joke. It is killing
3 people, and it could stop very easily.

4 We need to run tests. So we put a test
5 meter on it, run it with the hatch closed, normal
6 operation, turn around and repeat the test and
7 open the hatch, crack it open, and if you see a
8 big drop, you know you have a ventilation problem.
9 It's that simple. Very, very simple. Any boat
10 builder in the country can run that test. You
11 don't have to buy the instrument. The instrument
12 probably costs a couple thousand dollars; the one
13 I bought does. But that should not be a disaster
14 for most builders.

15 We need a test, and I'm proposing as a
16 starting point that the reading between the closed
17 hatch and open hatch not exceed 20 percent. Open
18 hatch is the desirable--you can go 20 percent
19 higher in order to get this ball rolling. That
20 figure could change in the future, but that's the
21 proposal. And that's 302-3, Log 14, on Page .38.
22 Thank you.

23 CHAIR ISMAN: Thank you.

24 Mr. Cappel, would you like to respond?

25 MR. CAPPEL: The committee feels that

1 this is outside the scope of the committee. Our
2 charge is fire prevention and fire protection.
3 This deals with carbon monoxide and the committee
4 does not want to expand the scope. If NFPA
5 Standards Committee wants to change the scope of
6 the committee, they could do that in the future,
7 but right now the committee does not want to
8 expand the scope that it's charged with.

9 CHAIR ISMAN: Thank you. Microphone 7.

10 MR. MacCARTNEY: Kim MacCartney with
11 Inamar.

12 If you check carefully, that's not the
13 scope of the committee. The scope of the
14 committee also deals with life safety issues.
15 Otherwise, we wouldn't have means of egress and
16 stuff like that as part of the standard.

17 CHAIR ISMAN: Thank you.

18 Microphone 5.

19 DR. HIRSCHLER: Marcelo Hirschler, GBH
20 International, speaking for myself.

21 I'm speaking in opposition to the
22 motion. I have a great deal of sympathy for what
23 Mr. Loeser is trying to achieve. I think he is
24 right; carbon monoxide emissions are a very
25 serious concern that needs to be dealt with.

1 I am not in agreement that this should
2 be outside of the scope of this standard.
3 However, I think that technical details are put
4 forward here--the language being put forward here
5 is not something we can deal with in the
6 assembly, unfortunately. I would urge Mr. Loeser
7 to--and the supporters of this to come forward
8 with a complete document explaining how this can
9 be done and have a discussion and would urge them
10 to appeal to the Standards Council and work with
11 the Standards Council and the committee to include
12 a section specifically on this issue. But I don't
13 believe that the assembly should vote on these
14 detailed technical issues right now here. So I
15 would urge you to defeat the motion. Thank you.

16 CHAIR ISMAN: Additional discussion on
17 the motion on the floor?

18 Seeing none, we'll move to a vote. All
19 those in favor of accepting Comment 302-3, please
20 raise your hands. And all those opposed. That
21 motion fails.

22 We return to a discussion on adopting
23 the complete revision to NFPA 302 as in the
24 committee reports.

25 Microphone 7.

1 MR. LOESER: I'll try once more. I'm
2 Bob Loeser, and I'm proposing 302-5, Log 11,
3 Paragraph 4.5.3.7.2, page .39. This is a very
4 simple one.

5 CHAIR ISMAN: I'm sorry, just a moment.
6 We have a motion for 302-5, Log 11 on
7 page .40. Do we have a second for that motion?

8 MR. LOESER: I think it's page .39.
9 Maybe I made a mistake

10 CHAIR ISMAN: I apologize, I may have
11 messed this up, sir. Is it Log 30--I'm sorry, is
12 it No. 302-5, Log 11?

13 MR. LOESER: Yes.

14 CHAIR ISMAN: I'm sorry, I messed it up
15 then.

16 So we have a motion to accept Comment
17 302-5, which is Log 11 on page .39 of the agenda;
18 is there a second for that motion? I did hear a
19 second from up here.

20 Please proceed now, sir.

21 MR. LOESER: Thank you. This is a very
22 simple one.

23 In boats we have an exhaust blower that
24 the Coast Guard requires to be operated for four
25 minutes before the boat goes out on the water.

1 But there has been a--well, the industry itself,
2 NMNA, has recommended that people keep that blower
3 running when the generator is running or when the
4 boat is underway below cruise. This is commonly
5 accepted practice out in the field, and it is not
6 grossly, but it is dangerous.

7 I have checked many boats, five to be
8 exact, and it's always true that if you run the
9 blower while the boat is running at a low rpm
10 after the engine has started, you will
11 automatically always produce higher levels of
12 carbon monoxide. This is in the hundreds. It is
13 still an increase. And when someone is sitting
14 on the swim platform or in the air cockpit, that
15 level of difference could make a difference.

16 All I'm saying is that the moment the
17 engine starts, the standards should say, Shut the
18 blower off, because we do not--or most carbon
19 monoxide accidents occur at low rpm and that
20 blower should never be running after the engine
21 starts. Shut it off and stop the elevation of
22 carbon monoxide. What the blower does is rob air
23 from the engine. It's pulling it out of the
24 compartment and dumping it overboard, and that
25 automatically causes the equivalent of higher

1 altitude, and the engine will produce higher
2 levels of carbon monoxide. So I think that
3 statement could be corrected very nicely. Put an
4 Item 4 in the standard on the warning label that
5 the blower should be shut off after the engine
6 starts. Thank you.

7 CHAIR ISMAN: Mr. Cappel, would you
8 like to respond?

9 MR. CAPPEL: Well, this is a case where
10 you have a conflict between fire prevention and
11 carbon monoxide prevention. Whereas having a
12 blower running--if there's a fuel leak, and
13 there's vapors in the compartment, having a blower
14 running would lower the chance of having a fire
15 explosion in the compartment, whereas it possibly
16 could lead to higher carbon monoxide levels. So
17 it is something that would have to go through
18 further research and testing before a decision
19 could be made which is safer, running the blower
20 or not running the blower, and the committee was
21 not ready to include this in the report at this
22 time.

23 CHAIR ISMAN: Microphone 7.

24 MR. MacCARTNEY: Kim MacCartney from
25 Inamar.

1 With all due respect, that is not the
2 reason why the blower is run after the engine is
3 started. The reason the blower is run after the
4 engine is started was so that a negative pressure
5 was created in the engine compartment to ensure
6 that any carbon monoxide that may have been
7 leaking from the exhaust system was exhausted
8 overboard instead of migrating up into the cabin
9 or other accommodation spaces.

10 Once the engine is started, the amount
11 of air consumed by the engine greatly exceeds any
12 amount of air that any blower manufactured and
13 installed in a boat today could ever hope to
14 evacuate from the engine compartment. So Bob's
15 proposal to remove that statement and put a
16 statement in there that requires the blower to be
17 shut off when the engine starts is an appropriate
18 statement. Thank you.

19 CHAIR ISMAN: Also Microphone 7.

20 MR. LOESER: All right. Just one other
21 comment.

22 Mr. Cappel's statement is quite
23 invalid, really, because if you have any form of
24 leakage in the engine space, the blower can make
25 the explosion--make it explosive. You can just as

1 easily make it worse as you can make it better.
2 And I don't think it's a valid comment at all.
3 The blower is pulling in air as well as it's
4 discharging air. So a rich mixture can be
5 brought right into the stoichiometric mixture
6 level, and the whole thing can blow. Thank you.

7 CHAIR ISMAN: Mr. Chair, any additional
8 comments?

9 Are there any additional comments from
10 the floor on Comment 302-5?

11 Seeing none, we'll move into a vote.
12 All those in favor of accepting Comment 302-5,
13 please raise your hands. And all those opposed.
14 That motion fails.

15 Microphone 4.

16 UNIDENTIFIED SPEAKER: I'd like to call
17 the question.

18 CHAIR ISMAN: We have a motion to call
19 the question on the document that's on the floor
20 at the moment, which is NFPA 302 as done by the
21 committee. Is there a second for that motion?
22 We have a second.

23 We'll move immediately to a vote. All
24 of those in favor of ending debate on NFPA 302,
25 please raise your hands. And all those opposed.

1 That motion carries. So that motion carries, and,
2 therefore, we have to move immediately to a vote
3 on NFPA 302.

4 The motion on the floor is, as the
5 committee presented, the document in the ROP and
6 the ROC. All those in favor of that motion,
7 please raise your hands. And all those opposed
8 to that motion. That motion passes.

9 Thank you, Mr. Cappel.

10 The next report this morning is that on
11 the Committee of Road Tunnel and Highway Fire
12 Protection. Here to present the committee report
13 is Standards Council member April Berkol. Sorry
14 about that. Thank you, Ms. Berkol.

15 MS. BERKOL: Thank you, Ken.

16 The Report of the Technical Committee
17 on Road Tunnel and Highway Fire Protection--Mr.
18 Chair, ladies and gentlemen, the Report of the
19 Technical Committee on Road Tunnel and Highway
20 Fire Protection is presented for adoption. This
21 report can be found on pages 453 through 463 of
22 the Report on Proposals for the 2004 May
23 Association Technical Meeting, and on pages 83
24 through 85 of the Report on Comments.

25 The committee proposes for official

1 adoption a partial revision of NFPA 502, Standard
2 For Road Tunnels, Bridges, and Other Limited
3 Access Highways.

4 The ballot statements can be found on
5 page .453 of the ROP and on page .83 of the ROC.

6 Mr. Chair, I move adoption of the
7 committee report on NFPA 502.

8 CHAIR ISMAN: Thank you.

9 You've heard the motion to adopt the
10 partial revision to NFPA 502; is there any
11 discussion?

12 Seeing none, we'll move into a vote.
13 All those in favor of adopting a partial revision
14 to NFPA 502, please raise your hands. And all
15 those opposed. Thank you. That motion carries.

16 Thank you, Ms. Berkol.

17 MS. BERKOL: Thank you, Mr. Chair.

18 CHAIR ISMAN: The next report this
19 morning is that of the Committee on Textile and
20 Garment Care Processes. Here to present that
21 committee report is also Standards Council member
22 April Berkol. So Ms. Berkol.

23 MS. BERKOL: Mr. Isman, Mr. Chair,
24 ladies and gentlemen.

25 The Report of the Technical Committee

1 on Textile and Garment Care Processes is presented
2 for adoption. This report can be found on pages
3 1 through 14 of the Report on Proposals for the
4 2004 May Association Technical Meeting and on
5 pages 1 to 2 of the Report on Comments.

6 The committee proposes official
7 adoption of a complete revision of NFPA 32,
8 Standard for Dry Cleaning Plants. The ballot
9 statements can be found on page .1 of the ROP and
10 on page .1 of the ROC.

11 Mr. Chair, I move adoption of the
12 committee's report on NFPA 32.

13 CHAIR ISMAN: You've heard the motion
14 to adopt the complete revision of NFPA 32; is
15 there any discussion?

16 Seeing none, we'll move to a vote. All
17 those in favor, please raise your hands. And all
18 those opposed, please raise your hands. That
19 motion carries.

20 Thank you, Ms. Berkol.

21 MS. BERKOL: Thank you, Mr. Chair.

22 CHAIR ISMAN: The next report this
23 morning is that of the Committee on Venting
24 Systems For Cooking Appliances. Here to present
25 the committee report is Committee Chair David

1 Demers of Demers Associates, Lunenburg,
2 Massachusetts.

3 MR. DEMERS: Lunenburg.

4 CHAIR ISMAN: Mr. Demers.

5 MR. DEMERS: Thank you, Mr. Chair,
6 ladies and gentlemen.

7 The Report of the Technical Committee
8 on Venting Systems For Cooking Appliances is
9 presented for adoption. This report can be found
10 on pages 103 to 131, excuse me, of the Report on
11 Proposals for the 2004 May Association Technical
12 Meeting, and on pages 12 to 20 of the Report on
13 Comments.

14 The committee proposes for official
15 adoption a partial revision of NFPA 96, Standard
16 For Ventilation Control and Fire Protection of
17 Commercial Cooking Operations. The ballot
18 statements can be found on pages 103 to 104 of
19 the ROP and on page .12 of the ROC.

20 Mr. Chair, I move adoption of the
21 committee's report on NFPA 96.

22 CHAIR ISMAN: You've heard the motion
23 to adopt a partial revision of NFPA 96; is there
24 any discussion?

25 Microphone 2.

1 MR. FITCH: Mr. Chairman, my name is
2 Bill Fitch with Omega Point Laboratories, and I
3 rise to place a statement on the record regarding
4 two proposals that did not receive comments within
5 the comment period.

6 CHAIR ISMAN: Please continue.

7 MR. FITCH: The two proposals I am
8 concerned about are 96-3 and 96-8. The reason
9 for my concern relates to events that occurred
10 after the closing date for comments, and they deal
11 with UL Standard 2221. Five days after the close
12 of the comment period, UL finally established the
13 first standards technical panel for the purpose of
14 establishing UL2221 as a national consensus
15 standard.

16 On January 9 that committee held its
17 first ballot on the standard and rejected it as a
18 consensus standard. Over 55 comments were
19 received, many of them with major technical
20 deficiencies. As a result, the first meeting of
21 the group was held in March, and at that meeting
22 UL agreed to make major revisions eliminating
23 portions of the standard and changing the standard
24 from a test procedure to a product standard.

25 To incorporate this standard into the

1 NFPA 96 at this time would be adopting something
2 that we have no idea what it is, we don't know
3 what the requirements will be, we don't know
4 whether it will be in fact ever established as a
5 national standard.

6 During the same period ASDM has
7 completed adoption of a national consensus
8 standard addressing the same issues. Therefore, I
9 will appeal to the Standards Council to have this
10 specific reference standard removed until it is
11 finalized. Thank you.

12 CHAIR ISMAN: Okay. Just for
13 clarification, there's no motion you're making at
14 this time, but notifying the body of an intent to
15 file an appeal with the Standards Council?

16 MR. FITCH: That's correct.

17 CHAIR ISMAN: Thank you. Is there
18 additional discussion on NFPA 96?

19 Microphone No. 3.

20 MR. LEICHT: Good morning my name RT
21 Leicht, International Fire Marshals Association.

22 I would like to move Comment 96-4
23 located on page .13 of the ROC.

24 CHAIR ISMAN: We have a motion for
25 Comment 96-4 on page .13 of the ROC. Do we have a

1 second? I did hear a second. Please proceed.

2 MR. LEICHT: My motion is to return the
3 comment to committee. The comment adds the words
4 "meeting the requirements of 10.2.3" into the
5 existing language of the standard. 10.2.3
6 currently states that automatic fire extinguishers
7 shall comply with the requirements of UL300.
8 However, UL300's written for only pre-engineered
9 systems and is also by its title only supposed to
10 be applicable to restaurant cooking areas.
11 There's good experience with carbon monoxide
12 systems in industrial cooking environments.
13 There's equally good experience for sprinkler
14 protection in some other cooking operations.

15 By accepting this comment, NFPA 96
16 would be eliminating the option of using these
17 kinds of proven systems. In the proposal 96-21,
18 located on page .112 of the ROP, you'll note that
19 the proposal was to eliminate those types of
20 systems, and that proposal was rejected.

21 More importantly, you'll note that the
22 committee statement--in that statement the
23 technical committee acknowledges that there are
24 extinguishing systems that are available that are
25 outside the scope of UL300.

1 I believe the committee made an error
2 when they accepted Comment 96-4, and I make the
3 motion to return the comment to committee.

4 CHAIR ISMAN: Thank you.

5 Just to clarify the motion, Mr. Leicht,
6 a motion to reject the comment would return us
7 back to the ROP language. A motion to return the
8 whole thing to committee would actually take us
9 back to what's in 96 in the current edition. So
10 did you want to reject the comment and move to
11 ROP language?

12 MR. LEICHT: No. The ROP language was
13 rejected during the proposal stage. I wanted to
14 return the comment to committee to go back to the
15 existing language that now appears in NFPA 96.

16 CHAIR ISMAN: Okay. So either way it's
17 the same effect?

18 MR. LEICHT: Absolutely.

19 CHAIR ISMAN: Okay. So we can call it
20 a return to committee if you'd like.

21 MR. LEICHT: Yes.

22 CHAIR ISMAN: Mr. Demers, would you
23 like to comment?

24 MR. DEMERS: Yes, Mr. Chairman.

25 I have to apologize to the membership

1 here, because this is really a technical issue
2 that fell through the cracks, and we shouldn't be
3 wasting your time with it. It should have been
4 handled at the committee level. We have a glitch
5 that we have to fix, and Mr. Leicht's motion will
6 fix it.

7 UL300 is a very narrow document. It's
8 a good document. But it does deal with pre-
9 engineered systems, primarily chemical. Excuse
10 me. It is for restaurants. It is a fire test
11 only for Friolaters, which is really a trade name,
12 but for deep fat fryers, and there are no
13 equivalent standards or test methods for any other
14 kinds of systems.

15 Ninety-six, on the other hand, is a
16 very broad document that deals with all commercial
17 and industrial cooking. There are hundreds of
18 thousands of cooking lines that 96 applies to that
19 don't have deep fat fryers. Schools, hospitals,
20 nursing homes, the new fire station we're building
21 in my town, all are protected with automatic
22 sprinklers without a problem, and they're very
23 successful.

24 Industrial cooking, especially deep fat
25 frying, potato chips, chicken, fish, meatball

1 cookers, deep fat frying with conveyors most often
2 protective of carbon monoxide systems mainly
3 because of a good cleanup or easy cleanup, if
4 there's a fire. Again, very successful.

5 Both NFPA 13 and NFPA 12 have specific
6 requirements on how to protect that cooking
7 equipment, and it is not appropriate to apply
8 UL300 to those systems. So I believe that this
9 is an appropriate motion for avoiding any problems
10 in the future.

11 CHAIR ISMAN: Is there any further
12 discussion on the motion to return NFPA 96-4, the
13 Comment 96-4?

14 Seeing no further discussion, we'll
15 move to a vote. All those in favor of the motion,
16 please raise your hands. And all those opposed to
17 the motion. Thank you. That motion carries.

18 Is there any further discussion on NFPA
19 96 now as amended by the body?

20 Seeing none, we'll move to a vote. All
21 those in favor of NFPA 96 as now amended, please
22 raise your hands. And all those opposed. That
23 motion carries.

24 Thank you, Mr. Demers.

25 MR. DEMERS: Thank you, Mr. Chair.

1 CHAIR ISMAN: At this point in time we
2 have finished all the documents except for NFPA
3 70. I'm going to use my prerogative as the Chair
4 to take a two-minute stretch break for everybody.
5 So you have two minutes.

6 (A recess was taken.)

7 CHAIR ISMAN: The last report today is
8 that of the National Electrical Code Committee.
9 Here to present the committee report is Technical
10 Committee Chair James Carpenter of the
11 International Association of Electrical
12 Inspectors, Richardson, Texas.

13 While Mr. Carpenter comes up to the
14 podium, there are a number of items that I'd like
15 to call to your attention. First of all, I need
16 to take a few minutes to review the procedures
17 for the NEC. I'm going to start by reading a
18 prepared statement that has been reprinted and is
19 available as a handout in the back of the room.

20 In a series of decisions, the Council
21 has addressed the question of which Technical
22 Committee project has primary jurisdiction for the
23 subject of cables in air-handling spaces. The
24 principal ones for purposes of this technical
25 report session are Standards Council Decisions

1 03-10-25 and 04-1-31a/b. You will also see
2 referred to in the Report on Comments a letter of
3 Standards Council Chair Philip J. DiNenno, dated
4 December 3, 2003.

5 Specifically, in these decisions the
6 Council has reaffirmed that the Technical
7 Committee on Air Conditioning, rather than the
8 National Electrical Code project, has and should
9 continue to have primary jurisdiction for air
10 distribution systems, including the subject of
11 combustible material, such as cables in ducts,
12 plenums and other air-handling spaces, plenums
13 spaces.

14 As a result, the Council directed that
15 the large number of comments submitted to the NEC
16 relating to this subject should not be addressed
17 by the NEC panels during this revision cycle, and
18 the NEC project should in general maintain the
19 status quo for this revision cycle on the subject
20 of cables in air-handling spaces pending the
21 processing of the technical issues related to this
22 subject by the Technical Committee on Air
23 Conditioning Systems in the course of the
24 processing of the next revision of NFPA 90A,
25 Standard for the Installation of Air Conditioning

1 and Ventilating Systems.

2 In keeping with the Standards Council's
3 decisions, the NEC panels, primarily Panel 3 and
4 Panel 16, have indicated in their treatment of
5 comments relating to cables in air-handling spaces
6 that they would not be addressing this subject
7 based on the Standards Council decisions.

8 The decisions of the Standards Council
9 have effectively removed issues relating to cables
10 in air-handling spaces from the table for
11 consideration by the NEC project in this revision
12 cycle, and the NEC panels have acted in accordance
13 with that directive.

14 Accordingly, in my position as
15 presiding officer, that motions--it is my position
16 as presiding officer that motions relating to
17 these issues are likewise off the table in this
18 forum, and therefore I am ruling such motions out
19 of order at this meeting.

20 Association members should be able to
21 identify the comments and the related proposals
22 concerning this subject in the Report on Comments
23 based on the panel statement indicating the action
24 is based on the Standards Council Decision
25 03-10-25.

1 An example of such a panel statement is
2 as follows: The panel is acting on this and other
3 comments based on the Standards Council decision
4 that is identified as No. 03-10-25, plus a
5 subsequent letter by the Standards Council
6 Chairman Philip J. DiNenno to Mr. Loren Caudill,
7 dated December 3, 2003. This decision states in
8 pertinent part as follows: "The Council believes
9 that the best course of action for the NEC
10 project is to generally refrain, unless absolutely
11 necessary, from making revisions that interrelate
12 with the NFPA 90A in advance of completion of the
13 latest revision cycle of NFPA 90A, and instead to
14 maintain the status quo in the NEC project on the
15 applicable technical subjects pending completion
16 of the NFPA 90A revision cycle," end quote.

17 This action does not constitute
18 agreement or disagreement with any of the
19 substantiations submitted for the affected
20 comments.

21 I should add here that in order to
22 preserve the status quo on cables in air-handling
23 spaces as directed by the Standards Council, the
24 panels had to accept some comments to reverse
25 their actions on the ROP stage. Because NFPA

1 rules do not require a panel statement for an
2 "accept," these accepted comments may not contain
3 a statement such as the one I just read and may
4 for that reason be somewhat more difficult to
5 identify. These panel actions, however, are
6 clearly based on the Standards Council directive
7 and not on the technical merits of the issues
8 involved. Should a motion be made with respect
9 to such a comment, I will rule that motion out of
10 order.

11 There may be cable-related comments or
12 proposals, portions of which also deal with other
13 subjects that may be in order for this meeting.
14 If someone wishes to move a portion of such a
15 comment or proposal that does not relate to cables
16 and air-handling spaces, I will review the motion
17 and allow it where appropriate.

18 Similarly, if any member is in doubt
19 about the appropriateness of any motion, they can
20 consult with NFPA staff or approach the microphone
21 and seek guidance from the presiding officer.

22 It is my hope as presiding officer that
23 this ruling will assist the body in focusing on
24 technical issues that are appropriately under
25 consideration by the NEC project and will avoid

1 delay and confusion that would be engendered by a
2 debate over subjects which must first be addressed
3 by the Technical Committee on Air Conditioning.
4 However, anyone wishing to appeal this ruling may
5 do so by filing an appeal with the Standards
6 Council no later than the appeal date of June 15,
7 2004.

8 The Technical Committee on Air
9 Conditioning has already been actively considering
10 the issue related to cables in air-handling
11 spaces, and they are currently processing a new
12 edition of NFPA 90A. This is the proper forum in
13 which to address technical issues related to
14 cables in air-handling spaces. The NFPA 90A
15 Report on Proposals is scheduled to be available
16 by July 30, 2004, with a public comment closing
17 date of October 1, 2004. We urge anyone wishing
18 to address a technical issue on the subject of
19 cables in air-handling spaces to submit
20 appropriate public comments to NFPA 90A.

21 That concludes the prepared statement.

22 Motions today for processing NFPA 70
23 will be taken in code making panel order,
24 beginning with Code Making Panel 1. Since the
25 ROP and ROC are printed in article order, the

1 Chair will announce the article being considered
2 together with the code making panel number. We
3 will go through the various panels after
4 discussion of all the panel reports. Motions will
5 be in order on the entire report. I will take up
6 additional comments you may have. In other words,
7 we'll go through all the panels from Panel 1 to
8 Panel 19 and then come back again briefly in case
9 we miss something along the way. The Chair feels
10 that this would be the most orderly way to
11 proceed.

12 So now, with all that preamble, Mr.
13 Carpenter.

14 MR. CARPENTER: Thank you, Mr. Chair,
15 ladies and gentlemen, good morning.

16 Since there are no outstanding--no
17 issues that are outstanding for this edition of
18 the National Electric Code, we should complete
19 this process in about ten minutes.

20 There's been much hard work and
21 deliberations that have gone into this process,
22 and I'd like to take just a few moments to
23 recognize some of the people that have been a
24 part of this process.

25 First Mark Earley and his dedicated

1 staff have made this process progress in a smooth
2 and efficient manner. I'm not going to try to
3 name each name--to name each individual because
4 I'm sure that I'd leave someone out, but I must
5 recognize the driving force behind it all, Jean
6 O'Connor.

7 Mark, would you and your people stand
8 and be recognized?

9 Next, the many code panel members, the
10 19 panels process 3,577 proposals and 4,030
11 comments. Many of the panel members are here
12 today and most of the panel chairs are also here.
13 These chairs may be called upon, if needed, to
14 respond to questions that require knowledge and
15 expertise in explaining the panel's position on
16 proposals and comments that they have processed.

17 The many members of the panels, both
18 principals and alternates, are to be commended for
19 an outstanding job. Would all the members of the
20 National Electric Code Committee rise and be
21 recognize?

22 And lastly, by no means the least, I
23 wish to recognize the principal and alternate
24 members of the Technical Correlating Committee.
25 They have given of their time and expertise to

1 try to assure the correlation of many actions
2 taken by the code making panels. Would the
3 members of the Technical Correlating Committee
4 please stand and be recognized?

5 Mr. Chair, ladies and gentlemen, the
6 report of the National Electric Code is presented
7 for adoption. NFPA 70 can be found in the NEC
8 Committee Report on Proposals for the 2004 May
9 Association and in the NEC Report on Comments.

10 The committee proposes for official
11 adoption a partial revision of the NFPA 70
12 National Electric Code. The ballot statements can
13 be found in the front of the NEC ROP and in the
14 front of the NEC ROC.

15 Mr. Chair, I move the adoption of the
16 committee's report on NFPA 70.

17 CHAIR ISMAN: You've heard the motion
18 to adopt a partial revision of NFPA 70. As I
19 indicated earlier, we'll proceed in panel order.

20 Is there any discussion on CMT Panel 1
21 covering Articles 80, 90, 100, 110 and Annex A?

22 Microphone 7.

23 MR. TEDESCO: Joe Tedesco, Boston.

24 I am the--I sent in a comment, and it's
25 on page .47 of the ROC, comment 1-180, and it has

1 to deal with the subject of my proposal, 1-145.
2 I move that the panel action be rejected and the
3 proposal be accepted.

4 CHAIR ISMAN: So we have a motion for
5 acceptance of Comment 1-180; is that correct?

6 MR. TEDESCO: No. I want to turn the
7 action--the final action into an accept. Right
8 now it's reject.

9 CHAIR ISMAN: So we have--

10 MR. TEDESCO: Move to accept.

11 CHAIR ISMAN: --a motion to accept
12 Comment 1-180?

13 MR. TEDESCO: No. No, to reject it.

14 CHAIR ISMAN: Looking at 1-180 on page
15 .70-48 of the ROC, the code making panel rejected
16 the comment?

17 MR. TEDESCO: I want to move acceptance
18 of the comment. That's what I want.

19 CHAIR ISMAN: Right. So you're moving
20 to accept 1-180?

21 MR. TEDESCO: Yes.

22 CHAIR ISMAN: Okay. Do we have a
23 second? I'll take that hand waving as a second
24 to the motion.

25 Please proceed.

1 MR. TEDESCO: The proposal is a simple
2 one that deals with defective or damaged
3 electrical equipment. And it's a simple proposal
4 that will be a move to the right direction to
5 minimize any likely chance that someone can get
6 hurt or electrocuted. If you go around the
7 country, you'll find different areas where these
8 things will be found, and I have many pictures
9 that show it.

10 That's all I really have to say, sir.

11 CHAIR ISMAN: Okay. Mr. Carpenter,
12 would you like to respond?

13 MR. CARPENTER: I'd like to defer to
14 the TCC Committee Chair of Panel 1, John Minick.
15 Where is John? Here he comes.

16 CHAIR ISMAN: At Microphone 3, please.

17 MR. MINICK: Thank you, Mr. Carpenter.

18 The comment that came in 1-180, if
19 you'll notice it in the recommendation, this is a
20 110.12(D), and it's titled "Defective or Damaged
21 Electrical Equipment," and this referred back to
22 proposal 1-145. 1-145 had to do with abandoned
23 cable which was a--I guess we would call that
24 almost a subset out of "Defective or Damaged
25 Electrical Equipment."

1 If you will notice, the panel
2 statement--was that the comment wording?--is not
3 related to the proposal, and it's not in
4 compliance with Regulations Governing Committee
5 Projects. We thought this was a great expansion
6 over just abandoned cable to start talking about
7 defective equipment, which would cover a multitude
8 of items. So we just did not feel like we could
9 process this, and that was the reason for that
10 comment.

11 CHAIR ISMAN: Thank you. Additional
12 discussion?

13 At Microphone 7.

14 MR. SMITTAL: Thank you, Mr. Chairman.
15 My name is Walter Smittal representing the
16 National Association of State Fire Marshals.

17 In our board of directors meeting we
18 looked at many items pertaining to the NEC
19 proposals. It seems very simplistic and very
20 important not only to maintain safety and
21 practicality, also a good fire service issue
22 responding to emergencies when you might have
23 defective or damaged electrical equipment. It
24 seems to us to keep it proper protection not only
25 for the environment it serves, but as well as for

1 emergency responders that may enter the building
2 where you have this type of wiring, preventing
3 further shocks, preventing injury. We support the
4 simple application that they be maintained,
5 repaired at all times. Thank you.

6 CHAIR ISMAN: Microphone 3.

7 MR. MINICK: I would respond to that by
8 saying that Panel 1--

9 CHAIR ISMAN: I'm sorry, could you just
10 make sure you introduce yourself again?

11 MR. MINICK: I'm sorry. John Minick,
12 chairman of Panel 1.

13 Panel 1, I want to emphasize, is
14 certainly not against safety, and had this come in
15 at the comment stage, I can't tell you--I'm sorry,
16 at the proposal stage, I have no idea of how the
17 panel would have reacted to this as a proposal.
18 But when you take this to the comment stage, and
19 we have no paper trail back, it's kind of hard to
20 act on it when we feel like we could get public
21 comment.

22 Regardless of that, if we would have
23 processed this, we didn't feel like there was any
24 area there for public comment to come in on this
25 because we did look at this as not being related

1 to the original proposal.

2 CHAIR ISMAN: Any additional discussion
3 on this motion?

4 Seeing none, we'll move to a vote. All
5 those in favor of acceptance of Comment 1-180,
6 please raise your hand. And those opposed. That
7 motion fails.

8 We continue our discussion on CMP Panel
9 1. Are there any additional motions?

10 Seeing none, we'll move on to CMP Panel
11 2.

12 Microphone 7.

13 MR. SMITTAL: Thank you, Mr. Chairman.
14 Walter Smittal representing National Association
15 of State Fire Marshals.

16 I'd like Comment 2-91, Log #510,
17 located on page .70--or page .85 of the ROC.

18 CHAIR ISMAN: And you're moving
19 acceptance of that comment, Mr. Smittal?

20 MR. SMITTAL: Yes, sir.

21 CHAIR ISMAN: Is there a second? I
22 heard a second from over here.

23 Please proceed.

24 MR. SMITTAL: Thank you, Mr. Chairman.

25 The comment that is proposed simply

1 expands the use of arc-fault circuit interrupter
2 technology to all living areas of a dwelling.

3 The panel statement in rejecting the
4 comment identifies that the waiting on a
5 combination device and as well as wanting to gain
6 further experience with the AFCIs already in the
7 field. The problem that I have dealing with more
8 experience is, how much experience is enough?
9 What is the formula? Where do we say it is
10 sufficient to move forward in expanding it?

11 The current requirement covers
12 basically one-third of the dwelling areas where we
13 have experienced the electrical fires. We want to
14 cover the other areas and begin saving lives and
15 reducing the property loss.

16 AFCIs have been available now for two
17 cycles. It's estimated that there are around 6
18 million of these devices in the field gaining
19 experience. The proposed combination device the
20 committee has proposed with an implementation date
21 of year 2008. You don't have to be a rocket
22 scientist, because this technology currently
23 available then will no longer exist.

24 The NEC language deals with practical
25 safeguarding. Expanding AFCIs at this time is

1 practical. It also discusses the adequacy. The
2 code contains provisions considered necessary for
3 safety. Let's cover the dwelling with the safety
4 application.

5 Finally, I would call attention to the
6 negative votes, especially the Chair, and I
7 compliment the Chair on his wisdom and his writing
8 of his negative reaction when he explained that
9 the time span that we're dealing with continues to
10 go on and sometimes we're very slow at growth.
11 But to wait another cycle to expand means we're
12 not going to grab a hold of the opportunity to
13 save lives and reduce property loss.

14 Throughout this country they're
15 adopting these requirements, all of them are
16 working. There's been retrofit application
17 already occurring in many jurisdictions, and we
18 encourage--National encourages and recommends to
19 this membership to support the comment so we can
20 expand the opportunity of saving lives and
21 property.

22 I thank you, Mr. Chairman, for the
23 opportunity to move the comment.

24 CHAIR ISMAN: Thank you.

25 Mr. Carpenter.

1 MR. CARPENTER: I'd like to defer to
2 the Chair of Panel 2, Ray Weber at Mic. 2.

3 CHAIR ISMAN: On two, please.

4 MR. WEBER: Thank you, Mr. Chairman.
5 My name is Ray Weber from the great state of
6 Wisconsin. I am the Chair of Code Making Panel
7 2.

8 Mr. Smittal is in fact correct. He
9 gave a very eloquent presentation at both the ROP
10 phase and ROC phase on expansion of the AFCIs.
11 As you can see by the ballot results in the
12 affirmative, nine affirmative and four in the
13 negative, that it came close to passing muster.

14 The panel's position, however, is that,
15 in fact, they do want to see more case study.
16 Mr. Smittal in both his ROC and ROP and ROC
17 substantiation did provide data, but I guess at
18 this time the panel's position was a wait-and-see
19 attitude as such.

20 CHAIR ISMAN: Thank you.

21 Microphone 4. Microphone 4, did you
22 want to address this issue?

23 MR. ROSS: I'm going to address the
24 issue, but not on Mr. Smittal's.

25 CHAIR ISMAN: Oh, okay. Why don't you

1 go ahead and step away from the mike a little bit
2 and when we're ready to address new motions?

3 Microphone 3 I saw next.

4 MR. KING: Yes, sir. My name is Donald
5 King. I am a Code Making Panel Principal of
6 Panel 2, and I represent the IBEW.

7 As well I rise in support of the motion
8 for Comment 2-91. Going back to Proposal 2-140,
9 the Consumer Product Safety Commission provided
10 adequate data to support this motion to expand the
11 use of arc-circuit protection to all living areas.

12 There was a lot of panel discussion at
13 the comment stage on this motion. The panel--many
14 of the panel members, I felt, supported the
15 expanding use of the AFCI protection, and I stand
16 in support of the motion.

17 CHAIR ISMAN: Thank you. Microphone 7.

18 MR. BECKER: My name take Dick Becker.
19 I'm a consulting electrical engineer, and I'm a
20 principal member for IEEE on Code Making Panel 2.

21 My concern on the AFCI product is that
22 the text--or the data that we've been given does
23 not distinguish between failures that are arcing
24 versus burning. And it is my feeling that the
25 test data is--does not prove conclusively that the

1 arc-fault circuit technology can detect and
2 prevent the fires that have been--that we've been
3 led to believe that it will detect. It's quite
4 an expensive device compared if it is not doing
5 what we expected.

6 The distinction between burning the I-
7 squared-R or the jewel heating is a significant
8 difference that wires in the premise wiring or in
9 the cords can absolutely start and not be detected
10 by the arc-fault circuit technology.

11 I feel very strongly that we need
12 substantial data that distinguishes between the
13 two different events at this point. I don't
14 think we received that. And the arc-fault
15 technology, I think, really needs some detailed
16 research on exactly whether we're preventing the
17 fires we started or that we thought we were. My
18 concern is that the AFCI is now putting people
19 at--they think we've solved the problem. I don't
20 believe we have solved the problem. We don't
21 have any way of recording that we're getting fewer
22 fire events in cords or premise wiring. And if
23 we're not, we're misleading ourselves. We need to
24 get focused back on what the problem is, and I
25 don't think we've found that yet. So to proceed

1 with this without the additional detail, I think
2 we're hurting ourselves.

3 CHAIR ISMAN: Thank you.

4 Microphone No. 5.

5 MR. PAULEY: I'm Jim Pauley with Square
6 D Company. I represent NEMA on Code Panel 2.

7 I was going to sit silently and see
8 where this went, but when Mr. Becker got up, I
9 had to at least respond to some of the issues.

10 The issues that raises--or ones that he
11 has raised in the panel, and they've had extensive
12 discussion, if he and I would both say we
13 disagree with each other on perhaps where this is
14 in total. If you look at the ballot statement, I
15 certainly voted to support this comment.

16 But as the Chairman said, the panel
17 went through some long deliberations to arrive at
18 where they were. I certainly believe the
19 technology can be expanded to other areas of the
20 unit and not constitute any problems to be able
21 to do this. So I believe that that can be done.

22 I do also want to point out for the
23 body that this particular comment ends up being
24 sort of a blend of items. If you look at this
25 comment, what it really does is change the words

1 "dwelling unit bedrooms" to "living areas," which
2 means it would expand to those areas.

3 There are other changes that Panel 2
4 has made to this same section dealing with some
5 particular exceptions, dealing with the fact that
6 accommodation protection in 2008, a fine-print
7 note to deal with that. If this were accepted by
8 the body, it would sort of have to be blended
9 together, because this issue deals specifically
10 with the location where AFCIs would be installed.
11 So it's a--it's an item that I think the body
12 could seriously consider.

13 I think the technology can certainly be
14 handled to expand that way, and I do want to
15 assure--and I think my Panel 2 members would agree
16 that the lengthiest discussions that we have at
17 the Panel 2 meetings are on AFCIs to address
18 these many issues that have been raised. Thanks.

19 CHAIR ISMAN: Microphone 4.

20 DR. HIRSCHLER: Marcelo Hirschler, GBH
21 International, speaking for myself and speaking in
22 support of the motion.

23 I remember in the opening session the
24 president, Jim Shannon, said that 80 percent of
25 fire fatalities occur in homes, dwellings. So

1 what we're talking here about is potentially
2 expanding protection from fire in homes, so I
3 think we should support this motion and expand the
4 AFCIs. Thank you.

5 CHAIR ISMAN: Microphone 7.

6 MR. SMITTAL: Mr. Chairman, Walter
7 Smittal, National State Association of Fire
8 Marshals.

9 Two comments. Unfortunately, in the
10 fire service we collect negative data. Only when
11 a fire occurs does a fire service respond. If we
12 have the AFCIs in place, if they respond and
13 prevent a fire, no fire department responds. It's
14 done its job. We say all the AFCIs today are
15 working. Collecting that data is being done in a
16 different manner, a different environment, the
17 manufacturers themselves with the guarantee and
18 warranties that may exist.

19 Secondly, and last, this technology is
20 the best technology we have. There will always
21 be improvements. We look forward to those
22 improvements. But if this technology can
23 eliminate 75 percent of the fires occurring in
24 this country, then it is well worth it.

25 I wanted to--I just bought a brand-new

1 car--I should say the bank bought it, and I
2 wanted a car that got 250 miles a gallon--or 250
3 miles per gallon of gas. None available. But I
4 did go to find the next best thing with the best
5 available technology until that car comes out.
6 That's what we're dealing with.

7 I encourage a vote in the affirmative.
8 Thank you.

9 CHAIR ISMAN: Is there any additional
10 discussion on the motion to accept Item 2-91?

11 Seeing none, we'll move to a vote. All
12 those in favor of accepting 2-91, please raise
13 your hands. And all those opposed to the motion.
14 That motion carries.

15 Additional motions now on Code Making
16 Panel 2?

17 Now Microphone No. 4.

18 MR. ROSS: My name is Joseph E. Ross.
19 I'm a private consultant from Haverhill, Mass,
20 Ross Electrical Assessment. I have no--represent
21 no organization, and I do not have any
22 constituents that are interested or concerned with
23 this issue.

24 My main purpose of concern is to add--
25 oh, as a submitter of Public Comment 2-107, it is

1 requested that this comment receive favorable
2 action to amend Code Making Panel 2's proposal
3 2-134a and Comment No. 2-87a.

4 CHAIR ISMAN: So your motion is to
5 accept 2-107?

6 MR. ROSS: Yes.

7 CHAIR ISMAN: Do we have a second? I
8 did hear a second. Please proceed.

9 MR. ROSS: My main purpose of concern
10 is to add an exception to exempt the household
11 fire alarm system, such as a lifesaving smoke
12 detector circuit, from the mandate that it be
13 connected to a sensitive asphalt circuit
14 interrupter, AFCI-protected circuit.

15 Code Making Panel 2 has proposed
16 210.12(B) that AFCIs are required for the
17 detection of branch circuits supplying outlets
18 installed in dwelling unit bedrooms. Whereas
19 11.1.2.1 and 3, 11.5.11 and 11.5.3.11 of NFPA 72,
20 National Fire Alarm Code, specifies the
21 application of smoke detectors in all sleeping
22 rooms of dwelling units.

23 Code Making Panel 2 considers the smoke
24 detector to be a bedroom outlet on the premise
25 that it is located in the bedroom and, therefore,

1 should be connected to an AFCI-protected circuit.

2 Code Making Panel 2 has rejected
3 several proposals and comments to exempt
4 lifesaving smoke detectors from being connected to
5 sensitive AFCI-protected circuits during the
6 process for the 2005 NEC. It is to be noted that
7 code panel's action was to reject an exemption for
8 smoke detectors. Code Panel 19's action was to
9 hold any application for--any application for
10 550.25 from mobile and manufactured homes, and
11 Code Panel 3's action was to accept a provision
12 for 760.21 and 760.41 to exempt fire detection and
13 alarm systems from being connected to AFCI-
14 protected circuits.

15 The Technical Correlating Committee of
16 the NEC Committee negated the Code Making Panel 19
17 action to hold by determining it to be reported
18 as a reject to correlate with the action of Code
19 Making Panel 2. There was no such NEC Technical
20 Correlating Committee note to the Code Making
21 Panel 3 action to accept.

22 Wherein the provisions of 90.3, Code
23 Arrangements, specify Chapter 7 can supplement,
24 modify or amend Chapter 2, there should have been
25 an NEC Technical Correlating Committee note

1 negating the action of Code Making Panel 2.

2 Code Making Panel 3's powerful
3 statement for the rejection of Public Comment No.
4 3-531 of 760.21 that would have proposed AFCI
5 protection for fire detection and alarm systems at
6 all, and I quote, "Loss of power as a result of
7 an AFCI trip on the fire alarm panel circuit
8 could cause a total loss of fire alarm protection
9 and increase the fire risk to the occupants."
10 The same principle applies to single- and
11 multiple-station smoke detector system.

12 There are two types of AFCIs to be
13 considered. One, branch feeder type and, two,
14 combination type. One, the AFCI branch feeder
15 type, is commercially available, offers protection
16 to a branch circuit or to the feeder circuit, but
17 only limited protection to extension and appliance
18 wiring such as connecting cords of utilization
19 equipment. Two, the arc-fault AFCI
20 combination-type, is not commercially available.

21 CHAIR ISMAN: Excuse me, sir, just a
22 one-minute warning, less than a minute.

23 MR. ROSS: I guess I'll have to go to
24 the end.

25 CHAIR ISMAN: Please.

1 MR. ROSS: But I think everyone
2 understands the issue.

3 In conclusion, my position has been
4 supported by the NFPA Technical Correlating
5 Committee on Signal System for the Protection of
6 Life and Property, see Public Comments 3-529 and
7 3-591, and the Automatic Fire Alarm Association,
8 see Comments 5-530 and 5-592. And these people
9 are the true alarm and detection experts. And if
10 I may borrow a phrase from this NFPA conference,
11 Please join us in building a safer world.

12 CHAIR ISMAN: Thank you.

13 Mr. Carpenter.

14 MR. CARPENTER: I'd like to defer to
15 the Chair of Panel 2, Ray Weber.

16 MR. WEBER: Thank you, Mr. Chairman.
17 Ray Weber. And I'll not state "the great state of
18 Wisconsin" each time I rise to speak.

19 I have the utmost respect for Mr. Ross.
20 He was both at the ROP meeting ROC meeting to
21 represent this issue as such, and we're kind of--
22 in our previous action that we did with Mr.
23 Smittal, we're saying we want to expand the use
24 of AFCI, now we're saying we want to perhaps
25 delete it in certain areas.

1 The panel--the basic statement in the
2 reject was the submitter has not provided Panel 2
3 with any documentation to support his claim that
4 AFCI devices are not compatible with listed smoke
5 or burglar alarm systems. I would remind the
6 assembly that also these systems have battery
7 backups and, in fact, oftentimes we want to see
8 the AFCIs on the circuit in the bedroom, so if in
9 fact somebody comes in, the lights don't work,
10 they know also that in essence the AFCI on that
11 particular circuit has been de-energized as well
12 and what is the status of the battery assumption.

13 CHAIR ISMAN: Thank you.

14 Microphone 5.

15 MS. HORTON: Pat Horton speaking for
16 myself.

17 I happen to have all of these
18 installations in my home, carbon monoxide, fire,
19 smoke, burglar, and I would not like to see them
20 disabled. I speak in support of the motion. I
21 think that Mr. Decker made some very good points
22 about burning that have not been determined yet,
23 and we should take that into consideration,
24 especially since we are putting AFCIs all through
25 the house.

1 CHAIR ISMAN: Thank you.

2 Microphone 7.

3 MR. WILLIAMS: Noel Williams speaking
4 on behalf of myself. I just wanted to clarify a
5 couple of points.

6 I don't think there is any conflict
7 between Chapter 7 or Article 760 and this
8 requirement.

9 The vast majority--excuse me, the vast
10 majority of smoke detection in code systems that
11 are installed in residential occupancies are in
12 fact not covered by Article 760. They are in
13 fact, according to NFPA 72, smoke alarm systems
14 that are interconnected, and they do not form a
15 fire alarm system as contemplated by Article 760.
16 Therefore, the requirement here would only apply
17 in a bedroom if we installed the fire alarm panel
18 in the bedroom, because those are the only kinds
19 of smoke detection systems that are covered by
20 Article 760. Therefore, there is no conflict
21 between these two proposals.

22 And I agree with the statement that was
23 made that the alarm detection systems that are
24 actually smoke alarms interconnected are required
25 to have battery backup and therefore--assuming, of

1 course, that they are properly maintained and
2 serviced--would not be disabled by the action of
3 the AFCI.

4 CHAIR ISMAN: Thank you.

5 Microphone 8.

6 MR. CLARY: Shane Clary, Bay Alarm
7 Company, Incorporated, California.

8 I have personally seen problems when we
9 are installing systems of the arc-fault detectors
10 when we're installing approximately 500 systems of
11 these per month. Thank you.

12 CHAIR ISMAN: Thank you.

13 Microphone 5.

14 MR. PAULEY: Jim Pauley, Square D
15 Company, member of Code Panel 2.

16 Again, this was an issue the panel
17 discussed extensively. Not just a little bit, we
18 heard both sides of the issue. We asked the
19 representative from the National Association of
20 State Fire Marshals if they had a problem with
21 this connection. The answer was, no, they had
22 discussed it, they didn't have a problem.

23 I think there's a couple important
24 things to clear up on this. Number one, we're
25 talking about smoke alarms. These are connected to

1 branch circuits, 15-, 20-amp branch circuits.
2 They are wired like any other branch circuit is
3 in the home. If you take a look at all the
4 discussions that the panels had over the previous
5 practically three cycles, when you get to it the
6 objective was to provide protection for these
7 branch circuits. That's where we went. How do
8 you distinguish this branch circuit that's
9 supplying a smoke alarm from another branch
10 circuit that's supplying something else? You
11 can't. The fact is the device we're talking
12 about is to protect the circuit. What do you do
13 when a circuit breaker trips due to overload?
14 What do you do when a fuse blows due to overload?
15 What do you do when one trips due to a short
16 circuit? All of these things are taken into
17 consideration by the fact that we now have battery
18 backup in the alarm system.

19 There are a number of local
20 requirements that require the smoke alarms to be
21 connected on a local circuit such as a lighting
22 circuit so you know if it trips. Basically by
23 doing this you're going to prohibit somebody from
24 being able to connect to this lighting circuit.
25 So you're creating a situation where you're trying

1 to pair out circuits.

2 There's no reason--nobody has presented
3 substantiation that a smoke alarm is incompatible
4 with an AFCI. What's going to trip the device if
5 you have an overload, if you have a short
6 circuit, if you have an arcing fault? Folks, if
7 you have those conditions, don't you want the
8 branch circuit to be protected? I mean, the
9 objective of this is to keep the branch circuit
10 from being a source of the fire. You know, why
11 would you suddenly exempt protection from it with
12 the idea that you want to supply a smoke alarm
13 that's there for when the fire occurs?

14 I think 72 has done a great job at
15 providing the backup that's needed for these, and
16 I think that compensates for the way we have the
17 system designed. Remember, unlike other circuits,
18 we don't keep these circuits separated from
19 something else. They're not like emergency
20 circuits. They're regular branch circuits.

21 Very quickly on two other issues that
22 were raised, the Article 550 issue in Panel 19.
23 Yes, the Correlating Committee reported it as
24 reject. The reason why they did that was Panel
25 19 also said in their statement they want their

1 requirements to be consistent with 210.12. They
2 wanted it to be consistent with 210.12. So that
3 action was certainly proper based on their
4 statement.

5 The issue about Panel 3--and I think
6 Noel Williams covered it very well--on the fire
7 alarm panels you can install those and wire them
8 in a manner of a circuit, don't put the fire
9 alarm panel in the bedroom. You know at this
10 point maybe come a little more challenging in
11 other living areas, but nonetheless there are ways
12 to do that. So there is no reason--there's no
13 basis to exempt an AFCI off these circuits.

14 The one thing I hear from people is
15 they say, "Well, these are exempted from GFCI so
16 you ought to exempt them from AFCI." Two
17 completely different animals. GFCI is there for
18 people protection. We're not concerned about
19 personnel protection on the smoke alarm. AFCI are
20 there for circuit protection, for additional
21 protection to help keep the circuit from being a
22 source of the fire. You can't distinguish it
23 from any other circuit that you have. I urge you
24 to support the panel action.

25 CHAIR ISMAN: Thank you.

1 Microphone 4.

2 MR. ROSS: First I'd like to address
3 Mr. Williams' comments on whether article--

4 CHAIR ISMAN: I'm sorry, could you
5 introduce yourself again to the body?

6 MR. ROSS: Joseph Ross, Ross Electrical
7 Assessments from the Haverhill, Massachusetts
8 area.

9 Mr. Williams' comments and Mr. Pauley's
10 comments concerning Article 760, they would like
11 you to believe that they're not--that smoke
12 detectors are not covered in them. And if that's
13 true, all you have to do is refer to the 2002 NEC
14 Handbook, and the 2000 NEC Handbook has carried a
15 picture of a single-station smoke detector and
16 commentary, which leads me to believe that that
17 code panel and the authors of the handbook believe
18 that they are covered in 760.

19 Addressing Mr. Pauley again, when he
20 said, Wouldn't you like to have arc-fault
21 protection on that smoke detector circuit? Should
22 the problem be in the smoke detector circuit? I
23 have 39 circuits in my house. Five are bedroom,
24 one is the smoke detector, and the other 33 are
25 the rest of the house, and he's trying to

1 convince me to put protection on the smoke
2 detector, but let's not worry about the other 33
3 circuits at this time. I'd be more concerned with
4 the other 33.

5 I fully support Mr. Smittal in saying
6 to put protection throughout the entire house, but
7 not the smoke detector. One thing more about Mr.
8 Smittal's report, did you notice that he only
9 asked for the expansion to be for receptacle
10 circuits? And I'm in full agreement with the
11 receptacle circuit. You'll notice that there is
12 nothing plugged into a smoke detector. That is a
13 lifesaving item, and there's no way, unthinkable
14 you would have that.

15 Now, I've got three minutes. I'm going
16 to try to give you the reason, because addressing
17 all of them, the opposers--I've got two paragraphs
18 of documentation of why this is so--they said
19 documentation wasn't provided. This is the
20 documentation. A film presentation depicting a
21 faulty handheld hair dryer in contact with a
22 combustible and energized from an AFCI branch-
23 feeder-type protected circuit. The combustible
24 (sic) burst into flames, and then the circuit
25 tripped. And of course it would have de-energized

1 the smoke detector system. The same test was
2 performed with a combination type. And although
3 it was de-energized, the smoke detector, there was
4 quick reaction, and there was no fire.

5 A live demonstration depicted two
6 different utilization equipment, listed
7 utilization equipment, that did not have fault
8 condition commonly used from in bedrooms.
9 Connecting the utilization equipment one at a time
10 resulted in normal operation. However, when both
11 equipment were energized simultaneously, the AFCI
12 nuisance tripped, and, of course, it would have
13 de-energized a smoke detector system.

14 Based on such test using 15 appliances
15 that could be used simultaneously and commonly
16 used in bedrooms, it was noted that the
17 combination-type AFCI would have to recognize over
18 1 million applications with modern technology that
19 may be possible. But consider the addition of
20 appliances that are yet to be invented. It was
21 because of the second test with the combination-
22 type that they voted to extend the phase out
23 period for the branch-feeder type from January 1,
24 2005, to January 1, 2008, because they needed that
25 kind of time to play catchup.

1 I beg you to support this comment and
2 make this--it would be a tragedy if one safety
3 device negated the other one, and there would be
4 the cause of a death.

5 Thank you, Mr. Chairman.

6 CHAIR ISMAN: Thank you.

7 Microphone 7.

8 MR. SMITTAL: Thank you, Mr. Chairman.

9 Walter Smittal representing National Association
10 of State Fire Marshals.

11 In response to Mr. Pauley, we were
12 contacted regarding this issue. We have no data,
13 no scientific information to exempt smoke alarms
14 from AFCIs. If there's information out there, not
15 only does Code Making Panel 2 require it, but
16 National would love to have it to review, because
17 this issue continues to come forth in the various
18 states.

19 So we did take a position that
20 basically smoke alarms should be a part of the
21 AFCI circuitry until there's data sufficient to
22 show that there is a problem. We support Code
23 Making Panel 2's position.

24 CHAIR ISMAN: Thank you.

25 Microphone No. 5.

1 MR. PAULEY: Jim Pauley with Square D
2 Company.

3 I want to clear up a couple items that
4 were mentioned. I don't want the body to be
5 confused between smoke alarms and smoke detectors.
6 Smoke detectors that are a part of a fire alarm
7 system are clearly under the purview of Panel 3
8 in Article 760. Smoke alarms that are connected
9 to the branch circuit are within Panel 2's domain.
10 The Correlating Committee discussed that and
11 clearly made that split because it is connected to
12 the branch circuit. So I don't want the body to
13 leave with the idea that there's some confusion
14 between smoke detector and smoke alarm.

15 The other item that was mentioned was
16 with respect to Mr. Smittal's proposal that was
17 passed, the comment made that it applies to
18 receptacle outlets. I want, again, to not leave
19 the body with confusion. Mr. Smittal's comment
20 changed the word "bedrooms" to "living areas."
21 There are still other changes that occur to that
22 section, including the fact that it applies to
23 more than receptacle outlets, including to the
24 fact that it applies to the change from 125 volts
25 to 120 volts. So the issue over it applying only

1 to receptacle outlets is incorrect. It applies to
2 the circuits. And you ought to look at Comment
3 2-87a in conjunction with the earlier comment that
4 the body passed.

5 Lastly, there was a comment about the
6 other 33 circuits not being protected. I'll only
7 point out that this body just passed a comment
8 that protected Joe's 33 circuits, so I'm not sure
9 that that matters at this point in this debate.

10 Thank you.

11 CHAIR ISMAN: Thank you.

12 Microphone No. 3.

13 MR. LEICHT: RT Leicht representing
14 myself. I make a motion to call the question.

15 CHAIR ISMAN: We have a motion. And I
16 heard a second down here to end debate on Comment
17 No. 2-107.

18 We'll move immediately to a vote, since
19 that's non-debatable. All those in favor of
20 ending debate on this subject, please raise their
21 hand. And all those opposed to ending debate.
22 The motion carries.

23 So we move immediately to a motion on
24 accepting Comment 2-107. All in favor of
25 accepting the comment, please raise your hand.

1 And all those opposed. That motion fails.

2 We now turn to the main motion on the
3 floor, and we're discussing CMP Panel 2. Are
4 there additional motions?

5 Microphone 4.

6 MR. LOYD: Richard Loyd speaking for
7 myself.

8 I would like to move Comment 2-92 for
9 accept. And this relates to Proposal 2-191, I
10 believe it is. Let me see here. Is that right?
11 161.

12 CHAIR ISMAN: So a motion to accept
13 Comment 2-92. Is there a second? There is a
14 second from down here.

15 Okay. Please proceed, sir.

16 MR. LOYD: Okay. This relates to a
17 proposal by Marv Jensen. I made the comment
18 asking reconsideration. The proposal was accepted
19 in principle, however, got lost in the comment
20 period.

21 As Mr. Jensen states in his proposal,
22 that studies show that about 40 percent of the
23 fires were found in branch circuit wiring, but
24 many of the fires occurred way downstream in the
25 load after the receptacle and that many of these

1 infrastructure wiring were related to non-metallic
2 sheath cable and was damaged by staples and nails
3 and this sort of thing. And I agree with him.

4 This proposal, if accepted, would allow
5 that branch circuits to be protected by metal
6 raceway or metal cable types with an overall metal
7 sheath. This would allow AFCI protection, which
8 would still be required, but it would allow other
9 types than a circuit breaker. Right now about
10 the only thing that it can be used as a circuit
11 breaker, and if the home run, as I call it, was
12 in metal raceway or metal cabling, then you could
13 use a device-type AFCI to protect the branch
14 circuit from appliance fires, cords, and so forth,
15 where many of these occurred.

16 We have studied, and we have found that
17 the fault current at these branch circuits in
18 homes is very low, and the arcing faults that
19 occur due to these staples, nails or other damage
20 are quite low level. They will start a fire with
21 combustible things; however, if they're contained
22 in metal raceway, the raceway will contain it.
23 So we feel that safety will be preserved. It
24 will allow other type of arc-fault devices. It
25 will allow the marketplace to be competitive and

1 development to occur without compromising safety.

2 So I would like consideration to--the
3 effect would be to accept Mr. Jensen's proposal as
4 written adding exception to 210-12(B) and allow
5 other types of AFCIs where the house is wired
6 metal raceway or metal paving. Thank you.

7 CHAIR ISMAN: Thank you. And I'll
8 assume we'll go to the Code Making 2 panel chair.

9 MR. CARPENTER: Yes.

10 CHAIR ISMAN: Microphone 2.

11 MR. WEBER: Thank you, Mr. Chairman.

12 Ray Weber.

13 Basically Richard is referring to
14 2-134a found in the Report on Proposals found on
15 page .275, which was a Code Panel 2 proposal. And
16 we discussed the issues of the AFCI breakers and
17 the branch feeder type as versus the utilization
18 also of a device type AFCI.

19 We did accept--or project the panel
20 proposal indicating that--and it's fairly lengthy.
21 I won't read it at all. However, I will read the
22 last two subsections, one and two. It says, "The
23 arc-fault circuit interrupter installed within 1.8
24 meters or 6 feet of the branch circuit overcurrent
25 device as measured along the branch circuit

1 conductors." Section 2, "The circuit conductors
2 between the branch circuit overcurrent device and
3 the arc-fault circuit interrupter shall be
4 installed in a metal raceway or a cable with a
5 metallic sheath." So in fact, we were trying to
6 make the option of putting it in a device as well
7 by passing this proposal. And this proposal was
8 accepted on a 13--or I should say, excuse me, it
9 was nine affirmative, three negative and one
10 abstention on there. So it failed to meet the
11 muster as far as the two-thirds vote requirement.

12 CHAIR ISMAN: Thank you. Microphone 5.

13 MS. HORTON: Pat Horton, LCP
14 Consulting, representing the Steel Tube Institute.

15 I rise in support of the motion. I
16 believe that all the--most all the advertisements
17 that I have seen and the data that I have seen
18 regarding arc-fault circuit interrupters dealt
19 with fires started in metallic cable, and I don't
20 believe that the data exists to require AFCIs
21 throughout living areas in metal means, not just
22 conduit but steel-jacketed cable, so I support Mr.
23 Loyd's motion.

24 CHAIR ISMAN: Thank you.

25 Also at Microphone 5.

1 MR. PAULEY: Jim Pauley of Square D and
2 Code Making Panel 2.

3 I rise in not supporting the motion. I
4 want to clear up a couple of things to make sure
5 of what we're talking about. The comment that's
6 being asked to be accepted ultimately would accept
7 Proposal 2-161. I don't think Dick stated it
8 quite right. It's not the home run in metal.
9 It's the entire branch circuit in metal, not just
10 the home run. So you're dealing with a different
11 animal.

12 Panel 2 did not want to start trying to
13 exempt this based on wiring methods. The
14 limitation that the panel got into was essentially
15 what the panel chair just read, that a trade-off
16 of a particular metal cable or metal conduit with
17 a limited distance should be used to get from the
18 panel to the first device. And there was a long
19 discussion about how that got there. That was
20 essentially why the proposal was accepted in
21 principle, because they essentially took his
22 concept but limited it to a very specific area.

23 There have been examples, and we've had
24 them, that have not been limited to MM cable
25 only. So consequently, the distance limitation,

1 as well as that limitation on the wiring method
2 that the panel has accepted and is there, are
3 both needed to do this. If you accept this
4 motion on the floor, you're essentially going to
5 allow the entire branch circuit--the entire branch
6 circuit to be unprotected based on the wiring
7 method.

8 After a lot of discussion, the panel
9 did not want to go there because now you're going
10 to get into this contest between the wiring
11 methods. So I would urge the body to support the
12 panel action and vote against the motion on the
13 floor.

14 CHAIR ISMAN: Thank you.

15 Microphone 4.

16 MR. LOYD: Yes. Richard Loyd speaking
17 for myself.

18 Relating to my comment, Mr. Pauley is
19 correct. I think if you--if the homeowner or
20 contractor elects to put it in metal raceway, I
21 think--or metal cable, he has indicated that he's
22 concerned about safety. Had the circuit breaker
23 industry surveyed metal raceway homes and so
24 forth, I think they would have found that these
25 arcing faults were greatly diminished as we have

1 found.

2 So I would urge you to accept this and
3 allow this wiring as protection. We're still
4 protecting where the fires occur, and we're not
5 compromising safety in any way, shape or form.
6 But we're allowing other products to be developed
7 for this safety purpose. Thank you.

8 CHAIR ISMAN: Thank you.

9 Microphone 1.

10 MR. CROUSHORE: My name is Tim

11 Croushore. I work for Allegheny Power,
12 representative of Edison Electric Institute.

13 I rise in support of the motion made by
14 Mr. Loyd. The issue comes in when we have--when
15 we have adopted the previous comment, 2-90, 2-92,
16 this now has other implications that have been
17 drawn out in the panel, okay. Now I'm speaking
18 for Mr. Loyd's comment. If we--when we address--
19 when we accepted having AFCIs in all of the
20 dwelling unit living areas, now we have to look
21 at going back and what the panel's already done
22 and go back and add all these exceptions in ones
23 brought up by Mr. Ross, ones brought up by Mr.
24 Loyd and several of the other presenters. I
25 think the original panel action should have

1 remained.

2 So we've already--since we've already
3 done that now, we have to go back and do the work
4 of the Technical Committee at the annual meeting.
5 So I rise in support of Mr. Loyd and his motion
6 for the comment. Thank you.

7 CHAIR ISMAN: Thank you.

8 Is there any further discussion on the
9 motion to accept Comment 2-92?

10 Seeing none, we'll move to a vote. All
11 those in favor of accepting the comment, please
12 raise your hand. And all those opposed to
13 accepting the comment. That motion fails.

14 We return to discussing the items under
15 Code Making Panel 2. Are there any additional
16 motions?

17 Seeing none, we'll move on to Code
18 Making Panel 3, which handles Articles 300, 527,
19 720, 725, 727, 760, Chapter 9, Tables 11(a) and
20 (b) and Tables 12(a) and (b).

21 Microphone No. 4.

22 DR. HIRSCHLER: Marcelo Hirschler, GBH
23 International, speaking for the Fire Retardant
24 Chemical Association, now American Fire Safety
25 Council, and for the Plenum Cable Association. I

1 move to accept proposal 3-127. I'm sorry, Comment
2 3-127 on page .70-527 of the ROC.

3 CHAIR ISMAN: So we have a motion for
4 acceptance of Comment 3-127?

5 DR. HIRSCHLER: Correct.

6 CHAIR ISMAN: Is there a second? I did
7 hear a second from down front.

8 Please proceed, Mr. Hirschler.

9 DR. HIRSCHLER: Thank you.

10 This is one of about--well, there's
11 probably more than a dozen occurrences of the same
12 issue. What I'm trying to--what it deals with is
13 the issue of abandoned cables, and it deals
14 primarily with this concept of cables in plenums
15 and other air-handling spaces. The issue is
16 whether the National Electrical Code should be,
17 number one, consistent in what it states and,
18 number two, should be clear in what is required.

19 My proposal--I'm sorry, my comment
20 stated abandoned Class 2 and Class 3 and PLTC
21 cables shall be removed.

22 The language from the panel was the
23 accessible portion of abandoned cables shall be
24 removed. I believe to be clear, consistent and
25 concise it's much clearer. It's up to the

1 authority having jurisdiction to decide what
2 portion of the cable needs to be removed.

3 Leaving the word "accessible" makes it
4 very unclear. What is accessible? Is it the
5 first few inches? Is it something that doesn't
6 go into one of these new areas that was
7 originally fine by Panel 16? The inaccessible
8 areas which are the areas where some wiring
9 components would not be able to be put in or not,
10 et cetera. It's this long debate about what
11 inaccessible area.

12 This entire thing is very confusing,
13 and clear and clean language--"Abandoned cables
14 shall be removed"--makes it clear for everyone,
15 and the authority having jurisdiction can then go
16 on and discuss and decide what action to take.
17 Thank you.

18 CHAIR ISMAN: Thank you. Mr.
19 Carpenter.

20 MR. CARPENTER: I'd like to defer to
21 the Chair of Panel 3, Dick Owen, Mic. 2.

22 CHAIR ISMAN: Microphone 2, please.

23 MR. OWEN: Mr. Chairman, Richard Owen,
24 Chairman of Panel 3.

25 The panel statement pretty well covers

1 our reason for allowing the inaccessible portion,
2 only there is a definition of accessible in the
3 National Electrical Code which covered. We did
4 not feel that any addition to this would be of
5 any benefit.

6 CHAIR ISMAN: Thank you.

7 Standing near Microphone 7 is someone
8 with a computer; you don't want to address this
9 issue?

10 Okay. Microphone 5 then.

11 DR. KAUFMAN: I'm Stanley Kaufman, a
12 member of Panel 16.

13 We also got similar comments from
14 Marcelo and rejected them. The definition of
15 "accessible" is in Article 100. And our discussion
16 went around that if you take that out, what do
17 you want to do, rip down a wall to take out
18 cable? We thought it would be absurd, and I
19 still think it would be absurd to take it out.

20 CHAIR ISMAN: Thank you.

21 Microphone 1.

22 MR. ODE: This is Mark Ode, and I'm a
23 member of Panel 3.

24 We had some major discussions on this
25 issue. I'm speaking against the motion.

1 When you go back to the definition of
2 "accessible" in Article 100, you know, requiring
3 the access--non-accessible portions of that cable
4 to be removed to mean damaging major portions of
5 the building trying to remove cable, and that just
6 is not feasible in most cases.

7 CHAIR ISMAN: Thank you.

8 Microphone 7.

9 MR. WILLIAMS: Noel Williams speaking
10 for myself.

11 I think one other issue here is that we
12 look at the text of the comment, and it brings up
13 three different definitions of "accessible."
14 Clearly there's only one that applies. That would
15 be the accessible as applied to wiring methods.

16 And in order to fully understand this
17 definition, we also need to consider what the
18 opposite of accessible would be, and would likely
19 to be concealed. And under the definition of
20 concealed, it tells us that those cables that
21 are--excuse me, in raceways are considered to be
22 concealed, even though they could be made
23 accessible by being withdrawn. Therefore, there's
24 not nearly as much confusion in this as is
25 implied by the comment, as long as we look at the

1 entire context of the terminology that's being
2 used.

3 CHAIR ISMAN: Thank you.

4 MR. WILLIAMS: Therefore, I'm against
5 the motion.

6 CHAIR ISMAN: Microphone 5.

7 MR. JANIKOWSKI: Ron Janikowski.

8 I speak in opposition. Being an
9 inspection authority, I do not believe it's
10 enforceable. I think we'd have to work hand in
11 hand with the electrician and verify that he is
12 indeed removing all these cables.

13 CHAIR ISMAN: Thank you.

14 Is there any additional discussion on
15 Comment 3-127?

16 Seeing none, we'll move into a vote.
17 All those in favor of the motion, please raise
18 your hands. And all those opposed to the motion.
19 That motion fails.

20 We're now back to discussing other
21 issues with Code Making Panel 3, and the gentleman
22 at Microphone 7 has been waiting.

23 MR. EDDIE GUIDRY: Thank you. My name
24 is Eddie Guidry. I'm employed by Fluor
25 Enterprises and represent myself.

1 I'd like to make a motion to accept
2 Proposal 3-151 and related Comment 3-165.
3 Proposal 3-151 is on page .1688 of the ROP, and
4 Comment 3-165 is on page .543 of the ROC. I am
5 the author of Proposal 3-151.

6 CHAIR ISMAN: So the motion is to
7 return the proposal and the related comment?

8 MR. GUIDRY: Yes.

9 CHAIR ISMAN: Just a moment, please.
10 Since Comment 165 was rejected by the body,
11 there's no change between the ROP and the ROC?

12 MR. GUIDRY: That is correct.

13 CHAIR ISMAN: Is your proposal really
14 to--your motion really to reject Proposal 3-151?

15 MR. GUIDRY: My proposal--my motion is
16 to accept Proposal 3-151.

17 CHAIR ISMAN: I'm sorry. I hadn't gone
18 back that far. And, sir, are you the proposer of
19 Proposal 151?

20 MR. GUIDRY: Yes, sir, that is correct.

21 CHAIR ISMAN: Okay. That motion is in
22 order. So do we have a second? I did hear a
23 second from down front.

24 Please proceed.

25 MR. GUIDRY: My proposal was to delete

1 the entire Section 725.26(B) and return the code
2 to the way it was in the 1999 edition.

3 There were many comments in favor of my
4 proposal during the ROC. However, Code Making
5 Panel 3 deferred action to the Technical
6 Correlating Committee. I am asking for public
7 support on approving this proposal.

8 Section 725.26(B)(4) was added to the
9 code during the 2002 code cycle by Code Making
10 Panel 16 with no substantiation of a safety issue.
11 It has been my experience in speaking with plant
12 personnel and people at other engineering firms
13 that this was not a well-known change, and
14 unfortunately it didn't receive much attention by
15 the public during the 2002 code cycle.

16 At issue is the placement of 600-volt
17 power and 600-volt control cables in the same
18 cable tray without barriers separating the two
19 types of circuits. Previous to the 2002 NEC it
20 was and still is a common practice to have cable
21 trays that contain a mixture of cables rated 600
22 volt, both power and Class 1 control.

23 For those in the audience not familiar
24 with Class 1, 2 and 3 circuits, a typical 120-
25 volt start stops and HOA circuit could be and

1 probably will be a Class I remote signaling
2 circuit.

3 When a control circuit is Class 1, 600-
4 volt insulation is automatically required per
5 725.27. For many years it has been a standard
6 and design practice to install circuits for power,
7 for example, 480-volt AC motor branch circuits in
8 the same tray as the control circuit for a given
9 pump. This rule was added in the 2002 NEC
10 Maintenance Practice Code violation.

11 There are several different issues
12 associated with the rule that I'd like to discuss
13 here today. First, there is a longstanding, long,
14 safe history associated with the practice of
15 installing all 600-volt insulated cables in the
16 same tray. And remember, this change was made
17 without any substaniary evidence of a safety issue
18 in field.

19 Secondly, because this rule is only two
20 years old, the majority of installations in the
21 field are with power control circuits mixed in the
22 same tray or sometimes even in the same cable.
23 In most municipalities and states, when an
24 existing installation is altered substantially, it
25 usually has to be brought up current to NEC

1 rules. This means if a cable is added to any
2 tray where power and controls are mixed, then all
3 of the cables would possibly need to be separated
4 and a barrier added. This is not practical, nor
5 does it accomplish a greater degree of safety.
6 In fact, it could be detrimental to the safety of
7 the electrician if he or she were to get in an
8 existing cable tray and begin moving cables that
9 has been installed for 20 or 30 years.

10 Third, there isn't any practical method
11 to keep Class 1 circuits and power circuits
12 separated in equipment such as motor-controlled
13 center wire ways, so keeping the circuits
14 separated in a cable tray doesn't make sense.

15 Fourth, it is already recognized in the
16 general rule in NEC 303(c)(1) for combining cables
17 with different voltage that as long the cables are
18 rated for the maximum voltage present, there isn't
19 a safety issue.

20 Aside from the technical angle here,
21 there is one other issue I'd like to bring your
22 attention to. In my business we work all over
23 the globe with many international standards and
24 codes. The NEC today is by far the best
25 electrical code in existence. I am, however, very

1 concerned about the direction some of our code
2 panels are taking. Mr. Ockuly stated yesterday
3 during his luncheon that there are other codes
4 competing with the NEC. He's not kidding. I am
5 familiar with these other codes. And I believe
6 the best way for the NEC to remain the leader is
7 to hold to what it states in 91.1), quote, "This
8 code is not intended as a design specification or
9 an instruction manual for untrained persons."

10 The issue that I'm addressing here
11 today is strictly one of design, not safety. Our
12 code panels to which I also belong need to ensure
13 the content that we add to the code improves
14 safety and leaves the designing of the electrical
15 systems to engineers and other electrical
16 professionals.

17 CHAIR ISMAN: Excuse me, you have less
18 than a minute. Please sum up.

19 MR. GUIDRY: Thank you.

20 Let's keep common sense in the code.
21 Please accept Proposal 3-151 and related Comment
22 3-165 and return the code to the wording previous
23 to the 2002 edition.

24 CHAIR ISMAN: Thank you. Mr.
25 Carpenter.

1 MR. CARPENTER: Yes. As far as his
2 reference to the TCC establishing a task group
3 that has been established, the Chair of Panel 3
4 is the chairman of that, and I now defer to the
5 Chair of Panel 3, Dick Owen.

6 CHAIR ISMAN: Microphone 2.

7 MR. OWEN: Mr. Chairman, Richard Owen,
8 Chairman of Panel 3.

9 I'm deferring comment on this to Panel
10 Member Mark Ode.

11 CHAIR ISMAN: Okay. Microphone 1.

12 MR. ODE: My name a Mark Ode, and I'm
13 speaking--I'm a member of Code Panel 3, and I'm
14 speaking on behalf of myself and, I guess, also
15 Panel 3 now that my chairman told me I'm doing
16 that.

17 If you look at the history of this,
18 when we go back to 725.26(B)(1), if I'm going to
19 put those conductors in a raceway cable or an
20 enclosure, those Class 1 control conductors, when
21 they're functionally associated with power
22 conductors, can be in a raceway, a cable or an
23 enclosure, but only where they're functionally
24 associated.

25 If I go back to 725.21(A), I'm

1 permitted to have a 1000 VA, 30-volt AC-type
2 system. Now, that's a Class 1 system. Now, it's
3 power limited. It's not--it still is a shock
4 hazard. It still has all the same kind of fire
5 potentials that any other Class 1 circuit has
6 simply limited based upon the voltage and the
7 maximum VA.

8 Now, if you look at the enclosures, the
9 raceways and the cables, and the permission only
10 when those power conductors and Class 1 conductors
11 are functionally associated, that limitation has
12 stood in the code for a long time. The purpose
13 of that is to keep people from being haphazard
14 when you turn the power off to the power
15 equipment to also turn off the power to the Class
16 1 circuit. We've had that in Article 430.

17 When I go back and I look in 430.113,
18 for example, if I'm going to have power conductors
19 and control conductors in the same enclosure, I
20 have to have a disconnect that is either part of
21 that enclosure or that's immediately adjacent to
22 it. And doing this same requirement in cable
23 trays like we've done in the 2002 code--and they
24 want to change it for the 2005 code--is no
25 different than putting those same conductors in a

1 raceway, a cable, or an enclosure. I'm speaking
2 against accepting this proposal on behalf of Code
3 Panel 3.

4 CHAIR ISMAN: Thank you.

5 The first gentleman at Mic. 5.

6 MR. WECHSLER: Thank you, Mr. Chairman.

7 My name is David Wechsler from the Dow Chemical
8 Company. I am the writer of 3-165 comment and,
9 unfortunately, the time clicks away, and I don't
10 have sufficient time to fully explain what goes on
11 at Article 725. Because unfortunately I think a
12 lot of people do not fully understand or really
13 appreciate what 725 says or what it doesn't say.

14 I was a member of panel, Code Making
15 Panel 16 for a number of years, and I had the
16 distinct privilege of working with a number of
17 talented individuals as being the chairman of a
18 subcommittee in charge of doing a major overhaul
19 to Article 725. At the time of departure, which
20 was just prior to the 1999 code, everything was
21 more or less correct in the way it was supposed
22 to fix. We did not have the guidance from the
23 NFPA style manual as to how things needed to be
24 redone, which did take place after the 1999 code
25 cycle.

1 At that point in time things got kind
2 of blurry, in my opinion, because those group of
3 individuals, while well meaning, confused what was
4 a raceway and what was a cable tray. Those are
5 very distinct entities. They are not the same,
6 and they have different rules and regulations.

7 If you track in your code books on page
8 .544, you will see the history between the '99 and
9 the 2002 code and how this particular (B)(4) item
10 originated. It originated through erroneously
11 thinking that cable tray and raceway were the
12 same. They are not.

13 The aspect in the panel statement that
14 the submitter, me, did not provide any information
15 about the safety aspect between a Class 1 control
16 circuit is correct. Those aspects are already
17 covered in the 725.26(B) item. That's not what's
18 at issue here. The issue is the past precedence
19 of safely mixing cables that are all rated with
20 an insulation of 600 volts.

21 I think we have to get away from the
22 aspect that electrons graduated with Ph.D.s, and
23 they become suddenly super intelligent and exceed
24 the rating of the cable. A cable that's 600 is
25 600. It doesn't matter what's going through it,

1 it's 600.

2 If you don't believe the insulation is
3 correct, then we have serious problems. But if
4 you rely on the insulation, you can mix these
5 circuits, because what defines the rule? The
6 rules are defined in 3923, which is cable trays.
7 And if you look in there, you'll see a list of
8 what is permitted under that category.

9 So there is no confusion here. What
10 happened was an error, a well-meaning error, but
11 an error that we need to correct. And that's
12 what I'd like to see happen by returning back to
13 the way the code was. And quite honestly, to
14 reject this makes no sense, because what does the
15 panel statement say? The panel refers to the TCC
16 to consider a task group to review this issue.
17 If it wasn't broken, it doesn't need a new task
18 group. It doesn't need more power. All it needs
19 to do is return back to the original safe
20 installation that was tried and proven for many
21 years. Thank you.

22 CHAIR ISMAN: Thank you.

23 The next gentleman at Mic. 5.

24 MR. LeBRAKE: Good morning. My name is
25 Neil LeBrake. I represent the Edison Electric

1 Institute.

2 Edison Electric Institute agrees with
3 the motion. We agree according to the reasons
4 stated in Mr. Horman's negative ballot statement
5 on Comment 3-172 on page .547 of the Report on
6 Comments. Thank you.

7 CHAIR ISMAN: Thank you.

8 Microphone 1.

9 MR. ODE: Mark Ode, member of Code
10 Panel 3.

11 In rebuttal to the information at the
12 other mike, when you're talking about insulation,
13 in 1971 we permitted insulation to be a barrier
14 between Class 1, Class 2 and Class 3. There was
15 a change in philosophy of Code Panel 16 at the
16 time, and in 1975 Code Panel 16 said insulation
17 as a system barrier is not an acceptable barrier.

18 And the fact that these conductors are
19 Class 1 conductors and they're insulated for 600
20 volts is not at issue here. When we're looking
21 at the possibility of de-energizing conductors and
22 the fact that they're functionally associated--if
23 I have, for example, two pieces of equipment that
24 are functionally associated, the control
25 conductors are required to be disconnected at the

1 time oftentimes that you're working on the
2 equipment. That's an NFPA 70e requirement.

3 So when I'm up working on a piece of
4 electrical equipment, maybe within the same
5 enclosure, within the same cable tray, whatever it
6 may be, if I have disconnected the conductors, I
7 don't want to have other conductors in there that
8 are also alive that I have not identified. And
9 that's the whole basis that this issue is
10 addressing, if I'm going to have these conductors
11 functionally associated. If they're not
12 functionally associated, let's put a barrier in
13 there. Let's not rely upon insulation to protect
14 the electrician working on the circuit.

15 CHAIR ISMAN: Thank you.

16 Microphone 4.

17 MR. LOYD: Richard Loyd speaking on
18 behalf of myself. I'm a member of Panel 8.

19 Just to clarify Mr. Wexler's statement,
20 Article 392 is under the purview of Panel 8.

21 Cable tray, he is correct, it is a support
22 system. However, we do not control Article 725
23 as far as commingling circuits of limited energy
24 and so forth with power circuits. So if Panel 3
25 wants barriers, that's fine with us. We just

1 would set the rules for supporting the wiring
2 methods in 392(A) and single conductors and
3 industrial establishments in 392(B). How they're
4 commingled would be up to those other panels.

5 CHAIR ISMAN: Thank you. Microphone 7.

6 MR. LEWIS: Bill Lewis with Eli Lilly &
7 Company speaking for myself in support of the
8 proposal.

9 I want to remind everyone that what
10 we're talking about here is cables in cable trays.
11 Many cables today already contain power circuits
12 intermixed with control circuits within the same
13 cable. Around these is the cable jacket, which
14 will separate unrelated conductors from each
15 other. So we are not depending entirely on the
16 insulation of the conductors for this protection
17 but also the cable jacketing. Thank you.

18 CHAIR ISMAN: Thank you.

19 Also at Microphone 7.

20 MR. EDDIE GUIDRY: Eddie Guidry
21 speaking for myself.

22 In rebuttal to Mark Ode's comments on
23 "functionally "associated, there is not a
24 definition in the code for "functionally
25 associated." The intent may be for a power load

1 and its only one control circuit to be
2 functionally associated, but this isn't defined in
3 the code. It could be argued that a whole unit
4 within a plant is functionally associated, because
5 everything in that plant is associated and must
6 depend on each other--the equipment, to function
7 properly. So first of all, the word--the term
8 "functionally associated" is very poor code text
9 or code language, and I don't think it's
10 enforceable to begin with.

11 And secondly, I just want to emphasize
12 to the electricians here, you may be asked to go
13 out and put a barrier in an existing tray. Do
14 you really want to start moving around 20- and
15 30-year old cable that maybe energized and
16 probably is energized? Thank you.

17 CHAIR ISMAN: Thank you.

18 Microphone 5, did you wish to address
19 this issue?

20 MR. WECHSLER: Yes. Dave Wechsler
21 again.

22 I think there are many things that can
23 be read into what we thought we would be doing
24 and read about isolation and other things. This
25 is not about that. This is an installation

1 procedure. It has been going on.

2 There's nothing wrong with depending on
3 the value of insulation. If they're functionally
4 related, they're going to be protected. If
5 they're not functionally related, you may have
6 some other concerns from the standpoint of
7 operation, but that's not a safety issue. That's
8 a maintainability and operability condition.
9 Let's not confuse the two.

10 And let's not impose other restrictions
11 and other conditions that were never intended and
12 not written into the current code here. There is
13 a difference in what cable tray is permitted to
14 use and what raceway requirements are. And if
15 we're going to blur those, then we might as well
16 not have cable tray or raceway segregations in the
17 first place, and I think that would be a
18 disaster.

19 There's an important aspect of having
20 cable trays. They do serve a legitimate purpose,
21 and there's an appropriate means for having
22 raceways, don't confuse the two, don't be blind
23 sided. Thank you.

24 CHAIR ISMAN: Thank you.

25 Microphone 4.

1 UNIDENTIFIED SPEAKER: Association of
2 Builders and Contractors. I am speaking in
3 support of this comment.

4 CHAIR ISMAN: Thank you.

5 Is there additional comment or
6 discussion on proposal 3-151?

7 Seeing none, we'll move into a vote.
8 All those in favor of accepting proposal 3-151,
9 please raise your hands. And all those opposed.
10 The motion does not carry.

11 We return to a discussion of the issues
12 under Code Making Panel 3, and if Mr. Hirschler
13 is here, I cut you off as you were going to the
14 mike to do a follow-up motion. Did you wish to
15 do a follow-up motion to your earlier motion that
16 was on Code Making Panel 3?

17 DR. HIRSCHLER: Marcelo Hirschler, GBH
18 International, speaking for the Fire Retardant
19 Chemicals Association and Plenum Cable
20 Association.

21 I don't think there's much point in a
22 follow-up motion, but what I would like to do is
23 make a statement for the record that I think it's
24 important to have consistency within the code, and
25 I will put up the sections--I don't want to waste

1 the time of the audience. I will put the
2 comments that address the issue that is consistent
3 with a previous motion that I had made that was
4 rejected by the audience. And the comments are,
5 if I may--

6 CHAIR ISMAN: Certainly.

7 DR. HIRSCHLER: 3-257, 3-258, 3-288,
8 3-513, 3-685, 3-686, 12-27, 16-41, 16-293, 16-294,
9 16-438, 16-439, 16-603, 16-651, 16-652, 16-653,
10 16-662, 16-872, 16-873, 16-911 and 16-912. Those
11 are all sections that deal with the issue of
12 abandoned cables. I think it is imperative that
13 the language is consistent. I don't want to
14 waste the time of the body by making all the
15 motions. Thank you for your help.

16 CHAIR ISMAN: Thank you.

17 Are there additional motions to be made
18 on Code Making Panel 3? Microphone 3.

19 MR. OHDE: Good morning, Chairman, how
20 are you doing today? My name is Harold Ohde. I
21 represent the International Brotherhood of
22 Electrical Workers.

23 I would like a motion to accept Comment
24 3-157. It can be found on page .542, and it deals
25 with Article 725.6, "Mechanical Execution of

1 Work."

2 CHAIR ISMAN: Okay. So we have a
3 motion to accept Comment 3-157 on page .542 of the
4 ROC? Okay. That comment belongs to Mr. Callanan
5 of the IBEW. Do you have authorization to
6 represent him or are you the organizational
7 delegate of IBEW?

8 MR. OHDE: Yes, sir. Mr. Callanan is
9 here and he authorized me to come up and speak.

10 CHAIR ISMAN: Do we have that
11 authorization in writing? We do not have that
12 authorization in writing. Can we get--if he's
13 present, can we get him to make the motion
14 himself or give us the authorization in writing?

15 MR. CALLANAN: I apologize, Mr.
16 Chairman, I should have made the comment. Yes,
17 we would like to move acceptance of Comment 3-157.

18 CHAIR ISMAN: Okay. So we now have the
19 maker of the comment acceptance of 3-157.

20 MR. CALLANAN: Michael Callanan, IBEW.

21 CHAIR ISMAN: Thank you.

22 Is there a second? I heard a second
23 from down front, so please proceed now.

24 MR. CALLANAN: I will defer to the
25 principal member representing the IBEW on Code

1 Making Panel 16, Harry Ohde.

2 CHAIR ISMAN: Please go ahead, sir.

3 MR. OHDE: Thank you, Chairman. Again
4 my name is Harold Ohde representing IBEW. I'm
5 the principal member of 16, and I would like to--
6 we already talked about making a motion to accept
7 Comment 3-157.

8 In the 2002 National Electric Code
9 there are presently no code requirements for
10 securing and supporting voltage cable or cable
11 assemblies in a cavity of the floor to ceiling or
12 a ceiling to lift assembly.

13 In the 2005 ROP stage, Proposal 16-20,
14 it's covered. 770.6, 16-81, 800.6, 16-160, 820.6
15 and 16-216, 830.6 all dealt with mechanical
16 execution or were accepted by Code Making Panel
17 16.

18 And with the acceptance of these
19 proposals what happened was it incorporated the
20 code reference of 300.11 which in detail the
21 ground rules for security supporting of cables,
22 cable assemblies in the ceiling, floor to ceiling,
23 or the ceiling to lift assembly.

24 Just very briefly I'll talk about
25 300.11. In 300.11, support wires that do not

1 provide secure support shall not be permitted to
2 be as the sole support. Also, independent wires
3 shall be required and shall be secured at both
4 ends. But probably more important is 300.11
5 prohibited the cables in raceways to be supported
6 by the ceiling.

7 With the increased usage and
8 accumulation of cable assemblies, 300.11 is more
9 important now than ever before. We need
10 requirements for the raceways used as means of
11 support, as well as cables not used as means of
12 support are all covered in 300.11 as well.

13 With Code Making Panel 16's actions and
14 77, 800, 820, 830, the need to get the other low
15 voltage cable articles up to speed was definitely
16 needed to be consistent. Comments 12-29, 640,
17 which would start with 640.6, 3-157, which dealt
18 with 725.6 and Comment 3-520.

19 In the comment stage, Comment 12-29,
20 which was 642, page--I'm sorry, 640-6 was passed.
21 Comment 3-157, which dealt with 725, failed. I'm
22 asking for the motion to accept the comment.

23 CHAIR ISMAN: Thank you. Mr.
24 Carpenter.

25 MR. CARPENTER: I'd like to defer to

1 the Chair of the panel, Mike. 2.

2 CHAIR ISMAN: Microphone 2.

3 MR. OWEN: Mr. Chairman, Richard Owen,
4 chairman of Panel 3.

5 3-157 was actually referred back to the
6 panel statement 3-156. Proposal No. 3-137 did not
7 include any reference to 300.11. The reference to
8 300.11 was brought up at the comment stage,
9 therefore, was not given opportunity for public
10 comment. And the second part was that there was
11 no technical substantiation given as to why this
12 should be added so the panel was not in favor of
13 this.

14 CHAIR ISMAN: Thank you.

15 Microphone No. 4.

16 DR. HIRSCHLER: Marcelo Hirschler, GBH
17 International, speaking for myself in support of
18 the motion.

19 I know about some of these suspended
20 ceilings--some of these suspended ceilings are not
21 intended to have the strength to support cables
22 hanging from them, so we have a potential there
23 of safety. If we want to manage cables from the
24 suspended ceiling, want to hang them properly
25 supported not from suspended ceiling. This is an

1 issue of safety of the operators. I urge you to
2 support the motion. Thank you.

3 CHAIR ISMAN: Thank you.

4 Microphone No. 5.

5 MR. BRONSON: My name is Tim Bronson.
6 I represent the Alliance of Telecommunications
7 Industry Solutions, and I would like to speak in
8 opposition to the motion.

9 First let me preface my remarks by
10 saying that I am the submitter of the original
11 proposal as well as similar proposals for Articles
12 800, 820, 830 and 770, among the other ones that
13 Harry mentioned.

14 The original proposal really dealt with
15 revision modification of the existing text and the
16 requirement that it also meet the requirements of
17 seven--mechanical execution of work also meet the
18 requirements of 300.11 was added by Panel 16. And
19 in discussions with them about that they said
20 that, Well, that met the intent of the submitter,
21 and I argue, being the submitter, it did not meet
22 my intent.

23 In fact, they went on to note during
24 the comment stage--this is Panel 16 now--in their
25 substantiation, the panel statement read that

1 Comment 16-669 that "CMP understands that the
2 proposal as modified by the panel is not the
3 original intent of the submitter."

4 So with that as background, let me go
5 on to say that I believe that the securing and
6 support requirements of 300.11 are overly
7 restrictive and are inappropriate for local
8 signaling alarm cables, as well as optical fiber
9 cables of 770, and communications cables of 800,
10 820 and 830.

11 300.11 is applicable to power cable
12 assemblies that are heavier and larger than
13 signaling, optical fiber and communication cables.
14 And signaling, optical fiber and communication
15 cables are smaller in diameter, lighter in weight,
16 and operate at much lower voltage levels and
17 available power levels.

18 Modification to signaling and optical
19 fiber communication cables typically involve the
20 addition of a single or at least a few additional
21 cables.

22 Additionally, as signaling and
23 communication systems evolve, cables are installed
24 over an extended period of time and often are
25 lashed together to form a cable assembly. Such

1 practice would be precluded by application of
2 300.11.

3 So the argument here is not that the
4 cables communication, optical fiber, and low-
5 voltage signaling and alarm cables could not be
6 supported, but that they allow current existing
7 practices for their support to continue to be
8 used.

9 So once again, I think that it's overly
10 restrictive that the installation of a single
11 cable require installation of additional and
12 separate supports, and this only serves to
13 increase the installation costs. Thank you.

14 CHAIR ISMAN: Thank you.

15 Microphone 1.

16 MR. ODE: Mark Ode, member of Code
17 Panel 3.

18 I was not going to make any kind of
19 statement on this--by the way, Harry Ohde is not
20 spelled the same way as Mark Ode. I just wanted
21 to point that out to the group. And I don't
22 think we're related in any manner, but after I
23 make my statement, he probably won't be interested
24 in having me part of his family anyway. But it's
25 nothing personal.

1 First of all, if I look back in 725.6
2 in the proposal, as Chairman Owens said, the issue
3 was not brought forth to Panel 3. It was brought
4 forth to Panel 16 at the proposal stage. Panel 3
5 didn't get a chance to look at this until the
6 comment stage, which means that it didn't have
7 public review.

8 Since it hasn't had public review, as a
9 member of the Correlating Committee, I would have
10 to have moved that as a rejection anyway because
11 it didn't have public review.

12 If you go back and look at this issue,
13 whether or not to have a raceway or a cable
14 connected to the ceiling support wires, that's a
15 300.11 issue, and we don't argue about that.
16 What we're saying is that in some cases if I use
17 raceways, for example, for a Class 1 circuit, I
18 may have to go back to 300.11.

19 Now, Chapters 1 through 4 apply
20 generally. Chapters 5, 6 and 7 can supplement or
21 amend the information. On 725.3 we say that
22 nothing in Article 300 applies, unless very
23 specifically referenced. So when we're dealing
24 with Article 725 requirements, we're not looking
25 at 300.11, unless it's actually referenced.

1 In this particular case we would have
2 to have discussions on the types of cables that
3 we'd be looking at, the installation criteria for
4 it, and none of those things were actually
5 addressed in the comments stage.

6 The reason we didn't address those from
7 the technical point of view is that we did not
8 have public review on the information to begin
9 with. And I would like to see this motion
10 rejected.

11 CHAIR ISMAN: Thank you.

12 The gentleman behind Microphone 7,
13 you've been hovering around the microphone; do you
14 want to address this issue? Hold on for a
15 second. We're not getting any sound from
16 Microphone 7. There you go. Thank you.

17 MR. LaDART: Thank you, Chairman. My
18 name is Sam LaDart of Code Making Panel 7,
19 Memphis, Tennessee. I represent the International
20 Brotherhood of Electrical Workers in support of
21 Comment 3-157.

22 This is a life safety issue. I work
23 for the City of Memphis along with firemen each
24 and every day. One of the main problems that
25 they encounter is collapsed ceilings in the event

1 of a fire. And oftentimes these collapsed
2 ceilings cause them on occasion to become
3 entangled, such as was the case with the fireman
4 in Nashville, Tennessee who received burns as a
5 result of being entangled. It wasn't an issue of
6 how heavy that wiring was. It was certainly an
7 issue of entanglement. I don't think 300.11 is
8 overly restrictive as it relates to this matter of
9 entanglement.

10 As a City of Memphis employee, I've
11 talked to numerous firemen about these situations.
12 Their number-one fear is the collapsing ceiling.
13 They're very brave. They don't stop at nothing
14 in going in a building, especially if life safety
15 is involved.

16 Now, at every NFPA I've attended at
17 this conference, you all have been very careful to
18 point out the safe egress of these buildings.
19 What about a fireman that's in a building that's
20 engulfed in flames and smoke? He's trying to do
21 his job. He doesn't need the added problems of
22 entanglement or anything falling from the ceiling.

23 You want everything in a building to be
24 secured, not only supported. We're talking
25 basically about a suspended ceiling, in most

1 situations a suspended ceiling where you have
2 wiring laying on it. From doing these fire jobs,
3 those suspended ceilings disappear. Oftentimes
4 the wire's left hanging down. This is a major
5 problem. I would ask that you strongly give
6 consideration to this motion on the floor. Thank
7 you.

8 CHAIR ISMAN: Thank you.

9 Microphone 3.

10 MR. COLEMAN: Thank you, Mr. Chairman.

11 My name is Terry Coleman. I'm an alternate on
12 Code Making Panel 16. Both here and on that panel
13 I represent the IBEW, and I rise in support of
14 the motion.

15 First a clarification on Panel 16 and
16 the issue that was brought up about being overly
17 restrictive. After much debate in that panel, it
18 was decided that it wasn't--300.11 was not overly
19 restrictive, and the committee then went ahead and
20 approved to add 300.11.

21 There's a couple of dilemmas here to be
22 looked at when Code Making Panel 3 rejected the
23 addition, the reference to mechanical execution of
24 work. And it created some problems that we need
25 to address, and one is it reduces the

1 effectiveness of the NEC as a document as a user-
2 friendly document.

3 In the NEC development to create a
4 code, one, it should be easy to read, two,
5 practical, and three, enforceable. So first it's
6 not practical to have some articles of the code
7 require supporting of cables and cable assemblies
8 and other articles not requiring support of cable
9 assemblies or cable installations.

10 It will create enforcement problems as
11 well. As the HJ looks up in the ceiling and
12 tries to determine, Is this an Article 640, 770-
13 cable installation, 800, 810, 820 or 830-cable
14 installation--all of these requiring support--or
15 is this a 725- or a 760-cabling installation which
16 does not require support?"

17 And finally on the training side of
18 things, which I'm involved in, when we talk to
19 new users of the NEC, how will we explain to them
20 why certain cables are to be supported and other
21 cables do not require support, especially when
22 many of these same cable types are same cables or
23 different cables, for that matter, will be in the
24 same locations? So I feel we should accept this
25 motion.

1 CHAIR ISMAN: Thank you.

2 Microphone 5.

3 MR. HOLT: My name is Mike Holt. I
4 represent myself. I'm in support of Mr.
5 Callanan's proposal--I mean his comment.

6 You know, I hear all this talk, and I
7 get confused. And I even understand the issues.
8 We're talking about one day we're finally going to
9 decide to support or remove the cables off the
10 suspended ceilings. I might be wrong, but I
11 think Panel 16 had 725 and 760 the last code
12 cycle. If that would have been the case, this
13 code cycle it's a no-brainer.

14 It's embarrassing for me to try to
15 communicate out to the industry where if it's 725
16 and 760, you can lay it on the ceiling support--I
17 mean the ceiling grid, but not if it's 800, 810,
18 830. This makes no sense at all.

19 And I hope that we don't get confused
20 in cost and weight and size. I've been in New
21 York City, and I've seen them put a thousand
22 wires on a ceiling. So, I mean, we at some point
23 just have to say, You know, let's just do it.

24 CHAIR ISMAN: Okay. Thank you.

25 Microphone 4.

1 DR. HIRSCHLER: Thank you. Marcelo
2 Hirschler, GBH International. I rise in support
3 of the motion.

4 The issue is consistency. Mr. Ode
5 said, yeah, the reference to 300.11 wasn't put in
6 the proposal stage, but Panel 16 discussed the
7 issue, understood that is a life safety issue, put
8 it in for the cables in Articles 770, 800, 820
9 and 830. Of course Panel 16 is not responsible
10 for Article 725 and 760, so it couldn't do it.

11 So in order to make sure we have
12 consistency for the safety of the user, we have
13 to put it in articles for control and
14 communications cables that can go up in these
15 concealed ceilings. Again, I want to repeat what
16 I said before. These ceilings are not intended
17 to support weight. These ceilings will fall down
18 on their own weight, so we need to support it
19 properly. I urge you support the motion. Thank
20 you.

21 CHAIR ISMAN: Thank you.

22 Mike 5.

23 DR. KAUFMAN: I'm Stanley Kaufman,
24 Member Panel 16 which dealt with the same issue.

25 I'd like you all to look at the ROP,

1 page .1681. We're getting confused here. If we
2 leave this proposal the way it is, cables will
3 still be supported by straps, staples, hangers or
4 similar fittings. So currently the code as
5 written and the code has amended by this proposal
6 to not allow cables to go on top of ceiling
7 tiles. So it's not a matter of ceiling tiles on
8 one hand or 300.11 on the other. Please look at
9 page .1681, and you'll see that cables cannot go
10 on ceiling tiles; they must be supported by
11 hangers already.

12 CHAIR ISMAN: Thank you.

13 Microphone No. 2.

14 MR. WEBER: Thank you, Mr. Chairman.
15 Ray Weber. I call the question.

16 CHAIR ISMAN: We have a motion to end
17 debate on the subject. Is there a second to that
18 motion? I hear a second to that so we'll move
19 immediately to voting on ending debate. All those
20 in favor on ending debate on Comment 3-157, please
21 raise your hands. And all those opposed to
22 ending debate. That motion passes and so we end
23 debate and we move directly to the motion to
24 accept Comment 3-157. All those in favor of
25 accepting the comment, please raise your hand.

1 And all those opposed. That motion passes.

2 We have a stenographer that needs to
3 switch paper so we'll just take a moment here.

4 (A recess was taken from 12:25 p.m. to 12:28
5 p.m.)

6 CHAIR ISMAN: So we move back to
7 discussing the jurisdiction of Code Making Panel
8 3. Are there further discussions?

9 At Microphone 3.

10 MR. CALLANAN: Thank you, Mr. Chairman.
11 Michael Callanan with the IBEW.

12 I would like to move acceptance of
13 Comment 3-520 found on page .647 of the ROC.

14 CHAIR ISMAN: So we have a motion to
15 accept Comment 3-520 on page .647 of the ROC. Is
16 there a second? I did hear a second to that.
17 Please proceed.

18 MR. CALLANAN: Thank you, Mr. Chairman.

19 Essentially this is the same issue that
20 we just debated, and I think in an effort to save
21 the time of the assembly, it speaks for itself.

22 Essentially this takes the same 300.11
23 requirement--support requirements in 300.11 and
24 applies them to in this case fire alarm circuits.

25 Thank you.

1 CHAIR ISMAN: Okay. Mr. Carpenter, do
2 you wish to comment?

3 MR. CARPENTER: It's the same thing,
4 I'm going to refer to Dick Owens of Code Panel 3.

5 CHAIR ISMAN: Okay. At Microphone 2.

6 MR. OWENS: Mr. Chairman, Richard
7 Owens, Chairman of Panel 3.

8 As Mike already pointed out, this is
9 the same issue. It was not brought up in the
10 proposal stage. It was brought up as part of the
11 comment, was not subject to public review, and,
12 therefore, the panel did not feel it should be
13 passed on at this point.

14 CHAIR ISMAN: Okay. At Microphone No.
15 4.

16 DR. HIRSCHLER: Marcel Hirschler, GBH
17 International.

18 Again, it's been stated twice that this
19 is the exact same issue. We absolutely need the
20 consistency to all other articles corresponding to
21 these type of cables. I support the motion.
22 Thank you.

23 CHAIR ISMAN: Thank you.

24 Any further discussion on the motion?

25 Seeing none, we'll move into a vote.

1 All those in favor of accepting Comment 3-520,
2 please raise your hand. And all those opposed.
3 That motion passes.

4 Do we have additional motions under
5 Code Making Panel 3?

6 At Microphone No. 4.

7 MR. ROSS: I'm Joe Ross, Ross
8 Electrical Assessment.

9 Move acceptance of Comment 3-96. Mr.
10 Chairman, I am not the submitter of that comment,
11 but I'm--there is a proxy statement on file with
12 the secretary of the Standards Council permitting
13 me to address this issue.

14 CHAIR ISMAN: Do you have a copy of
15 that with you, sir?

16 MR. ROSS: The proxy statement?

17 CHAIR ISMAN: Yes.

18 MR. ROSS: No, I don't. Yes, I do.
19 Yes, I do.

20 CHAIR ISMAN: Please get it for us.

21 While we're working on straightening
22 out this particular issue, are there any other
23 motions to be made on Code Making Panel 3?

24 Okay. Thank you for bringing this to
25 our attention. I apologize, but we've never seen

1 this proxy statement before. So now we have the
2 official proxy statement in writing, and the
3 motion appears to be in order.

4 So we have a motion to accept Comment
5 3-96; do we have a second? I did hear a second.
6 Please proceed.

7 MR. ROSS: This has to do with the
8 location of Article 527, Temporary Wiring
9 Installation, as it appears in the 2002 code.

10 The panel action on this comment failed
11 to respond to the technical issues raised by the
12 comment. The relocation of this material out of
13 Chapter 3 in the 2002 cycle was appropriate, but
14 not to Chapter 5. The location in Chapter 5
15 squarely violates the express wording of 90.3.
16 Temporary wiring is not, never has been, and never
17 will be an occupancy. It is a special condition
18 that can apply and often does apply in any
19 occupancy.

20 Now that the reorganization of Chapter
21 3 is settled and the emotions accompanying the
22 process have cooled, the location of this article
23 needs to be thoroughly reconsidered, or else 90.3
24 should be reworded. The location should be near
25 the beginning of the Chapter 7 adjacent to the

1 power limited article, but well after Article 700
2 to 705.

3 The submitter recognizes that Code
4 Panel 3 has no final jurisdiction, but requests a
5 panel action to advise the Technical Correlating
6 Committee of panel support for this relocation. A
7 Chapter 7 relocation will be more effective
8 response to the concerns that prompted this and
9 other similar proposals.

10 CHAIR ISMAN: Thank you.

11 Mr. Carpenter, would you like the Code
12 Making Panel 3 Chair to respond?

13 MR. CARPENTER: On the proposal, 3-108,
14 the Technical Correlating Committee at that point
15 in time directed that that article be renumbered
16 to Article 590, and this comment really doesn't
17 address what the Technical Correlating Committee
18 directed it to do.

19 If I have a Technical Correlating
20 Committee member that remembers exactly what went
21 on, I would defer to them, but I don't see him.

22 CHAIR ISMAN: I don't see anyone else
23 rising to the Microphone.

24 MR. LOYD: Richard Loyd speaking for
25 myself.

1 For the 2002 code I did write comments
2 to object to Article 305 being moved to where
3 it's at now in the 2002 code, 527. Now they are
4 moving it again for the 2005 code to Article 590.
5 And I have to agree with Mr. Ross. I don't think
6 there's no way that temporary wiring is an
7 occupancy. Temporary wiring is something that's
8 used in virtually every construction project there
9 is. It falls much closer to being a general
10 wiring method than a special system or a special
11 occupancy. So I would agree. I think the
12 Correlating Committee ought to take a look at
13 where this is at. It seems to be lost. Teaching
14 classes I have people that want to know why they
15 took temporary wiring out of the code. I explain
16 to them they did not. But I have to agree, it's
17 in the wrong place for it.

18 CHAIR ISMAN: Thank you.

19 Microphone 5.

20 DR. HIRSCHLER: Marcelo Hirschler, GBH
21 International, speaking for myself.

22 I also agree with Mr. Loyd and with the
23 proponents. This article is in the wrong place in
24 Chapter 5 where the 527--it's particularly wrong
25 at 527 between Various Assembly Occupancies. 590

1 is still a type of occupancy. Whether it goes in
2 Chapter 7 or back, which I think would be more
3 appropriate in Chapter 3, either one would be a
4 better way for it to be there than in Chapter 5.

5 If this comment were to be accepted--if
6 this motion were to pass, it would go into
7 Chapter 7, which I think is an appropriate
8 location. So I urge you to support the motion.
9 Thank you.

10 CHAIR ISMAN: Thank you.

11 Microphone No. 1.

12 MR. ODE: Mark Ode, a member of Panel 3
13 and also a Correlating Committee member.

14 When we looked at relocating the old
15 305 article, which was Temporary Wiring, we also
16 renamed it to Temporary Installations. We were
17 trying to find a home for it that would be
18 consistent with what was being done in the field,
19 be consistent with where it was going to be
20 located.

21 Putting it back in Chapter 7 under
22 Special Conditions doesn't fit very well either.
23 But when I'm looking at things such as Carnivals,
24 Article 5.5, for example, there are a lot of
25 temporary wiring installations associated with

1 carnivals and that sort of thing. And I believe
2 that was the reason why it was moved to 527, to
3 be close to that Article 525, which was dealing
4 with carnivals and similar types of temporary
5 installations, if you will. It fits better in
6 that than it does probably anywhere else.

7 I don't think that it fits well within
8 Chapter 7 where we're dealing with emergency
9 conditions, emergency systems, you know, the
10 optional standby system. You know, those kinds of
11 things are found in Chapter 7. You know, we get
12 into fire alarm circuits and Class 1, Class 2 and
13 Class 3 in Article 725, so leaving it in 527
14 close to those articles that are like carnivals
15 where they're going to be used I think is the
16 appropriate location for it, and I am not in
17 favor of the motion to move it again past that
18 Chapter 5.

19 Article 590--you know, again, it's
20 going to take a little bit getting used to
21 finding that location, but at least it's within
22 the special occupancies that we're looking at.
23 Oftentimes we're using that temporary installation
24 to do lighting in those special occupancies also
25 during construction.

1 CHAIR ISMAN: Thank you.

2 Microphone 5.

3 DR. HIRSCHLER: Marcelo Hirschler, GBH
4 International, speaking for myself in support of
5 the motion.

6 I just wanted to address something that
7 Mark Ode just said. As a former member of Panel
8 15, when we put in Article 525, we addressed the
9 specific issues that have to do with temporary
10 installations in carnivals and fairs and other
11 things are specifically addressed in 525. That's
12 got nothing to do with 527 or 590 or whatever the
13 number is. These temporary installations is for
14 things that are temporary installations in any
15 occupancy. So it shouldn't be a particular
16 occupancy. It's any occupancy, temporary
17 installations. And I think it's appropriate, as
18 the proponent of the comment said, that it should
19 be put in Chapter 7 or back in Chapter 3. Thank
20 you.

21 CHAIR ISMAN: Thank you.

22 Microphone No. 4.

23 MR. LOYD: Yes. I'd also like to
24 comment.

25 CHAIR ISMAN: I'm sorry, could you

1 introduce yourself again for us.

2 MR. LOYD: Richard Loyd speaking for
3 myself.

4 Certainly carnivals are an occupancy.
5 Agreed, they are a lesser wiring method and employ
6 methods that are common with temporary.

7 Temporary installations, temporary
8 systems, temporary whatever you want to call it,
9 is something that's used generally in every single
10 construction job we do. We have spent the last
11 three or four code cycles--and I've been involved
12 in a number of committees--to make the code more
13 user friendly. Certainly, I think when we
14 relocated this article, I think we ought to
15 relocate it where it makes the code more user
16 friendly, not where somebody thinks that it was
17 deleted from the code.

18 CHAIR ISMAN: Thank you.

19 Microphone 1.

20 MR. WEBB: Bill Webb, Shermer
21 Engineering (phonetic). I call the question.

22 CHAIR ISMAN: We've had a motion to end
23 debate. Do we have a second on that motion? We
24 have a second on that motion. The motion is non-
25 debatable, so we move directly to a vote. All

1 those in favor of ending debate on discussion on
2 Comment 3-96, please raise your hand. And all
3 those opposed to ending debate. That motion
4 passes.

5 So we move directly to a vote on
6 accepting Comment 3-96. All those in favor in
7 accepting the comment, please raise your hands.
8 And all those opposed. That motion does not
9 pass.

10 We now move back to our original
11 discussion on the jurisdiction of Code Making
12 Panel 3. Are there additional motions to be
13 made?

14 Okay. Before we move on to Code Making
15 Panel 4, I'm probably going to get a lot of grief
16 for this because I'm not the iron man that some
17 of my predecessors have been, I'm going to call
18 for a 20-minute recess so that some of us up here
19 can get a few things done, like eat. So 20
20 minutes and we'll be back at exactly 1:00 o'clock
21 by my watch.

22 (A recess was taken from 12:43 p.m. to 1:03 p.m.)

23 CHAIR ISMAN: Okay. We're ready to
24 continue. Thank you for your indulgence for that
25 needed respite.

1 We're ready to address issues in the
2 jurisdiction of Code Making Panel 4, which are
3 Articles 225 and 230.

4 Is there any discussion with respect to
5 the items under jurisdiction of Code Making Panel
6 4?

7 We do have a motion at Microphone 4.
8 Is that another proxy statement? Can I get one
9 of the staff to run that up for us, please? Why
10 don't you go ahead with Microphone 4, sir, and
11 make your motion.

12 MR. ROSS: Move acceptance of Proposal
13 No. 4-71, 4-71.

14 CHAIR ISMAN: I'm sorry, could you
15 introduce yourself, please.

16 MR. ROSS: Joe Ross, Ross Electrical
17 Assessment. Again, I have a proxy statement that
18 allows me to speak on this issue.

19 CHAIR ISMAN: And you're moving
20 Proposal No. 4-71?

21 MR. ROSS: Yes.

22 CHAIR ISMAN: Okay. I apologize for
23 taking a few moments.

24 That motion is in order. We have a
25 proposal for 4-71; do we have a second? I did

1 hear a second from the body. Please proceed.

2 MR. ROSS: Acceptance of this motion
3 will rectify a mistake made by the Technical
4 Correlating Committee in its action on Comment 4-
5 44. The Technical Correlating Committee deleted
6 the final sentence on the panel action on that
7 comment because it introduced new material that
8 did not have public review. That action was
9 incorrect.

10 The final sentence of the text accepted
11 by Code Panel 4 is verbatim to the text of
12 Proposal 4-71. Therefore, the panel action had
13 full public review and was tantamount to the
14 acceptance of Proposal 4-71. This motion corrects
15 that mistake.

16 CHAIR ISMAN: Thank you.

17 Mr. Carpenter.

18 MR. CARPENTER: Yes. I defer to Mike
19 Callahan, a member of the Technical Correlating
20 Committee.

21 CHAIR ISMAN: Thank you. Microphone 3.

22 MR. CALLANAN: Thank you, Mr. Chairman.
23 Mike Callahan, IBEW representative on the
24 Technical Correlating Committee.

25 If you actually look in the comment,

1 the actual comment is 4-44 on page .112 of the
2 ROC, and apparently the initial proposal, 4-71,
3 was in fact rejected unanimously, I guess, by the
4 panel, and it seems that was the panel's intent.

5 The Correlating Committee was faced
6 with the action on Comment 4-44. When we looked
7 at that action there, there was an additional
8 sentence to Exception 1 that was accepted in
9 principle by the panel that referenced 230.2(E).
10 As you note, the comment references Proposal 4-72.
11 In fact, that 4-72 did not address the specific
12 requirements of 230.2(E), so we flagged that as
13 introducing new material. However, we suffered
14 from what's commonly referred to as "comment
15 tunnel syndrome," and we kind of forgot that there
16 were other proposals that address a similar issue.
17 In this case 4.71 does in fact address the
18 specific language. So I can't really speak to
19 the proposal and the action on the floor in terms
20 of this.

21 It seems to me the action really
22 occurred in Comment 4-44, but I will say from the
23 purposes of this Technical Correlating Committee
24 that we capitulate--make sure you spell that
25 right. I don't get quoted as saying something

1 else. We capitulate that, in fact, there was a--
2 did have public review.

3 CHAIR ISMAN: Thank you.

4 Also Microphone 3.

5 MR. SUMRALL: Mark Sumrall representing
6 IBEW, alternate to the chairman on Code Panel 4.

7 The reason the TCC directed to strike
8 the second sentence might be an unintentional
9 error. Full discussion, including enforceability,
10 operability and maintainability was not discussed.
11 Neither was remodeling of lease spaces and the
12 coordinations of identifications, replacements or
13 updates. I urge the membership to vote "no" on
14 the floor for the motion and allow Code Making
15 Panel 4 full discussions to all the ramifications
16 of these comments and proposals. Thank you.

17 CHAIR ISMAN: Thank you.

18 Microphone 5.

19 MR. HILBERT: Thank you, Mr. Chairman.
20 My name is Mark Hilbert. I'm an IAEEI alternate
21 representative on Code Making Panel 4, and I'm
22 speaking as an individual.

23 I'd just like to speak in opposition to
24 the motion. I believe that the language at the
25 ROP stage of discussions here in the ROP stage

1 was relative to identifying the difference in
2 services of different characteristics within the
3 same occupancy as opposed to the same service
4 within all occupancies in the building. I believe
5 I support the TCC's action. Although I don't
6 support the concept of identifying when we have
7 multiple disconnects within a building, I don't
8 believe it has had sufficient public review, and
9 it should be sent back to panel for the next code
10 cycle. Thank you, Mr. Chairman.

11 CHAIR ISMAN: Thank you.

12 Microphone 1.

13 MR. NAUGHTON: Jim Naughton, Panel
14 Chair of Panel 4. I'm speaking now for the IBEW.

15 The TCC did make probably an error
16 here, but it was a wake up call, I think, to the
17 panel members, especially to myself in looking at
18 the different characteristics that we--of the
19 article that we really didn't have a lengthy
20 discussion on.

21 I think that the best thing to do is
22 correct the problem and put it back on hold like
23 the TCC said, not for the reasons the TCC stated,
24 but for the other more discussions so we can
25 straighten some of the problems out at the panel

1 level versus later on in the field.

2 CHAIR ISMAN: Is there any further
3 discussion on Proposal 4-71?

4 Microphone 1.

5 MR. ODE: This is Mark Ode, member of
6 Panel 4.

7 When we looked at this, the last
8 sentence--when you're looking at Proposal 4-71,
9 first of all, I would not like to see the entire
10 exception sent back, certainly. I would like to
11 see, however, the Correlating Committee's position
12 be upheld for one reason. That last sentence, it
13 says, "Requirements of 230.2(E) shall apply to
14 each service disconnect location." When I talk
15 about service disconnecting location, if I look
16 back in 230.2, 230.2 says that I'm allowed to
17 have one service per building. Now, when I get
18 into multiple services, 230.2(E) says that I must
19 provide a plaque that locates the other
20 disconnecting means.

21 Now, if I go over to 230.40, 230.40
22 gives me permission--or the requirement, if you
23 will, to have one service dropped to a particular
24 location. Exception No. 1, the way we revised it
25 at the ROC stage was to provide permission, if

1 you will, to have multiple-service entrance
2 conductors on the outside of the building and not
3 have to have disconnecting means until you enter
4 into the building. Now that could be multiple
5 locations. I could have 20, 30 or 40 different
6 locations on that. I don't have to put the
7 disconnecting means in until I actually enter into
8 the building. Now, that's the way that has been
9 for a long, long time in the NEC.

10 What we did not have to do in the past
11 is put additional placarding, because I still had
12 one service. I just had multiple service entrance
13 conductors with a single service. So I was not
14 required to go back to 230.2(E) and put multiple
15 plaques on. I only had one service.

16 So when we put this sentence in, it did
17 not have the discussion necessary, because now if
18 I have 40 different locations, I still have one
19 service, I would have to placard that and say at
20 Apartment No. 1, 2, 3, 4, 5, et cetera, and then
21 exclude the one that I'm in because that one,
22 obviously, is where the placard is at.

23 I don't think that it is going to help
24 the industry at all by providing that additional
25 plaque. I think it will actually cause confusion.

1 And how am I going to put that size plaque on a
2 little 20-circuit panel board?

3 We never did any kind of discussion on
4 those issues in Panel 4, and I think that that
5 last sentence needs to be held and sent back for
6 the 2008 Code for reconsideration. Thank you.

7 CHAIR ISMAN: Thank you.

8 Any further discussion on Proposal
9 4-71?

10 Seeing none, we'll move into a vote.
11 All in favor of accepting Proposal 4-71, please
12 raise your hand. And all those opposed. That
13 motion fails.

14 Any additional commentary on this CMP 4
15 jurisdiction?

16 Seeing none, we'll move on to the
17 jurisdiction of Code Making Panel 5 including
18 Articles 200, 250, 280 and 285. Is there any
19 discussion on the jurisdiction to Code Making
20 Panel 5?

21 Seeing none, we'll move--I'm sorry, I'm
22 moving a little too quickly for the body.
23 Microphone No. 5.

24 MR. ZIPSE: Thank you, Mr. Chairman.
25 I'm Don Zipse, Zipse Electrical Engineering

1 speaking for myself.

2 I wish to make a motion. It concerns
3 my proposal 5-254 and Comment 5-224. However,
4 sir, I need help from the Chair. In order to
5 make the motion very clear and to save work on
6 the part of the committee writing this, I would
7 like to comment on 5-223 and remove and delete
8 Section C, which has to do with multi neutral
9 grounding systems.

10 CHAIR ISMAN: Could you just give us a
11 second. Let's take a look at Comment 223. Do we
12 know what page that's on in the ROC?

13 MR. ZIPSE: I'm sorry, I don't.

14 CHAIR ISMAN: 182.

15 MR. ZIPSE: My motions, sir, are to
16 delete--my motions were to delete "multigrounded
17 neutral systems."

18 CHAIR ISMAN: Okay. I apologize for
19 the moment. As I understand your motion, it's to
20 return a portion, an identifiable portion of a
21 comment, and that identifiable portion is Part C
22 of Comment 223?

23 MR. ZIPSE: Well, I want to delete it.
24 If it means returning it, that's fine, but I wish
25 to delete that portion.

1 CHAIR ISMAN: Would you like to return
2 to the ROP language on the situation or the
3 previous document?

4 MR. ZIPSE: I would like to return to--
5 that's not--that's neither. I wish to take 232
6 and delete all references to multigrounded neutral
7 systems, because 232 was the final action of the
8 panel.

9 CHAIR ISMAN: You mean 223?

10 MR. ZIPSE: 223. I'm cross-eyed here.

11 CHAIR ISMAN: Okay. But Item 223 took
12 action on a proposal, and so if you make a motion
13 to reject what happened in part of 223, you'll
14 return to whatever happened in the ROP, versus if
15 you make a motion to return, you'll end up going
16 back with what the text was in the original
17 standard.

18 MR. ZIPSE: Well, then in that case,
19 sir, I will revert--make my motion, then, to
20 accept my Comment 5-224 on page .70-182.

21 CHAIR ISMAN: That motion is certainly
22 in order. So we have a motion to accept Comment
23 5-224; is there a second to that motion? I did
24 hear a second from the body in the middle of the
25 floor. So please proceed now at Microphone 5.

1 MR. ZIPSE: Thank you, Mr. Chairman.

2 John Calgerio (phonetic) wrote in the
3 NEC Digest, Spring 2004, and I quote, "Prohibited
4 currents: It is important to note that normal
5 currents must travel only in conductors intended
6 for that purpose. Normal"--and he's talking now
7 about continuous flowing--"Normal currents must
8 not be allowed to flow in metal raceways or
9 equipment-grounding conductors,"end of quotation.

10 There are somebody's loved ones right
11 now getting shocked electrically today by these
12 multigrounded neutral distribution systems. The
13 NEC is supposed to protect them, yet you have let
14 a deadly cancer enter our code. The multigrounded
15 neutral system allows hazardous and dangerous
16 electrical currents to flow uncontrolled in
17 uncontrollable amounts over the earth through
18 swimming pools, bathtubs, hot tubs and even
19 showers, shocking humans, in one case
20 electrocuting a nine-year-old boy in a swimming
21 pool.

22 You will have heard from the utilities
23 that they have been using multigrounded neutral
24 distribution systems for over 50 years. They will
25 tell you that multigrounded neutral systems are

1 safety. If multigrounded neutral systems are so
2 safe, why there so many legal cases in Wisconsin,
3 Minnesota, Michigan, Idaho, Oregon, Kansas, New
4 Jersey? I could go on.

5 If the multigrounded neutral
6 distribution systems are so safe, why are juries
7 making awards of 1.7 million, Green Bay,
8 Wisconsin, 3.7 million, Wichita, Kansas, 17.5
9 million in Twin Falls, Idaho? That is just in
10 the past year and just my cases alone.

11 The Wisconsin Supreme Court upheld
12 another case where the court ruled multigrounded
13 neutral systems had to be removed, had to be
14 changed and that they were unsafe.

15 I am measuring over 70 to 85 percent of
16 the hazardous current returning back to the
17 substations over the earth uncontrolled. For
18 example, 18.5 amps flowing out on a single-phase,
19 high-voltage circuit, and only three and a half
20 amps returning on the multigrounded neutral
21 conductor. Fifteen amps flowing uncontrolled over
22 the earth. The electric chair, for your
23 information, keeps the current to less than five
24 amperes so that the body will not be burned.

25 Please go on the web. Look up Brick,

1 New Jersey, Asbury Park Press, New Jersey. They
2 had 10 to 12 articles on straight voltage, and
3 the people came out of the woodwork telling how
4 they had been affected by the straight current
5 flowing over the earth. It started with a man
6 placing his hand in his hot tub, and the hot tub
7 was on the earth. The utility measured the
8 voltage from the hot tub to the earth, above-
9 ground swimming pool to earth, and from the
10 metallic metal swimming pool or swing set that
11 children use. The utility said, and I paraphrase
12 that, Mr. and Mrs. Gary Smith, we recommend you
13 not let your three boys, ages 11, 9 and 4 ½, play
14 barefoot in their own backyard.

15 The local government got involved, as
16 well as the New Jersey Public Electric Commission,
17 whatever they're called, and ordered a study be
18 made. They found that over five amperes were
19 found flowing over the earth as measured at the
20 substation, and the substation is located in the
21 middle of a housing area.

22 You will hear that multigrounded
23 neutral is needed in the NEC in order to connect
24 the utility electrical system. This can simply be
25 done with a transformer. And it has been done

1 and proven in New York state in a study that was
2 done up there by Epry (phonetic). Then once you
3 convert that to a single-point system you're
4 completely safe.

5 You cannot balance, as you will hear,
6 to be done, "All we have to do is balance it."
7 Well, how are you going to balance a single-phase
8 system? Please, for your own safety, I ask you
9 to support this motion.

10 Now, I believe in what I speak, and I
11 have taken in my house that I've just remodeled
12 and I have put in an isolation transformer, not
13 only in order to protect me from the straight
14 currents flowing over the earth. I've installed
15 plastic piping from my house out to the street.

16 So again, ladies and gentlemen, this is
17 a very important safety issue that concerns you
18 and your loved ones, and I ask you--it does not
19 belong in a code that is supposed to be safe for
20 industry and for the homeowner and for the public.
21 It needs to be removed. It should not have been
22 in the code in the first place, and I am asking
23 you to support this and get it out of the code
24 and make this code a safe code. And I hand it on
25 time.

1 CHAIR ISMAN: Thank you.

2 Mr. Chair.

3 MR. CARPENTER: I'd like to defer to
4 Paul Dobrowsky acting for Ronald Toomer, the Chair
5 of Panel 5 at Mike 2.

6 MR. DOBROWSKY: Thank you. Paul
7 Dobrowsky acting for Ronald Toomer on Panel 5.
8 I'd like to have Doug White who chaired the past
9 group who looked at the issue speak to the issue
10 first, and then I'd like to make a comment after
11 that.

12 CHAIR ISMAN: Okay. At Microphone 1.

13 MR. WHITE: Thank you, Mr. Chairman.
14 My name is Douglas White. I represent EEI,
15 Edison Electric Institute, and I am a member of
16 Code Panel 5, and I will speak for the panel
17 here.

18 If this body accepts the motion on the
19 floor right now, what they will in effect do is
20 eliminate all grounding requirements for Part 10,
21 which is the grounding of circuits and systems 1
22 kV and over. So I urge you to vote against this
23 motion, or you'll eliminate the entire options for
24 all grounding for Part 10.

25 CHAIR ISMAN: Thank you.

1 Mike 2.

2 MR. DOBROWSKY: Paul Dobrowsky speaking
3 for Panel 5.

4 The panel looked at this issue, both in
5 the last cycle and this cycle. As Doug
6 mentioned, Mr. Zipse's comment removes all the
7 requirements for grounding for over 1,000 volts.

8 In 250.184 we have added in the 2005
9 cycle the provisions for single-point grounding
10 systems. We don't require either type of systems.
11 Individuals and companies are allowed a choice of
12 which ones they want to use. We simply provide
13 the provisions of how those will be installed.

14 Many times companies purchase systems
15 that were previously owned by a utility. Multi-
16 point grounding systems are commonly used
17 throughout this country and many others. When they
18 become a company's property, they fall under the
19 NEC, and that would render all those installations
20 non-compliant. So I urge you to vote against the
21 motion.

22 CHAIR ISMAN: Any additional discussion
23 on Comment 5-224?

24 Mr. Zipse, did you wish to speak to
25 this again?

1 MR. ZIPSE: I certainly did, sir. Mr.
2 Chairman, thank you.

3 First of all, that is the reason that I
4 try to get the Chair--and I guess you're going to
5 have to rely on the Standards Council to
6 straighten it out--to accept my motion on 5-223,
7 because what the panel has done is they have
8 taken and put in a single-point grounding, which
9 is completely safe, and this is--my object is to
10 remove only, only the multigrounded neutral
11 distribution system, the hazardous system. So,
12 yes, I guess you could twist it around and say
13 that we have eliminated all grounding. However,
14 that is not the object.

15 I will be submitting this to the
16 Council, and I will be putting it into other
17 words using the 223 proposal, which is a good
18 proposal.

19 Now, all you have to do here when you
20 buy a new system or you take over a utility
21 system, as I have stated in court documents, is
22 to add another conductor. That's all.

23 We have here--you know, we went back 30
24 years ago, and we found that using three
25 conductors to wire a house trailer, we were

1 electrocuting and shocking people when they
2 touched the ground, because the neutral ground was
3 the same conductor and fastened to the side of
4 house trailers.

5 A very astute panel that took care of
6 marinas the next cycle also did that, made it a
7 four-wire system. Unfortunately, Panel 5 took 21
8 years in order to make it a four-wire system for
9 ranges and dryers.

10 We are talking about the same thing
11 with the multigrounded neutral system. The
12 multigrounded neutral system uses a combination
13 neutral and green--a white wire and a green wire--
14 as one conductor. And all that's needed is to
15 add another wire. Now, what that takes is
16 \$10,000 a mile in Wisconsin. That's where it was
17 given in court documents from other people making
18 estimates. Now, with that, you can now have no
19 straight current over the earth.

20 I'm not asking in the National Electric
21 Safety Code--by the way, I serve on the National
22 Electric Safety Code Grounding Committee. I'm not
23 asking the utilities to do this overnight. You
24 know, we started in 1950 with two-pole
25 receptacles, if any of you have been around that

1 long, and we now have three-pole receptacles. And
2 I believe I read somewhere about ten years ago
3 that after 40 years we have converted 80 percent
4 of the housing units in the United States to
5 three-pole. I'm asking the same thing to be
6 applied to the utilities. So if you hear someone
7 say, Well, we can't afford it, we couldn't afford
8 to change two-pole receptacles to three across the
9 whole United States back in 1950. I'm not asking
10 that.

11 Now, as I said, you add one additional
12 wire and that's all there is to it. One court
13 has already ruled that it had to be removed. I
14 expect others to do the same. It's an unsafe
15 electrical system, and it needs to be taken out.
16 I ask you for your vote to uphold safety of not
17 only you and your own loved ones, but your
18 neighbors also. Thank you, Mr. Chairman.

19 CHAIR ISMAN: Thank you.

20 Microphone 1.

21 MR. WHITE: Yes. My name is Douglas
22 White, member of Code Panel 5 representing Edison
23 Electric Institute.

24 I'd just like to point out to the body
25 that multigrounded neutral systems have been in

1 the National Electric Code since 1975, and they've
2 served as trouble-free industry-wide safe systems.

3 Panel 5 reviewed all of the
4 substantiation that Mr. Zipse provided in his
5 proposals and in his comment, and we found none
6 of the substantiation provided any credible
7 evidence that there were any problems with multi
8 neutral grounded systems.

9 CHAIR ISMAN: Thank you.

10 Microphone 2.

11 MR. DOBROWSKY: Paul Dobrowsky
12 representing Panel 5.

13 Just one more small point. Most of the
14 issues that I believe Don is referring to apply
15 to the utility requirements. The utility commonly
16 uses multi-point grounding systems. Deleting the
17 provisions here in the NEC has no effect on that.
18 This applies to installations that are covered by
19 the NEC. NEC does not cover the utility
20 requirements. Those provisions are not changed
21 yet in the National Safety Code. Until they're
22 changed there, I don't see the reason to change
23 them here.

24 CHAIR ISMAN: Is there any additional
25 discussion on Comment 5-224?

1 Seeing none, we'll move into a vote.
2 All those in favor of accepting Comment 5-224,
3 please raise your hands. And all those opposed.
4 That motion does not pass.

5 Are there any additional items of
6 discussion on Code Making Panel 5?

7 At Microphone 5.

8 MR. MANCHE: I'm Alan Manche with
9 Square D Company, and I'd like to move acceptance
10 of Comment 5-229 on page .183.

11 CHAIR ISMAN: We have a motion for
12 acceptance of Comment 5-229 on page .183 of the
13 ROC; is there a second? I did hear a second.
14 Please proceed.

15 MR. MANCHE: Code Panel 5 was basically
16 trying to address a concern with regard to
17 implementation of use of a TVSS on an ungrounded
18 system. There's about three things that got
19 wrapped into this.

20 The TVSS as it stands in the 2002 code
21 is prohibited on ungrounded systems for good
22 reasons. In an ability--in an ability to try to
23 address that, they instituted a requirement and
24 permission to use TVSS on ungrounded systems when
25 it was listed for that purpose. They also

1 included in that high-resistance grounded systems
2 and corner grounded delta systems. Currently we
3 safely use TVS systems, corner grounded delta
4 systems and high-resistant grounded systems today.

5 What this is going to do is--basically
6 come the adoption of the 2005 NEC on January 1 in
7 many jurisdictions will prohibit the use due to no
8 listing requirements for high-resistance grounded
9 TVSS or corner grounded delta TVSS.

10 I'm on the ULSTP for transient multi
11 surge suppressions. There are no requirements in
12 the product standard, and there are none on the
13 board or even in discussions at this point in
14 time.

15 I urge you to support the acceptance of
16 this comment.

17 CHAIR ISMAN: Thank you.

18 I assume we're going to the CMP 5
19 chair.

20 MR. DOBROWSKY: Paul Dobrowsky speaking
21 for Panel 5.

22 Panel 5 discussed this issue and at the
23 time were told by our testing laboratory
24 representatives on the panel that there were
25 devices that were listed for use on ungrounded

1 systems. That's what we based the decision on at
2 that point in time.

3 We now have learned information,
4 according to what Alan presented yesterday at the
5 electrical session, that those devices aren't
6 really in existence. The way the panel acted,
7 the device would still have to be listed by a
8 testing laboratory for use on those systems. I'm
9 sympathetic to the concerns it may be an unsafe
10 product, but I wouldn't expect the testing
11 laboratory to list it if there are no issues in
12 the product standard or no specifications for
13 that.

14 I have a little concern with going back
15 to the 2002 language because there were some other
16 provisions that would lack correlation with
17 pointing to the right sections for use on
18 ungrounded systems. So I would support the panel
19 action as we did it.

20 CHAIR ISMAN: Thank you.

21 Microphone 1.

22 MR. CROUSHORE: Thank you, Mr.

23 Chairman. My name is Tim Croushore. I work for
24 Allegheny Power, and I'm a representative of the
25 Edison Electric Institute.

1 I stand in support of the motion to
2 accept Comment 5-229. If you look, Mr. Manche's
3 documents would allow surge suppression on
4 ungrounded systems and corner grounded delta
5 systems, which would be prohibited if the panel
6 action was upheld. So I stand in support of the
7 action to accept Comment 5-229.

8 CHAIR ISMAN: Is there any additional
9 discussion on Comment 5-229?

10 Seeing none, we'll move to a vote. All
11 those in favor of accepting Comment 5-229, please
12 raise your hands. And all those opposed. The
13 motion does not pass.

14 We continue on our discussion of Code
15 Making Panel 5 issues. Are there any further
16 issues? Seeing none--there is one coming up to
17 Mike 7.

18 INAUDIBLE SPEAKER: Yes, Mr. Chairman,
19 Tony (inaudible). I would pose a motion to
20 accept Proposal No. 5-261 and ROC 226.

21 CHAIR ISMAN: I'm sorry, was that a
22 comment or a proposal number?

23 INAUDIBLE SPEAKER: The proposal is
24 261, the comment is 226.

25 CHAIR ISMAN: So the motion is to

1 accept Comment 226?

2 INAUDIBLE SPEAKER: Correct, yes. This
3 follows on from Alan Manche's earlier discussion.
4 Essentially what he's proposing here is that the
5 same requirements apply.

6 CHAIR ISMAN: I'm sorry, just a second.
7 We need to make sure we understand what's going
8 on here. Are you the submitter of Comment 226?

9 INAUDIBLE SPEAKER: No, I'm not.

10 CHAIR ISMAN: Do you have authorization
11 to act for the submitter of Comment 226?

12 INAUDIBLE SPEAKER: Alan--I'm sorry, I
13 didn't realize I needed. I worked with Alan on
14 this issue.

15 CHAIR ISMAN: I'm sorry, but only the
16 submitter of a proposal or comment can make their
17 proposal or comment, unless there was some change
18 between the ROP or ROC. Since this comment was
19 rejected, as I understand it, there was no change,
20 then, between the ROP and the ROC; therefore, it's
21 only the submitter of the comment that can make
22 the motion. If the submitter of the comment's in
23 the room, he can make the motion.

24 INAUDIBLE SPEAKER: He's in the room.

25 CHAIR ISMAN: He doesn't appear to be

1 moving to a mike.

2 INAUDIBLE SPEAKER: I'll leave it at
3 that. Thank you.

4 CHAIR ISMAN: Okay. Thank you.

5 Is there any further discussion on Code
6 Making Panel 5?

7 Seeing none, we'll move on to Code
8 Making Panel 6. Seeing no one--there is someone
9 moving to a mike.

10 Microphone No. 2.

11 MR. LeBRAKE: My name is Neil LeBrake.

12 I represent the Edison Electric Institute.

13 I'd like to move the acceptance of
14 Comment 6-14 in the ROC, which is on page .205,
15 and I am the submitter of that comment.

16 CHAIR ISMAN: Just a moment, please.

17 Okay. We have a motion for Comment
18 6-14. Do we have a second? I did hear a second.
19 So we have a motion and a second that is in
20 order. So please proceed.

21 MR. LeBRAKE: Thank you.

22 EEI, Edison Electric Institute,
23 believes that Proposal 6-12 should be rejected and
24 Comment 6-14 be accepted according to this
25 comment.

1 Presently Rule 310.6 permits non-
2 shielded solid dielectric-insulated conductors to
3 be operated at 8,000 volts. If these proposals are
4 accepted, these conductors above 2400 volts would
5 be prohibited.

6 We believe that it would be a mistake,
7 based on our experience. Collectively we have
8 miles of such non-shielded cable in hundreds of
9 our hydro and nuclear power plants with decades of
10 satisfactory service.

11 We have found that shielding of such
12 circuits is in general unwarranted. Certainly
13 there are places such as--that are needed, such as
14 long single conductor runs in wet locations where
15 5kV-shielded cables are required.

16 Also, the manufacturers recognize that
17 this as a safe and usable product as noted in
18 page .204 of the ROC referring to Mr. Komassa's
19 negative comment on Comment 6-9.

20 Proponents of this change have
21 presented, at best, one case of a problem
22 installation. No cases have been presented of
23 anyone being hurt because 5 kV non-shielded cable
24 was used in lieu of shielded cable.

25 Comments have been made that they have

1 heard of people being injured or killed because of
2 such installations. Such statements are anecdotal
3 at best, as no instances were noted to the panel.

4 5,000 volts is a hazardous voltage, and
5 the use of shielded cable does not make it any
6 less hazardous. Surely there are examples of non-
7 shielded 5 kV cable improperly designed or
8 installed. Like other electrical equipment
9 improperly used, such installations may pose a
10 greater hazard.

11 For example, if a feed-through GFCI
12 receptacle is improperly installed, it may not
13 provide downstream protection. This device should
14 be--should not be removed from the market simply
15 because it cannot--it can be improperly installed.
16 We should not restrain the trade of products
17 because of their installation requires a certain
18 degree of training and knowledge to install it.

19 This code does not cover installations
20 by utilities for the generation of electric
21 energy. However, if the use of non-shielded 5 kV
22 cable is prohibited for those other installations
23 mandated to follow the code, manufacturers may
24 either stop making this cable or increase the cost
25 due to reduced demand.

1 Shielded cable is approximately 10
2 percent heavier than non-shielded cable. For
3 instance, shielded three conductor 4 aught has 157
4 additional pounds of copper per thousand feet of
5 cable. The added weight will require a sturdier
6 support system.

7 To require all this when there is no
8 safety problem to begin with is unconscionable.
9 For these reasons, Proposal 6-12 should be
10 rejected by accepting Comment 6-14. Thank you
11 very much.

12 CHAIR ISMAN: Thank you.

13 Mr. Carpenter.

14 MR. CARPENTER: I would like to defer
15 to Chair of Panel 6, Steve Thorwegen, but I don't
16 believe he's in the audience, so I'll try to do
17 it myself.

18 CHAIR ISMAN: Okay.

19 MR. CARPENTER: Comment 6-14 was
20 rejected with a panel statement that referred us
21 back to the statement on Comment 6-13. That is
22 found on page .205. And it was the panel's
23 decision that cables rated above 2400 volts should
24 be shielded.

25 CHAIR ISMAN: Okay. Microphone 7.

1 MR. LEWIS: I'm Bill Lewis with the
2 American Chemistry Council standing in support of
3 the proposal.

4 Based on what I've heard and read about
5 this, I am kind of convinced that there may be a
6 problem with non-shielded 5 kV cable. However, I
7 do not believe that outlawing and throwing away
8 non-shielded cable totally is the proper answer.
9 There is a place for non-shielded cable, and it
10 can be protected and used safely.

11 I believe that we could study this for
12 another cycle and possibly come up with answers to
13 safely use this in the code so that we do not
14 have to start core sizing motor boxes when we
15 have to replace failed 5 kV cable in the future.
16 There is many instances where 5 kV shielded cable
17 failure can be just as dangerous as non-shielded
18 cable.

19 Therefore, I believe that this proposal
20 should be overturned and the comment accepted,
21 thank you.

22 CHAIR ISMAN: Thank you.

23 Microphone 3.

24 UNIDENTIFIED SPEAKER: Thank you, Mr.
25 Chairman. I am a Code Making Panel 6 member

1 proudly representing the IBEW.

2 The people that are making a motion--or
3 excuse me, are trying to get this comment
4 overturned, our panel action overturned, have made
5 many statements that they have--that their
6 installations, their facilities, have installed 5
7 kV unshielded conductors without any documented
8 failures or problems. I applaud them for that.
9 But unfortunately, that's not the norm.

10 As an installer and an electrical
11 inspector, I have witnessed or seen many
12 installations of unshielded 5 kV cable that have
13 failed. I personally have witnessed a fellow
14 electrician that was injured because of it.
15 Unqualified persons installing high-voltage cable
16 go in with a sense of false security. They
17 install it as if it were low-voltage cable. They
18 do not take into consideration the needed extra
19 support or the extra bending radius that is
20 required for high-voltage cables. Mandating that
21 shielded cables be used on voltages higher than
22 2400 volts will take a large step in ensuring the
23 safety of workers, as well as equipment.

24 I ask this body to support the work
25 that Panel 6 has done and reject this motion.

1 Thank you, Mr. Chairman.

2 CHAIR ISMAN: Thank you. Also at Mike
3 7.

4 MR. EDDIE GUIDRY: Thank you. My name
5 is Eddie Guidry. I'm an employee with Fluor
6 Enterprise, and I'm representing Associated
7 Builders and Contractors.

8 I speak in support of the motion.
9 There are many, many years of experience in using
10 unshielded 5 kV cable. I personally have worked
11 many years out in the field with both shielded
12 and non-shielded 5 kV cable. And there's just as
13 many problems with shielded cable as there are
14 unshielded cable.

15 So the gentleman from the IBEW, I
16 disagree with. I don't believe that there's
17 anything safer about shielding the cable. Bottom
18 line is you have to have trained installers and
19 trained maintainers to keep safety at its best.
20 Thank you.

21 CHAIR ISMAN: Thank you.

22 Microphone 5.

23 MR. BATTA: My name is Dan Batta from
24 Constellation Generation Group in Baltimore,
25 Maryland. I'm representing the Edison Electric

1 Institute.

2 I'm speaking in support of this motion.
3 We've had experience with this cable since 1954
4 installed at the 4 kV level. My point is this
5 cable has been manufactured since the 1930s. Our
6 cable has experience with hundreds of miles of
7 this. We have had no injuries or fatalities.
8 We've had excellent service. We've experienced
9 ease of installation and ease of termination.

10 We'll point out that the use of
11 shielded cable will have us installing a heavier,
12 larger cable that's more difficult to terminate,
13 will take significantly more space to terminate
14 and will require a higher degree of qualification
15 for the installer.

16 I'll also point out that in 1965 UL
17 presented a paper to this body in support of non-
18 shielded medium-voltage cable stating that it was
19 safe installation when installed per the
20 manufacturer's recommendations.

21 In conclusion, this is a work practice
22 and training issue. This is not a code issue and
23 should not warrant limiting use of this non-
24 shielded cable. Thank you.

25 CHAIR ISMAN: Thank you.

1 The gentleman behind you at Mike 5 I
2 think was next.

3 MR. WECHSLER: Thank you, Mr. Chairman.
4 Dave Wechsler, the Dow Chemical Company.

5 I rise in speaking for this motion.
6 Nobody in this room wants to come across or have
7 someone that they know, coworker, get hurt,
8 especially due to an electrical accident. But, you
9 know, the code is not going to prevent people
10 from being hurt if they're not adequately trained
11 on what's going on.

12 Now, this is higher voltage than some
13 people may be used to, but clearly it deserves a
14 certain amount of respect. And merely saying that
15 because of the shield or not the shield is going
16 to make it safe is ridiculous. You can't change
17 the code because you say, I can't get somebody
18 certified or qualified.

19 I've spent a great deal of my time
20 making sure that our folks and the contractors
21 coming into our facilities are certified and are
22 qualified. It's a tragedy when somebody does get
23 hurt, but I feel most of all because if that
24 tragedy occurs because they didn't know or they
25 made assumptions.

1 Let's be realistic. If training is the
2 problem, we can correct that. The cable is not
3 at fault. It does not go out and single people
4 for causing accidents. We contribute to the
5 accidents. The code just makes sure that the
6 installation will be done when followed
7 manufacturer's directions, installation
8 characteristics that will be done safely. Place
9 to blame where you want to place the blame, but
10 in reality, it's the final installer. As I say,
11 it's not the cable. The cable has years of good
12 operating condition. It can be handled well, used
13 safely, and the required action is not to say, We
14 can no longer use it in the industries. Thank
15 you.

16 CHAIR ISMAN: Thank you. Microphone 6.

17 MR. ZIMNOCH: Thank you. My name is
18 Joe Zimnoch. I'm principal on Panel No. 6. I'm
19 with The Okonite Company.

20 I'm against the motion at hand. I just
21 wanted to point out that on Panel 6 most of the
22 members conveyed instances where electricians
23 either received shock or resulted in death when
24 operating 5 kV non-shielded cables at 4160.

25 Above all, this is a safety issue. The

1 main problem with 5 kV non-shielded cables
2 operating at 4160, even when properly installed,
3 is that a voltage potential does exist on the
4 outside of the cable. This becomes a problem
5 with electricians who often treat 5 kV non-
6 shielded cable like 600-volt cable, automatically
7 assuming that they could touch the cable.

8 I personally have visited many
9 installations with both my cable and competitors'
10 cable where problems do exist when cable was
11 installed improperly. One of the big problems
12 nowadays is that many end users out source
13 electric work. This has become very commonplace
14 in many industries. Talk about levels of
15 training, when you out source, oftentimes the
16 level of training is not there.

17 Lastly I would like to say that
18 discharge and arcing on the surface of the cable
19 occurs on all cables regardless of the
20 manufacture. Most cable manufactures I spoke to
21 are in favor of this. This would not eliminate
22 unshielded cables; it just limits them to 2300-
23 volt operation.

24 Problems with 5 kV non-shielded cables
25 in the field have always existed. Most of the

1 time they've been dealt with on a one-to-one basis
2 between the cable manufacturer and the end user.
3 That's why you do not see a lot of reported
4 cases.

5 Most manufacturers always recommend a
6 shielded cable for 4160 operations. In the end,
7 this is a safety issue, and it's at all levels of
8 training. It is an existing problem in the
9 field, and use of a shielded cable for 4160
10 operation can only improve safety and reliability.
11 Thank you.

12 CHAIR ISMAN: Thank you.

13 The gentleman behind you at Mike 6 was
14 next.

15 MR. BRENDER: Mr. Chairman, thank you.
16 My name is David Brender. I'm a representative
17 of the Copper Development Association, and I was
18 the original submitter of the proposal.

19 I'd like to state for the record that
20 in submitting this proposal we were acting for at
21 least three members of the Copper Development
22 Association, all of whom are active manufacturers
23 in medium-voltage shielded and non-shielded
24 product.

25 Manufacturers have identified a safety

1 concern. It is of concern to them, and they are
2 correct to bring this out to the body at large
3 that there is an issue at hand that they cannot
4 divulge with specificity and point out individual
5 occurrences of injuries or death. They are
6 saying, There is a safety concern, and we would
7 rather not make this product. We only make it
8 because customers insist on using it.

9 Now with respect to the Edison Electric
10 Institute, utilities are exempt from the National
11 Electric Code. They would not be affected by
12 this, and there is no one here that has--none of
13 the manufacturers who have said discontinue
14 manufacturing the product. What they are saying
15 is there is a sufficient safety concern among the
16 general electrical community that they would
17 rather not see medium-voltage unshielded cable
18 used. There is a safety concern. It has been
19 clearly explained by the manufacturers.

20 I'd also like to further state that in
21 the panel itself, in Panel 6, at which I was only
22 an observer, except for the negative votes, every
23 one of the members of Panel 6 during the
24 discussion, including the chairman, related a
25 story that was really kind of heartbreaking of

1 someone they knew who either died or was seriously
2 injured because of unshielded cable. The only
3 opposition were those who have a direct economic
4 impact because of the requirement of going to
5 shielding. It is a valid concern. I don't think
6 Edison Electric Institute is one of those who
7 should be concerned.

8 But I strongly endorse the original
9 proposal, and I urge the body at large to reject
10 the proposal of the comment. Thank you.

11 CHAIR ISMAN: Thank you.

12 Gentleman at Mike 7.

13 MR. MOHLA: My name is Daleep Mohla. I
14 am speaking for myself.

15 I've spent all my life in a Chemical
16 plant. I think it's incorrect to state that non-
17 shielded cable requires more expertise. Normally
18 non-shielded cable requires less expertise than
19 shielded cable does. If shielded is not properly
20 grounded, it is very dangerous.

21 And just for your information,
22 insulation on non-shielded equipment at 5 kV is
23 almost twice as the non-shielded cable.

24 Manufacturers say they are concerned.
25 They can very easily stop manufacturing if they're

1 concerned. We cannot buy something that's not
2 available.

3 This has been installed in our
4 facilities for at least 30 years, I know, without
5 any problem. So I support this motion to retain
6 this usage of 5 kV non-shielded cable. Thank you.

7 CHAIR ISMAN: Thank you.

8 Microphone 3.

9 MR. CANNON: Thank you, Mr. Chairman.
10 Michael Callahan with the IBEW.

11 I rise in opposition to the motion on
12 the floor before this body. You know, in
13 addition to my duties with the IBEW, I serve as
14 the Assistant Executive Director for the National
15 Electrician Apprenticeship and Training Committee.

16 I just want this body to be clear on
17 one thing. There's a lot of discussion--it's
18 almost as if two arguments are going on here, and
19 one as it relates to whether we've got qualified
20 and trained people doing the installation. That
21 really is not the issue here at hand.

22 The issue at hand, in my opinion, is
23 the application of these medium-voltage shielded
24 and non-shielded cables. That's really the issue
25 Code Panel 6 confronted. I was happy to

1 participate and watch the good discussion at that
2 meeting.

3 It's an application issue. We've heard
4 the manufacturers themselves, several of them
5 major manufacturers, stand and say, This is not an
6 application we feel comfortable with this cable
7 being used for. To me, that's all I need to
8 hear.

9 And I would just point out for the
10 body's information that a similar motion was made
11 yesterday before the electrical session in an
12 attempt to gain support from the electrical
13 session, and that motion failed.

14 I urge you to oppose the motion on the
15 floor. Thank you, Mr. Chairman.

16 CHAIR ISMAN: Microphone 1.

17 MR. WEBB: Bill Webb, Shermer
18 Engineering, and I call the question.

19 CHAIR ISMAN: We have a motion to end
20 debate. Is there a second? There's a number of
21 seconds to that motion. We move immediately into a
22 vote. So all those in favor of ending debate,
23 please raise your hand. All those opposed to
24 ending debate. That motion passes.

25 We move immediately to a motion to

1 accept Comment 6-14. All those in favor of that
2 motion, please raise your hand. And all those
3 opposed to that motion. That motion does not
4 carry.

5 UNIDENTIFIED SPEAKER: Mr. Chairman, I
6 will respectfully request a division.

7 CHAIR ISMAN: There's been a request
8 for a standing count of the body. Is there a
9 second for that motion? There's a second to that.
10 I'm going to honor that just because my eyes may
11 not be the best in the world.

12 So we are going to move to a standing
13 count. I'd like the organizational delegates to
14 please fill out a green card. Only those people
15 who have the yellow organizational delegate
16 ribbon should be filling out a green card and
17 giving it to NFPA staff in the isles.

18 While they're doing that we will ask
19 everyone who is in favor of the motion to accept
20 Comment 6-14 to please stand. All those in favor
21 of 6-14 please stand. And you'll only be counted
22 if you're standing up in the voting section.

23 We have not received any green cards
24 yet. We do have some green cards. Okay. Make
25 sure you get those to an NFPA staff person.

1 Okay. You can be seated.

2 And now all of those who are opposed to
3 the motion please rise. And, again, you'll only
4 be counted if you're in the four voting sections.
5 Okay. Thank you. You can sit down.

6 The motion fails by a vote of 64 to
7 177.

8 We return to a discussion in the
9 jurisdiction of Code Making Panel 6, and I
10 neglected before to read the article numbers that
11 that applies to. So quickly that's Article 310,
12 400, 402, Chapter 9, Tables 5 through 9 and Annex
13 B.

14 And we have a motion at Microphone No.
15 2.

16 MR. LeBRAKE: Yes. Neil LeBrake
17 representing Edison Electric Institute.

18 I would like to move for the acceptance
19 of Comment 6-54 and Proposal 6-49. Similar issue
20 deals with the Table 310.63, and I am the
21 submitter of that comment.

22 CHAIR ISMAN: We have a motion to
23 accept Comment 6-54 on page .213 of the ROC. Is
24 there a second? I did hear a second from this
25 portion of the room over here. So please

1 proceed.

2 MR. LeBRAKE: Thank you. My remarks
3 are the same as for Comment 6-14's motion;
4 however, I would like to read into the record the
5 comment that I quoted.

6 I'm quoting from Mr. Komassa in Comment
7 6-9. I want to note it says the engineering
8 notes from the Okonite Company dated July 5th,
9 1995 by J. R. Cancelosi provided at the panel
10 meeting by Mr. Zimnoch contains a final paragraph
11 which states in part, "Non-shielded 5 kV cable has
12 been used successfully for many years. Its
13 advantages of ease of splicing and terminating and
14 smaller termination compartments will continue to
15 make it a popular choice."

16 The panel also ignored Mr. Wetherell's
17 comment in his negative vote in Proposal 6-12,
18 which stated that, "However, 5 kV non-shielded
19 cable is still being produced and no problems have
20 been brought to you all's attention.

21 I would like to further add in response
22 to some of the previous arguments that Edison
23 Electric Institute does support this comment in
24 the sense of our customers who do use 5 kV-type,
25 non-shielded cable. There are many instances

1 where they use it and similar to our systems in
2 the utility business, we have not seen the
3 failures that have been recognized today. So
4 that's my motion on Comment 6-54. Thank you.

5 CHAIR ISMAN: Thank you.

6 Mr. Carpenter.

7 MR. CARPENTER: Yes, sir. I don't
8 think Steve is here yet either, so in the
9 original Proposal 6-49 on page .720 on the Report
10 on Proposals, the TCC asked the committee to take
11 another look at that proposal. They did. 6-54
12 was rejected with panel action comment on the
13 statement--on that comment was referred back to
14 Comment 6-18. The 6-18 comment was essentially
15 the same as the one that we just have completed
16 action on, that the panel's decision that cable
17 rated above 2400 volts should be shielded, same
18 issue as we just finished.

19 CHAIR ISMAN: Thank you.

20 Is there additional discussion on
21 Comment 6-54?

22 Seeing none, we'll move into a vote.
23 All those in favor of accepting Comment 6-54,
24 please raise your hand. And those opposed. That
25 motion does not pass.

1 Are there any additional motions on the
2 jurisdiction in Code Making Panel 6?

3 Seeing none, we'll move on to Code
4 Making Panel 7. And that panel covers Articles
5 320, 322, 324, 326, 328, 330, 332, 334, 336, 338,
6 340, 382, 394, 396 and 398.

7 And I saw the gentleman at Mike No. 4
8 first.

9 MR. SIMMONS: Thank you, Mr. Chairman.
10 My name is Phil Simmons. I represent the
11 National Armored Cable Manufacturers Association.

12 I'd like to move to reject an
13 identifiable part of Comment 7-67 that begins on
14 Page .243 of the Report on Comments.

15 CHAIR ISMAN: Okay. Give us just a
16 second to get that up. That's comment 7-67 on
17 Page .243 of the ROC. And which identifiable part
18 would you like to reject?

19 MR. SIMMONS: It's actually on the
20 following page, Mr. Chairman. It's Line 6 and
21 it's the first two words that are shown to be
22 struck through. The effort is to remove the
23 strike through. So by rejecting those two words
24 in the ROC, we will result in returning those two
25 words to the language in the ROP draft, would

1 restore those words back to the text.

2 CHAIR ISMAN: And the two words your
3 speaking about are "and secured"?

4 MR. SIMMONS: That's correct.

5 CHAIR ISMAN: So we have a motion to
6 return an identifiable--actually, to reject an
7 identifiable portion. And the identifiable portion
8 are the two words "and secured" that appear in
9 the sixth line of the second page of Comment
10 7-67. Do we have a second to that motion? I did
11 hear a second to that motion. Please proceed.

12 MR. SIMMONS: Thank you, Mr. Chairman.

13 As you'll see, I was the submitter of
14 the comment, and if you wanted to track this back
15 to the Report on Proposals, you'll see that, in
16 essence, I took the language that was accepted by
17 Code Panel 7 at the ROP stage and reformatted it
18 to separate into distinct parts, the general
19 rules, the rules on securing the cable and the
20 rules on supporting the cable.

21 And if you wanted to just compare,
22 similar action was taken and a similar comment was
23 made on Page .231 for Armored Cable. It's Section
24 320.30, it's Comment 7-21.

25 And the concept that's included in

1 Section 320.30 for securing AC cable is it
2 requires it to be secured at least every four and
3 a half feet where installed on or across framing
4 members. And that concept was accidentally left out
5 of my comment for MC cable, which is the comment
6 that's under consideration.

7 So since it's, I think, impossible to
8 add those words at an appropriate place, by simply
9 restoring the "and secured" will have the concept
10 back in Article 330, that if the cable is run
11 through horizontal holes and framing members, and
12 that kind of thing, that it would not be
13 necessary to secure the cable every six feet,
14 because simply having it run through framing
15 members provides adequate support for the cable.
16 Thank you.

17 CHAIR ISMAN: Thank you.

18 Mr. Carpenter.

19 MR. CARPENTER: No.

20 CHAIR ISMAN: Is there anyone else that
21 wishes to address this item?

22 Microphone No. 7.

23 MR. STRANIERO: My name is George
24 Straniero. I'm a member of Panel 7. I'm
25 speaking in support of the motion.

1 Proposal 7-73 and the original code
2 text, you know, have the language that is being
3 proposed to be rejected. As was stated, it was a
4 comment sought to reorganize that section in the
5 code. No discussion was had by the code panel on
6 adding additional securement requirements for this
7 wiring method. So acceptance of this motion will
8 keep the text as it is for the 2002 code, and
9 we'll make the securing requirements the same for
10 Armored Cables and non-metallic sheath cables.
11 Thank you.

12 CHAIR ISMAN: Thank you.

13 Is there anyone else that wishes to
14 address this item?

15 Okay. Seeing no one else, I think we
16 should move to a vote. All those in favor of
17 rejecting the portion of the comment, the two
18 words "and secured," which would have the effect
19 of having them reappear in the document, please
20 raise your hand. And all those opposed. That
21 motion passes.

22 Are there additional items on Code
23 Making Panel 7.

24 Mike 5.

25 MS. HORTON: Is it working, Mr.

1 Chairman?

2 CHAIR ISMAN: Yes, we can hear you.

3 MS. HORTON: Thank you. My name is Pat
4 Horton, consultant, and I'm representing the Steel
5 Tube Institute.

6 I wish to make a motion to return an
7 identifiable part of Comment 7-14a found on Page
8 .230 of the ROC. And its comment is relative to
9 proposal 7-8 found on Page .762 of the ROP.

10 CHAIR ISMAN: Okay. So that's on
11 Comment 7-14?

12 MS. HORTON: A.

13 CHAIR ISMAN: 7-14a, sorry. I didn't
14 pick up the "a" on Page .230. Give me a second
15 while we find that.

16 Which identifiable portion do you want
17 to deal with?

18 MS. HORTON: I will be reading that in
19 the charging paragraph of 320.10. After the words
20 "shall be permitted as follows," I'm asking that
21 you delete the text that reads, quote, "and in
22 other locations and conditions not prohibited by
23 320.12 or elsewhere in the code."

24 CHAIR ISMAN: Do you want to reject
25 this identifiable portion?

1 MS. HORTON: No, I want to return it.

2 CHAIR ISMAN: You want to return it to
3 committee?

4 MS. HORTON: Yes. The reason being
5 it's not in the 2002 code, nor is it in the ROP
6 of the 2005 code.

7 I don't want to reject it. I want to
8 return it because there's--I want it to be--I want
9 "as permitted" to read as it did in the 2000
10 code, "except for changes accepted by other
11 proposals."

12 CHAIR ISMAN: Okay. So we have a
13 motion to return a portion of a comment to
14 committee and the portion is a phrase in the
15 charging paragraph, and I just want to make sure
16 that I have the entire phrase clear. Let me read
17 it to you. Is it the phrase, "and in other
18 locations and conditions not prohibited by 320.12
19 or elsewhere in the code"?

20 MS. HORTON: That is the phrase.

21 And before I begin, let me tell you
22 that there are three other comments that are just
23 like this, and it would be in the best interest
24 of time, once we're finished with this one, to
25 address those right after.

1 CHAIR ISMAN: We'll deal with those in
2 just a moment. Let's deal with this one first.

3 We have a motion now. Do we have a
4 second? I did hear a second from the middle of
5 the room here. So please proceed.

6 MS. HORTON: Thank you.

7 Proposal 708 in the ROP deleted Section
8 320.10, which is uses permitted in total. They
9 were going to use only "uses not permitted," but
10 due to a number of comments that came in, they
11 decided to reinstate "uses permitted."

12 However, when they did this, when the
13 panel did this, they added some language, and that
14 is the language that I just read, and that would
15 be a vague reference to other locations and
16 conditions not specifically prohibited elsewhere
17 in the code.

18 The standard practice for the NEC has
19 been to actually name the permitted uses of a
20 wiring. And this provides guidance to users and
21 designers and testing labs and so forth to know
22 exactly what you can or cannot do.

23 The text which is requested to be
24 deleted has not had sufficient public review. It
25 leaves a loophole that can bypass the code panel

1 review when a product is presented to the market
2 for a new use. This is contrary to the long-
3 established policy of having a code panel analyze
4 suitability for a use permitted and to provide any
5 caveats that might be needed for special
6 requirements, which we see quite often in uses
7 permitted.

8 Just as the public was able to convince
9 the panel that total deletion of "uses permitted"
10 was not appropriate, the public should have the
11 same opportunity to look at this proposed concept
12 before it goes into the code.

13 The term "not prohibited" elsewhere in
14 the code is also troublesome, because most of the
15 specialized articles name permitted uses, rather
16 than actually prohibited a use. And this could
17 lead to misinterpretation.

18 One of the examples might be 517.30.
19 This text was added in only four of the seven
20 articles in which "uses permitted" was reinstated.
21 It's unclear why some of the articles would need
22 this and others would not.

23 One of the concerns is that these
24 products are not--these cables are not required to
25 be listed. So for a use that somebody wanted to

1 come up with, you would not even have a listing
2 agency looking at what the requirements should be.

3 Now, granted, if some of our normal
4 listing agencies looked, they probably would
5 watch. But where used imports and there's so
6 many things going on, that we'd have nobody
7 keeping an eye on this.

8 This is a substantive change to the
9 code and needs much more consideration of wording,
10 if such a concept is even to be considered. It's
11 not in the interest of good code. It will weaken
12 the process and cause confusion. I don't view
13 this just from the viewpoint of the product you're
14 looking at now, because there are three other
15 cable products. And I urge you to vote yes on
16 this motion. Thank you.

17 CHAIR ISMAN: Thank you.

18 Mr. Carpenter.

19 MR. CARPENTER: I'd like to defer to
20 Jim Daly who's going to represent Gaylen Rogers,
21 Chairman of Code Panel 7. He'll be over at Mike
22 6.

23 CHAIR ISMAN: Okay. At Mike 6.

24 MR. DALY: Yes, Mr. Chairman, I'm Jim
25 Daly. I'm employed by General Cable and a

1 principal on Panel 7.

2 Just a brief review. During the
3 proposal stage Panel 7 decided that it was more
4 appropriate to take out all the "uses permitted"
5 and just have a listing of uses not permitted,
6 because, as you all know, a uses permit list can
7 never be all inclusive, there's always something
8 that we could put on the list.

9 During the comment phase we did get
10 back about five or six comments on each article
11 from the same people and organizations objecting
12 to it saying it did not make the code more user
13 friendly. But also what happened during the
14 comment period, the members of the code panels
15 talked with their constituents and their
16 constituents also agreed that it wasn't making the
17 code more user friendly.

18 So during the comment review Panel 7
19 reinstated all of the uses permitted--all of the
20 uses permitted section. In doing that, they have
21 to go back to the 2002 code and then go back
22 through every proposal that had been submitted
23 that was rejected because of the deletion of the
24 "uses permitted" and then do the comment. So it
25 took us longer to put the article of the sections

1 back in than it did to take them out.

2 Now, a couple of points. We've always
3 felt that the "uses permitted" wasn't all
4 inclusive and if that particular application
5 wasn't prohibited in the code, you could do it.
6 Not everybody agrees with that. There's another
7 thought that it has to specifically state in the
8 code that you can do it. But I'm a believer, like
9 a lawyer, if it doesn't prohibit it, you can do
10 it.

11 So as part of putting the "uses
12 permitted" back into the code the panel decided
13 they would add that statement that it could be
14 used in other locations and conditions not
15 prohibited by Section 12 or elsewhere in the code.
16 So that's how that got in there.

17 Now, it was mentioned it was only added
18 in the four articles, that's true, because the
19 articles we didn't add it into were very specific,
20 they had very specific application. Like the MM
21 cable, the Standards Council defined what the uses
22 permitted were going to be. So we didn't want to
23 change that. Flat cable, under-carpet cable,
24 things like that were very specific application
25 oriented, we didn't add this phrase.

1 Thank you, Mr. Chairman.

2 CHAIR ISMAN: Thank you.

3 The gentleman behind you at Mike 6 was
4 next.

5 MR. BACLAWSKI: Thank you, Mr.
6 Chairman. Vince Baclawski representing the
7 National Electrical Manufacturers Association.
8 Can you hear me?

9 CHAIR ISMAN: That's better. If you
10 get right into the mike.

11 MR. BACLAWSKI: Okay. Thank you. NEMA
12 supports the motion on the floor and agrees that
13 the panel-added text should be deleted.

14 In addition to being new material that
15 has not had public review, NEMA's particularly
16 concerned with the impact this text could have on
17 specialized articles in the code. And NEMA does
18 not feel there has been ample opportunity for
19 review by other panels and interested parties.
20 Full correlation is needed so that permitted uses
21 throughout the code are clear. Thank you.

22 CHAIR ISMAN: Thank you.

23 Microphone 4.

24 MR. SIMMONS: Thank you, Mr. Chairman.

25 My name is Phil Simmons. I represent the

1 National Armored Cable Manufacturers Association.
2 I rise in opposition to the motion and in support
3 of the panel action.

4 Really what has happened here is Panel
5 7 has incorporated the concept on the organization
6 of the code that's provided in Section 90.3, which
7 says chapters 1 through 4 of the code apply
8 generally, unless amended or supplemented or
9 changed in some way in Chapters 5, 6 or 7. So we
10 find that the general wiring method rules provided
11 in Article 320 apply generally.

12 But if you'll look at any of the
13 special occupancies, for example, it was mentioned
14 healthcare facilities in Article 517 have specific
15 amendments to the rule that apply to AC cable and
16 to other cable wiring methods as well as metallic
17 raceway wiring methods, for example.

18 Article 518 on Places of Assembly has
19 specific amendments to the rule. And if you want
20 to use AC cable in Places of Assembly, that code
21 panel has said it's okay to do that, as long as
22 you add an insulated equipment ground.

23 Similar changes or amendments or
24 specific requirements are placed on the wiring
25 methods in theaters and similar occupancies and in

1 other--for example, even for elevator wiring.

2 So other code panels certainly
3 recognize their prerogative to add conditions to
4 different wiring as well as to restrict wiring
5 methods and, thus, they're amending the general
6 rules in Chapters 1 through 4. So we certainly
7 support the work of Code Panel 7 in this area.

8 CHAIR ISMAN: Thank you.

9 Mike 5.

10 MS. HORTON: Pat Horton again.

11 In response to Mr. Simmons, that is
12 nothing new that specialized articles can write
13 their own rules and it would be redundant to have
14 to put this language in. We've gone all these
15 years knowing that you went to other articles and,
16 yes, you had some uses that might be permitted.

17 One of the problems with this language
18 is that it has to be specifically prohibited and
19 so it's really not necessary. It's already there
20 as far as other articles of the code are
21 concerned with uses permitted.

22 However, in response to Mr. Daly, yes,
23 you could add other uses permitted. We do it all
24 the time. We may have done it this time. But
25 the process for that is to bring in data, fact-

1 finding reports, and so forth, have the code panel
2 look at it, that's what they're for, see if it's
3 an appropriate use, see if it coordinates with the
4 rest of the code, see if there's anything else
5 that needs to be changed because of this use.
6 And that is our process.

7 I've seen many times when the code
8 panel looked at a fact-finding investigation and
9 said, "No, we don't buy this, you've got to do
10 something different to that."

11 I think one of the things we have to
12 remember for a good safety installation is that
13 improper code rules increase the potential for
14 misapplication of products in the installation of
15 incompatible system components that can lead to
16 increased hazard for persons and property. This
17 is especially true for an unlisted product. It
18 may be listed, but it does not have to be,
19 according to the code.

20 I still urge your vote for this motion.
21 Thank you.

22 CHAIR ISMAN: Thank you.

23 Mike 4, do you wish to readdress the
24 issue?

25 MR. SIMMONS: Yes. Thank you. Just

1 very briefly.

2 Even though Article 320 may not
3 specifically require the product to be listed, I
4 think if you check with some of the manufacturers
5 who are here today in the room that produce miles
6 of this product every year, that all of it they
7 produce installed in any occupancy is in fact a
8 listed product and does comply with the UL safety
9 standard.

10 CHAIR ISMAN: And I was remiss in
11 making sure that you introduced yourself before
12 your comments, I'm sorry.

13 MR. SIMMONS: I was remiss in not doing
14 that. My name is Phil Simmons. I represent the
15 National Armored Cable Manufacturers Association.

16 CHAIR ISMAN: Thank you.

17 Microphone 7.

18 MR. MERCIER: I'm Dave Mercier
19 representing Southwire Company. I'm alternate on
20 Panel 7.

21 Panel 7 spent a lot of time on this and
22 we only kept this in the articles where it
23 applied. So we carefully looked through
24 everything to make sure that it was done
25 correctly.

1 We encourage people to use the product
2 parts listing. The listing gives very definite
3 guidelines on how to use the product and not use
4 the product, and that is part of how the product
5 is to be installed. So I'm in opposition to the
6 motion.

7 CHAIR ISMAN: Thank you.

8 Microphone 4.

9 MR. LOYD: Richard Loyd speaking for
10 myself.

11 I speak in support of the motion. As I
12 look at this language, it's kind of the thing
13 that the usability committee has told us to take
14 out references that are broad and not specific.
15 I agree with the fellow over at that other mike
16 that it's new material. As I look to see a trail
17 of how this got into the code, there was no
18 public review and I certainly feel that it does
19 not give guidance to users of the code on where
20 this product is permitted. So I speak in support
21 of the proposal.

22 CHAIR ISMAN: Thank you.

23 Microphone 3.

24 MR. DABE: Joe Dabe, IBEW, Panel No. 8.

25 I speak in favor of this motion.

1 The way this is proposed at the moment,
2 it's almost like double talk. The members stated
3 that their constituents wanted to see "permitted"
4 back in and part of the reason for that is for
5 consistency and understanding where this could be
6 used.

7 But the way this is phrased at the
8 present time is that it says, "shall be permitted
9 as follows and in other locations and conditions
10 not prohibited." So it almost says it's permitted
11 by--it's almost identical to removing "permitted"
12 like it originally was proposed. So "permitted"
13 means nothing because before it was only going to
14 be prohibited. So it can be everywhere still,
15 even beyond what is permitted.

16 I understand the last part of this when
17 the fine-print note, that should remain, but not
18 the part that is enforceable. So in other words,
19 it can be anywhere unless it's prohibited. So
20 "permitted" means nothing. Thank you.

21 CHAIR ISMAN: Thank you for your
22 patience at Mike 5.

23 MR. ZIPSE: Thank, Mr. Chairman. Don
24 Zipse. I call the question.

25 CHAIR ISMAN: We've had a motion to end

1 debate on this particular subject. Is there a
2 second to that motion? We have a second to the
3 motion.

4 We'll move immediately to a vote to end
5 debate on returning this identifiable portion of
6 Comment 7-14a. All those in favor of ending
7 debate, please raise your hand. All those opposed
8 to ending debate. That motion carries.

9 So we move immediately to the vote on
10 returning this identifiable portion of 7-14a. All
11 those in favor of that motion, please raise your
12 hand. And all those opposed to the motion. That
13 motion carries.

14 Additional motions on Article 7?

15 Ms. Horton at Mike 5.

16 MS. HORTON: Thank you. Pat Horton
17 representing the Steel Tube Institute.

18 In line with the motion that just
19 passed, I would like to go to Comment 7-51a on
20 Page .239 and Proposal--it applies to Proposal 7-49
21 on Page .788.

22 CHAIR ISMAN: Okay. So we're looking
23 at Comment 7-51a on Page .231 and is there--

24 MS. HORTON: Or 239.

25 CHAIR ISMAN: I'm sorry, 239. Is there

1 an identifiable portion of that you wish to move?

2 MS. HORTON: Yes.

3 CHAIR ISMAN: And what motion would you
4 like to make?

5 MS. HORTON: I move that the following
6 identifiable part of Comment 7-51a be returned.
7 In the charging paragraph after "as shown below,"
8 delete the word "and in other locations and
9 conditions not prohibited by 328.12 or elsewhere
10 in the code." And I stand on the previous
11 testimony.

12 CHAIR ISMAN: Okay. So we have a
13 motion to--and that's to return an identifiable
14 portion?

15 MS. HORTON: Yes.

16 CHAIR ISMAN: And you just read it in
17 Comment 7-51a.

18 Do we have a second to that motion? We
19 do have a second to that motion. Would you like
20 to proceed with any additional discussion?

21 MS. HORTON: No additional discussion.

22 CHAIR ISMAN: Mr. Chairman, would you
23 like to make additional comments?

24 MR. CARPENTER: No additional comments.

25 CHAIR ISMAN: Is there anyone else that

1 wants to make additional comments?

2 Seeing none, we'll move to a vote. All
3 those in favor of returning that identifiable
4 portion, please raise their hands. All those
5 opposed to that return. That motion passes.

6 Go ahead, Mike 5.

7 MS. HORTON: All right. Going to
8 Comment 7-60a, Page .242, which would be Proposal
9 7-55, Page .791. And I wish to move return of an
10 identifiable portion.

11 CHAIR ISMAN: Okay. So we're looking
12 at Comment 7-60a on Page .242 of the ROC. And
13 what's the identifiable portion you want to
14 return?

15 MS. HORTON: I move that the following
16 identifiable portion of Comment 7-60a be in the
17 charging return--in the charging paragraph after
18 "shall be permitted as follows," delete the text
19 "and in other locations and conditions not
20 prohibited by 330.12 or elsewhere in the code."

21 CHAIR ISMAN: Okay. We have a motion
22 to return that identifiable portion of the
23 comment. Do we have a second? I did hear a
24 second.

25 Any additional comments or additional

1 discussion?

2 MS. HORTON: No discussion.

3 CHAIR ISMAN: Mr. Chairman.

4 MR. CARPENTER: No discussion.

5 CHAIR ISMAN: Anyone else wish to
6 address the issue?

7 Seeing none, we'll move to a vote. All
8 those in favor of returning that identifiable
9 portion of 7-60a, please raise your hand. Thank
10 you. And those opposed. That motion carries.

11 MS. HORTON: We have one more, Mr.
12 Chairman.

13 CHAIR ISMAN: Please proceed.

14 MS. HORTON: The comment is 7-75a on
15 Page .245, Proposal 7-86 on Page .805. I wish to
16 return the identifiable portion of that comment in
17 the charging paragraph after "shall be permitted
18 as follows" delete the text "and in other
19 locations and conditions not prohibited by 332.12
20 or elsewhere in the code."

21 CHAIR ISMAN: We have a motion to
22 return a portion of a comment, do we have a
23 second? We do have a motion and a second.

24 Is there any additional discussion on
25 this issue?

1 MS. HORTON: No discussion, Mr.
2 Chairman.

3 CHAIR ISMAN: No comment?

4 MR. CARPENTER: No comment.

5 CHAIR ISMAN: Microphone 6.

6 MR. DALY: Jim Daly. I work with
7 General Cable, principal on Panel 7.

8 On this particular cable, which is Type
9 MI the note probably is very appropriate, because
10 MI cable can be used practically anywhere, there's
11 really no restrictions on the use of it. And
12 whether that phrase is in there or not really has
13 no effect.

14 So I would encourage that on this one--
15 I agree with the other three turned them down--or
16 accepted the comments on this motion. I would
17 suggest that you reject the motion and leave this
18 in there because I think everyone here is familiar
19 with MI and, you know, it's not normally installed
20 unless it's needed. And that's it. Thank you.

21 CHAIR ISMAN: Microphone No. 4.

22 DR. HIRSCHLER: Marcelo Hirschler, GBH
23 International speaking for myself in support of
24 the motion.

25 The fine-print note on Page .246 fixes

1 the problem that Jim mentioned. It already said
2 the use is permitted, it's not an all-inclusive
3 list. Thank you.

4 CHAIR ISMAN: Ms. Horton, do you want
5 to address this again?

6 MS. HORTON: Yes, just briefly.

7 I think it's a bad precedence to put
8 this text into any at this stage of the game that
9 it needs looking at with a closer look. I
10 believe it's already covered by the code.

11 Dr. Hirschler has a good comment. I
12 really am a little uncomfortable with the fine-
13 print note which says this is to the all-inclusive
14 list on these four that we've addressed. However,
15 I agreed not to say anything because it does
16 include things in other specialized articles. I
17 am hoping it will not be misinterpreted in the
18 field, but it's something that we need to watch.

19 I still would urge you to accept this
20 motion.

21 CHAIR ISMAN: Is there any additional
22 discussion on the motion on Item 7-75a?

23 Seeing none, we'll move to a vote. All
24 those in favor of returning the identifiable
25 portion of 7-75a, please raise your hands. Thank

1 you. And those opposed. That motion passes.

2 MS. HORTON: Thank you, Mr. Chairman.

3 CHAIR ISMAN: We continue with our
4 discussion on items in the jurisdiction of Code
5 Making Panel 7.

6 At Microphone 5.

7 MR. ZIPSE: Donald Zipse, Zipse
8 Electrical Engineering representing self.

9 I move that proposal 7-208 be accepted.

10 CHAIR ISMAN: That's proposal No.
11 7-208?

12 MR. ZIPSE: That is correct.

13 CHAIR ISMAN: Give us just a moment.
14 Okay. We have Proposal 7-208. This is an
15 appropriate motion for you to make. And I want
16 to clarify, you're moving to accept the entire
17 proposal?

18 MR. ZIPSE: To accept the entire
19 proposal--no, to accept the action of the panel
20 which was to accept in principle in part.

21 CHAIR ISMAN: I see. So you're
22 moving--the action that the panel took--I assume,
23 then, there was some action that overrode this at
24 the comment stage?

25 MR. ZIPSE: That's correct.

1 CHAIR ISMAN: Okay. So you're moving
2 the committee action on 7-208 and that motion is
3 in order. Is there a second to that motion? I
4 did hear a second from down in here. So please
5 continue.

6 MR. ZIPSE: Thank you, Mr. Chairman.

7 Panel 7 action was to accept in
8 principle and in part on a proposal for Section
9 369--or 396.12(B). The TCC referred this proposal
10 back to Panel 5 for comment. Panel 5 rejected
11 this proposal. They also referred it to Panel 4,
12 but there was no comment that I could find.

13 Now, I cannot find--I asked a staff to
14 sometime in the near future to indicate to me
15 where in the ROP or the ROC Panel 5 comments were
16 made or documented so that I could rebut Panel
17 5's comments later on. I can't find them now, so
18 I can't do it for the floor.

19 Now, when I go down to my basement to
20 get something, by the time I get there, I usually
21 forget what I went down for. And I see that
22 Panel 5 has the same problem. Back in 1996 Panel
23 5, after 21 years, finally made ranges and dryers
24 wired with a separate neutral. That's the white
25 wire, that's where--the firefighters here may not

1 be aware of electrical--and a separate equipment-
2 grounding conductor, that's the green wire.

3 Now they separated them. The white
4 conductor carries continuously flowing current
5 while only momentary fault current flows over the
6 green, the equipment-grounding conductor.

7 John Calgerio's article, as I mentioned
8 earlier, on solid grounding in the spring of 2004
9 issue of the NEC Digest states, and I quote,
10 "Prohibited currents: It is important to note
11 that normal current," and we're talking now about
12 continuously flowing current, "must travel only in
13 conductors intended for that purpose. Normal
14 currents must not be allowed to flow on metal
15 raceways, equipment-grounding conductors," end of
16 quotation.

17 Now, it appears that the electrical
18 staff, and unfortunately John's no longer with the
19 electrical staff, has the correct concept.
20 Perhaps the staff should hold training sessions on
21 the subject of proper grounding concepts.

22 California since 1994, in their General
23 Orders 95, and we heard some comments earlier this
24 week about how we'd like to keep the NEC as the
25 code. What we have here, General Orders 95

1 usurping the National Electrical Code because of
2 lack of technicalities and lack of correctness.
3 They have prohibited messenger from carrying
4 continuous current.

5 Now, a messenger is a messenger, but
6 unfortunately we have taken the easy way out to
7 save money by taking the messenger and using that
8 same messenger as the equipment-grounding
9 conductor and also using it as the neutral
10 conductor, the white wire. And we've got two
11 different conductors, one that carries continuous
12 current, one that carries a current that is for
13 fault purposes.

14 Now, I'm afraid someone's going to get
15 killed touching that messenger--and it may be you
16 sitting over there in the corner--thinking that
17 it's a messenger but it's carrying continuous
18 current.

19 CHAIR ISMAN: Less than a minute, sir.

20 MR. ZIPSE: Thank you. I hope not.

21 Someone said last night that it was
22 funny that we passed ranges and dryers and we
23 passed it without killing anybody. And I hope
24 that this code isn't one that we have to kill
25 somebody before we pass something.

1 Now, just because it's always the way
2 it's been done is no reason for rejecting this
3 motion, and I would urge you to support this
4 motion, which the Panel 7 did originally. And I
5 congratulate Panel 7 for having such knowledge,
6 such integrity, and such whatever to--and I'm
7 using all my time--to use all of the--to take
8 that exception. Thank you.

9 CHAIR ISMAN: Thank you.

10 Mr. Chair.

11 MR. CARPENTER: I'd like to defer this
12 to Jim Daly acting for Gaylen Rogers, Chair of
13 Panel 7. Mike 6.

14 MR. DALY: Jim Daly, General Cable,
15 acting for Panel 7.

16 Panel 7 originally accepted this
17 proposal, accepted it in principle and in part,
18 and then the TCC action was that it was the
19 action of the TCC that this proposal be referred
20 to Code Making Panels 4 and 5 for comment.

21 On Comment 7-166 on Page .70-310 of the
22 ROC the panel rejected the comment which was to
23 continue to accept in principle the proposal. So
24 they essentially rejected the proposal. And in
25 the panel's statement it says, "Panel 7 agrees

1 with Panel 5 in the rejection of this proposal."
2 So Panel 5 did submit information, as requested by
3 the TCC, Panel 7 took it into consideration and
4 agreed with Panel 5 and rejected the proposal.
5 Thank you.

6 CHAIR ISMAN: Thank you.

7 Microphone 2.

8 MR. LeBRAKE: Neil LeBrake representing
9 Edison Electric Institute.

10 I'm in opposition to this motion
11 primarily for the same reasons given by the report
12 for Panel 7 and in my comment, 7-164, which Panel
13 7 did accept fully, to reject the original
14 proposal. Substantiation there can be found on
15 Page .309 of the ROC.

16 I just want to point out the example
17 that states, "The exception to 225.4 in Exception
18 No. 2 to 250.184(A) make it clear that a bare
19 messenger conductor is permitted to be a current
20 carrying conductor for certain conditions."
21 Acceptance of this proposal would create a
22 conflict with other provisions of the code. So
23 we stand in opposition to the motion. Thank you.

24 CHAIR ISMAN: Thank you.

25 Mr. Zipse at Mike 5.

1 MR. ZIPSE: Don Zipse. Thank you, Mr.
2 Chairman.

3 I would address this to my illustrative
4 colleague, Jim Daly, where did you find and where
5 is that information that Panel 5 returned to you?
6 And it's also a question to staff that they can
7 get that to me later, unless Jim happens to have
8 it right there.

9 CHAIR ISMAN: Microphone 6.

10 MR. DALY: Jim Daly again, General
11 Cable, speaking for Panel 7.

12 I do not have the information available
13 here. All I have is what it says in the ROC,
14 that Panel 5 did review it and informed Panel 7
15 that they should reject it, Panel 7 concurred and
16 that was it.

17 CHAIR ISMAN: Microphone 2.

18 MR. LeBRAKE: Neil LeBrake representing
19 Edison Electric Institute.

20 I want to point out that Panel 7 in the
21 ROC the comment made by Doug White on Comment
22 7-168 is the report from Panel 5.

23 CHAIR ISMAN: Is there any additional
24 discussion on Proposal 7-208?

25 Microphone 5.

1 DR. HIRSCHLER: Marcelo Hirschler, GBH
2 International speaking for myself.

3 I am not speaking in favor or against
4 the motion. I'm raising a point of order. I
5 think it's important that if something is going to
6 be rejected for a particular reason, the
7 information of what the reason is for rejecting a
8 comment or proposal must be given and presented in
9 the ROP and ROC so that the public can know what
10 we're talking about, because I think it's totally
11 inappropriate. We're sitting here hearing that
12 someone said something that caused them to reject
13 a proposal without us knowing what it was and no
14 one remembers what it was. Thank you.

15 CHAIR ISMAN: Just in response to that
16 statement, there is a comment in the report on
17 Comment 7-167 that does give a substantiation for
18 the rejection of this proposal that we're dealing
19 with. So, I mean, there is some substantiation
20 in the document. It may not be something you're
21 happy with, but there is something there.

22 Go ahead.

23 DR. HIRSCHLER: Marcel Hirschler, GBH
24 International.

25 The substantiation by Mr. Barry Bauman

1 seems to be substantiation by Mr. Barry Bauman
2 just like on Comment 7-164, the substantiation by
3 Neil LaBrake, and they're perfectly fine and very
4 acceptable. But what I'm saying is: It's my
5 understanding from reading here that like 166,
6 Panel 7 agrees with Panel 5 in the rejection, we
7 don't see where Panel 5 has said anything.
8 There's nothing for us to read on what Panel 5
9 has or has not said. That's my point. Thank
10 you.

11 CHAIR ISMAN: Thank you.

12 At Microphone 2.

13 MR. LaBRAKE: Neil LeBrake representing
14 Edison Electric Institute. I'm going to kiss the
15 mike so everybody can hear this a little bit
16 better.

17 In Comment 7-168, ROC Page .310 there
18 was a direction of Panel 5 chairman to Mr. Doug
19 White who represents Panel 5 to address the issue.
20 The issue was there on that page. Thank you.

21 CHAIR ISMAN: Thank you.

22 Is there any further discussion on
23 Proposal 7-208?

24 Seeing none, we'll move into a vote.
25 Those in favor of accepting the proposal that was

1 modified by the code making panel, please raise
2 your hand. And those opposed to the motion.
3 That motion does not pass.

4 Are there any additional motions?

5 Mike 2.

6 MR. SEXTON: Robert Sexton, DeCorp
7 Americas.

8 Referring to Comment No. 7-33, Page
9 .70-234 in the Report on Comments. I move to
10 accept Comment 7-33 which modifies Article 382.

11 CHAIR ISMAN: Just a moment. And you
12 are Mr. Sexton?

13 MR. SEXTON: Yes.

14 CHAIR ISMAN: We have a motion that is
15 in order. Do we have a second? I did hear a
16 second from over on my right, so please proceed,
17 sir.

18 MR. SEXTON: Article 382 allows for
19 non-metallic extensions to be mounted on the
20 surface of walls and ceilings. This comment
21 proposes to allow non-metallic extensions that add
22 a grounded shield to be covered by concealing
23 compounds.

24 The actual exception reads under
25 382.10(B), "Extensions with an earthed metal

1 shield or a grounding conductor covering the
2 ungrounded conductor(s) may be blended into the
3 surface by plaster finish, finishing compound,
4 paint, or similar methods." This, in effect, will
5 give the non-metallic extension cover the ability
6 to blend into the surface, as opposed to just
7 being painted which is allowed for now.

8 CHAIR ISMAN: Thank you.

9 Mr. Carpenter.

10 MR. CARPENTER: I'll refer again to Jim
11 Daly acting for Panel Chair Gaylen Rogers at Mike
12 6.

13 MR. DALY: Jim Daly, General Cable,
14 principal on 7 acting on behalf of 7. You caught
15 me a little off guard.

16 Okay. Panel 7 --this particular item
17 was addressed to on the FlatWire article. And
18 FlatWire is very specific in that it's to be used
19 under copper squares. This proposal was a
20 complete deviation. This was to be able to--if
21 I'm saying it properly, that you could put it on
22 walls, which was not consistent with the
23 definition of how a FlatWire was supposed to be
24 used. And my understanding is this would be put
25 on the walls adhesive to, say, a drywall and then

1 you could use drywall paste over it and then
2 paint or wallpaper over the wiring.

3 And the panel, if I remember correctly,
4 always saw the wire. We did not see what
5 terminations would be used both when you came out
6 of the receptacle box or if you went up to a
7 flat-screen TV on the wall. As far as I
8 remember, we asked the submitter to do some more
9 work, do some fact finding and next time not only
10 show the wire, but show the terminations as well.

11 If someone else on Panel 7 can add some
12 more to that or clarify, I'd appreciate it.

13 CHAIR ISMAN: Thank you. Thank you.
14 Microphone 3.

15 MR. LaDART: Thank you, Brethren
16 Chairman. I'm Sam LaDart, Code Making Panel 7.

17 I agree with Brethren Daly's comments
18 as it relates to this issue. We were shown the
19 materials. I'm not completely satisfied with what
20 I saw as far as the termination requirements that
21 would be necessarily in place as far as this
22 could be looked at and accepted. And I'm not
23 also sure with the safety of the wire as
24 currently presented through the presentation that
25 we saw at that panel meeting. It's something

1 that needs to be more thoroughly reviewed, and I
2 agree with Mr. Daily that it probably doesn't come
3 under the view of Code Making Panel 7. So thank
4 you.

5 CHAIR ISMAN: Thank you.

6 Microphone 5.

7 DR. HIRSCHLER: Marcelo Hirschler, GBH
8 International speaking for myself.

9 I'm asking for clarification. Back on
10 Comment 7-33 panel meeting action on Page .235
11 says, "Hold," and it states, "Only the comment is
12 held and the proposal goes forward." When you go
13 to Proposal 7-30, "Proposal reject," how can the
14 proposal go forward if it's being rejected? I
15 don't understand.

16 MR. SEXTON: Can I clarify, Mr. Chair?

17 CHAIR ISMAN: Yes, please, at Mike 2.

18 MR. SEXTON: The original ROP looked to
19 modify Article 324, which is under-carpet cable
20 flat conductor cable.

21 In conjunction with the comments of
22 Panel 7 and working with UL we were--there was a
23 secondary component of this proposal that required
24 an electronic device as the safety measure.

25 In conjunction with those two, what

1 7-33 actually does is now modifies Article 382,
2 which I read which is a non-metallic extension
3 which allows for installation on walls and
4 ceilings.

5 The proposal in 7-33 doesn't really
6 address the wire issue. This is only to modify
7 the ability to the difference between painting
8 over a wire so it's somewhat concealed and
9 somewhat visible, and the difference with this
10 earthed metal shield to be able to conceal it so
11 it is not attractant.

12 So what Panel 7 is referring to--the
13 panel members are referring to is the rejection on
14 Article 324, not the reason--the comment, I
15 believe, on 7-33 was put to hold was actually the
16 new material associated with it.

17 But again what we're asking for in 382
18 does not have to do with the wire itself.

19 CHAIR ISMAN: Thank you.

20 Mike 5.

21 MS. HORTON: Pat Horton speaking for
22 myself.

23 I was present at the meeting, and in
24 looking at this, it's inappropriate to accept this
25 comment because he's not made any changes in the

1 original proposal. He's gone to a whole new
2 section.

3 The fact-finding investigations from UL
4 have not been completed. So the information
5 that's presented, any panel is incomplete, and
6 changing horses in midstream--I think it's
7 inappropriate to take this new material and accept
8 it from the floor because there are too many
9 issues that have not been looked at. And the
10 panel rejected it to start with, even when it had
11 an active safety device and it no longer has
12 that.

13 CHAIR ISMAN: Also at Mike 5.

14 MR McMains: I'm Tim McMains
15 (phonetic). I'm a consultant on compliance issues
16 with DeCorp.

17 Just a comment on the proposal. The
18 previous comment, the wire construction is not
19 what's at issue in this comment, UL has agreed to
20 pursue a listing program on the current wire's
21 design, which is different than what was proposed
22 originally for Article 324.

23 So what we're looking at here is not
24 the wire itself in terms of details of
25 instructions. Those issues will be looked at in

1 detail by UL and is in currently in the process
2 in their test program. So we are in a listing
3 program for this currently.

4 All that is at issue here in this
5 comment is installation technique. We're asking
6 for a wire that has got the added level of safety
7 of a ground over the hot conductor to be allowed
8 to be covered by drywall compound as an aesthetic
9 enhancement. The wire, as installed that way,
10 will be safe because of the wire design. And
11 that will be demonstrated in UL testing, which as
12 I said, test plans are already in process. Thank
13 you.

14 CHAIR ISMAN: At Mike 2, go ahead,
15 please. Introduce yourself, I'm sorry.

16 MR. SEXTON: Robert Sexton, DeCorp
17 America.

18 I think some of the supporting material
19 from both the ROP and the ROC is important, but I
20 think the reason--one of the reasons we're asking
21 for this is that we're in a time when devices,
22 electronic and other electrical devices, are
23 moving. We're moving to a time when televisions
24 are going to be and are mounting on the surface.
25 Other supporting electronics, CD players, DVDs

1 cable boxes are now being designed to be mounted
2 on the wall.

3 So everyone knows, over the next five
4 years the Consumer Electronics Association
5 estimates that somewhere between 50 and 100
6 million flat-panel TVs will be purchased in North
7 America. And the methodologies used to connect
8 those electrically range from--

9 MR. SIMMONS: Mr. Chairman, can I raise
10 a point of order?

11 CHAIR ISMAN: I'm sorry, please let him
12 finish.

13 MR. SEXTON: --will range from
14 correctly calling an electrician to people doing
15 whatever method they deem fit to attach it.
16 Article 382 allows for non-metallic extensions to
17 make these connections. In the supporting
18 documentation we show where actually concealing
19 with that earth metal shield over it is actually
20 safer because it isn't an attractant to children
21 or animals or anyone else.

22 So this exception we're asking for is
23 a--not a wire-construction issue, but, again,
24 strictly the ability to modify part of 382, and
25 UL is performing that function on the wire.

1 CHAIR ISMAN: Now Mike 4, please.

2 MR. SIMMONS: Yes. My name is Phil
3 Simmons speaking here for myself.

4 I'd like a ruling from the Chair as to
5 whether this action is even properly before the
6 body, because it seems almost, as Ms. Horton says,
7 subterfuge to make a comment on a completely
8 different article than is the subject of the
9 proposal and that cannot have had adequate public
10 review. It seems like this whole motion is not
11 properly before the body.

12 CHAIR ISMAN: Well, the comment is
13 printed in the ROC and a motion to go ahead and
14 do a comment that's in the ROC is in order. It's
15 up to the body to decide whether they agree with
16 what the submitter wants to do in that comment or
17 not.

18 MR. SIMMONS: But does the comment even
19 comply with the regulations?

20 CHAIR ISMAN: I have to assume that it
21 does, given that it's printed in the ROC.

22 MR. SIMMONS: Okay.

23 CHAIR ISMAN: Do we have any further
24 discussion?

25 MR. DALY: Yes, Mr. Chairman.

1 CHAIR ISMAN: Sorry, I didn't see you
2 there. Mike No. 6.

3 MR. DALY: Yes. Jim Daly, General
4 Cable, speaking for Panel 7.

5 The panel initially rejected the
6 proposal, then during the comment stage this
7 comment was submitted and the panel--the comment
8 was held for further study. And it says the
9 proposal goes forward. So the proposal will go
10 forward as being rejected and the comment will be
11 held for further study for the next cycle.

12 And they also reference that the panel
13 recommends that this material become a proposal to
14 Code Making Panel 6, also relative to the parallel
15 conductors and ampacity. So the Correlating
16 Committee referred the proposal to Panel 10, the
17 overcurrent protection, and the panel is referring
18 it to Panel 6 in addition, and they are
19 recommending that the comment be held for the next
20 cycle and the proposal, as submitted, would be
21 rejected. Thank you.

22 CHAIR ISMAN: Thank you.
23 Microphone 8.

24 MR. CLARY: Mr. Chairman, I call the
25 question. Shane Clary, Bay Alarm Company, calling

1 the question.

2 CHAIR ISMAN: I'm sorry, the mike
3 wasn't up the whole time, but I think that was a
4 call to end debate.

5 MR. CLARY: Affirmative.

6 CHAIR ISMAN: We've had a motion to end
7 debate, is there a second? We have a second on
8 that motion. So we move to vote in order to end
9 debate on Comment 7-33. All those in favor of
10 ending debate, please raise your hand. All those
11 opposed to ending debate. That motion passes.

12 We move immediately to vote on the
13 motion to Comment 7-33. Those in favor of
14 accepting the comment, please raise your hand.
15 And those opposed to the comment, please raise
16 your hand. Well, that is definitely a motion
17 that does not pass.

18 Do we have any other motions in the
19 jurisdiction of Code Making Panel 7? Seeing none,
20 we'll move on to Code Making Panel 8, which
21 covers a whole list of articles. 342, 344, 348,
22 350, 352, 354, 356, 358, 360, 362, 366, 368, 370,
23 372, 374, 376, 378, 380, 384, 386, 388, 390, 392
24 and Chapter 9, Tables 1 through 4 and Annex C.
25 Are there any proposals or motions to make within

1 the jurisdiction of Code Making Panel 6--8? You'd
2 think after I read all that I'd know what I was
3 doing. Code Panel 8.

4 Seeing none, we'll move on to Code
5 Making Panel 9 with the jurisdiction of 312, 314,
6 404, 408, 450 and 490. Any discussion on Code
7 Making Panel 9? No.

8 We'll move on to Code Making Panel 10
9 with the jurisdiction of Articles 240 and 780.

10 At Mike No. 5.

11 MR. GREGORY: My name is George
12 Gregory. I'm with Square D Company. I'm
13 representing myself.

14 I'd like to move to reject Comment No.
15 72, that's 10-72 on Page .139.

16 CHAIR ISMAN: So that's Comment 10-72
17 on Page .139, and the motion was to reject that
18 comment?

19 MR. GREGORY: That's correct.

20 CHAIR ISMAN: That motion is in order.
21 Do we have a second? We have a motion and a
22 second, please proceed.

23 MR. GREGORY: The comment is to revise
24 Section 240.86 which addresses series ratings for
25 circuit breakers. Now, this revision would allow

1 circuit ratings selected under engineering
2 supervision as an alternative to tested series
3 ratings. That is, it would allow series ratings
4 without any testing at all to verify their
5 performance. Now, remember that a series rating is
6 for a circuit breaker that's used where its
7 interrupting rating is not as high as the
8 available short circuit current. In other words,
9 it's underrated for the application. And the
10 series is intended to protect this underrated
11 device using a circuit breaker or a fuse in
12 series with it and upstream of it.

13 Now, the reason I move to reject it is
14 because the panel has not addressed a very
15 important issue that circuit breaker manufacturers
16 have raised time and again. And that point is
17 that there is no method presently available for an
18 engineer to adequately engineer a series rating.
19 By that I mean there's no technical paper, there's
20 no standard, there's no textbook, there's no
21 document at all that would help an engineer to
22 understand the many issues that are involved and
23 to deal with them effectively.

24 However, there are a number of papers,
25 and I'm holding five of them in my hand right

1 now, that explain why it is essential to test
2 series ratings. And in addition, why calculated
3 ratings simply are not effective. Now, without
4 tests, no one knows what protection the upstream
5 device will provide.

6 There are two points that have been
7 made in discussion of this comment that seem to
8 be convincing, but they're both seriously flawed.
9 Now, the first is a claim that the IEEE Blue
10 Book, that's IEEE Standard 1015, the claim
11 contains that that book contains an engineering
12 method. That claim is simply not true.

13 The Blue Book on Page .13 describes a
14 series rating as an interrupting rating of a
15 tested combination. That's the definition, a
16 tested combination.

17 Now, there is a single paragraph on
18 Page .77 in which it states that the current
19 limiting device may be used where the load side
20 breakers do not exhibit dynamic impedance within
21 the first half cycle. And you might imply that
22 means without test. The Blue Book does not
23 explain how an engineer is to deal with many
24 issues that are involved in assuring that the
25 downstream breaker is adequately protected. Now,

1 the second point is an emotional one, but we
2 can't write code based on emotion. And the point
3 being made that is that there are many
4 installations for which the available short
5 circuit current is increased resulting in a
6 condition that the entire installation is
7 underrated. Now, that's a sad fact. And it's
8 also a fact that in those installations, the
9 equipment and the people working with it are in
10 jeopardy, there's no question about it.

11 However, applying a series rating that
12 is not effective is not a solution, and we
13 shouldn't write that into the code. It's kind of
14 like throwing a waterlogged raft to a drowning
15 man.

16 Now, circuit breaker engineers who have
17 tons of information and lots of experience about
18 the devices involved have not been successful in
19 the engineering series ratings. Why do we think
20 that an engineer without information or expertise
21 can engineer one? I don't know.

22 CHAIR ISMAN: You have less than a
23 minute; can you sum up?

24 MR. GREGORY: I'm finished. I urge you
25 to vote in favor of this motion.

1 CHAIR ISMAN: Thank you.

2 Mr. Carpenter.

3 MR. CARPENTER: Yes, I'd like to defer
4 to the Chair of Code Panel-- James Dollard, Code
5 Panel 10.

6 CHAIR ISMAN: At Mike 1.

7 MR. DOLLARD: Thank you, Mr. Chairman.
8 My name James Dollard representing the
9 International Brotherhood of Electrical Workers,
10 and I speak at this point in time as Chairman of
11 Code Making Panel 10.

12 As Mr. Gregory clearly pointed out,
13 this issue has been seriously debated over several
14 cycles during my tenure as Chairman of Code Making
15 Panel 10.

16 In the 2002 cycle this issue received
17 considerable debate. It did not reach consensus
18 and was, therefore, not moved on the floor of the
19 annual meeting. It has at this time reached
20 consensus.

21 Code Making Panel 10 is made up of
22 probably the finest group of engineers, users,
23 utility. We have all of the facets that we need
24 to take an issue that is as hotly contested as
25 this issue and get it right. But it took years.

1 My tenure is only two terms as chairman and this
2 issue has been around for sometime.

3 And as George pointed out, the sad fact
4 is--and I personally wouldn't put it that way--
5 that as we're speaking here, there are men and
6 women throughout the United States of America and
7 the world that are standing in front of what is
8 literally a bomb. We know the dangers arc-flash
9 hazards. I know I have, as safety coordinator
10 for Local 98, personally seen those, all of which
11 was debated heavily at the panel level.

12 The panel came up with language to try
13 to clearly address that this was extremely
14 limited. The language reads "selected under
15 engineering supervision in existing installations"
16 so as to limit this from new installations.
17 Further, the language selected by this engineering
18 supervision must be selected by a Licensed
19 Professional Engineer engaged primarily in the
20 design or maintenance of electrical installations.
21 They tried to fine tune that to make sure that
22 the person making this determination was seriously
23 qualified to do just that. Another issue was
24 enforcement. New language was added, "This
25 documentation shall be available to those

1 authorized to design, install, inspect, maintain
2 and operate the system, and this series
3 combination rating shall be field marked on the
4 end-user equipment."

5 Panel 10 seriously debated this issue.
6 Panel 10 recognized that there is no method, as
7 Mr. Gregory pointed out, to put together into
8 software like P-1584, IEEE P-1584, or come up with
9 a design by which you can take each situation in
10 which existing equipment has been--its available
11 short circuit rating is exceeded and just have one
12 formula that would be capable of being used in
13 every situation. Panel 10 recognized that that
14 was impossible. We needed to look at each
15 individual situation and take a look at all of
16 the components in that situation. The engineer
17 would then make a determination as to whether or
18 not it could be done.

19 Where it can be done, Panel 10 felt
20 that it was a cost effective, feasible and very
21 practical method for an owner to provide a safe
22 workplace for persons that needed to work
23 energizer. Panel 10 worked long and hard on
24 this. The vote was 10 to 2 in favor of series
25 ratings.

1 Thank you, Mr. Chairman.

2 CHAIR ISMAN: Thank you. Also at Mike
3 1.

4 MR. KOVACIK: Thank you, Mr. Chairman.
5 I'm John Kovacik with Underwriters Laboratories,
6 and I speak in support of the motion on the
7 floor.

8 Series-rated circuit breakers have been
9 covered by UL for many years under its Component
10 Recognition Program. And what this means
11 essentially is that these series rated circuit
12 breakers are for use only in factory-installed
13 equipment under controlled conditions.
14 Essentially for use by OEMs. We feel very strongly
15 about this. We see no reason to extend this
16 practice to the field.

17 I support all of the technical
18 arguments presented by Mr. Gregory, but I'd like
19 to add one additional one that I think is very
20 key and supports the need for confining the use
21 of series rated circuit breakers to factory-
22 installed equipment. And that is, the
23 determination of a suitable series combination of
24 overcurrent devices must include an evaluation at
25 the host or what you could also call downstream-

1 connected equipment. Not only a calculation based
2 on performance characteristics of the two or more
3 series connected devices, the full system or
4 overcurrent devices, downstream equipment and
5 connections must be reviewed and perhaps--and this
6 is the key--perhaps tested to determine the
7 suitability of the system for use on a circuit
8 with an available fault current greater than the
9 market rating of the overcurrent protective
10 devices.

11 Mr. Chairman, I'd like to support the
12 motion on the floor and I ask the assembly to do
13 so as well. Thank you.

14 CHAIR ISMAN: Thank you.

15 Microphone No. 4 was next.

16 MR. KIMBLIN: Clive Kimblin, National
17 Electric Manufacturers Association on Panel 10,
18 and I speak for the motion.

19 We're dealing here with a serious
20 situation. We might have at the fault position a
21 100 K available fault. At that point the breaker
22 might have 25 KA capability. You are relying on
23 a series combination that under high fault
24 conditions an upstream fuse or circuit breaker
25 participates in the interruption.

1 At the moment, the reliability, the
2 safety of that system hinges on third-party
3 witness of combination tests. It hinges on third-
4 party witness of periodic ongoing combination
5 tests. It hinges on third-party control of the
6 enclosures associated with the series rating and
7 it hinges on strict marking requirements. And now
8 we're being asked to accommodate that a
9 professional engineer can engineer a series
10 ratings without all those safeguards. And
11 remember, it is the downstream breaker that's
12 going to be in trouble. The upstream device is
13 always fully rated, the downstream breaker is the
14 area where there can be trouble, safety,
15 liability.

16 The IEEE voted for this new method of
17 doing things and yet in their affirmative comment,
18 they say, "Field selection of series combinations
19 for existing breakers can only be done on breakers
20 classified as passive devices, devices that will
21 not attempt to open instantly on high fault
22 currents. All engineers who are field selecting
23 series combinations for existing installations
24 should be aware that all multi-case circuit
25 breakers and all power breakers are not shipped

1 with current limiting devices and are active
2 devices at an attempt to interrupt the circuit
3 instantly." So he's voting, yes, but he's putting
4 a tremendous caveat. And remember, multi-case
5 circuit breakers are typically in the circuit.
6 We're dealing here with total systems.

7 We believe that if you support this
8 motions on the floor at the moment you are indeed
9 supporting safety. Thank you.

10 CHAIR ISMAN: Thank you.

11 Microphone 7.

12 MR. SAPORITA: Vince Saporita, Cooper
13 Bussmann, member of Code Making Panel 10 speaking
14 against the motion.

15 This is a safety issue. Proper
16 interrupting rating for overcurrent devices is a
17 critical requirement so that a fuse or circuit
18 breaker does not explode when it opens during a
19 short circuit.

20 It is very clear and easy for engineers
21 and contractors to meet the interrupting rate
22 requirements for new installations. They can
23 utilize fuses and circuit breakers that are fully
24 rated, i.e., they have enough interrupting rating
25 all by themselves or they can utilize listed

1 series-rated systems where the upstream fuse or
2 the upstream circuit breaker protects a lower-
3 rated downstream circuit breaker.

4 The issue that we're talking about here
5 arises when a larger transformer is installed on
6 an existing installation and the new available
7 short circuit current exceeds the interrupting
8 rating of the older circuit breakers. In such
9 cases there are often no tested and listed series-
10 rated systems that can be utilized requiring the
11 complete replacement of a switchboard or panel
12 board. In some municipalities that is exactly
13 what happens; the complete change out of the
14 switchboard and/or panel boards occurs.

15 Unfortunately, in many municipalities these
16 switchboards or panel boards are not replaced,
17 thereby subjecting electrical workers to the
18 hazards of exploding overcurrent devices as they
19 are working on or near this equipment.

20 Panel 10 understands the safety issue,
21 and after a heated debate developed a solution
22 that is very limited in its scope. It is an
23 engineering solution that is limited to existing
24 systems only so that it cannot be used on new
25 systems where plenty of adequate equipment is

1 already available. The solution can only be
2 provided by a Licensed Professional Engineer who
3 is willing to put his license on the line. The
4 work must be stamped and made available to the
5 electrical inspector similar to the requirements
6 for hazardous locations in 500.4. So the
7 inspection community has the ability to enforce
8 this material.

9 Finally, there are no technical issues
10 with the protection of older circuit breakers when
11 the contacts take several cycles to open. Passed
12 by Panel 10 this new allowance will provide a
13 greater degree of safety for electrical workers
14 while at the same time keeping the requirements
15 the same for new installations.

16 Series rated systems have been
17 similarly engineered and safely engineered for
18 decades with far fewer restrictions and
19 limitations than are required by this change. In
20 my position I am responsible for product
21 liability. If there was a problem even with
22 something that was installed 20 years ago, I would
23 hear about it. I am not aware of one case, one
24 field incident during my 30 years dealing with
25 overcurrent devices on a daily basis.

1 I applaud the safety-oriented work of
2 Panel 10 on this issue and urge the membership to
3 support the action of the technical committee.
4 Thank you.

5 CHAIR ISMAN: Thank you.

6 The gentleman behind you at Mike 7 was
7 next.

8 MR. OCKULY: Thank you, Mr. Chairman.
9 My name is George Ockuly. I'm with Cooper
10 Industries and a member of Panel 10 and want to
11 speak in opposition of the motion for the
12 following reasons.

13 Without boring the membership ad
14 nauseam, I just want to remind those present that
15 this topic had received in a much broader forum,
16 not as restricted as it is now, the support of
17 Panel 10 in the '99 code cycle. Because of
18 another proposal that dealt with series ratings
19 and motor contribution, when this proposal went
20 before the TC--TCC it was put on hold because of
21 a correlation issue. The subject was brought
22 before the electrical section and passed muster.
23 It was brought before the floor of the membership
24 meeting in '99 and passed muster.

25 As such, when this was re-introduced in

1 the 2002 code cycle, it did not receive consensus.
2 As introduced for this code cycle, it reached
3 considerable census by the panel. All of these
4 issues have been debated.

5 The issue that was raised by the
6 representative of the testing laboratory, I would
7 suggest, is without merit for the following
8 reason, that the test does not look at the
9 coordination or the time current characteristics
10 of the breaker.

11 This proposal and the associated
12 comment restricts--let me underline "restricts"--
13 restricts the use to existing installations.
14 Anybody who would want to use this in a new
15 installation, it would not be permitted, and quite
16 honestly, would have to have his head tapped for
17 echoes to go through the engineering discipline to
18 design the system. Use what's out there. It's
19 used in existing installations where you have a
20 problem because of increased fault currents for
21 any number of reasons, the size of the transformer
22 has been changed or perhaps the utility has
23 reconfigured their switching on the primary side
24 of the transformer.

25 This is for safety, and worse case you

1 are still in a safer situation with that current-
2 limiting device, be it a fuse or a circuit
3 breaker, on the light side of that lower
4 interrupting rating breaker than doing nothing.
5 So from a safety standpoint, I encourage the
6 membership to support panel action and reject the
7 proposed amendment on the floor.

8 CHAIR ISMAN: Thank you.

9 Microphone 4.

10 MR. DOLLARD: Thank you, Mr. Chairman.

11 James Dollard representing the International
12 Brotherhood of Electrical Workers.

13 I speak this time not as chairman. I
14 speak as an inside wireman. I speak as a safety
15 coordinator of IBEW Local 98. I speak as the guy
16 that represents everybody at the bottom of the
17 food chain. The manufacturers are at the top of
18 the food chain. They play a large role in the
19 code-making process. We would be lost without
20 them.

21 I respect all of my colleagues on Panel
22 10. I respectfully submit that, as Mr. Kimblin
23 pointed out, his statement was this is not a
24 safety--his statement was that support for the
25 motion on the floor, and I rise in opposition to

1 it, was for safety. That's incorrect.

2 He also mentioned that in the ACC's
3 affirmative comment, they spoke of the limits of
4 this--of this proposed change. And it is limited.
5 It's extremely limited. Don't let anybody try to
6 get you to think that this is going to start
7 happening all over the of America. It's going to
8 be extremely limited. It's going to be limited
9 to situations where we don't have multi-case
10 circuit breakers. It's going to be limited to
11 situations where this can be done and a qualified
12 engineer tells us so. It's going to be done
13 where that incident energy is the highest, where
14 the largest danger exists for inside wiremen. We
15 know the danger's there and today as we speak
16 people are putting themselves in those situations
17 because the job has to get done, they need to put
18 food on the table, and it's my job to address
19 this issue on the floor of the annual meeting.

20 As my colleague, Mr. Kovacik, pointed
21 out--from the UL perspective, he spoke about
22 testing. I'd like to point out to you that
23 testing is done for these situations. However,
24 testing is not done with mannequins standing in
25 front of the equipment. It's done with men and

1 women. And if anyone wants to volunteer for that
2 testing, they can form a line at Mike No. 1. I
3 don't think anyone would want to put themselves
4 into those situations.

5 NFPA has developed, by request of OSHA,
6 NFPA 70e. Every organization represented here
7 today plays a role in electrical safe work
8 practices NFPA 70e. If a contractor or an owner
9 implements NFPA 70e and comes to us and says, We
10 just realized that our main overcurrent protective
11 device is rated at 42 K, but we have 80 K
12 available short circuit current because there's a
13 bigger transformer out there now, larger secondary
14 current, lower impedance ratio, well, the NEC,
15 NFPA 70 is going to tell them, No, no, you can't
16 take a look at that system to see if you can fix
17 that problem. And I can tell you from experience
18 owners will not do what the present text now
19 requires. Owners will not remove that equipment
20 and replace it in its entirety with series rated
21 equipment.

22 This is extremely limited in scope.
23 It's only existing equipment. It's where the
24 hazards are the greatest. Panel 10 did a wonderful
25 job over many cycles the lasted two years that I

1 had the opportunity and was proud to serve as
2 chair. I understand I have less than a minute.
3 They worked hard, they addressed all of the
4 concerns. It's extremely limited to existing
5 installations. We have to fall in step.

6 Is it practical? Is it within the
7 scope of the NEC? Yes, it is practical. It's
8 practical to safeguard the lives of electrical
9 workers. This is feasible, it's practical, and
10 it's absolutely necessary, and I ask you to vote
11 against the motion on the floor and help me and
12 help all of organizations that expose people to
13 those hazards to create a safer workplace for all
14 those men and women. Thank you, Mr. Chairman.

15 CHAIR ISMAN: Thank you.

16 We've had a number of speakers that are
17 in opposition to the motion. Did I see at Mike 3
18 in favor of the motion. I'd like to go to
19 balance the discussion a little bit to someone in
20 favor of the motion. Thank you.

21 MR. McMAHILL: Thank you, Mr. Chairman.
22 Lanny McMahill speaking on behalf of the
23 International Association of Electrical
24 Inspectors.

25 First off, let me just say this is a

1 very difficult subject or topic, and we do
2 appreciate all the comments and respect the
3 comments and the position of everybody on the
4 floor here.

5 There is no nationally recognized
6 standard that supports the method of engineering
7 calculation. There's no means for a
8 jurisdictional inspector to validate the
9 engineering method used was correct.

10 It was noted--it was noted from the
11 negative ballot from Underwriters Laboratories
12 that engineering calculations did not always
13 reflect reality when verification testing was
14 conducted.

15 It should also be noted the issue of
16 series ratings has been in the code for number of
17 cycles, and if there had been a means of applying
18 engineering calculations, then there would not
19 have been the necessity for the present code
20 regulation and the extensive testing of series
21 combinations that has taken place over the past
22 decade or more.

23 The proposed change does not fully
24 cover all aspects of the issue and creates a
25 false sense of security to the installer and

1 future individuals that will be servicing the
2 equipment and the IAEI have great concerns for the
3 worker safety in the event of a fault.

4 The electrical inspector, in approving
5 installation, must consider persons working on the
6 equipment in the future. It should be noted that
7 most faults occur when someone is working on
8 energized equipment. This is clear from all the
9 recent activity and emphasis on worker safety in
10 the evolution of NFPA 70e.

11 Based on the present knowledge, the
12 only way to be sure of the functionality of the
13 combination of overcurrent devices by a controlled
14 laboratory testing, which has been extensively
15 done by all the major equipment manufacturers. Any
16 kind of field testing would be inherently
17 dangerous and potentially damaging to equipment
18 and the facility. NEMA does not presently
19 construct any equipment that would be suitable to
20 apply engineering calculations to determine
21 adequacy of a series rating. And, therefore, to
22 apply the method, as proposed, would appear to
23 violate NEC 110.3(B). NEMA has relied solely on
24 the laboratory testing, and if this testing method
25 is not used, it becomes questionable how the NEC

1 is presently being complied with. There are no
2 clear qualifications set for the engineer. Past
3 experiences with engineers providing short circuit
4 and device coordination information, among other
5 code-related design items, has identified numerous
6 shortcomings, even though a registered
7 professional engineer stamps the building design.

8 It is strongly believed that even
9 attempt--to even attempt this type of calculation
10 evaluation will require special expertise beyond
11 that of just being a registered professional
12 engineer.

13 The NEC allows for a local AHJ to work
14 with known competent engineering and manufacturing
15 to resolve specific situations with known specific
16 conditions. This would be much more desirable and
17 we believe safer than to have a broad permission
18 provided in the code.

19 It is known that some authorities
20 having jurisdiction have instituted such policies
21 and procedures that cannot accommodate local
22 situations, and that after instituting these
23 procedures, many of the questions have been
24 resolved. We rise in support of this motion.

25 CHAIR ISMAN: Thank you.

1 At Microphone 7.

2 MR. MOHLA: Thank you, Mr. Chairman.

3 I'm Daleep Mohla with DCM Consulting. I'm
4 standing to oppose this motion.

5 It looks like the battle has shifted
6 whether we have engineers who know what they're
7 doing and how they are going to guard (inaudible).
8 I am a professional engineer in the state of
9 Texas, and I can sure you we won't stamp anything
10 unless it's 200 percent sure.

11 Even Clive and George have admitted
12 that this can be done. It requires some skill.
13 And if you can see from ACC comment, they did not
14 challenge whether it could be done or not. We
15 objected to requirement that you have to stamp it.
16 That's the only thing we objected to.

17 And all the errors people have pointed
18 out can be done. Every engineer, every human
19 being does the work two ways, one he doesn't have
20 to stamp it and one he does have to stamp it.
21 When I have to stamp my work, I look at it more
22 careful.

23 So I can assure you this can be done.
24 The skill is available. And if the engineer
25 feels uncomfortable, he won't do it. Other option

1 always is, when the system upgrades to ignore it.
2 This provides some method for existing
3 installation to do it. So I'll urge you to
4 oppose this motion. Thank you.

5 CHAIR ISMAN: Thank you.

6 Microphone 8.

7 MR. LOBNITZ: I'm Ed Lobnitz. I'm a
8 Registered Electrical Professional Engineer and my
9 company is Tilden, Lobnitz & Cooper in Orlando,
10 Florida.

11 I've only been doing coordination
12 studies in short circuit analysis for 35 or 40
13 years, so I may not have discovered these
14 techniques that are claimed to be able to be done
15 by Registered Professional Engineers to do this
16 sort of test.

17 I'm speaking in support of the motion,
18 because I really don't believe there are standards
19 out there and capabilities for professional
20 engineers to do this sort of work, and I think
21 engineers will be sucked into doing something that
22 they don't really understand and they don't
23 understand the details of. And normally in the
24 engineering business, when you put your seal on a
25 job, you have to use standards that are standards

1 of the industry. As far as I know, there are no
2 standards of the industry for an engineer to do
3 this sort of thing. So I strongly support the
4 motion on the floor.

5 CHAIR ISMAN: Thank you. Microphone 7.

6 MR. OCKULY: George Ockuly, Cooper
7 Industries, speaking against the motion.

8 I just wanted to address a couple of
9 issues that were mentioned a little bit earlier.
10 One is the issue of inspection. I think it's
11 pretty well-known that when this type of work is
12 done, a permit is normally taken out. The
13 inspector at that time, if he or she does not
14 feel qualified to inspect that type of a
15 situation, can always say no. So that addresses
16 the issue.

17 The statement that there are no
18 standards available is totally incorrect, because
19 I hold here the IEEE Blue Book which says, and
20 I'm summarizing in a thumbnail sketch, if in fact
21 the downstream device is passive for a half cycle
22 or more, you can use current limiting charts, be
23 it for a circuit breaker or be it for a fuse
24 upstream to a design system. Now, if there are
25 some professional engineers who are unfamiliar

1 with that, I'll be happy to stay after the
2 meeting and walk them through how to do it.

3 The situation is one that was born out
4 of a new breaker design within the last decade or
5 so which is the blow apart contacts, and you
6 cannot apply an engineering method to a blow apart
7 contact. You can only have that tested.

8 But ladies and gentlemen, if you look
9 at an industrial installation where you've got an
10 airframe circuit breaker in there, even if you had
11 it set on instantaneous trip, the mechanical time
12 constant for that device is going to take at
13 least two or three cycles before the contacts even
14 part, and you can use current limiting charts with
15 impunity to protect that device.

16 So like most complicated issues or
17 debatable issues, when someone mentions you have
18 to approve, you have to peel the onion to get the
19 full truth. I am personally available if anyone
20 wants to understand how you engineer a system
21 after you've got a passive device after a half
22 cycle. Come see me.

23 CHAIR ISMAN: Microphone 3.

24 MR. CALLANAN: Thank you, Mr. Chairman.

25 Michael Callanan with the International

1 Brotherhood of Electrical Workers speaking in
2 opposition to the motion.

3 You know, this kind of the tastes-
4 great-less-filling argument there. And those of
5 you that haven't been privy to this argument,
6 since for everyone that stands at Mike 1
7 technically supports the issue, you'll get one at
8 Mike 3 that says it can't be done.

9 Let me just say this: a little while
10 ago I stood up and said the manufacturers here
11 didn't like this particular application, and so I
12 suggest to the body that you think a little bit
13 about, you know, what the manufacturers have to
14 say about an application.

15 Now I stand before you and say, you
16 know, as a worker, as a representative of a
17 worker, think about what the workers have said
18 here and said on this issue. I listened to the
19 debate, and I was proud to be an NFPA member and
20 listen to the hour plus debate at the ROC meeting
21 on this issue, this same issue. Any one of you
22 would have been proud to hear that debate.

23 The issue comes down to you've got to
24 flip a coin and where is the safety on this
25 thing? Where do you believe the head is going to

1 come up for the best chance of your safety?

2 A few seconds ago one of the members
3 there came up to me and said, Mike, can I go up
4 there and tell the membership about the week I
5 spent in the burn center? Emotionally--I'm
6 emotionally touched about his spending a week in
7 the burn center as a result of an accident that
8 occurred.

9 Our position is quite simply this: all
10 right, if this has a chance of enhancing safety--
11 you know, you can have an engineer say, Hey, I
12 got 200 percent sure of this. We're the ones in
13 front of the equipment. Give us the benefit of
14 the doubt of having an engineer look at the
15 system and observe the feasibility and look at the
16 feasibility of that and tell you that, Yeah, we
17 can protect you or this thing, or, No, we can't,
18 it's got to be de-energized. We're asking for
19 your support on that, it's really important to us,
20 and we appreciate you opposing this motion. Thank
21 you, Mr. Chairman.

22 CHAIR ISMAN: Thank you.

23 Microphone 2.

24 MR. WEBER: Thank you, Mr. Chairman.

25 Ray Weber representing myself. I call the

1 question.

2 CHAIR ISMAN: We have a motion to call
3 the question. And I did hear a second from the
4 center of the room here. So we'll move immediately
5 to a vote. All those in favor of ending debate
6 on Comment 10-72, please raise your hand. Thank
7 you. And all those opposed to ending debate.
8 That motion passes.

9 So we move immediately to a vote. On
10 the rejection of Comment 10-72, all those in favor
11 of the motion, please raise your hand. Thank
12 you. And those opposed. That motion does not
13 carry.

14 Do we have any additional items for
15 Code Making Panel 10? Yes, we do at Microphone
16 4.

17 MR. TROUT: My name is Charles Trout,
18 and I'm representing myself.

19 I would like to make a motion to accept
20 Comment 10-45 on page .70-133 in the Report on
21 Comments. It has to do with Proposal 10-49m
22 which you can find on page .472.

23 CHAIR ISMAN: Okay. Give us just a
24 moment. Okay. We have a motion, and you are the
25 maker of that original comment, correct?

1 MR. TROUT: Yes, I am.

2 CHAIR ISMAN: Okay. We have a motion
3 for accepting Comment 10-45; do we have a second?
4 We do have a second. So please proceed, sir.

5 MR. TROUT: I believe this proposal has
6 to do with--excuse me, I've held these notes for
7 so long, I'm getting messed up here--but
8 conditions of maintenance and supervision ensuring
9 that only a qualified person serve as--service the
10 system. I have an issue with that in that I'm
11 not too sure that those are prescriptive
12 requirements.

13 Now, the National Electric Code is a
14 restrictive code. It's not a performance code.
15 And when they say where the conditions of
16 maintenance and supervision ensure only qualified
17 persons to monitor the system or what they're
18 going to do with the system, that's a performance
19 requirement, and I believe it needs prescriptive
20 requirements added to it.

21 My comment added "that a person
22 designated as a qualified person shall possess
23 skills and knowledge related to the construction
24 and operation of electrical equipment and
25 installation and shall have received documented

1 safety training on the hazards involved." And to
2 go further, "that the documentation of the
3 qualification shall be on file with the office of
4 the authority having jurisdiction and in the
5 office of the establishment in charge of the
6 completed installation."

7 I have never seen a definition of an
8 "industrial establishment." Industrial
9 establishment could be a large industrial complex,
10 or an industrial establishment could be some small
11 mom-and-pop storefront industrial endeavor.

12 I don't know what do they mean by "the
13 conditions of supervision." To me, there are
14 certain conditions of supervision, they have to be
15 written down somewhere where everybody will know
16 what these conditions are.

17 I'd like to know what "monitoring an
18 installation" means. How do they monitor an
19 installation? Is there a daily record or on the
20 way to work does a person that's designated take
21 a look and say, "This is fine," and go by? I'd
22 like to be sure that we can define the qualified
23 person. It's difficult for me to understand how it
24 is possible to relax requirements for safety in a
25 code that tells us that this code contains

1 provisions that are necessary for safety.

2 The section further states that
3 compliance there with proper maintenance will
4 result in an installation that's essentially free
5 from hazard, but not necessarily efficient,
6 convenient or adequate for good service for future
7 expansion. It appears to me that this tells us
8 these are minimum requirements for safety and
9 anything less will result in an installation that
10 is not free from hazard.

11 Now, what I call the proponents of the
12 travesty of who put these things in the code, the
13 truth is they attempt take to circumvent the
14 obvious degradation of safety by using phraseology
15 such as "the installation is under engineering
16 supervision" or "a qualified person will monitor
17 the system."

18 What is monitoring the installation?
19 How is this presence of this qualified person
20 substantiated? How do we know he exists, other
21 than the fact that when a permit was taken out to
22 put the building up, "Well, we're not going to
23 take advantage of this exception, because we're
24 going to have a qualified person."

25 It's my contention that we should have

1 prescriptive requirements added to the section--
2 this section. And there are--I believe there are
3 49 places in National Electric Code that has this
4 exceptions for industrial establishments, and I
5 believe that somehow somewhere we've got to get
6 together and decide just exactly what does this
7 mean. Thank you, Mr. Chairman.

8 CHAIR ISMAN: Thank you.

9 Mr. Carpenter.

10 MR. CARPENTER: I'd like to defer to
11 Chair of Panel 10, Jim Dollard.

12 MR. DOLLARD: Thank you, Mr. Chairman.
13 Thank you, Mr. Chairman. My name is James
14 Dollard. I represent the International
15 Brotherhood of Electrical Workers speaking as
16 Chairman of Code Making Panel 10.

17 This particular issue was dealt with by
18 Panel 10 in the proposal stage and the comment
19 stage. It received considerable debate. This
20 particular issue was actually tied during the
21 debate of Panel 10, which is--I'm trying to give
22 you that background--was actually tied to comments
23 10-5 and 10-6, which attempted to define an
24 industrial installation. The panel understood
25 completely the issue that Mr. Trout brought to the

1 floor. The panel agreed that the issue needed to
2 be dealt with, we need to take a look at that
3 issue, and it's tied at the hip to the definition
4 of industrial installation.

5 However, the text that was proposed and
6 the manner in which the change would have occurred
7 was unacceptable to the panel level. In my
8 comment on the affirmative in the last sentence I
9 suggested a TCC task group to address the issue.
10 TCC chairman, Mr. Carpenter, has directed me to
11 chair Code Making Panel 10 to develop a task
12 group, but that task group is limited within the
13 scope of Panel 10. I have not acted on that task
14 group as of yet. I wanted to wait for the
15 outcome of this meeting to see what changes, if
16 any, took place.

17 As Chairman of Panel 10, I would
18 strongly suggest that that task group be broad in
19 scope and be perhaps reassigned through the TCC
20 chair, Mr. Carpenter, to the entire document.
21 Thank you.

22 CHAIR ISMAN: Thank you.

23 Microphone 5.

24 MR. JANIKOWSKI: Mr. Chairman, my
25 name's Ron Janikowski. I'm an AHJ up in

1 Wisconsin.

2 I happen to have several industrial
3 plants and facilities in my area, and as an AHJ
4 it is very difficult to keep track of what's
5 going on third shift or second shift in these
6 facilities. For sure we get permits for the new
7 installation for the additions, but day-to-day
8 maintenance on 480-volt systems and things, we
9 have no control.

10 I stand in support of Charlie's
11 comment, and I would be very favorable to some
12 sort of a task group to get those terms in the
13 code so we can at least get our objective met and
14 we can get some control. Thank you.

15 CHAIR ISMAN: Thank you.

16 Is there any additional discussion on C
17 10-45--or Comment 10-45?

18 Seeing none, we'll move to a vote. All
19 those in favor of accepting Comment 10-45, please
20 raise their hands. Thank you. And all those
21 opposed. That motion does not carry.

22 We go back to any additional motions
23 that need to be made for Code Making Panel 10.
24 And I will up at Microphone 2.

25 MR. LaBRAKE: My name is Neil LaBrake

1 representing Edison Electric Institute.

2 I'd like to make a motion for a move to
3 accept Proposal 10-22. It's on page .453 of the
4 ROP. It deals with the over 800 amps, 1600 amps,
5 the next overcurrent device. I'd like to defer my
6 remarks to our organizational representative, Mr.
7 Charlie Eldridge. I'm sorry, just give us a
8 moment while we find this. I am the submitter of
9 the proposal.

10 CHAIR ISMAN: Your proposal is to
11 accept the comment as it was submitted or the
12 proposal?

13 MR. LaBRAKE: To accept the motion as
14 submitted, yes.

15 CHAIR ISMAN: That motion is in order,
16 do we have a second? I did hear a second in the
17 middle of the room, so please proceed.

18 MR. LaBRAKE: I'd like to refer remarks
19 to our organizational rep, Mr. Charlie Eldridge.

20 CHAIR ISMAN: He is the gentleman at
21 Mike 6. Please proceed.

22 MR. ELDRIDGE: Thank you, Mr. Chairman.
23 My name is Charlie Eldridge representing the
24 Edison Electric Institute on Code Making Panel 10.

25 By making this change, a 1600-ampere

1 service could be wired with four sets of 500
2 kcmil 75 degree C wire. This has been done for
3 years without any problems for the 800 amperes or
4 less range as permitted now in 240.4(B).

5 The existing section effectively
6 permits conductors to be protected at up to 18
7 percent above their ampacity. As you know, this
8 practice has proven successful in many thousands
9 NEC installation and years of practice. There's
10 no technical reason to disallow the modest 6
11 percent allowance for conductors above 800
12 amperes.

13 There are two reasons for the code text
14 to stay as it is, and these are addressed.
15 First, the larger standard size jumps above 800
16 amperes, which have been addressed by limiting the
17 size to 6 percent above the ampacity of the
18 conductor. Conductor damage curves have been
19 submitted to Code Making Panel 10 that proves
20 there are no problems with the conductors being
21 protected.

22 The second problem is with the
23 overcurrent devices themselves. Overcurrent
24 devices depend on the mass of the conductors for
25 a heat sink. That is the reason for including

1 the requirement for listing the overcurrent
2 devices for this purpose.

3 Granted, the device does not exist at
4 this time, but that will change as soon as the
5 first company designs an overcurrent device that
6 will work and receives a listing. This also is
7 the same concept as the Canadian Electrical Code
8 has.

9 I submit that this change in the
10 National Electrical Code would permit a
11 considerable cost savings to the customers without
12 sacrificing any safety. Thank you.

13 CHAIR ISMAN: Thank you. Mr. Carpenter.

14 MR. CARPENTER: I'd like to defer to
15 the Chair of Panel 10, James Dollard.

16 MR. DOLLARD: Thank you Mr.--thank you,
17 Mr. Chair. My name is James Dollard representing
18 the International Brotherhood of Electrical
19 Workers speaking as Chairman of Code Making Panel
20 10.

21 This particular proposal received
22 extensive debate in the proposal stage. The panel
23 did accept in principle this proposal. The issue
24 at hand is taking 240.4(B) and adding an exception
25 to go over 800 amps and adding an exception to go

1 up to and including 1600 amps.

2 The language that was submitted in the
3 proposal attempted to achieve this by not
4 permitting more than 6 percent above the ampacity
5 of the conductors protected. The panel, however,
6 felt that that was not enough in order to get
7 this into an acceptable shape. The panel did
8 accept it in principle but added that new list,
9 Item No. 4, that the overcurrent device has been
10 listed for use with the smaller conductors. This
11 particular issue was accepted by the panel in the
12 proposal stage in principle and did not receive
13 two-thirds, it was rejected in the ROC stage.
14 Thank you, Mr. Chairman.

15 CHAIR ISMAN: Okay. Microphone 4.

16 MR. KIMBLIN: Thank you. Clive Kimblin
17 for Code Making Panel 10.

18 I speak against the motion. I also
19 note that this motion was made yesterday to the
20 electrical section and was not supported.

21 What we're dealing with here is the
22 overload of conductors--potential overload of
23 conductors. The code at the moment presently
24 requires that where the overcurrent device is
25 rated over 800 amps, the ampacity of the

1 conductors it protects shall be equal to or
2 greater than the rating of the overcurrent device.
3 This is has been a rule that's been in place for
4 over 40 years.

5 Now we're being asked to go from 800
6 amps up to 16 amps without test data and with
7 various parameters such as it is only 6 percent
8 over. And that number didn't come from science.
9 That came from a particular case using a 1600-amp
10 breaker. We're being asked to extend that. Also
11 provided we have tested devices with the
12 conductors, which we don't have. So I say that we
13 have a tried and true rule which has lasted for
14 40 years up to 800 amps. I do not see the
15 substantiation to go to 1600 amps and I oppose
16 this motion. Thank you.

17 CHAIR ISMAN: Thank you.

18 Microphone 1.

19 MR. ODE: Mark Ode speaking for myself.

20 When you go back to 240.6 and you look
21 at the progression of the sizes of overcurrent
22 protection devices, you get 800 amps, you start
23 jumping in 200-ampere increments, not 50- or 100-
24 ampere increments like we have 800 and below. You
25 have a little bit more control over going to the

1 next standard size overcurrent protection device
2 and again not exceeding that 6 percent that
3 they're talking about.

4 But I'm speaking against the motion to
5 accept this proposal for a number of reasons.
6 First of all, the progression steps up when you
7 go from 1200 amps to 1600 amps to a 400-amp
8 progression. Second of all, when you talk about
9 listing all of these different combinations of
10 conductors when you start getting into these large
11 service entrance section sizes and overcurrent
12 protection device sizes that you're going to get
13 into.

14 When I look at, say, for example, a
15 1000 or a 1200 or a maybe even a 1600-amp service
16 entrance section or a panel board or a
17 switchboard, and now I have to start analyzing for
18 these smaller conductors and providing listing for
19 all the different combinations I can make, 310.4
20 says that when I get over--when I start
21 paralleling conductors, I have to be at least a 1
22 aught or larger for those parallel conductors.
23 That means I can make any combination that I
24 would like to do in the field.

25 And as a field electrician, I would

1 then be looking at--say, for example, a 1200-
2 ampere combination, I could look at that and say
3 I'm going to need so many 500 kcmil conductors.
4 I could look at that and say I could use so many
5 four aughts or one aught or whatever combination I
6 would elect to do. And that's admissible based
7 upon the rule that we have right now for both
8 under 800 or over, but I don't have to get it
9 listed for those specific combinations. And I
10 think this would be overly restrictive and I don't
11 think that this is a good proposal to provide
12 that option in the field and I'm against the
13 acceptance of this proposal.

14 CHAIR ISMAN: Thank you. Any further
15 discussion on Proposal 10-22? Seeing none, we'll
16 move to vote on the motion. All those in favor
17 of the accepting Proposal 10-22, please raise your
18 hands. And those opposed. That motion does not
19 pass. Any additional commentary or discussion on
20 CMP 10? Microphone 2.

21 MR. LaBRAKE: My name is Neil LeBrake
22 representing Edison Electric Institute.

23 I'd like to make a motion to accept
24 Comment 10-48. It's on page .134 of the ROC. And
25 I am the submitter of that comment.

1 CHAIR ISMAN: I apologize for taking a
2 few seconds. Yes, we have Comment 10-48, and you
3 can make that motion to accept it. So do we have
4 a second for that motion? Yes, we have a second
5 down here in front. So we have a motion and a
6 second, please proceed.

7 MR. LaBRAKE: Thank you.

8 This issue deals with 240.21(B)(5)(2),
9 and it's regarding outside feeder taps. I'd like
10 to defer my comments to our organizational
11 representative, Mr. Charlie Eldridge.

12 CHAIR ISMAN: Okay. At Mike 6. Go
13 ahead, sir.

14 MR. ELDRIDGE: Thank you, Mr. Chairman.
15 My name is Charlie Eldridge representing the
16 Edison Electric Institute on Code Making Panel 10.

17 The outside feeder tap conductors are
18 protected at the load end of their ampacity, the
19 same as all taps by the load cert or overcurrent
20 devices. Short circuit and ground fault
21 protection is provided at the source of the
22 feeder. The tap conductors would be protected
23 better if the overcurrent protection or in
24 multiple smaller overcurrent devices instead of a
25 single overcurrent device because of the

1 diversity.

2 Code Making Panel 10 recognizes that,
3 and there were--the panel vote was 7 to 5, one
4 more person and we would have had the two-thirds
5 required to pass this issue. Overload short
6 circuit or ground fault on the load side of the
7 smaller overcurrent device would be of a smaller
8 magnitude than if it were on the load side of a
9 single larger overcurrent device.

10 A change in ownership would not change
11 the safety of the installation. Many times a
12 portion of the electric utilities distribution
13 system is sold to its customer. At the instant
14 of the sale the customer's now in violation and
15 considered to have an unsafe installation. The
16 ownership of the system does not make it safe or
17 unsafe.

18 Service conductors are permitted to be
19 protected by up to six disconnecting means.
20 There's no justification why feeders which supply
21 a building or other structure should not be
22 allowed the same measure of protection. This has
23 presented a problem of lack of coordination
24 between Article 225 and 240 that will continue.

25 Additionally, we made a provision

1 during the comment stage that would prohibit the
2 six individual disconnecting means along the wall.
3 They have to be in a single enclosure. So you're
4 not tapping a tap in order to comply with this. I
5 submit that this change in the National Electrical
6 Code would permit a considerable cost savings to
7 our customers without sacrificing any safety.
8 Thank you.

9 CHAIR ISMAN: Thank you.

10 Mr. Carpenter.

11 MR. CARPENTER: I'd like to defer to
12 Chair Dollard, please.

13 CHAIR ISMAN: At Microphone 1.

14 MR. DOLLARD: Thank you, Mr. Chairman.
15 My name is Jim Dollard representing the
16 International Brotherhood of Electrical Workers
17 speaking as chairman of Code Making Panel 10.

18 Considerable debate was given to
19 Comment 10-48 as well as 10-58, which was a
20 similar issue--very similar issue dealing with a
21 different section--a different subsection or
22 subdivision, rather.

23 240.21(B) is feeder taps and that's
24 where this particular proposal came in. Panel 10
25 dealt with it in the proposal stage and rejected

1 it. Panel 10 stayed steadfast with the single
2 disconnecting means for multiple reasons. Safety
3 being the primary reason. The comment modified
4 the original proposal to put those six
5 disconnecting means in a single enclosure. The
6 panel accepted it in principle--or accepted it in
7 the comment stage, but it did not receive
8 two-thirds. They rejected it. The final action
9 was to reject I believe it was--it was accepted,
10 but not accepted in principle. It did not get
11 two-thirds.

12 The concerns in the voting which did
13 occur at the panel meeting were multiple, safety
14 being one. This particular proposal was driven
15 primarily for existing installations where a
16 utility company would sell the service equipment.
17 In this case the feeder for in this case of
18 240.21(C), the transformer to the owner. Well,
19 the minute they do that, they're in violation of
20 the National Electrical Code. The problem is that
21 as soon as that installation falls under the scope
22 of NFPA 70, those conductors do become taps and
23 tap conductors are recognized in the NEC as
24 unprotected. And to compare them to service
25 conductors is not an equal comparison because

1 service conductors are limited to how far they can
2 come into the building. Tap conductors are
3 limited in length, but can occur in other areas
4 of the structure.

5 That's just my attempt to summarize
6 both the debate and the voting for CMP 10. Thank
7 you, Mr. Chairman.

8 CHAIR ISMAN: Thank you.

9 Microphone No. 4.

10 MR. KIMBLIN: Thank you. Clive
11 Kimblin, Principal of CMP 10.

12 I speak against the motion. I also
13 know that this motion was made yesterday to the
14 electrical section and was not supported.

15 What we are dealing with here are tap
16 conductors of unlimited length. Their overload
17 protection is at the load side, not at the source
18 side, and we absolutely consider--I absolutely
19 consider that the protection is far better if you
20 terminate into a single overcurrent protection
21 device, rather than to six devices, both when you
22 first do the termination and for the future.
23 When you can be dealing with upgrades to the
24 plans, et cetera, et cetera, you think twice when
25 you see one particular overcurrent protector

1 device at the end of that line.

2 As Mr. Dollard has commented, this has
3 been a source of dispute in Code Making Panel 10,
4 not just in this code cycle but for many code
5 cycles. And under pressure we did allow the
6 termination in six overcurrent protected devices
7 for large supervised installations. That was
8 done. But now the pressure is on to make this a
9 general rule. We feel that the safe--that the
10 safety is not served by making this a general
11 rule and I therefore ask you to reject this
12 motion. Thank you.

13 CHAIR ISMAN: Thank you.

14 Microphone 5.

15 MR. JANIKOWSKI: Mr. Chairman, Ron
16 Janikowski. I am from the state of Wisconsin and
17 I stand in favor of this comment.

18 I think Panel 12 has lost sight of the
19 farming industry, which we have many up in
20 Wisconsin, and I think this proposal to have a
21 single device kind of loses sight of our pool top
22 situations on the farming industry. Thank you.

23 CHAIR ISMAN: Thank you. Any additional
24 discussion on Comment 1048? Seeing none, we'll
25 move to a vote. All those in favor of accepting

1 Comment 10-48, please raise your hand. And all
2 those opposed. That motion does not pass.

3 Are there any additional motions for
4 Code Making Panel 10?

5 Seeing none, we'll move to Code Making
6 Panel 11 which has jurisdiction over Articles 409,
7 430, 440, 460, 470 Annex D and Example D8.

8 At Microphone 4.

9 MR. FISHER: Thank you, Mr. Chairman.
10 My name is David Fisher representing Rockwell
11 Automation. I move to return a portion of Article
12 409, Proposal 11-5 found on page .1076 and Comment
13 11-3a on page .70-325.

14 CHAIR ISMAN: The portion that you want
15 to move, is that in the comment or in the
16 proposal?

17 MR. FISHER: Well, it's part of each, I
18 guess. The proposal was actually dead, but the
19 part--there was part in the proposal and it was
20 modified by a comment.

21 CHAIR ISMAN: I guess we need your help
22 to understand where can we go to look.

23 MR. FISHER: Let me tell you the
24 subsection I'm talking about and maybe you can
25 help me. The subsection is 409.106. It was

1 initially part of the proposal and it was modified
2 in the comments period.

3 CHAIR ISMAN: So in Comment 11-3a there
4 is a Section 409.106 on spacing?

5 MR. FISHER: That is correct.

6 CHAIR ISMAN: And what would you like
7 to do with that section?

8 MR. FISHER: I would like to--I would
9 like to return that section, that whole section
10 which consists of one sentence.

11 CHAIR ISMAN: So you'd like to return
12 Section 409.106 to committee?

13 MR. FISHER: Correct.

14 CHAIR ISMAN: Okay. That motion is in
15 order since there was a change within the ROP and
16 the ROC. Do we have a second? We do have a
17 second down front, so please proceed.

18 MR. FISHER: Article 409 is new and
19 integrates existing elements of the code for
20 industrial control panels and also includes a
21 requirement for a short circuit ratings. The text
22 of Subsection 409.106 as proposed was as follows,
23 "Spacings between terminals and other bare metal
24 parts shall not be less than specified in Table
25 430.97." It was substantiated by the statement,

1 "Terminals and other devices are placed with live
2 parts too close to grounded parts and results in
3 faults within the control panel."

4 At the ROP voting time an affirmative
5 comment citing concerns that the spacings
6 requirement needed to be better aligned with UL
7 508A suggested rewording as follows, "Spacings
8 between live bare metal parts in feeder circuits
9 shall not be less than specified in Table 430.97."
10 That language was carried to the ROC and approved
11 without further modification.

12 The difficulty is that we now have a
13 requirement that deals only with spacings between
14 phases and not between phase and ground. While
15 the added text "in feeder circuits" brought it
16 closer to UL 508A, the lack of spacing to ground
17 is a significant deviation.

18 However, the most concerning issue is
19 the fact that there is no--there is no exception
20 to the phase-to-phase spacing that has been
21 traditionally applied to the disconnecting means
22 but not to the other listed items in the feeder
23 circuit. NEC 408 and UL 508A have such
24 exceptions. The lack of such an exception in
25 Subsection 409.106 is unacceptable.

1 The return of this spacing requirement
2 really intended to speak primarily to busbars.
3 For one code cycle will not be a significant
4 loss. The great majority of the bus assemblies
5 used in control panels are already listed
6 assemblage.

7 I urge the adoption of this motion to
8 return only this one subsection, 409.106.

9 CHAIR ISMAN: Thank you.

10 Mr. Carpenter.

11 MR. CARPENTER: I'd like to defer to
12 the Chair of Panel 11, lane Wayne Brinkmeyer at
13 Mike 2.

14 MR. BRINKMEYER: Thank you, Mr.
15 Chairman. My name is Wayne Brinkmeyer, Chairman
16 of Panel 11.

17 This issue came before the electrical
18 section committee meeting yesterday. There was a
19 motion passed at that time favorable to deleting
20 Section 409.106. There were a number of Panel 11
21 members present at that meeting. No one objected
22 to deleting that particular section, and I feel
23 that it probably in no way particularly diminishes
24 the effect of Article 409.

25 CHAIR ISMAN: Thank you.

1 Also at Microphone 2.

2 MR. DOBROWSKY: Paul Dobrowsky speaking
3 as an officer of the electrical section.

4 As Mr. Brinkmeyer mentioned, the
5 section did consider this yesterday at their
6 standards forum and did vote to support the motion
7 on the floor. Thank you.

8 CHAIR ISMAN: Thank you.

9 At Microphone 1.

10 MR. KOVACIK: Thank you, Mr. Chairman.
11 John Kovacik, Underwriters Laboratories. I speak
12 in support of the motion on the floor.

13 Underwriters is very supportive of the
14 proposed new Article 409 for industrial control
15 panels. Much of what is being proposed is taken
16 from our Standard UL 508A for industrial control
17 panels.

18 We have reviewed the concern expressed
19 with regards to the table referenced in proposed
20 Section 409.106, and we have found that the
21 reference is indeed inappropriate and therefore
22 agree with the deletion of this particular section
23 and, again, do support the motion on the floor.
24 Thank you.

25 CHAIR ISMAN: Thank you.

1 At Microphone 7, did you wish to
2 address this? No, okay.

3 Seeing no one else at the mike, we'll
4 move to a vote on returning Section 409.106 to
5 committee. All those in favor of that motion,
6 please raise your hand. Thank you. And all
7 those opposed. That motion passes.

8 Additional discussion on Code Making
9 Panel 11 jurisdiction?

10 Microphone 7.

11 MR. EDDIE GUIDRY: My name is Eddie
12 Guidry. I'm employed with Fluor Enterprises and a
13 principal on Panel 11. I'm addressing the issue
14 with Proposal 11-114.

15 After voting affirmative on this
16 proposal, it was drawn to my attention that the
17 inclusion of UL standards for motors, UL 1004, and
18 motor control centers, which is UL 845, in
19 Appendix A may create confusion with the users of
20 the code. I'd like to read into the record that
21 listing of motors and motor control centers are
22 not a coded comment, and I'll be filing an appeal
23 to the Standards Council to remove these two
24 references in Appendix A.

25 CHAIR ISMAN: Okay. So just for the

1 information of the body, that was just a
2 statement, not a motion?

3 MR. GUIDRY: That's correct.

4 CHAIR ISMAN: Okay. Thank you for that
5 statement.

6 Is there any additional action on Code
7 Making Panel 11? Seeing none, we'll move on to
8 Code Making Panel 12, and that covers Article 610,
9 620 625, 630, 645, 647, 650, 660, 665, 668, 669,
10 670, 685, Annex D, Examples D9 and D10. At
11 Microphone 4.

12 DR. HIRSCHLER: Thank you, Mr.
13 Chairman. Marcelo Hirschler, GBH International,
14 speaking on behalf of the Fire Retardant Chemical
15 Association, now known as the Fire Safety Council,
16 and the Plenum Cable Association.

17 I move to accept my Comment 12-26 on
18 Page .70-461 of the ROC, Comment 12-26 of Page
19 .70-461 of the ROC.

20 CHAIR ISMAN: And you were the maker of
21 this comment?

22 DR. HIRSCHLER: Yes, I am.

23 CHAIR ISMAN: Okay. We have a motion
24 to accept Comment 12-26; is there a second? We
25 have a second from down front. Please proceed.

1 DR. HIRSCHLER: Thank you, Mr.
2 Chairman.

3 The comment is very simple. I just
4 want to change the fine-print note so that the
5 fine-print note, it does what most fine-print
6 notes always do in the National Electrical Code,
7 refer to the standard associated with that and the
8 criteria in that standard.

9 The existing fine-print note refers to
10 NFPA 90A which then in turn refers to the
11 standard. That is a convoluted way of doing the
12 same thing and in particular with doing--we are in
13 the process of changing 90A, so 90A is changing
14 its opinion on how--or some of the equipment
15 installed in plenums may or may not be passed.
16 So it is much more suitable and much more correct
17 if the reference is directed to the standard to
18 which these loudspeakers and so on should be
19 approved, and that is UL 2043. Thank you.

20 CHAIR ISMAN: Thank you.

21 Mr. Chairman.

22 MR. CARPENTER: I'd like to defer to
23 Chair Panel 11 Wayne Brinkmeyer.

24 CHAIR ISMAN: We're actually on Panel
25 12 now.

1 MR. CARPENTER: I'm sorry, it's getting
2 late in the afternoon. Charlie Trout, of course.

3 CHAIR ISMAN: At Microphone 4.

4 MR. TROUT: Chairman, my name is
5 Charlie Trout. I'm the Chairman of Panel 12.

6 The panel statement really in essence
7 is a proposed change in the wording of the fine-
8 print note in Comment 12-26 does little other than
9 supply information that's contained in the UL
10 standard that is referenced in the existing fine-
11 print note. It's not the intent of the fine-
12 print note to display the contents of the
13 standards referenced.

14 CHAIR ISMAN: Thank you. Microphone 5.

15 DR. HIRSCHLER: Marcelo Hirschler, GBH
16 International.

17 Again just to clarify, it does
18 significantly more than what the panel statement
19 says. The critical issue is to refer directly to
20 the standard as opposed to referring the standard
21 via 90A so there is--and that is a--that is not
22 being addressed by the panel statement. Thank
23 you.

24 CHAIR ISMAN: Thank you.

25 I'd like to come to Microphone 1 before

1 we come back.

2 MR. ODE: Mark Ode, member of Code
3 Panel 3 and from Underwriters Laboratories.

4 I think there may be a misconception
5 here. If I look at 300--and I'm not in support
6 of accepting this comment, by the way. If I look
7 at the requirements in Article 725, for example,
8 if I go back and I look at the output wiring and
9 listing of amplifiers in 640.9(c) I'm referred
10 back to Article 725 for Class 1, Class 2 and
11 Class 3 wiring. I'm required to go back to 322
12 based upon the requirements in 725.3 anyway. If I
13 look at the requirements in Chapters 5, 6 and 7,
14 except as amended, I'm required to comply with
15 Section 322(c) anyway. So you know, if I'm going
16 to put in something that is a combustible material
17 and other space for environmental air, I have to
18 comply with the requirements in 322(c) anyway. If
19 I go up to Article 725 and I wire something in
20 accordance with Article 725, as I'm permitted to
21 do in 640.9, I still have to comply with those
22 requirements for low smoke emission, and I think
23 this fine-print note is extraneous. It doesn't
24 need to go in there and it just kind of muddies
25 the water.

1 CHAIR ISMAN: I'm going to come to a
2 new voice at Microphone 5.

3 DR. KAUFMAN: I'm Stanley Kaufman from
4 Cable Safe. I'm representing myself.

5 I'd like to point out the letter that
6 was--I'm speaking in opposition to the motion.

7 The letter we're giving about earlier
8 on NFPA 90A having primary responsibility for
9 combustibles and plenums, I'd like to point out
10 that the existing fine-print note is right on with
11 that. It agrees with the Standards Council's
12 position. So I say leave it alone and reject
13 this motion.

14 CHAIR ISMAN: Microphone 4.

15 DR. HIRSCHLER: Marcelo Hirschler, GBH
16 International.

17 Let me clarify this, because I think
18 we're getting some confusion. I agree with Mark
19 Ode completely that we should address Section
20 300.22, that's exactly the section that we should
21 address. The fine-print note as it is creates
22 confusion because it says NFPA 90A tells you to
23 do something. But when NFPA 90A changes its mind,
24 what are we to do? What we need to do is either
25 delete the fine-print note, which would be

1 acceptable, or this is much more helpful, tell you
2 what you want to do, if you want to list these
3 loudspeakers and all their products and you do
4 that UL 2043. Thank you very much.

5 CHAIR ISMAN: Go ahead, Mr. Chair.

6 MR. TROUT: I'm Charlie Trout, Chairman
7 of Panel 12. I believe there's been enough
8 discussion on a fine-print note.

9 CHAIR ISMAN: Microphone 5.

10 MR. JANIKOWSKI: Mr. Chairman, Ron
11 Janikowski. I am a member of Panel 12.

12 During discussion we kind of referred
13 back to Panel 3 guidance on it, and basically our
14 thought was, If it's not broke, don't fix it, so
15 I stand in opposition to this comment. Thank
16 you.

17 CHAIR ISMAN: Okay. Any further
18 discussion on Comment 12-26?

19 Seeing none, we'll move into a vote.
20 All in favor of accepting Comment 12-26, please
21 raise your hand. All those opposed. The motion
22 does not pass.

23 Additional discussion in Code Making
24 Panel 12? I'm not seeing anyone getting towards a
25 mike, so we'll move on to Code Making Panel 13

1 which has jurisdiction over Articles 445, 455,
2 480, 690, 692, 695, 700, 701, 702 and 705. Any
3 discussion on Code Making Panel 13?

4 At Mike 5.

5 MR. MANCHE: Alan Manche, Square D
6 Company. I'd like to make--ask for support to
7 accept Comment 13-88 on Page .502.

8 CHAIR ISMAN: That was Comment 13-88?

9 MR. MANCHE: Yes, sir.

10 CHAIR ISMAN: And you the submitter of
11 this comment?

12 MR. MANCHE: Yes.

13 CHAIR ISMAN: That motion is in order.
14 Do we have a second? We have a motion and a
15 second. Please proceed.

16 MR. MANCHE: I want to first--what
17 we've got on the floor here is Article 700 and
18 the overcurrent protection for emergency systems.
19 We currently are going to be required to
20 selectively coordinate the overcurrent protection
21 for emergency systems.

22 What I would--what I want to first lay
23 the foundation is that this is not a breaker/fuse
24 issue. You can selectively coordinate with
25 breakers and fuses. Okay. Let's get that one

1 out of the way.

2 What I really believe is this is a
3 reliability issue, and it needs to be up to the
4 engineer to decide whether he needs to selectively
5 coordinate the system or not. Does it need to be
6 selectively coordinated? Is selectivity even
7 possible from the system design aspects? You've
8 actually got 726 that permits you to omit ground-
9 fault protection of equipment. So can I then
10 omit that and still do the selectivity?

11 So the system has to be reviewed in its
12 entirety. It's not as simple as just, you know,
13 laying the overcurrent device curves over the top
14 of each other and saying this is selectively
15 coordinated. I would ask for your acceptance of
16 this comment.

17 CHAIR ISMAN: Thank you.

18 Mr. Carpenter.

19 MR. CARPENTER: Yes. I'd like to defer
20 to the Chair of Panel 13, Thomas Wood.

21 CHAIR ISMAN: Mr. Wood.

22 MR. WOOD: Thank you, Mr. Chairman.

23 CHAIR ISMAN: At Microphone 2.

24 MR. WOOD: Thank you, Mr. Chairman. I
25 am Tom Wood. I am the Chairman of Panel 13.

1 This article has been discussed both
2 during the proposal stage and at the comment
3 stage. It was again brought up yesterday during
4 our session in the afternoon and received no
5 support. I think that's the place for me to stop
6 at this point. Thank you.

7 CHAIR ISMAN: Thank you. At Mike 7.

8 MR. EDDIE GUIDRY: Eddie Guidry, Fluor
9 Enterprises.

10 As a design professional, I speak
11 against the motion. Consulting engineers do not
12 have their hands tied when it comes to designing
13 selectively coordinating systems. We can utilize
14 both fuses and circuit breakers or combinations of
15 each.

16 There are already two locations in the
17 NEC that require selective coordination. The
18 first is in 517.17(B) for hospitals where the
19 ground-fault protection is required to coordinate
20 so that ground-fault and a floor scrubber in the
21 basement does not knock out the main for the
22 whole hospital. The second is in Section 620-62
23 for elevators where the overcurrent devices must
24 selectively coordinate for all overloads, short
25 circuits and ground faults, so that a fault in

1 one elevator does not knock out all of the
2 elevators.

3 This new section as passed by the
4 Technical Committee is--sorry, I can't read that--
5 similar to these other two requirements. I
6 applaud the panel for their actions which will
7 help assure that the entire emergency system is
8 not knocked out due to a fault in a feeder or
9 branch circuit. Thank you.

10 CHAIR ISMAN: Thank you.

11 Microphone 6.

12 MR. LOTTMANN: Yes. Todd Lottmann,
13 Cooper Bussmann, speaking in opposition to the
14 motion on the floor.

15 Let's don't lose sight of the area
16 we're talking about here. Article 700 covers
17 emergency systems. This requirement, as Mr.
18 Manche's pointed out, is not a fuse/circuit
19 breaker issue. This is an operation issue. This
20 is the system.

21 If I read the scope in Article 700, it
22 tells me, "The provisions of this article apply to
23 electrical safety of the installation, operation
24 and maintenance." So we're going to install this
25 thing--we're going to install this system so it

1 works right. It's critical in nature. Emergency
2 systems are life safety. Okay. We're going to
3 make sure it operates properly.

4 There are sections in this Article
5 700.4 which covers the maintenance and testing.
6 That's not from installation, that's after this
7 thing's installed, we come back in and make sure
8 that this system's going to operate properly.
9 Okay. So we have these requirements in there.
10 We want this system to operate.

11 In addition to that, we have separation
12 of circuits. Why are we separating circuits?
13 Aren't we trying to limit the likelihood of
14 something causing the system to go down? Isn't
15 that what we're trying to do here?

16 We also have in Section 700.16 the
17 actual wording, "Emergency lighting egress
18 compared with the lights will remain operational
19 in the state of emergency. Failure of one
20 component must not result in a condition or means
21 of egress will be in total dark ness." Okay.
22 There are many sections--as a matter of fact, I
23 went and counted this up. There are 18 sections
24 in this article, 13 of them deal with keeping the
25 system operational, that's 72 percent of those. 72

1 percent of these sections are in operation. There
2 was one that wasn't.

3 What we're trying to do here is fix
4 this. This is the overcurrent protective devices.
5 We want to make sure, in addition to all the
6 other requirements that we have in there, that the
7 overcurrent protective devices do not take down
8 the system. We want the system operational. If
9 you look at this, the Technical Committee agrees.
10 Look at the ROP voting, 13 to 1, that sounds
11 pretty unanimous to me. Pretty close. ROC
12 voting, 11 to 3. It's not that close. The
13 Technical Committee has decided on the technical
14 merit of this, they have given it due
15 consideration, I believe that argument is out.

16 The other thing I'd like to bring up is
17 it was brought up in front of the electrical
18 section assembly yesterday and did not gain
19 support by a wide margin.

20 Thank you very much, Mr. Chair.

21 CHAIR ISMAN: Thank you.

22 Microphone 7.

23 MR. LEWIS: Bill Lewis with Eli Lilly &
24 Company speaking for myself.

25 CHAIR ISMAN: Could we get you to speak

1 up and get real close to the mike for us?

2 MR. LEWIS: Bill Lewis, Eli Lilly &
3 Company speaking for myself.

4 I guess I feel like this is a good
5 attempt to improve safety and reliability. I'm
6 speaking in support of the motion, because I
7 believe the implementation of this will be very
8 difficult in many cases and it should be left up
9 to the designers.

10 What is more critical is the
11 coordination of the equipment that is not on the
12 emergency panels so that they indeed do drop out
13 before the emergency panel might drop out. Another
14 issue is the fact of ground-fault coordination.
15 On large supplies over a thousand volts ground-
16 fault is required in the 480-volt range. This
17 could be an issue when you're switching to a
18 generator which cannot supply the ground-fault
19 levels that you're coordinating to. So sometimes
20 it might be impossible to coordinate this, both
21 under normal supply and under generator supply. So
22 I feel this really should be left up to the
23 individual designer to--whether how to coordinate
24 these systems.

25 CHAIR ISMAN: Thank you.

1 Microphone 8.

2 MR. LOBNITZ: Ed Lobnitz, Tilden,
3 Lobnitz & Cooper in Orlando, Florida. I'm
4 speaking as a representative of the healthcare
5 section and in support of the motion that's on
6 the floor.

7 We feel that this is impractical
8 wording that's being added into the code, and it's
9 going to be up to the electrical inspectors to be
10 able to sort out whether a system is properly
11 coordinated or not.

12 It's a complicated process to
13 coordinate a complete emergency system electrical
14 system with all the different kinds of breakers
15 and all the different settings and fuses and so
16 forth.

17 This is more of a design issue than it
18 is an installation or operational issue, because
19 somebody has to design it first and also pick the
20 settings of every single breaker in the system
21 and/or every fuse in the system and every one of
22 them has to be coordinated properly and on top--
23 the coordination is difficult enough by itself,
24 but the result of a coordination study is a whole
25 list of settings of the breaker where it ties to

1 the fuses and types of fuses, and somebody has to
2 go around and check every single breaker to make
3 sure those are set properly and that's going to
4 be the electrical inspector's job and it's going
5 to take a long time to do that.

6 In addition to that, a lot of these
7 emergency systems are add-on systems, they're
8 adding to the electrical system, and in order to
9 coordinate it, if you're complete coordination,
10 you have to go all the way back to the main
11 source and you have to look at the all the
12 existing breakers that are affecting the breakers
13 that you're adding or the fuses that you're
14 adding.

15 We have this process in the state of
16 Florida. Our AHJ for healthcare facilities
17 requires this sort of coordination study to be
18 done and submitted for approval. And it has to
19 be submitted for approval at the same time the
20 permitting documents are submitted.

21 It's a very difficult process because
22 you have to do this coordination on a specific
23 set of overcurrent devices, and if you change it,
24 then the whole system changes and you have to do
25 it over again. So the only people that review

1 these kind of coordination studies in the state of
2 Florida is a registered electrical engineers. And
3 they understand what coordination is all about and
4 all the nuances of curves and so forth. So it's
5 not something that normally is a part of an
6 electrical inspector's knowledge, skills or
7 ability. Obviously they can learn how to do it,
8 but there are a lot of engineers that don't even
9 understand what coordination is all about and how
10 to do it.

11 So I hate to see it put in the hands of
12 the electrical inspectors and expect them to make
13 sure to review the coordination studies first of
14 all and then verify that all the settings are
15 absolutely correct and proper. So I think we're
16 creating a very unworkable, very impractical, and
17 just a system that is just going to be
18 unenforceable and going to be a problem for
19 everybody in the industry. So I urge your
20 support of this motion.

21 CHAIR ISMAN: Thank you.

22 Microphone 3 was next.

23 MR. McMAHILL: Lanny McMahill speaking
24 for myself.

25 As an AHJ, I can assure you this would

1 be--I'm opposed to the motion on the floor. As an
2 AHJ, this will be something difficult to enforce.
3 I kind of look at the big picture. This is a
4 life safety issue. It's something that's probably
5 a very good design consideration, but it's
6 something that also needs to be placed in the
7 code. It makes it mandatory on these emergency
8 systems where you will have the selective
9 coordination. We sure don't want to have an
10 emergency system in the building, one branch
11 circuit take out the entire panel board and take
12 out all the lighting in the building. So, again,
13 I'm opposed to the motion on the floor.

14 CHAIR ISMAN: Thank you.

15 Microphone 4.

16 MR. RENCOSOK: Joel Rencsok, Three Phase
17 Engineering, electrical engineer design
18 consultant.

19 I don't see where there's a problem
20 with the coordination. We do this every day in
21 our industry. Now, granted, I agree with Lanny, it
22 may be a problem for the inspector. But if the
23 inspection authority requests all the settings and
24 the overcurrent devices on those plans, all they
25 have to do is verify that those products went in.

1 We do this all the time. We don't have any
2 problems. There are electronic programs out there,
3 such as SKM and some of the other ones that does
4 all this for us. So for me as a design
5 consultant, this is not a problem. If it's not
6 in the code, it won't get done.

7 CHAIR ISMAN: Thank you. Microphone 6.

8 MR. LOTTMANN: Yes. Todd Lottmann,
9 Cooper Bussmann. Just one last point real quickly
10 in response to the gentleman back at Mike 8 a
11 while ago. The concern about the setting in the
12 overcurrent devices, all that's going to roll out.
13 I would like to point out that 700.4 has testing
14 and maintenance. We're going to go back through
15 the systems and check it, why can't you check it
16 then? Thank you.

17 CHAIR ISMAN: Thank you.

18 Microphone 5.

19 MR. MORRIS: Thank you, Mr. Chairman.
20 Gary Morris, and I'm speaking in favor of the
21 motion.

22 I'm a plans examiner, local inspector.
23 I'm looking at this from an inspection standpoint
24 as a transfer of responsibility. I believe that
25 the engineers that we work with are capable of

1 giving us these reports. But if you look at our
2 AHJ and our capabilities, and mainly I'm talking
3 about time and financial resources, they're
4 greatly limited. We're going to add another
5 burden to that situation.

6 A lot of this body I know appreciate
7 AHJs, but we're getting hit hard at this time.
8 This adds one more process that we'll have to get
9 resources for and take us away from other things.
10 At this stage the industry has left it with the
11 engineer. And, yes, I agree there are required
12 testings, but those testings don't follow with the
13 local jurisdiction. So I ask for your
14 consideration in support in this motion from that
15 standpoint.

16 If it's something that we can't
17 overcome, perhaps we could do it in the next
18 cycle and give a three-year notice as we have
19 done in the past where it would come in effect in
20 2011 so the people that participate in this
21 industry, from my standpoint, can get prepared to
22 take on another load. Thank you.

23 CHAIR ISMAN: Thank you. Microphone 1.

24 MR. WEBER: Bill Weber Shermer
25 Engineering. I call the questioning.

1 CHAIR ISMAN: We have a motion to end
2 debate, do we have a second? Very well.

3 We'll move directly to a vote. All
4 those in favor of ending debate, please raise your
5 hand. All those opposed to ending debate. That
6 motion passes.

7 So we go directly to a vote on
8 accepting Comment 13-88. All those in favor of
9 accepting the comment, please raise your hand.
10 And all those opposed. That motion does not
11 pass.

12 We're going to take a two-second
13 stretch break while our stenographer--actually,
14 let's make it a two-minute stretch break while our
15 stenographer changes her paper.

16 (A recess was taken from 4:57 p.m. to 5:06 p.m.)

17 CHAIR ISMAN: Okay. We are dealing
18 with additional comments for or additional issues
19 for Code Making Panel 13. Are there any additional
20 items to be brought up? I'm not sure if people
21 are headed for microphones or headed for their
22 seats.

23 There do not appear to be additional
24 items for Code Making Panel 13, so we'll move on
25 to Code Making Panel 14, which has jurisdiction

1 for Articles 500, 501, 502, 503, 504, 505, 510,
2 511, 513, 514, 515 and 516. At Microphone No. 5.

3 MR. WECHSLER: David Wechsler, Dow
4 Chemical Company, a principal on Panel 14
5 representing the American Chemistry Council. On
6 14-5, action to accept the panel action.

7 CHAIR ISMAN: Was that Comment 14-5?

8 MR. WECHSLER: Yes.

9 CHAIR ISMAN: So it's a motion to
10 accept the original panel action on Comment 14-5.
11 Just give us a second to get that up. That motion
12 is an order; do we have a second? We do have a
13 motion and a second. Please proceed.

14 MR. WECHSLER: Thank you. We need to
15 take a little break here from the electrical
16 stuff, because one of the things that Article 500
17 addresses is chemicals and flammability and
18 combustibility. So bear with me as we go through
19 for some what may be some strange terms, but this
20 is a rather important issue. In 500.5,
21 Classification of Locations (A), "Classification
22 of Locations. Locations shall be classified," it
23 reads, "depending on the properties of the
24 flammable vapors, liquids, or gases or combustible
25 dust or fibers that may be present and the

1 likelihood that a flammable or combustible
2 concentration or quantity is present." These
3 words have been in the code for quite some period
4 of time. However, during the ROP stage, we took
5 some actions on 500.1, Fine Print Note 2, and in
6 one of those actions we came up with words that
7 we talked about propellants, and we said
8 propellants have been deleted because flammable
9 gases are used as propellants for aerosol
10 products. This resulted in some people getting an
11 opinion that because the classification statement
12 that I just read only used the term "flammable,"
13 that that was the only thing they needed to
14 concentrate on, which would ignore the aspect of
15 combustible liquids handling above its flash
16 point, which are very volatile and can burn and
17 are serious, things that need to be considered in
18 the classification process.

19 And so what happened was the panel
20 said, "look, we agree that this is an important
21 need and we need to alert people, and the best
22 way to do that is by the addition of a fine print
23 note, which would be Fine Print Note No. 3, which
24 would read, "When a combustible liquid is stored,
25 handled or processed above its flash point, the

1 combustible liquid-produced vapor is considered to
2 be a flammable vapor." This introduces no new
3 requirements. All it's trying to do is prevent
4 people who may have been misled by the other
5 action that we took to talk about flammable from
6 proceeding and saying, Don't look beyond that.
7 That's not what we're telling people.

8 It's indeed also unfortunate that
9 nowhere in the NEC do we address the term
10 "flammable." Flammable is addressed in other NFPA
11 documents, such as NFPA 30, and there it is
12 looking at a material in relationship to its flash
13 point, and it's not the same as "flammable" as we
14 meant in the original section which means the
15 process of burning.

16 So what we're asking is to return back
17 to the action taken by the panel basically
18 overturning the Correlating Committee so that we
19 get this alert so people are not led down a wrong
20 path, which if somebody were to ignore the
21 combustible liquids handled above their boiling
22 points could result in a fatality or a very poor
23 design. So it's very important that the
24 attributes involved in the classification process
25 be addressed. Thank you.

1 CHAIR ISMAN: Thank you.

2 Mr. Carpenter.

3 MR. CARPENTER: Yes, I'd like to defer
4 to Panel Chairman Donny Cook at Mike 4.

5 CHAIR ISMAN: Microphone 4.

6 MR. COOK: Donny Cook, Chairman of
7 Panel 14.

8 Panel 14 looked at this comment, and I
9 don't think there was anyone that questioned the
10 technical validity of Dave's comment. The panel
11 was unanimous in that decision. The only question
12 was, I guess, a procedural issue of the timing on
13 the comment. It could have been viewed as new
14 material, and so there was--the TCC looked at
15 that, I suppose, as new material and held it.

16 We've also had a TIA with some
17 different wording to try to correct the technical
18 issue in a different way, and I think that's been
19 held also for procedural reasons. But from a
20 technical standpoint, I don't believe anyone was
21 opposed to what Dave was trying to accomplish.

22 MR. CARPENTER: Mr. Chairman, I would
23 like to also refer to Technical Correlating
24 Committee member Mike Callanan at Mike 3.

25 CHAIR ISMAN: Mr. Callanan at Mike 3.

1 MR. CALLANAN: Thank you, Mr. Chairman.
2 Michael Callanan, IBEW representing the Technical
3 Correlating Committee.

4 With regard to this specific note
5 that's shown on 14-5 comment, page .384, I can
6 tell you what the chairman's comments just were,
7 essentially two issues that the TCC looked at
8 here. The first related to whether the additional
9 text, as a result of the action of the committee,
10 was new material. One of the things we try to do
11 is analyze negative affirmative votes in looking
12 at these things, and the committee did think that
13 there was consideration for new material and
14 flagged it for that reason.

15 There was also a secondary
16 consideration as to whether the proposed language
17 would in fact constitute a requirement and apply a
18 requirement within the fine print note, which
19 would be a violation of the style manual. Thank
20 you.

21 CHAIR ISMAN: Thank you.

22 At Mike 5, did you wish to address the
23 issue?

24 MR. WECHSLER: Yes, Mr. Chairman. The
25 aspect--I will admit this is somewhat gray as to,

1 Does this introduce new material? and it really
2 pushes the limit. But on the basis of where we
3 started from, it was--it was derived from the
4 aspect of pointing people in a direction of
5 looking at a flammable gas. And when we have
6 done that for a totally different reason, we have
7 misled people. And so, therefore, it does
8 correlate with some other work that was going on,
9 and so it's technically not new.

10 As to whether this is really new, new
11 material, I'll suggest it really is not. It's
12 been out there for quite some period of time. It
13 was quite a surprise to find out that those who
14 we felt were really knowledgeable in this area
15 would start to read our words with the legal
16 eagle aspects and trying to pick it apart and
17 saying, This is the reason why we don't have to
18 classify locations.

19 Now clearly, there's many reasons why
20 you don't have to classify locations. And you
21 could honestly say that a liquid--combustible
22 liquid handled above its boiling point may not
23 need to have to have a, for example, Class 1,
24 Division 2 or Division 1 location. It could be
25 unclassified. There's all kinds of reasons for

1 it. But to ignore it simply because you're
2 basing it on the words would be a very gross
3 miscarriage, and it could result in somebody
4 being killed.

5 By taking the action with the fine
6 print note, this is not creating a new
7 requirement. It's not requiring that all
8 combustible liquids handled above their flash
9 point necessarily result in the use of special
10 electrical equipment. It's merely saying that you
11 need to consider this. It needs to be considered
12 as a flammable vapor. That's all it says.

13 So it's really not a requirement, and I
14 would challenge anybody who thinks this is a
15 requirement. It's been there, it's just because
16 of the way we've phrased the words, and
17 unfortunately when we start looking at the legal
18 eagles and trying to pick the words apart that we
19 do get in some of the situations we do.

20 But to allow this not to proceed and
21 people to move under the delusion that we're only
22 looking about, quote-unquote, "a flammable," which
23 means a flashpoint less than 100 degrees
24 Fahrenheit, 100 degrees C, that would be a gross
25 misjustice, and it could end up in people being

1 seriously hurt with inadequate equipment being
2 provided because people can say, I didn't know.
3 This alert makes sure people do know. Thank you.

4 CHAIR ISMAN: Thank you. Did you wish
5 to address us again at Microphone 4?

6 Microphone 7.

7 MR. BALLARD: A.W. Ballard--excuse me,
8 A.W. Ballard, Crouse-Hinds. I'm a member of Panel
9 14.

10 One of the concerns expressed in some
11 of the documentation was that it appears to
12 introduce a requirement in a fine print note, and
13 that's probably because of the word "considered."
14 The fine print note could have been written--fine
15 print notes are supposed to be advisory of facts,
16 and it could have said that combustible liquid-
17 produced vapor is a flammable vapor, not is
18 "considered" to be. I mean, that's the intent.
19 It really doesn't encompass any more of a scope.
20 It's just clarifying the scope. So if there's a
21 way to get this in, I think it's a good idea.

22 CHAIR ISMAN: Thank you.

23 Microphone 5.

24 MR. ZIPSE: Donald Zipse, Zipse
25 Electrical Engineering. I represent the IEEE.

1 I'm a principal on Panel 14.

2 I endorse the previous comments that
3 have been made. This is a warning to the public.
4 We need some way to get this into the code now
5 and not later. We tried a TIA, and that
6 evidently is not working.

7 So, again, I urge you to vote for this
8 motion and that we somehow, or the TCC, do your
9 work then and get it into the code for us since
10 you took it out.

11 CHAIR ISMAN: Thank you.

12 Microphone 1.

13 MR. ODE: Mark Ode, Underwriters
14 Laboratories, speaking in opposition and in
15 support of this TCC action.

16 First of all, this does introduce new
17 material, and clearly, you know, when we do that,
18 it's against the NFPA rules and regulations since
19 it hasn't had public review. That's item number
20 one.

21 Number two, you know, I'm not sure that
22 I want just anybody being able to classify an
23 area based upon the combustibility or the
24 flammability of a material if they're not--if
25 they're not able to do that and don't understand

1 the concept. A fine print note is not going to
2 deal with that.

3 If I take a combustible liquid and I
4 reach its flash point, it then becomes a flammable
5 vapor or a flammable gas. And once we do that and
6 we get out of the scope of 500 and 501, we start
7 dealing with flammable vapors and gases. We no
8 longer deal with the liquids themselves. We start
9 looking at the flammability of the gases and
10 vapors, because we've already turned it from a
11 liquid into a gas or vapor, and that's what's
12 burning.

13 If I take liquid and I heat it up, even
14 if I start that liquid on fire, it's not really
15 the liquid that's burning, it's the gas or vapor
16 that's been heated from that liquid. And that's
17 the issue here.

18 So the fact that it's a combustible
19 liquid is really dealing more with the flash point
20 and not necessarily dealing with the fact that
21 once it has flashed over, then we just have a
22 regular flammable gas vapor, and we have to deal
23 with it the way we deal with any that flammable
24 gas or vapor.

25 CHAIR ISMAN: Mr. Wechsler, you have

1 new information for us?

2 MR. WECHSLER: Yes, I do.

3 CHAIR ISMAN: Okay. Microphone 5.

4 MR. WECHSLER: Sorry.

5 I started off by saying we were going
6 to a lesson that was non-electrical, and I guess
7 I meant that. As Mr. Ode pointed out, it's not so
8 much what you call it, but you recognize that it
9 does have a hazard. Documents like 497, NFPA 30,
10 all deal with these things, but we're just trying
11 to bring closure in making sure that this is not
12 something that's going to fall between the cracks.
13 And that's all we're trying to do.

14 We're trying to prevent people who may
15 not have the knowledge needed--and recognizing
16 there's all levels out there. Many of you have
17 gone through training in how to do hazardous area
18 classification. It is an art. It's not a
19 science. There's a lot of understanding and
20 knowledge that's needed. It's not a one-person
21 routine. And this, again, is just something that
22 helps close it.

23 And I would just point out that this is
24 one of the few times an entire panel has voted
25 unanimously on a condition. Thank you.

1 CHAIR ISMAN: Thank you.

2 Microphone 7.

3 MR. WILLIAMS: Yes. Noel Williams
4 speaking on behalf of myself. I just wanted to
5 make a comment with regard to a couple of other
6 things that were said.

7 I agree with what Mr. Ode said. One of
8 the statements was that we really don't have
9 anything in here to tell us about these
10 combustible liquids. But, in fact, 500, if we
11 take it in its totality, the entire article, it's
12 not really telling us how to classify areas.

13 And if we go over and look at 500.4, it
14 refers to other standards and tells us that we
15 really can't--we need to use other standards in
16 the area classification. In 500.4 one of the
17 references that was mentioned here, NFPA 497 is
18 mentioned, among others, and in many of those
19 documents they explain this issue of the use of
20 combustible liquids above their flash point.

21 So I don't think it's entirely missing
22 if we take the article in its entirety and use
23 the reference documents that really have to be
24 used in order to classify any areas other than
25 those in Articles 511 through 516.

1 CHAIR ISMAN: Thank you.

2 Additional discussion on Comment 14-5?

3 Seeing none, we'll move into a vote. All those
4 in favor of accepting the Technical Code Making
5 Panel's version of Comment 14-5, please raise your
6 hand. Thank you. And all those opposed. That
7 motion does not pass.

8 Are there additional discussion items
9 for Code Making Panel 14?

10 Seeing none, we'll move on to Panel 15,
11 which is responsible for Articles 517, 518, 520,
12 525, 530 and 540. Any discussion for CMP 15?

13 Seeing none, we'll move on to CMP 16,
14 responsible for Articles 770, 800, 810, 820 and
15 830.

16 Dr. Hirschler, would you like to make a
17 motion? We're on Panel 16, responsible for
18 Articles 770, 800, 810, 820 and 830. Are there
19 any motions to make on Panel 16? There don't
20 appear to be. We'll come back eventually to the
21 whole document.

22 Let's move on to Code Making Panel 17,
23 responsible for Articles 422, 424, 426, 427, and
24 680. Are there any motions?

25 At Mike 5.

1 MR. MANCHE: Thank you. Alan Manche
2 from Square D Company.

3 I would like to ask the body to support
4 a proposal to accept Proposal 17-80 on page .1562.

5 CHAIR ISMAN: Give us just a moment.
6 And you are the maker of that original proposal?

7 MR. MANCHE: Yes, sir.

8 CHAIR ISMAN: That motion is in order.
9 We have a motion and a second, please proceed.

10 MR. MANCHE: The requirement in
11 question is the GFCI protection of pool pump
12 motors. To take a historical perspective, back
13 in the 1999 NEC, Article 680 had a requirement
14 for the hard-wired pool pump motor to be GFCI
15 protected for 240-volt--up to 240-volt, single
16 phase pool pump motors. During the 2001 NEC we
17 had a rewrite of Article 680, and the GFCI-
18 protection requirement for hard-wired pool pumps
19 seemed to disappear in that process.

20 This proposal here was to correct that
21 action and to bring the safety level back to what
22 it was in 1999 that this body endorsed and
23 accepted at that point in time. So this would
24 simply bring the level back to the 1990 code
25 level and provide protection on 240-volt, single

1 phase 120, 15- to 20-amp pool pump motors. Thank
2 you.

3 CHAIR ISMAN: Thank you.

4 Mr. Carpenter.

5 MR. CARPENTER: I'd like to defer to
6 Panel Chair Don Johnson.

7 CHAIR ISMAN: At Microphone 5.

8 MR. JOHNSON: Yes. Good afternoon. My
9 name is Don Johnson. I'm Panel Chair for Panel
10 17.

11 In relation to this proposal, 17-80,
12 which was rejected by the panel, the
13 substantiation offered on this proposal, one,
14 stated about the inappropriate removal and the
15 ascertainment that the GFCI protection of
16 permanently connected pool motors was
17 inappropriately removed from the 2002 NEC is
18 incorrect. It was appropriately removed at the
19 2002 cycle. The change resulted from a documented
20 specific panel action on Proposal 20-31. On that
21 Proposal 20-31 it was accepted, except that
22 portion that dealt with hard-wired GFCI
23 protection. The panel decided to only retain the
24 GFCI protection for receptacle outlets. The
25 substantiation referred to an OSHA report.

1 That OSHA report, if you look at it,
2 states that the electrocution occurred even though
3 a cord-and-plug-connected connection with a GFCI
4 had been installed. The grounding pin on the
5 male plug had been removed and the GFCI had been
6 improperly wired. The report does not provide a
7 basis for installing GFCI on hard-wired circuits
8 for pool motors. The CPSC press release is not
9 specific as to hard-wired pool pump motors being
10 the cause of the hazard.

11 CHAIR ISMAN: Thank you.

12 Microphone 2.

13 MR. DOBROWSKY: Paul Dobrowsky. I'm
14 representing the North Coast Section. The North
15 Coast Section discussed this issue yesterday at
16 their standards meeting, and the motion passed.

17 CHAIR ISMAN: Thank you.

18 Also at Microphone 2.

19 MR. CHASE: Yes. My name is Aaron
20 Chase. I'm alternate on Panel 17 representing
21 NEMA.

22 I understand what our chairman just
23 said, but regardless, no matter how you slice
24 this, this is still a reduction in safety, and
25 there was no technical substantiation provided for

1 this reduction in safety. I cannot rationalize in
2 my mind why we don't have the same level of
3 safety for hard-wired pool pumps as we do for
4 cord-connected pool pumps. I might add, as Mr.
5 Dobrowsky said, this passed not by a small margin
6 yesterday, but it was unanimous at the electrical
7 section. Thank you.

8 CHAIR ISMAN: Thank you.

9 Microphone 3.

10 MR. CACCAMESE: My name's Ron
11 Caccamese, I'm representing the Brotherhood of
12 Electrical Workers, and I would like to speak in
13 support of this motion.

14 One of the things that I would like to
15 bring to the committee's attention is the highly
16 corrosive nature of pool water and how that could
17 and probably will compromise the grounding system
18 associated with the pool pump motor. The GFCI
19 would continue to operate in disregard to the
20 condition of the ground conductor and thereby
21 provide additional protection for the pool motor,
22 even though it's hard wired.

23 In addition to that, we find that
24 throughout the NEC we've begun to become much more
25 comfortable with the operation of GFCI devices and

1 have expanded those uses into exterior locations.
2 More readily, we've also expanded their uses in
3 wet and damp locations, and obviously, a pool
4 installation falls in those types of categories.

5 A GFCI device is required on other
6 circuits in close proximity to pools are well
7 documented in the NEC. They provide a minimal
8 cost to the consumer to upgrade from the standard
9 overcurrent device to a GFCI device. And the NEC
10 regularly recognizes the hazards that are
11 associated with water and electrical apparatus if
12 they're in close proximity to water.

13 GFCI technology itself has continued to
14 improve and, as I mentioned earlier, our comfort
15 level with those devices has obviously increased,
16 and we've seen how as a safety issue they provide
17 us with a greater comfort in the workplace, a
18 greater comfort in the home, a greater comfort
19 throughout our lives.

20 I encourage the membership to reinstate
21 the GFCI protection that was previously listed in
22 the 1999 NEC and let us not forget our focus, as
23 indicated in Article 90.1, "Protection of people
24 and property," and I'd like to focus on the fact
25 that property comes before--or comes after people.

1 The most important thing we need to look at is
2 protecting our personnel. Thank you.

3 CHAIR ISMAN: Thank you.

4 Mike 4.

5 MR. BAKER: Yes, my name is Dennis
6 Baker, and I represent IEC, and I'm also an
7 alternate on Code Making Panel 17.

8 I've been fortunate to be involved in
9 this process for the last three or four code
10 cycles. The GFCI protection on motors has come
11 up several times. It was not--it was not
12 inadvertently omitted in the 2002 code. It was
13 done on purpose as was stated by Don Johnson.

14 I'm just here to affirm that the motor
15 GFCI protection has not always been a requirement
16 as in one of the proposals and one of the
17 comments it said that the '99 code did in fact
18 require GFCI protection on all motors. That is
19 not true.

20 And I consider myself somewhat of an
21 expert. I don't even like using that word. But
22 I've been wiring swimming pools for 42 years. We
23 do probably four or 5,000 pools a year. And
24 with this we probably have at minimum of two
25 motors per pool, and we've been hard wiring them

1 ever since I've been in the business. And I tell
2 you what, we have not had one instance that I
3 have had any fatality or any injury that I know
4 of. And as an electrical contractor, I would
5 certainly be the first one to know if this was a
6 real issue.

7 And, yes, there has been GFCI
8 protection in Article 680. There's been GFCI
9 protection on the light required, lighting around
10 the pool, receptacles around the pool, and I
11 certainly don't object to that. My point is if
12 these requirements have been in there all along,
13 it's obviously that the intent of the code making
14 panel was not to GFCI protect the motor.

15 And then we had the one incident with
16 the cord-connected motor, and so they brought it
17 into--what the code panel did is just made it on
18 other than dwelling occupancies, because I
19 established enough, I don't know, reports that
20 there has been no need to have motors on a
21 residential pool GFCI protected.

22 Now, the other thing that bothers me is
23 on this proposal and even when they did put it in
24 on the other than dwelling occupancies, it's a 10-
25 to 20-amp, 120 240-volt circuit. Now, if we're

1 really concerned about motors being a problem,
2 believe me, I do for one of the pool companies
3 that 80 percent of their primary motor is a three
4 horsepower motor, and it's on a 30-amp circuit.

5 So the whole point of it is, you know,
6 we're saying that all these motors have to be
7 GFCI protected, except for a three horsepower
8 motor that doesn't have to, a three-phase motor
9 that doesn't have to, a ten horse motor, seven
10 and a half.

11 This to me I do not--I really feel I'd
12 be remiss as a code making panel member if I
13 didn't bring this up that I really in my own
14 heart do not believe there's a necessity for this.
15 I mean, I do not want anybody to get hurt either,
16 but I can't in my own judgment just mandate that
17 we put GFCI protection on motors where there's
18 been no real proof that there's a problem hooking
19 them up that way.

20 And I really--one other thing is that
21 in--I live in the Phoenix area, and we do, I
22 mean, tons and tons of pools. The other person
23 that was on the code making panel with me
24 represents Las Vegas, Nevada--and I know I've only
25 got a minute left--but they're probably the second

1 highest builder of swimming pools around, and he
2 is an inspector, the authority having
3 jurisdiction, and he has also on the code panel
4 verified that they had had no problem with motors
5 that were hard wired.

6 So we don't feel there's any need for
7 additional GFCI protection on hard-wired motors.
8 Thank you.

9 CHAIR ISMAN: Thank you.

10 Also at Microphone 4.

11 MR. YASENCHAK: Thank you, Mr.
12 Chairman. My name is Randy Yasenchak. I
13 represent the International Brotherhood of
14 Electrical Workers. I am in support of this
15 motion.

16 I'd like to simplify this with an
17 example. Picture a tree-lined street, houses left
18 and right. Two houses on the right-hand side,
19 they have a beautiful pool behind them. Each one
20 of those pools have the same identical pump pool
21 motor, but one has a cord-and-plug, the other is
22 hard wired.

23 People get done at the end of the day,
24 they walk out, they decide to go black flush the
25 pool, they're walking back with wet slippers. The

1 gentleman with the cord-and-plug connected pool is
2 totally protected, according to Article 90. The
3 gentleman with the hard-wired motor is not
4 afforded the same protection. Someone is going to
5 have to explain to me what the difference is. I
6 really can't see it. Thank you.

7 CHAIR ISMAN: Thank you.

8 Microphone 6.

9 MR. JOHNSTON: Thank you, Mr. Chair.

10 Thank you, Mr. Chair. Mike Johnston, CMP 5,
11 principal member, and speaking as an individual
12 and also as a submitter of comments to the very
13 issue at hand.

14 And I support the comments--or I
15 support the motion on the floor to reinstate that
16 GFCI protection. It appeared in the 1999 edition
17 of the code, it was voted on by the panel to put
18 GFCI protection in there for these motors. It
19 appeared to disappear under a major reorganization
20 for the 2002 NEC in a table that's provided, and
21 it was there for public review, but it did appear
22 to be removed under that reorganization. And there
23 were some proposals, as indicated by several of
24 the people speaking at the mike, to address that
25 issue.

1 But I do speak in support of it,
2 because I did submit comments as an individual to
3 reinstate the GFCI protection.

4 CHAIR ISMAN: Thank you.

5 Also at Mike 6.

6 MR. ELDRIDGE: Thank you, Mr. Chairman.
7 Charlie Eldridge. I'm representing myself on this
8 particular comment. I have a question. This was
9 not acted on except to reject by the code making
10 panel, so the wording has not been corrected.

11 The way it did read is talking about
12 15- and 20-ampere receptacles. What it reads now
13 is that pump--or pool pump motors that are rated
14 15 and 20 ampere, 120- through 240-volt single
15 phase shall be provided with GFCI protection. What
16 happens if I have a 17-amp motor?

17 That's not the intent of the submitter
18 for it to read that way. It's obvious that he's
19 just talking about hard-wired pool pump motors
20 that are 120- and 240-volt motors. So I'm
21 wondering if that can be corrected.

22 And then my only comment is that--I've
23 always been in favor of if you've got something
24 that's hard wired, you don't need GFCI protection.
25 Cord and plug--people are screwing around with the

1 plug. You can have the ground prong missing, you
2 can have all kinds of damage and everything done
3 to that flexible cord, but if it's hard wired,
4 you've got a solid connection. But I do have a
5 question about the--can we change that text to
6 make it work?

7 CHAIR ISMAN: With respect to the
8 question, we can only work with the exact language
9 that the proposal states, unless there's a comment
10 somewhere that modifies that that someone would
11 like to move. So the motion on the floor is the
12 exact language of the proposal right now, and
13 that's all we can do.

14 Microphone No. 4.

15 MR. BAKER: My name is Dennis Baker and
16 I represent IEC.

17 Also this would be an inappropriate
18 section of the code, because 680-22 is dealing
19 with receptacles, and yet 680-21 is dealing the
20 motors. And if GFCI protections should be
21 required for all motors, it should be up in that
22 section. Thank you.

23 CHAIR ISMAN: Thank you.

24 Mike No. 3.

25 MR. McMAHILL: Lanny McMahill speaking

1 for myself.

2 First let me just say that I think this
3 is a noble effort to get the GFCI protection for
4 all the pool pump motors. However, I'm opposed
5 to this motion on the floor. One thing I wanted
6 to clarify is the fact there was a mention to the
7 1999 code. Keep in mind that that--the way it
8 was worded said "in other than dwellings," so that
9 was the only requirement was like in a commercial-
10 type occupancy. The dwellings, I think
11 everybody's assuming the GFCI requirement was
12 there was not there.

13 The other thing that's been mentioned
14 here, and I want to point this out and make it
15 clear to everyone, because this is an inspector's
16 nightmare. When you put code language like that
17 in the code, what it says is pool pump motors
18 rated 15 or 20 amps. If you go on to Table
19 431-52, a two horsepower, 120-volt motor is 11.8
20 amps. There's no requirement. The three
21 horsepower, 240-volt motor is 8.3 amps; there's no
22 requirement. A five horsepower, 240 volts is 13.2
23 amps; there's no requirement. It only applies to
24 15- or 20-amp motors the way it's presently
25 worded, and that's the way we would have to

1 enforce it. So I'm opposed to this motion on the
2 floor.

3 CHAIR ISMAN: Thank you.

4 Mike 1.

5 MR. WEBB: Bill Webb, Shermer
6 Engineering. I call the question.

7 CHAIR ISMAN: We have a motion to end
8 debate. There are seconds to that motion. So
9 we'll move to a vote. All those in favor of
10 ending debate on Proposal 17-80, please raise your
11 hands. Thank you. All those opposed to ending
12 debate. That motion passes, so we end debate and
13 move directly to the motion, which is to accept
14 Proposal 17-80. All those in favor of that motion,
15 please raise your hand. Okay. Thank you. And
16 all those opposed.

17 I'm sorry, I'm going to have to do a
18 standing count on that one. That was too close
19 for me. So I'm going to ask organizational
20 delegates to fill out a green card, and I'm going
21 to ask everyone in favor of the motion to accept
22 the proposal to please stand.

23 Okay. Thank you very much. You can
24 sit down. And now all those opposed to the motion
25 please stand and remain standing. Okay. Thank

1 you. You can sit down. The motion fails by a
2 vote of 84 to 131.

3 So we return to discussing other issues
4 with Code Making Panel 17. Are there any other
5 motions? Oh, yes, Microphone 6.

6 MR. SCHIFF: Thank you, Mr. Chairman.
7 I'm Edward Schiff with Technology Research
8 Corporation.

9 I move to accept Comment 17-79.

10 CHAIR ISMAN: Just give us a moment to
11 get that up. Okay. You are the maker of that
12 comment, so that is a legitimate motion to make.
13 And the motion is to accept the comment?

14 MR. SCHIFF: That's correct.

15 CHAIR ISMAN: And do we have a second?
16 We have a second. Please proceed.

17 MR. SCHIFF: Thank you, Mr. Chairman.
18 This requirement--this would require the use of
19 either LCDI linkage current protection and
20 interruption or arc-fault circuit interruption
21 protection on portable electric heaters. There's
22 a major problem with heater cord fires, and this
23 would address it.

24 It was accepted in both the proposal
25 and the comment stage, but did not have the two-

1 thirds required for adoption.

2 Cord fires are a major problem in
3 portable electric heaters. Repeated incidents
4 were presented to Panel 20 originally in the '99
5 code cycle and then this code cycle to Panel 17.
6 We've provided with about 200 incidents and tens
7 of deaths.

8 There are really three issues that were
9 of concern to the panel. The first was whether
10 this was a product standard issue or whether this
11 was a code issue. There are lots of precedences
12 in the code for this. If you look at immersion
13 protection on hair dryers, ground-fault protection
14 on portable pools and spas, ground-fault
15 protection on pressure washers, code protection or
16 AFCI protection on air conditioners. The code is
17 filled with these.

18 And if you step back and look at what,
19 of course, the purpose of this code is, it's the
20 practical safeguarding of persons and property
21 from hazards arising from the use of electricity.
22 This is a hazard and it can be prevented.

23 The opponents of this also cited that
24 there's concerns about the liability of these
25 products and whether they're effective. These

1 products have been available since 1997. They're
2 sold as extension cords in Home Depot, in
3 Wal-Mart, as power strips in retailers.

4 They're originally put on heaters in
5 1999 by the Rival Company. For the past four
6 years every Black & Decker heater manufacturer has
7 had an LCDI-protected cord on it. What we're
8 trying to do is bring everyone up you that
9 standard. This is a proven product. It's proven
10 in this application and there's no reason not to
11 move forward with it.

12 The one other thing that came up was UL
13 had a recommendation that this be studied on a
14 more global basis where to apply this sort of
15 technology on these sorts of products. While I
16 applaud that issue and think that makes a lot of
17 sense, waiting three years and putting three more
18 years of products out there that will cause fires
19 and cause death does not make sense when it's
20 preventable and there's an economic solution
21 available for it. Thank you, sir.

22 CHAIR ISMAN: Thank you.

23 Mr. Carpenter.

24 MR. CARPENTER: I'd like to defer to
25 Panel Chair 16 Stanley--excuse me, Don Johnson.

1 CHAIR ISMAN: Mr. Johnson at Mike 5.

2 MR. JOHNSON: Hello, Don Johnson, Chair
3 Panel 17.

4 This issue, when it came before the
5 panel, had a majority vote of approval. However,
6 when it came back with the vote, it was a five
7 affirm, six reject and did not reach the consensus
8 requirements. If this motion on the floor does
9 not pass, I will be assigning a task group to
10 further study this issue.

11 CHAIR ISMAN: Thank you.

12 At Microphone 4.

13 MR. MORRIS: Thank you, Mr. Chairman.
14 My name is Wayne Morris. I'm representing the
15 Association of Home Appliance Manufacturers, and I
16 speak in opposition to this motion.

17 Yesterday I would note that this motion
18 failed to achieve support at the electrical
19 section.

20 Electrical heater safety is extremely
21 important to our organization, and I have served
22 for the last 20 years in working on electrical
23 heater safety. We presented a technical fact-
24 finding study on this issue to the code making
25 panel at the meeting in December. It reviews

1 many of the allegations of issues that Mr. Schiff
2 has brought forward, which are largely newspaper
3 clippings and anecdotal stories about heater
4 fires. These are not technically substantiated
5 information. And certainly they are not evidence
6 of whether this particular product or component
7 would address the fire reports that he has stated
8 they would.

9 In fact, the technical substantiated
10 report that we presented says that well over 95
11 percent of the incidents that Mr. Schiff has
12 stated would not be addressed by these devices.
13 Our organization supports the development of arc-
14 fault circuit interruption detection. We would
15 like to work on this. We supported the motion
16 that was passed previously today in regard to the
17 use of arc-fault circuit protection in household
18 circuits.

19 I would also note to you that I have
20 served for the last 18 years as a member of the
21 UL standards committee for electric air heaters,
22 and Mr. Schiff has never brought forward a
23 proposal to that UL standards committee to add
24 these particular products.

25 Mr. Schiff has stated a number of

1 issues regarding the use of these heaters. He
2 has failed to tell you a couple of important
3 facts. He stated that the Rival Corporation used
4 these on heaters. Unfortunately, they did so on
5 two of their 12 models for one heating season and
6 then stopped that process.

7 He also had stated that Black & Decker
8 has used these. Black & Decker has one of the
9 smallest market shares of any heater manufacturer
10 with less than three percent of the market and
11 has experimented on these for one year. They
12 have yet to review whether they will continue that
13 next heating season. Black & Decker is one of my
14 largest members. If they really felt strongly,
15 why would they have me here speaking against this
16 motion?

17 The passage of the motion that Mr.
18 Smittal introduced earlier today would provide
19 some additional safety and would alleviate many of
20 the situations that Mr. Schiff has raised. I got
21 an email message this morning from one of my
22 manufacturers telling me that the largest retailer
23 of heaters in the United States told them they do
24 not want to see these devices on heaters again
25 because of the source of consumer returns that

1 they have experienced this year.

2 Our manufacturers have hired an outside
3 firm, a technical review firm, to do studies on
4 these, and this was presented to the Technical
5 Committee in December as well. I'd like to think
6 that it was the responsibility of these two
7 reports which has convinced a majority of the code
8 making panel to vote against this particular
9 motion.

10 In this there are photos over and over
11 of these devices and their usage and in particular
12 in testing that was done, including arcs that they
13 were subjected to, which they did not open, and
14 furthermore, when subjected to simple over voltage
15 situations, fried the internal components of these
16 and unfortunately left them with the ability to
17 continue to carry current without the ability for
18 the consumer to know that. There are 36 comments
19 in the ROC, three of them in favor and 33
20 against.

21 So if you're confused, welcome to the
22 crowd. We suggest that this issue needs a lot
23 more study. The code making panel is somewhat
24 divided, the manufacturers are confused, the
25 evidence of whether this would help is extremely

1 poor. Based on this, we suggest you allow the
2 code making panel chairman to appoint a study
3 committee, and we ask you to and urge you to
4 reject this motion. Thank you.

5 CHAIR ISMAN: Thank you. Microphone No.
6 1.

7 MR. KOVACIK: Thank you, Mr. Chairman.
8 John Kovacik, Underwriters Laboratories speaking
9 in opposition to the motion on the floor.

10 LCDIs and AFCIs do indeed have the
11 potential to eliminate or reduce fires in certain
12 situations, and their use is to be encouraged,
13 however, on a rational basis. There are still
14 questions as to how much protection these devices
15 will provide and which appliances will actually
16 benefit from their use.

17 These technologies can be deployed in
18 various ways, including at panel boards, in
19 receptacles, in plugs in a variety of appliances.
20 There is, however, no overall plan to guide the
21 most effective deployment of these devices and
22 technologies. Without an overall plan or
23 consensus on the most appropriate application of
24 these technologies, there is potential for causing
25 multiple devices to be required in various

1 circumstances without adding benefit.

2 NFPA should commission a task force to
3 carefully study the existing data and information
4 on this issue, document the protection
5 characteristics of these technologies, identify
6 fault conditions and associated hazards for which
7 these devices can provide protection, collect as
8 much new data as possible, possibly from room air
9 conditioners, which is where they're currently
10 required, and develop a recommendation as to their
11 most appropriate application.

12 The task force should be asked to
13 recommend where the use of LCDIs and AFCIs for
14 appliance cords make sense and where they do not
15 and why. Without such a rational basis, requiring
16 these devices, as proposed, burdens consumers of
17 relatively low-cost products with additional
18 safety devices without the benefit of clear and
19 convincing evidence that the devices most
20 effectively serve safety in the applications
21 addressed by this proposal. Again, I urge you to
22 reject the motion on the floor. Thank you.

23 CHAIR ISMAN: Thank you. Microphone 2.

24 MR. CHASE: Yes. Thank you, Mr.
25 Chairman. My name is Aaron Chase. I'm an

1 alternate on Panel 17, and I'd like to speak in
2 support of this motion.

3 One of the things I'd like to do is
4 address is some of the things Mr. Morris brought
5 up on behalf of AHAM. He mentioned there were, I
6 believe, 33 comments, 30 that opposed this
7 proposal that Mr. Schiff discussed. These 30
8 comments came in from all manufacturers from the
9 association of home appliance companies.

10 Three of the affirmative I found quite
11 interesting. Two of them came from people that had
12 no stake at all. When I say "no stake," they
13 were not suppliers of LCDIs. One came from the
14 past president of the NFPA in favor of this
15 proposal, and the other one came from the IBEW,
16 which also has no stake in this.

17 The other thing I find disturbing is
18 the report that AHAM released came well after the
19 cut-off date, and as a member of the panel, I
20 didn't receive a copy of it. After I reviewing
21 it, I saw it was extremely flawed. They were
22 very critical of the AFCI technology, yet I find
23 it quite odd that here today this body has moved
24 to go ahead and expand AFCI technology to all
25 branch circuits.

1 Let us bear in mind that the AFCI
2 technology and the LCDI technology is evaluated
3 the same UL standard as the type that are used in
4 the branch feeder circuit breakers. So to be
5 critical of the technology is hypocritical.

6 One of the things--the only independent
7 study that I'm aware of was the one that was
8 conducted by UL, and that was based on CPSC data
9 that we submitted, myself and Mr. Schiff, and we
10 reviewed this data. And when I questioned the
11 presenter who joined the ROC meeting from
12 Underwriters Laboratories about their findings of
13 the data that we presented, they stated
14 unequivocally that these devices would have
15 protected a number of cord fires that occur on
16 room air heaters. Thank you very much, Mr.
17 Chairman.

18 CHAIR ISMAN: Thank you.

19 Microphone 7.

20 MR. CRIPPS: Thank you, Mr. Chairman.
21 My name is Richard Cripps. I also represent the
22 Association of Home Appliance Manufacturers. I am
23 a principal member on Code Making Panel 17.

24 I would like to emerge on the potential
25 usability or utility of the proposed study group

1 to study this issue.

2 I first entered the fray in the
3 National Electrical Code when this was being
4 discussed in connection with room air
5 conditioners. I've now had to go through a code
6 cycle when the issue is being discussed in
7 connection with room air heaters. Considerable
8 experience, and it's continued tonight. We've
9 heard the same arguments round and round.

10 In the code making panel we, in
11 December--this took half a day out of a total of
12 three days that the panel spent discussing all of
13 its various articles that have to be covered.
14 And I think it's time that we step back and allow
15 proper reflection of all the arguments that could
16 be applied. Rather than trying to thrash this out
17 in this sort of hostile atmosphere, we should
18 allow a task group to sit down and get all the
19 evidence that we know is out there on both how
20 effective these devices are, whether they truly
21 address the causes of the fires that are reported,
22 whether the number of fires that is being reported
23 is in fact true. There are so many things that
24 need to be looked at.

25 If that could be allowed to happen--and

1 I agree it will take another code cycle. But if
2 we don't do this, put everything to bed, we'll
3 only be going through the same argument the next
4 time round when it's put forward for another
5 appliance. It's taken a lot of time. I think
6 it's exhausting everybody. I truly ask you to
7 purely get this thing put to bed to oppose the
8 motion. Thank you.

9 CHAIR ISMAN: Thank you.

10 Microphone 6.

11 MR. HIRSCH: Yes. My name is Bruce
12 Hirsch. I'm representing Edison Electric
13 Institute, and I am also a member of Code Panel
14 17, and I'm speaking in opposition to the motion.

15 We heard Mr. Schiff talk about UL and
16 the fact that they have indeed--and he made a
17 presentation to the committee--and they have
18 indeed indicated that they intend to look at all
19 the product standards and that they would
20 incorporate this issue into their new requirements
21 for product standards.

22 This, quite obviously, in the cords of
23 appliances that can be moved around is an
24 appliance standard. It does not belong in the
25 National Electric Code. It is not enforceable in

1 the National Electric Code. So the issue really
2 needs to be resolved at the appliance level,
3 either by UL or the Manufacturers Association or
4 in combination.

5 I do support the idea of a task group,
6 however, and I'd like to point out that by the
7 time 2005 code is printed, gets out into the
8 hands of all the different organizations and gets
9 approved for use, the probability is that UL will
10 also be meeting the same time frame when this can
11 be implemented.

12 I do believe, again, that this is a
13 product standard that does not belong in the code.
14 That is the EEI position. And with that, I think
15 we ought to go with the task force and reject
16 this motion.

17 CHAIR ISMAN: Thank you.

18 Microphone 7.

19 MR. MYRICK: Wayne Myrick for myself in
20 opposition to the proposal.

21 I support the comments that the two
22 gentlemen from AHAM made, and I would like to
23 express my concern. Many of the incidents of
24 fires were caused by consumers modifying cords.
25 If the consumer can make such a mess out of

1 modifying simple SPT 2 cords and SJ cords, what
2 do you think they're going to do with a cord that
3 has shields around the insulation on each
4 conductor? Thank you, Mr. Chairman.

5 CHAIR ISMAN: Thank you.
6 Microphone 2.

7 MR. CHASE: Yes. I'd just like to
8 address the previous comments from Mr. Hirsch.
9 I'm sorry, again this is Aaron Chase, an alternate
10 on Panel 17.

11 I think back many years ago when GFCI
12 protection first came onboard, and there was the
13 requirement to have GFCI protection in bathrooms.
14 Yet there was 50 to 60 lives lost every year due
15 to accidental immersion.

16 A requirement was put in place,
17 although we had GFCI protection in bathrooms,
18 because of all the existing dwellings. And that
19 was to incorporate a safety device at the end of
20 the hair dryer. I see no difference here. I
21 don't see anything about a line of demarcation in
22 the code--the code versus the product standard.

23 In fact, UL raised this issue to the
24 Technical Correlating Committee, and it was
25 rejected soundly by an 8-to-2 vote. I firmly

1 believe that the code is a very effective means
2 of driving the product standard to its safety.
3 Thank you.

4 CHAIR ISMAN: Thank you.

5 Mike 5.

6 DR. HIRSCHLER: Marcelo Hirschler, GBH
7 International, speaking for myself. I call the
8 question.

9 CHAIR ISMAN: We have a motion to end
10 debate, do we have a second? We have a number of
11 seconds. We'll's move directly into a vote.

12 All those in favor of ending debate on
13 Comment 17-79, please raise your hands. Thank
14 you. And those opposed. That motion passes.

15 So we move immediately into a vote on
16 accepting Comment 17-79. All those in favor of
17 accepting the comment, please raise your hand.
18 Thank you. And those opposed. The motion does
19 not pass.

20 We move back to discussing items in the
21 jurisdiction of Code Making Panel 17. We also
22 have a report of some glasses that were found.
23 Is anyone missing their glasses? They were found
24 outside the room on a cushion. In case someone
25 needs them, they're right up here.

1 Are there any other items for Code
2 Making Panel 17? Seeing no one at the mikes,
3 we'll move to discussing Code Making Panel 18,
4 which has jurisdiction over Articles 406, 410,
5 411, 600, 605.

6 At Microphone No. 5, please.

7 MR. JOHNSON: Thank you, Mr. Chair.
8 Mike Johnson, IAEEI, principal on Code Making Panel
9 5. I'm speaking as an individual and as the
10 submitter of Comment 18-110. I'd like to make a
11 motion to accept the comment, and that comment is
12 to Proposal 18-107.

13 CHAIR ISMAN: Just a second.

14 MR. JOHNSON: I am the submitter.

15 CHAIR ISMAN: That motion is in order.
16 We have a motion for accepting Comment 18-110; is
17 there a second? We have a motion and a second.
18 Please proceed.

19 MR. JOHNSON: Thank you, Mr. Chair.
20 Essentially what this does is restore Section
21 632(G) to its original state in the 2002 NEC.
22 The proposal lessens the requirement of the NEC
23 without adequate substantiation. The panel's
24 statement referred to new products (GTO cables)
25 listed UL 14 that are evaluated for a surface--

1 with a surface leakage test. The issue at hand is
2 relative to two distances, distances related to
3 wet and damp locations versus dry locations, and
4 they're directly related to arc-tracking issues.

5 With all due respect to the panel and
6 how they acted, I feel they acted on this comment
7 with insufficient information at the time, which
8 only mentions--in their substantiation or the
9 panel statement, they only mentioned a surface
10 leakage test, not a tracking test.

11 Accepting the proposal creates
12 inconsistency between the product standard UL 48,
13 Section 20.2.5, and Table 20.2, which requires the
14 same distances that are mentioned in the NEC, and
15 this is for the production of listed signs.

16 Anyway, the acceptance of this proposal
17 takes the four-inch requirement for wet locations
18 down to two and a half, and I feel it's done
19 without adequate substantiation. This is a field
20 installation issue. There's an awful lot of GTO
21 cable out there that exists that may not be built
22 to the new product 814 for GTO cable and would be
23 installed.

24 So it's a tracking issue that's related
25 to field installation of electric signs and field

1 installed skeleton tubing. I respectfully request
2 that the body give strong consideration to this
3 motion and restore 632(G) to its original state by
4 acceptance of this comment. Thank you.

5 CHAIR ISMAN: Thank you.

6 Mr. Carpenter.

7 MR. CARPENTER: I'd like to defer to
8 Chair Panel 18, Michael Ber. I think he's going
9 to Mike 1.

10 CHAIR ISMAN: Okay. Mike 1.

11 MR. BER: It's Michael Ber. I am on
12 Mike 1. Thank you, Mr. Chairman, Chairman. My
13 name is Michael Ber. I'm a representative of the
14 Independent Electrical Contractors Association,
15 Chairman of Code Panel 18, and a proud citizen of
16 the great and glorious state of Texas. Thank you.

17 The issue here is basically are we
18 going to take into consideration the standard of
19 GTO, which as Mr. Johnson so correctly mentioned
20 is No. 814? The old, old standard--or I guess the
21 old standard is a good way of putting it as any--
22 was dated 1974. The new standard is dated 2004.
23 We've come a long way, baby, in 30 years, I hope.

24 One of the things that we are so--are
25 very cognizant of was that in the older issue or

1 the older standard, we were dealing with a 60-
2 degree centigrade wire, whereas we're now dealing
3 with a minimum of a 105-degree centigrade
4 conductor. The older conductor in many cases had a
5 fabric or cloth outer covering. Now we're dealing
6 with a thermal or a plastic or silicone outer
7 covering. Basically a much, much better product.

8 The panel, in their infinite wisdom,
9 chose to reduce the requirement in a wet location
10 from four inches to two and a half based on this
11 new standard and based on the fact that they felt
12 that the newer conductor was fully capable of
13 being able to handle the situation. Thank you,
14 Mr. Chairman.

15 CHAIR ISMAN: Thank you.

16 Microphone 3.

17 MR. McNAMARA: Jamie McNamara. I
18 represent the International Brotherhood of
19 Electrical Workers. I want to speak in favor of
20 the motion. I support Mr. Johnson's proposal to
21 reduce this insulation from four inches down to
22 the two and a half inches. It seems to be ill-
23 advised without any technical substantiation for
24 doing that. By doing that, in essence it would
25 treat a dry location and a wet location

1 identically. To keep it as it is in the 2002
2 code just makes good code sense. Thank you.

3 CHAIR ISMAN: Thank you.

4 Also at Microphone 3.

5 MR. OWENS: My name is Tim Owens. I'm
6 with the City of San Diego and a principal member
7 for IAEA on Code Making Panel 18, but I'm
8 speaking for myself.

9 It is true that at the panel meetings
10 we were informed that UL 814 now includes a
11 surface tracking test, and that's one of the
12 reasons that we agreed to reduce the dimension
13 from the four inch for wet to two and a half
14 inch. Since that time I've spent a tremendous
15 amount of effort in looking at 814 and talking to
16 the UL representatives, also talking to Mike
17 Johnson and other people in the industry, and come
18 to find out that really there is not a surface
19 tracking test in 814. What they have is they
20 have a surface leakage test, which is basically a
21 test of the insulation and not water on the
22 surface for tracking. So the feeling is that
23 maybe we were a little premature at this point in
24 making this adjustment to two and a half inch
25 until we can get some more testing.

1 The other issue is 814 was just
2 recently approved. We still have a tremendous
3 amount of the so-called old GTO. Some of it is
4 rubber covered that has not been tested, and it
5 is a listed conductor and so, therefore, as an
6 inspection authority we still must accept it. And
7 so we're concerned that the existing may not even
8 meet the requirements of the new UL 814. So I
9 would request that we approve Mike Johnson's
10 motion. Thank you.

11 CHAIR ISMAN: Thank you.

12 Microphone No. 5.

13 MR. MOULTON: I'm Herbie Moulton with
14 Masters Technology, and I'd like to support Mr.
15 Johnson's stance on this.

16 The main reason I support this is I sat
17 on STP 14, 814. We have made changes since 1897
18 or 1914, and then in 1996 we included in the code
19 a directive that the GTO cable shall meet 105
20 degrees C requirements. The standard had to be
21 changed.

22 The only recent change in the standard,
23 and which I had submitted ten items for their
24 condition--for their consideration of which they
25 accepted one, which was later adopted in the ANSI

1 standard now, it was a spark test. The spark
2 test has absolutely nothing to do with surface
3 leakage arc tracking. It is purely a test to
4 check to see that the insulation when it extruded
5 on the conductor maintains a solid form.

6 I am in opposition only that the
7 panel's action, I feel, was somewhat misled, and I
8 do feel that the requirements that are presently
9 in the 2002 code should be maintained until there
10 is a change in any other aspect, because some of
11 the GTO cable that is conductors will now be put
12 under Standard 879, which is what we call the fat
13 GTO cable or the new GTO cable that the panel may
14 well be referring to. Thank you.

15 CHAIR ISMAN: Thank you. Mike No. 2.

16 MR. DOBROWSKY: Paul Dobrowsky speaking
17 as an officer of the electrical section.

18 The electrical section discussed this
19 issue yesterday and voted to support the motion on
20 the floor.

21 CHAIR ISMAN: Thank you.

22 Microphone No. 4.

23 MR. SUMRALL: Mark Sumrall,
24 representing IBEW. I call the question.

25 CHAIR ISMAN: We have a motion to end

1 debate; do we have a second? We have a number of
2 seconds. So we'll move directly to a vote to end
3 debate on Comment 18-110. All in favor of ending
4 debate, please raise your hand. Thank you. And
5 all opposed to ending debate. That motion carries.

6 We'll move immediately to a vote on
7 accepting Comment 18-110. All in favor of
8 accepting the comment, please raise your hand.
9 Thank you. All those opposed to. That motion
10 carries.

11 We continue with our discussion on
12 items for Code Making Panel 18. And the
13 gentleman at Mike 4 was first.

14 MR. ROBERTS: Thank you, Mr. Chairman.
15 I'm Earl Roberts, a life member of NFPA and a
16 member of electrical section. I am speaking on
17 behalf of Taymac Corporation. I am the submitter
18 of Comment 18-13, which is affected by the
19 Technical Correlating Committee's action on
20 Comment 18-12a. I move to accept the panel Comment
21 18-12a on page .70-320 of the Report on Comments.
22 This comment was--

23 CHAIR ISMAN: Just a moment. I'm
24 sorry, just give us a second to get it up.

25 MR. ROBERTS: Okay.

1 CHAIR ISMAN: Sir, are you a member of
2 Code Making Panel 18.

3 MR. ROBERTS: No, I'm not, but I am the
4 originator of Comment 18-13. I am the submitter
5 of Comment 18-13, which was greatly influenced by
6 the action on Comment 18-12a.

7 CHAIR ISMAN: Would it be appropriate
8 for you to move your Comment 18-13? Would that
9 get you where you want to go?

10 MR. ROBERTS: No, because the action
11 taken at--that was accepted by the panel was on
12 18-12a was--it was a panel comment. I'm willing
13 to accept the action by the panel on Comment
14 18-12a in lieu of my Comment 18-13.

15 MR. ROSS: This is covered by the
16 regulations because the comment is a panel comment
17 that was accepted by the panel and modified by
18 the Correlating Committee, and according to the
19 regulations, any member of the Technical Committee
20 may present as an amendment to a Technical
21 Committee report, the failed action, whereas the
22 original submitter of the public comment may
23 present either the failed TC action or the
24 original public comment, and he is presenting the
25 failed TC action.

1 CHAIR ISMAN: Right. But the
2 regulation you just read said any member of the
3 Technical Committee, and this gentleman is not a
4 member of the Technical Committee that acted on
5 this particular motion.

6 MR. ROSS: He's the original--

7 CHAIR ISMAN: Well, he's the submitter
8 of a different public comment, and that's what
9 we're trying to sort out.

10 If there's a member of Panel 18 that
11 would like to make this motion that would be in
12 order.

13 Mike 1. Can we get Mike 1 up?

14 MR. BIRUS: Point of order, Jim Birus
15 (phonetic). If an action taken by the panel on a
16 comment was modified by an action by the
17 Correlating Committee, then anybody ought to be
18 able to say, I want to go back to what the panel
19 did with the comment, seems to me. It's always a
20 matter of if it was changed at a point where the
21 public didn't have the opportunity to deal with
22 it.

23 CHAIR ISMAN: Unfortunately, it's only
24 the technical panel that owns the comment that was
25 modified.

1 Is there anyone on the Technical Panel
2 18 that wants to make a motion on this issue?

3 Okay. I believe, sir, at Mike 4, what
4 you were just trying to say without the mike on
5 is you want to move your comment, which is 18-13;
6 is that correct?

7 MR. ROBERTS: That's correct.

8 CHAIR ISMAN: Okay. So we have a
9 motion.

10 MR. ROBERTS: If that's my only choice,
11 yes.

12 CHAIR ISMAN: We have a motion to
13 accept Comment 18-13, do we have a second? We do
14 have a motion and a second. Please proceed.

15 MR. ROBERTS: The Technical Correlating
16 Committee directed that Exception No. 2 of Panel
17 Comment 18-12a be reported as hold. They
18 presented no technical reason for changing the
19 panel action.

20 This action prevents a wall plate with
21 eight proven safety advantages over existing
22 listed wall plates from being submitted for
23 testing to determine its suitability for listing.

24 Panel 18 members were each sent in
25 November 2003 a fact-finding report which showed

1 that the Taymac Masqued wall plates provide an
2 equal and even superior interface with plugs over
3 the life of receptacles.

4 Various brands of receptacles were
5 tested with both standard and Masqued wall plates
6 to end-of-life conditions, that is, up to 15,000,
7 30,000 and even 70,000 cycles. At the end of
8 these life tests the temperature rises, in
9 accordance with UL 498, were about the same for
10 both the standard wall plate with receptacle and
11 the Masqued wall plate with receptacle of about
12 five degrees C rise. This compares with a 30-
13 degree C rise allowed by UL after only 250 test
14 cycles.

15 We are fighting here for the right to
16 be tested for listing, a right even to fail.
17 Many products fail on that submittal for listing,
18 and then they're modified and then subsequently
19 pass. A right to be tested is a right denied by
20 the present wording of Section 406.4(D) in the
21 2002 National Electrical Code. My Comment 18-13,
22 if adopted, would correct this inequity. I urge
23 that the panel--that the body accept Comment 18-13
24 as written. Thank you.

25 CHAIR ISMAN: Thank you.

1 Mr. Carpenter.

2 MR. CARPENTER: Yes. Since the 18-13
3 panel statement refers back to Comment 18-12a, I
4 would like for--I would like to defer to TCC
5 Committee Member Mark Ode to address it.

6 CHAIR ISMAN: At Mike 1.

7 MR. ODE: Thank you, Mr. Carpenter.
8 Thank you, Mr. Chairman.

9 I speak on behalf of the NEC Technical
10 Correlating Committee as supporting the action of
11 the TCC on Comment 18-12a on page .70-320 and in
12 opposing any change to that particular comment
13 action by the Correlating Committee. This proposed
14 exception--and we're talking about Exception No.
15 2. Now, what Earl Roberts was just addressing is
16 Exception No. 1, which is dealing with a listed
17 assembly. Exception No. 2 is dealing with a single
18 receptacle cover that's covering a receptacle, and
19 that's what the Correlating Committee actually
20 held as Exception No. 2. And let me finish
21 reading this into the record so that we can
22 address that.

23 "This proposed exception would permit
24 the entire receptacle to be concealed behind the
25 faceplate potentially concealing possible

1 deterioration of the receptacle. The fact-finding
2 report supplied the CMP 18 shows severe damage to
3 tested receptacles at their end of life with
4 evidence of cracked and broken receptacles heating
5 damage and other end-of-life indications. These
6 covers will totally conceal this damage which
7 could result to hazards to the user with a
8 possibility of fire.

9 Receptacles can be mounted on boxes
10 that are permitted to be set back from the finish
11 wall by up to one quarter of an inch, as
12 permitted in Section 314.20 of the 2002 NEC.

13 All of the receptacles and cover plates
14 in the fact-finding study were tested with
15 receptacles placed flush with the faceplate, and
16 no tests were indicated in the study where
17 receptacles were placed one quarter of an inch
18 from the plate as a worst-case basis. All tests
19 reported in the fact-finding study appear to be
20 tested using one particular style of cord cap.

21 The length of plug blades can vary
22 significantly depending on the many cord caps on
23 the market. This inconsistency can result in a
24 cord cap blade that does not adequately penetrate
25 to the contacts within the receptacle, especially

1 where the receptacles are located up to one
2 quarter of an inch behind the plate. This could
3 potentially cause arcing at the point of contact
4 between the blades and the receptacle contact.
5 Total coverage of this receptacle could conceal
6 this improper connection.

7 The NEC Technical Correlating Committee
8 is concerned that not all of these safety issues
9 related to this Exception No. 2 have been
10 addressed by the panel and recommend holding this
11 Exception No. 2 until these issues have been
12 addressed. Thank you."

13 CHAIR ISMAN: Thank you.

14 Microphone 2.

15 MR. WELLS: Mr. Chairman, I don't want
16 to confuse the issue more. But with respect to
17 the ability of Mr. Robert's to make a motion on
18 Comment 12a, which that's the discussion we're
19 hearing. We're not hearing a discussion now on
20 13, but rather on 12a.

21 I'm not certain I have the most current
22 regs here, but when I look at them under who may
23 make amendments for motions and I look under a--
24 oops, a comment, in this case the comment was
25 accepted by the TC, but modified by the TCC. And

1 it would seem to me that under those circumstances
2 that Mr. Roberts should be permitted--anyone
3 should be permitted to make a motion on a
4 proposal that has been modified under these
5 circumstances.

6 CHAIR ISMAN: I'm sorry, before you
7 leave the mike, could you please give us your
8 name for the record?

9 MR. WELLS: I ought to know that by
10 now. Jack Wells. My company's Pass &
11 Seymore/Legrand.

12 CHAIR ISMAN: Thank you.

13 I understand and feel the pain of those
14 people who want to help the submitter or the
15 person get to the motion they really want to get
16 to, but that's not the way we're interpreting the
17 regulations up here. You're welcome to file an
18 appeal with the Standards Council, but that's how
19 we're reading the regulations at the moment, and
20 we don't want to start making up our own
21 regulations here.

22 So with that, the gentleman at Mike 7
23 was next.

24 MR. TODD: Thank you, Mr. Chairman. My
25 name is Lawrence Todd, and I work for Intertek

1 Testing Services, also known as ETL Testing Labs,
2 and I am a member of Code Making Panel 11.

3 I am speaking in favor of the motion on
4 the floor. The senior engineering staff of ETL has
5 been involved in this issue for over a year. Our
6 initial reaction was one of extreme skepticism
7 based on past experiences with UL standards
8 concerning receptacles and attachment plug cap
9 testing. But following considerable research and
10 testing that was conducted on the faceplate on
11 various types of receptacles, our opinions were
12 altered by the facts.

13 The testing in the fact-finding report
14 was designed by highly respected consultants, Joel
15 Rencsok, Chuck Schram, Earl Roberts, along with
16 the senior engineering staff of ETL and conducted
17 by other accredited test labs.

18 Following the testing and review of the
19 report we find that the results of the in-depth
20 testing were indisputable in indicating that this
21 device does not reduce safety. I recommend an
22 affirmative vote on this motion. Thank you.

23 CHAIR ISMAN: Thank you.

24 The gentleman behind you at Mike 7 was
25 next.

1 MR. KINNARD: My name is John Kinnard.

2 I represent Taymac Corporation.

3 We conducted this test study. And in
4 rebuttal to Mr. Ode, the broken receptacles he was
5 referring to were actually samples that we
6 illustrated that we pulled out of the testing.
7 We were trying to illustrate the causes for them.
8 During the testing a lot of the receptacles
9 couldn't pass the conditioning cycles that we put
10 them through based on the UL 497 test criteria.

11 So we feel that the test report was
12 very adequate and supported all the requests of
13 all the ETL's technical information regarding
14 temperature rise, pullout of the attachment plugs,
15 resistance to arcing, ground resistance.
16 Everything that was asked of this plate passed 100
17 percent and was equal or better than a standard
18 wall plate. So I'd like to be on record as being
19 in favor of this motion. Thank you.

20 CHAIR ISMAN: Thank you.

21 Microphone 4.

22 MR. ROBERTS: In order to stay
23 legitimate, I'll just address my comments to my
24 Comment 18-13 in that I ask that the product be
25 listed and that the listing process be the

1 determinant factor.

2 The code has a long history of
3 accepting the word "listed." I remember we had a
4 whole article in the code for the smile house
5 with all kinds of unknown technical problems of
6 overcurrent protection and coordination of all
7 these various components, and all these things
8 were properly handled by just the word "listed."
9 It was put--the responsibility of straightening
10 out all this mess was put on the listing process.

11 Now we have a simple little wall plate,
12 and we are trying to go to a testing laboratory
13 and say, Test it any way you want with as many
14 devices as you want, and we will pay for this,
15 but please give us the opportunity to be tested.
16 And then if we fail at the end of this testing,
17 so be it. And we are refused this opportunity
18 because of a casual wording in the code.

19 CHAIR ISMAN: Thank you.

20 And behind you at Mike 4.

21 MR. RENCOSOK: My name is Joel Rencsok
22 with Three Phase Engineering.

23 I submitted Comment 18-15 which was
24 also accepted in principle. The only difference
25 is that when these accepted-in-principle comments

1 were accepted, there was only one exception. And
2 the problem seems to arise now that the Technical
3 Committee elected to put in two exceptions.

4 So I'm in favor of the motion, but what
5 the acceptance will do in the motion will
6 eliminate the 40 thousandths rule that the panel
7 put in. I'm also in favor of the 40 thousandths
8 or the no thousandths.

9 I've been involved in this testing
10 from, I think, the 2002 cycle, which I think at
11 one place we put in the proposal, and somebody
12 said there was no fact-finding report or
13 something. So now a fact-finding report has been
14 created and it appears to have passed everything.

15 One thing the receptacle cover does, it
16 eliminates the breaking of the receptacle when the
17 maids, or whatever, pull out the cords at a 90-
18 degree angle and also the grounding terminal that
19 always breaks is eliminated. So there is an
20 increase in safety. Also the amount of--what do
21 you call it--energy loss transmitted through the
22 receptacle is reduced by two percent. So you get
23 a two percent energy savings in the home or
24 environment or you could say we'll save two
25 percent in oil a year. So there are some

1 advantages. Like Earl says, just give us a
2 chance to get the listing.

3 CHAIR ISMAN: Thank you.

4 Microphone 2.

5 MR. CHASE: Thank you very much, Mr.
6 Chairman. My name is Aaron Chase, and on this
7 issue I'll be representing the National Electrical
8 Manufacturers Association. On behalf of them I'd
9 like to speak against the motion that is on the
10 floor.

11 NEMA strongly supports the action of
12 the Technical Correlating Committee. NEMA fully
13 concurs with the TCC statement that, quote, "Not
14 all the safety aspects related to this exception
15 have been addressed by the panel." The proposal's
16 not new or a unique concept, and it's been
17 considered and evaluated and specifically
18 prohibited in the NEC and product standards.

19 NEMA represents all the main
20 manufacturers of receptacles used in this country.
21 These manufacturers strongly, strongly object to
22 any products that would limit the full insertion
23 of a plug into their products. These
24 manufacturers have investigated and concluded the
25 introduction of this type of product, which is a

1 40,000-inch barrier over their product, would
2 change a fundamental design of receptacles by
3 reducing the engagement of the plug blades into
4 the receptacle contacts and could result in arcing
5 or overheating and fires.

6 Billions of receptacles are installed
7 in this country. The following conditions
8 contribute to this concern: the depth of the
9 receptacle contacts vary significantly; the length
10 of the plug blades vary significantly; the
11 installation conditions and workmanship can result
12 in receptacles that are not flush to the sheet
13 rock; product age and worn contacts can result in
14 reduced retention of the plug; heavy cords and
15 plug-in transformers tend to raw the plug.

16 The introduction of this product is
17 purely for cosmetic purposes and clearly presents
18 a safety hazard. The purpose of the NFPA is to
19 protect against the loss of property and life due
20 to electrical fires and not to introduce practices
21 that could present a potentially hazardous
22 situation.

23 The fact-finding report was submitted
24 to the NFPA in time--not in time to be included
25 in the ROC materials sent to the CMP 18 team.

1 Some panel members did not receive the report
2 until the evening before the meeting, and then did
3 not have the full time to analyze it.

4 You need to be aware of several things
5 regarding this report. The fact-finding report
6 evaluated only four currently available receptacle
7 models which did not represent the worst-case
8 conditions and ignored hundreds of models of
9 receptacles that are currently installed and in
10 use. The fact-finding report used the plug that
11 was longer than the minimum length permitted, and
12 did not represent the worst-case condition. The
13 fact-finding report did not take into
14 consideration that many molded cords have reduced
15 blade thickness at the tip of the blade. The
16 fact-finding report made no attempt to assimilate
17 use of old receptacles that may have abused
18 contacts with reduced retention. The fact-finding
19 report failed to test for safety hazards presented
20 by the potential arcing and overheating of
21 contacts to poor plug engagement. The testing in
22 the fact-finding report came close to simulating
23 ideal conditions, rather than worst-case.

24 NEMA supports the TCC action to hold
25 this portion of the comment. And I'd also like

1 to add that this came up in front of the
2 electrical section today, and this motion was
3 rejected--at the electrical session yesterday
4 excuse me. Thank you, Mr. Chairman.

5 CHAIR ISMAN: Thank you. Mr. Roberts,
6 do you have something additional to add? Oh, I'm
7 sorry, I got confused as to who was at Mike 4. I
8 apologize.

9 MR. SCHRAM: We're wearing the same
10 clothes. It was the same jacket.

11 CHAIR ISMAN: You're a new speaker?

12 MR. SCHRAM: Yes, I am. My name is
13 Charles Schram. I am the submitter of Comment
14 18-14, which is in part the basis for the Panel
15 Comment 18-12a as stated in the panel
16 substantiation.

17 I am here representing Taymac
18 Corporation. I speak in support of the motion to
19 accept Comment 18-13. Referring to the panel, the
20 Technical Correlating Committee action which in
21 effect negated the panel action on 18-13, the TCC
22 stated as the reason for the hold on Exception
23 No. 2, and as Mr. Chase mentioned, that the TCC
24 was, quote, "concerned that not all the safety
25 issues related to this exception have been

1 addressed by the panel."

2 I was at the Panel 18 meeting, and I
3 can assure you that during the very long
4 discussion at that meeting, all of the safety
5 issues brought up in the voting by the panel here
6 by Mr. Ode or Mr. Chase, and yesterday at the
7 electrical section meeting, were addressed by the
8 panel. The Technical Correlating Committee does
9 not appear to have any information that was not
10 available to and discussed by the panel.

11 Receptacle manufacturers must design
12 receptacles to accept all properly rated and
13 configured attachment plugs. The receptacles must
14 also be designed for installation in shallow
15 boxes. These design limitations inherently limit
16 the location of the contacts within the
17 receptacle. And I might add here that the
18 attachment plug used in the tests in the fact-
19 finding report was the attachment plug specified
20 by UL in their standard for testing with
21 receptacles.

22 With respect to a receptacle that has
23 its face set back one-quarter inch in the wall,
24 to argue that such an installation could cause
25 problems with the Taymac wall plate is really

1 unwarranted. The same situation would apply to
2 larger attachment plugs and, as mentioned, to
3 plug-in transformers with standard cover plates.
4 Thank you.

5 CHAIR ISMAN: Thank you.
6 Microphone 5.

7 MR. WELL: Just briefly. My name is
8 Jack wells. I'm with Pass & Seymore/Legrand.

9 I would point out that Exception No. 1
10 already permits use of the plate that Mr. Roberts
11 is proposing. The current wording simply says
12 that listed kits or assemblies encompassing
13 receptacles and non-metallic face plates to cover
14 the receptacle face where the plate cannot be
15 installed on any other receptacle shall be
16 permitted.

17 So if they want to take the plate,
18 package it with their receptacle that's designed
19 listed and tested, they can do that, and other
20 manufacturers currently do that. My concern about
21 Comment 18-13 is that 18-13 says, "Listed non-
22 metallic wall plates, listed kits or listed
23 assemblies encompassing receptacles non-metallic
24 shall be permitted." What it does is to open it
25 up to any non-metallic wall plate, regardless of

1 the thickness and the amount of space that's added
2 between the receptacle contacts and the face of
3 the plug. It totally loses control of the
4 distance that's necessary to assure proper
5 engagement. So the opportunity to make a product
6 and market a product is there. What this does is
7 clearly introduce a potential safety and fire
8 hazard.

9 CHAIR ISMAN: Mike 1.

10 MR. ODE: Mark Ode representing the
11 TCC, and I just want to reaffirm the fact that
12 Comment 18-13 is obviously different than what the
13 code panel looked at and passed for Exception No.
14 2 in 18-12a. So if this proposal--this comment
15 here is accepted, 18-13, then it will revert to
16 the text that's actually shown in 18-13. And I
17 think that, as Jack Wells was saying, we'll lose
18 those additional words of requiring that where the
19 plate cannot be installed in any other
20 receptacles. So, you know, if we do that, then
21 we're going to lose part of the panel thought
22 process here and the things that they put in here
23 for Exception No. 1.

24 CHAIR ISMAN: Thank you. Mike 5.

25 DR. HIRSCHLER: Marcel Hirschler, GBH

1 International, call the question.

2 CHAIR ISMAN: We have a motion to end
3 debate; do we have a second? We have a number of
4 seconds. So we'll move to a vote. All those in
5 favor of ending debate on Comment 18-13, please
6 raise their hands. Those opposed. Thank you.

7 That motion passes, and we end debate and go
8 immediately to the motion to accept Comment 18-13.
9 All those in favor of accepting the comment,
10 please raise your hand. Thank you. And those
11 opposed. That motion does not pass.

12 We move back to discussion on the items
13 for Code Making Panel 18.

14 At Mike No. 5.

15 MR. MOULTON: Herbie Moulton, Masters
16 Technology. I would like to bring forth Comment
17 18-103 in relationship to 600-2, page .454.

18 CHAIR ISMAN: Give me a second, please.

19 MR. MOULTON: Certainly.

20 CHAIR ISMAN: And you are the maker of
21 the comment?

22 MR. MOULTON: I am the maker of the
23 comment.

24 CHAIR ISMAN: What would you like your
25 motion to be?

1 MR. MOULTON: I would like to make the
2 motion to reject the action that the panel has
3 taken in this particular submission. The present
4 wording now is that the--Part 2 of 600 only
5 covers the installation of field-installed
6 skeleton neon.

7 CHAIR ISMAN: Yes, sir. As I
8 understand it, your motion, then, is to accept
9 your comment?

10 MR. MOULTON: Please.

11 CHAIR ISMAN: Okay. Do we have a
12 second to that motion. Yes, we have a second.
13 Okay. Now please proceed.

14 MR. MOULTON: Okay. I'm sorry. I
15 apologize. The statement--and I want everyone to
16 take, if they can, please take a look at this. I
17 have to get my glasses off, because I'm getting
18 old and nearsighted.

19 The statement that is put in here for
20 the panel statement says that Part 2 of Article
21 600 does not apply to listed signs or outline
22 lighting, nor does the panel intend for this to
23 occur. I have a very, very--heartburn over that
24 because I have a letter that was written when we
25 went to Underwriters Laboratories in a lawsuit to

1 make sure that we had clarification, and this
2 letter was written to me, and I would like to
3 read that for the record.

4 "Dear Mr. Moulton, this will confirm"--
5 this is from Underwriters Laboratory, "this will
6 confirm a discussion during our March 25, 2002,
7 meeting concerning the issue of field wiring of
8 UL-listed signs.

9 UL's general guide information for the
10 category of signs UXYT includes the following
11 statement: 'Electric signs of such size that
12 shipment in one carton, or fully assembled, is
13 impractical, may be divided into sections. Each
14 major subassembly bears an electric sign section
15 listing mark. Sign faces, trim and mounting
16 hardware are not considered major subassemblies.
17 Each sign has installation instructions describing
18 or illustrating the proper assembly, mounting and
19 a connection of the sign sections. The
20 acceptability of the assembled sections in the
21 field rest with the local authority having
22 jurisdiction.'

23 UL has a program for electric sign
24 sections wherein the UL section sign listing mark
25 is applied to each individual letter of the sign

1 and on each remotely-mounted transformer that
2 makes up the sign. As noted, acceptability of
3 primary and secondary wiring between assembled
4 sign sections in the field rests with the
5 authority having jurisdiction. The materials for
6 the installation of the electrical service to the
7 sign and the secondary wiring needed in the field
8 to energize the sign are not included with
9 UL-listed signs.

10 UL has a program for field-assembled
11 skeleton neon signs, an outlining lighting system
12 under the category of UZBL. UL's general guide
13 information under this category includes the
14 following statement: 'The listing of field-
15 installed skeletal neon sign systems does not
16 constitute approval of the complete assembly and
17 the installation, which is the responsibility of
18 the installer and the authority having
19 jurisdiction.'

20 We trust this information will help
21 clarify any concerns pertaining to the
22 responsibility for the approval of field-installed
23 wiring between individual letters of UL-listed
24 sign sections, as well as other field-installed
25 signing. Sincerely" (inaudible), "Global Chief

1 Engineer in Conformity Acceptance Services."

2 That letter would only tend to be in
3 contradiction with this. And they also have
4 issued--reaffirmed their position on 4-11-03 in a
5 bulletin dated to the industry. Without this
6 change, the inspector who is responsible for the
7 enforcement of this document has absolutely
8 nowhere to go to enforce the requirements
9 underneath Part 2, which is the only part that
10 governs the installation of high-voltage circuitry
11 and also covers the field wiring, whether it be
12 1,000 volts or less or 1,000 volts or more. And
13 the requirements are in that from 632 on to 642.
14 Thank you.

15 CHAIR ISMAN: Thank you.

16 Mr. Carpenter.

17 MR. CARPENTER: I'd like to defer to
18 the Chair of Panel 18, Michael Ber at Mike 1.

19 MR. BER: Thank you, Mr. Chairman, Mr.
20 Chairman. I'm Michael Ber representing the
21 Independent Electrical Contractors Association and
22 Chairman of Code Panel 18.

23 I'm not sure what's happened as far as
24 what Mr. Moulton's has taken into consideration
25 here, but beginning--I don't think he's aware or

1 hasn't become aware of the new portion of Article
2 600, which is 600.12, which actually brings into
3 effect exactly what he's trying to do in kind of
4 a backdoor way.

5 The thing we need to remember is that
6 Code Panel--excuse me, Article 600 is broken down
7 into two sections, two parts now the in 2002
8 code. Part 1 is general. That is everything that
9 is supposed to be covered by the standard UL 48
10 for listed signs. Part 2 is that portion of the
11 article which is concerned with field-installed
12 skeleton tubing.

13 What he's proposing is just to change
14 the title of Part 2, which is going to be in
15 direct conflict with 600.31, "Applicability,"
16 which states that Part 2 of this article shall
17 apply only to field-installed skeleton tubing.
18 That's the first problem we've got.

19 The second problem that we have is that
20 Part 2 was written to be much more stringent than
21 Part 1 when we rewrote Article 600 for the 1996
22 cycle. As a for instance, if we look at
23 600.41), it requires a quarter inch spacing
24 between the tubing, and now we're talking about
25 neon tubing near the surface. This is a very,

1 very stringent requirement that is not necessarily
2 carried through to UL 48, because in UL 48 it
3 takes into consideration what voltage that this
4 tubing is seeing.

5 Another example would be 600.32(A)(4),
6 which is a similar situation which talks about the
7 proximity of the raceway to a grounded surface and
8 gives us some dimensions there. These are not
9 the same dimensions that are required in UL 48.

10 Another problem that will result from
11 this is that UL 48 signs, or those that are
12 listed, can use recognized components. If we now
13 require everything that's wired in the field to
14 comply with the way Mr. Moulton has requested it--
15 or has put it in his comment, recognized
16 components could not be utilized. Because every
17 component in Part 2 of Article 600 is required to
18 be listed. It can't be a recognized component.

19 So the basic bottom line here is that
20 what he's requesting has already been taken care
21 of. When section signs were brought in to Part 1
22 of Article 600 and when the new Article 600.12
23 was incorporated in the 2005 code, his problem
24 evaporates. Thank you, Mr. Chairman.

25 CHAIR ISMAN: Thank you.

1 Mike 2.

2 MR. DOBROWSKY: Paul Dobrowsky.

3 The electrical section discussed this
4 motion yesterday at the forum and voted to support
5 this motion.

6 CHAIR ISMAN: Thank you.

7 Mike 3.

8 MR. McNAMARA: James McNamara
9 representing the International Brotherhood of
10 Electrical Workers.

11 I think the Chairman of Panel 18 is
12 correct that this is an editorial change, and it's
13 editorial in nature. The current heading is
14 "Field-Installed Skeleton Tubing," and I've heard
15 the argument as an electrical inspector that that
16 means the glass tube and the glass tube only is
17 covered by Part 2. A careful reading of Part 2,
18 you clearly find that Part 2 covers certainly the
19 GTO cable and all the supporting requirements.

20 His proposal is to change the wording
21 to "Field-Installed Secondary Circuit Wiring."
22 Well, that's a much more appropriate heading for
23 that Part 2. It doesn't change any of the
24 requirements in Part 2. It just clarifies that
25 the requirements in Part 2 apply to all the

1 field-installed wiring. Thank you.

2 CHAIR ISMAN: Thank you.

3 Mike 6.

4 MR. JOHNSTON: Thank you, Mr. Chair.

5 Mike Johnston principal on Panel 5, talking as an
6 individual and as an individual that has submitted
7 similar comments to expand the requirements of
8 Part 2, Article 600, to any field-installed
9 secondary wiring. It's a high-voltage circuit.
10 Right now it's currently limited to field-
11 installed skeleton tubing or border tube
12 installations. And I could tell you there's a
13 lot of discussions going on about this topic right
14 now in recent developments, and I think there's
15 becoming more common universal recognition that
16 there's a problem. And probably a hole needs to
17 be filled relative to these secondaries.

18 So I support the motion on the floor to
19 expand this Part 2 to cover field-installed
20 secondary wiring, whether it's part of a listed
21 sign or whether it's field-installed wiring for a
22 non-listed sign. All the components, including
23 the circuit wiring, the electrode connections, and
24 the tubing are unique to both--or are common to
25 both. It shouldn't matter.

1 If it's a cord under Part 1 and we have
2 installation instructions and we have the
3 equipment provided by the sign manufacturer, we
4 can make a great inspection on that. If we don't
5 have that, enforcement officials have the
6 approving authority whether it's listed or not.
7 So you need to be able to get into Part 2 to be
8 able to apply those rules, so I support the
9 motion on the floor to expand Part 2. Thank you,
10 Mr. Chair.

11 CHAIR ISMAN: Thank you.

12 Microphone 1.

13 MR. ODE: Mark Ode, Underwriters
14 Laboratories. Herbie Moulton talked to me about
15 this when he first had the problem in one of the
16 cities somewhere around the Phoenix area, and it
17 had to do with listed signs that were section
18 signs. And if you go back into Part 1 of Article
19 600, it says that if I'm going to have a sign
20 that's built at a factory, for example, it has to
21 be listed, and it has to be listed based on UL
22 48, et cetera. So we have that covered in Part
23 2.

24 When they start fabricating neon signs
25 and bending tubes and putting it all together in

1 the field, you know, then it becomes a different
2 issue, then we go to Part 2. The problem was
3 that we started finding sectional signs that had a
4 mixture. They were listed signs, but they used
5 neon to do highlighting inside the sectional sign.
6 Well, it was not possible at the time in the 2002
7 code to go from Part 1 over to Part 2 and pick up
8 the field wiring, the cable system, the high
9 voltage over 1,000 volt or under 1,000 volt and
10 pick up that kind of wiring. So Herb was looking
11 for the ability to go across and pick that
12 information up. And that's, I think, what
13 prompted his comment.

14 Subsequent to that, according to the
15 panel chairman, it seems to be that 600.12 was
16 put in there to specifically address those
17 interconnection issues between the sectional
18 signs, and then it takes us over to 600.31 and
19 600.32. So when I put those GTO cables in, I put
20 them in accordance with 600.31 or .32, and it
21 seems to address the wiring system interconnection
22 between the sectional signs when you have a
23 mixture of a listed sign with internal skeleton
24 lighting that's built at the factory. Those are
25 still listed sectional signs. It's the

1 interconnection that we had a problem with. And
2 it seems to me like 600.12 does that for what
3 Herbie needed to have done.

4 CHAIR ISMAN: Thank you.

5 Microphone 3.

6 MR. OWENS: Tim Owens, City of San
7 Diego, principal member or IAEEI on Code Making
8 Panel 18 speaking for myself.

9 600.12 was put in as an attempt to
10 reach some type of compromise between the sign
11 industry and the inspection side. I was pretty
12 adamant that we needed something in order to get
13 to Part 2, and the sign industry was not amenable
14 to change in the title of Part 2, so that's what
15 happened.

16 Now speaking directly to 18-103, I'm in
17 favor of the concept, but I think that we're
18 going to create a problem if we do pass 18-103 as
19 it sets right now, because alls it does is change
20 the title, but it doesn't change the scope
21 section. The scope section will still say, This
22 Part 2 only covers outline neon lighting or
23 skeleton tubing. It will not mention the
24 secondary conductors.

25 I'm not sure what the procedure is, but

1 Mike Johnston had a proposal, 18-110, that does
2 the same type of thing, but included the scope
3 statements. So I'm not sure if we can maybe,
4 say, not approve this one and have Mike come up
5 and put his forward or what the procedure of that
6 is. Because I'm a little concerned that if we do
7 pass this one that it's going to cause a
8 inconsistency within the code. Thank you.

9 CHAIR ISMAN: Thank you.

10 Microphone 5.

11 DR. HIRSCHLER: Marcelo Hirschler, GBH
12 International, call the question.

13 CHAIR ISMAN: We have a motion to end
14 debate. And I heard a second from down here in
15 the front.

16 So we'll move immediately to taking a
17 vote on ending debate on Comment 18-103. All
18 those in favor, please raise their hand. Thank
19 you. Those opposed. That motion passes, so we
20 end debate and we move to a vote on accepting
21 Comment 18-103. All those in favor of accepting
22 that comment, please raise your hand. Thank you.
23 And those opposed. That motion passes.

24 Do we have additional motions on CMP
25 18?

1 At Mike No. 6.

2 MR. WALL: Yes, I'm Tim Wall
3 representing Edison Electric Institute, and I'd
4 like to speak to Comment 18-52 on page .335.

5 CHAIR ISMAN: Let's take a second to
6 get there. What is it about 18-52 you'd like to--

7 MR. WALL: I'd like to move Comment
8 18-52 be rejected.

9 CHAIR ISMAN: The motion is to reject
10 Comment 18-52; is there a second? We have a
11 motion and a second that are in order. Please
12 proceed.

13 MR. WALL: Comment 18-52 was accepted
14 in principle in part. However, proposal 18-93 was
15 rejected. Thus, there was a change from the ROP
16 to the ROC. This resulted in new language with
17 no time for review.

18 The effect of this motion would return
19 the language to the 2002 language. By accepting
20 Comment 18-52, Panel 18 added Article 410.73(G) to
21 require that certain luminaires have disconnecting
22 means, either integral or external. The panel, in
23 making this change to require luminary
24 disconnects, has done so to accommodate poor
25 design and unsafe work practices. It is clear

1 from the substantiation that changing out the
2 ballast in the luminaire with a circuit energize
3 and without personal protective equipment has
4 become a regular practice. Personnel are getting
5 hurt because they are not using safe work
6 practices.

7 Persons performing maintenance on these
8 lighting circuits should perform a hazard-risk
9 analysis as required by NFPA 70e. This analysis
10 will dictate the use of personal protective
11 equipment or de-energizing the circuit, and in
12 some cases using portable lighting to avoid dark
13 work areas and work disruption.

14 Another option is to address these
15 concerns in the design phase. Disconnects can be
16 added in the design phase to break up lighting
17 into multiple circuits, so de-energizing any one
18 circuit does not darken the work area.

19 EEI encourages the use of NFPA 70e to
20 protect personnel from the hazards associated with
21 working on electric circuits. EEI believes the
22 disposition of disconnects on luminaires
23 encourages unsafe work practices and asks for your
24 support of this motion.

25 CHAIR ISMAN: Thank you.

1 Mr. Carpenter.

2 MR. CARPENTER: I'd like to defer to
3 Chair of Panel 18, Michael Ber at Mike 1.

4 MR. BER: Thank you, Mr. Chairman, Mr.
5 Chairman. I'm Michael Ber. I represent the
6 Independent Electrical Contractors Association,
7 Chairman of Code Panel 18.

8 I might point out that this was the
9 most debated issue within our panel, which was
10 normally a very cohesive group during this cycle.
11 As you can see by the number of exceptions that
12 have been added to 410.73(G), there was a lot a
13 lot of discussion. A lot of factions were
14 represented.

15 The panel wording came about through a
16 task group that we put together that worked two
17 solid evenings over and above our regular code
18 panel meetings to come up with it. It's during
19 the comment session. It's worthy of note that the
20 original--proposals, there were two of them that
21 were virtually identical--came from two gentlemen
22 who I believe worked for DuPont in Newark,
23 Delaware. And even with their company's
24 outstanding safety programs and safety records and
25 with their extremely qualified maintenance

1 personnel, they requested this comment--or excuse
2 me, they requested this requirement. The true
3 irony of the entire situation is that Exception
4 No. 4 exempts their industry.

5 Code Panel 18 in no way condones unsafe
6 work practices, but we realize the fact that they
7 exist. Therefore, the panel agrees with the
8 concept of a local disconnecting means for the
9 luminaires for maintenance and servicing of the
10 ballast. Thank you.

11 CHAIR ISMAN: Thank you.

12 Microphone 4.

13 MR. COSTELLO: Thank you, Mr. Chair.
14 My name is Paul Costello, principal member of
15 Panel 18. I represent the International
16 Brotherhood of Electrical Workers, and I'm here
17 this morning--or this evening now, I guess it is,
18 to stand in opposition of the motion on the
19 floor. And I'd like to support the panel action
20 that we had taken.

21 I think the members should know, as far
22 as the comment that is in question, that we're
23 talking about at our sectional meeting yesterday,
24 it did receive the support of the electrical
25 section. It not only has the support of the

1 electrical section, but we also have the support
2 of the IEEE, the electrical inspectors. We also
3 have it from the listing agencies, the electrical
4 contractors, the electrical workers, all the way
5 across.

6 With a very simple and a very
7 inexpensive means to allow us to be able to
8 disconnect a luminaire for service and
9 maintenance, this will reduce the number of deaths
10 in our industry. This is one of the number-one
11 killers in our industry, servicing luminaires.

12 As an apprenticeship and training
13 director, one of my greatest fears is when a
14 phone rings. At any point it can be one of
15 members or apprentices that was killed on the job
16 site.

17 This is a change in the code that is
18 long overdue. By accepting the action of the
19 panel, we'll live up to the words of our incoming
20 chair as stated yesterday in our section, When
21 asked what we do, we can answer, yes, we do save
22 lives. Thank you.

23 CHAIR ISMAN: Thank you.

24 Microphone 5.

25 MR. MICHAELIS: Thank you and good

1 evening. My name is Ron Michaelis, International
2 Brotherhood of Electrical Workers. I'm an
3 alternate on Code Panel 18, and I'm an electrical
4 inspector.

5 As an electrical inspector, I wish to
6 speak against this proposal and in support of
7 Panel 18's action. As an electrical inspector and
8 planning reviewer, if I may borrow from comments
9 at this meeting, I also save lives.

10 The members of Code Making Panel 18
11 that are involved in the installation, the service
12 and repair, the inspections of luminaires have all
13 taken a firm stand to address a very serious
14 safety issue with an inexpensive and easy
15 solution, as was pointed out, something that would
16 just cost cents.

17 Just as the electrical industry stands
18 as leaders in promoting safety, it's in our charge
19 today to support Panel 18 with their solution to
20 a very serious problem that is being paid for
21 with lives and injuries.

22 I wish to point out that the adoption
23 of this new section compiles with OSHA's intent of
24 safe work practice by removing the hazard of the
25 energized circuit.

1 I call for your support today to save
2 lives and reject this proposal. Thank you.

3 CHAIR ISMAN: Thank you.

4 Microphone 1.

5 MR. CROUSHORE: Thank you, Mr.

6 Chairman. My name is Tim Croushore. I work for
7 Allegheny Power and am a principal member--or
8 actually Chairman of Code Making Panel 9.

9 I must speak towards the procedural
10 issue of this proposal specifically. When you
11 look at the panel action on Comment 18-52, the
12 panel action introduces a significant amount of
13 new material that has not had proper public
14 review. Specifically, the types of luminaires to
15 be covered that require disconnecting means, the
16 description of the supply for multigrounded branch
17 circuits, the line site terminals of the
18 disconnecting means and how they're to be guarded.
19 The complete wording of Exception No. 4, and also
20 the complete wording of Exception No. 5 is all
21 new material that has not had public review.

22 Now, normally this is picked up by the
23 TCC and this comment normally would have been
24 held. But since it wasn't, I must stand in
25 support of the motion to reject this comment

1 because it has not been properly through the
2 procedure and had proper public review. There's
3 also several technical issues wrong with that, but
4 I wanted to address the procedural issue. Thank
5 you.

6 CHAIR ISMAN: Thank you.

7 Microphone 6.

8 MR. FRED CARPENTER: Yes. My name's
9 Fred Carpenter. I am the NEMA alternate rep to
10 CMP 18, and I stand to speak in support of the
11 motion on the floor.

12 In addition to the issues of supporting
13 unsafe work practices that were brought up by Mr.
14 Wall, as pointed out by the Chairman of Panel 18,
15 considerable work was put into attempting to reach
16 a compromise on this proposal. And unfortunately,
17 the end result is a flawed proposal. The
18 requirement is flawed because it requires a
19 simultaneous disconnection of all of the supply
20 conductors, including the grounding conductor.
21 While the grounding conductor may present a risk
22 of shock in multi wire branch circuits, the
23 requirement, as written, also applies to
24 florescent luminaires, even when they're supplied
25 by other than multi wire branch circuits. This

1 prohibits the use of a simple switch and forces
2 the use of a two-pole disconnect in many
3 situations where it's not technically justified.

4 Comment was made in the electrical
5 section meeting that this proposal doesn't go into
6 effect until 2008, and therefore, it provides the
7 opportunity to fix the flaws in the proposal.

8 But I object to enacting a requirement that we
9 know is flawed and then say we'll fix it later.

10 My primary objection is that this does,
11 in essence, support the continuation of unsafe
12 work practices, and I am concerned about how that
13 might proliferate through the code.

14 CHAIR ISMAN: Thank you.

15 Microphone 8.

16 MR. ROCK: Brian Rock of the Eastern
17 time zone representing myself. I would like to
18 call the question.

19 CHAIR ISMAN: I'm sorry, could you
20 repeat the name. I think the mike was off.

21 MR. ROCK: Brian Rock.

22 CHAIR ISMAN: Thank you. We have a
23 motion to end debate, is there a second? We have
24 a number of seconds.

25 So we move immediately to a vote to end

1 debate on rejecting Item 18-52. So all in favor
2 of ending debate, please raise your hand. Thank
3 you. All opposed to ending debate. The motion
4 carries.

5 So we end debate, and we move to a vote
6 immediately on the rejection of Item 18-52. I
7 should say Comment 18-52. All those in favor of
8 rejecting this comment, please raise your hand.
9 Thank you. And those opposed. I'm sorry, I can't
10 call that. That was too close. I'm going to have
11 to move to a standing count. Organizational
12 delegates, please fill out your green ballot
13 cards. And if we could have anyone who is in
14 favor of the motion to reject the comment, please
15 stand.

16 Okay. We've got everybody counted so
17 we can sit down. And those opposed to the motion
18 to reject, please stand. Thank you. You can sit
19 down. We'll have the tally in just a second.

20 The motion fails by a vote of 83 to
21 111.

22 We now return to additional discussion
23 on Code Making Panel 18. Are there additional
24 motions that someone would like to make?

25 Microphone 6, please.

1 MR. JOHNSTON: Thank you, Mr. Chair.
2 Mike Johnston, CMP 5. I'm representing myself.

3 I'd like to make a motion to accept
4 Comment 18-107 to Proposal 18-117.

5 CHAIR ISMAN: We have a motion to
6 accept Comment 18-107. Are you the maker of the
7 comment or the writer of that comment?

8 MR. JOHNSTON: Yes, Mr. Chair.

9 CHAIR ISMAN: Do we have a second? We
10 have a motion and a second, please proceed.

11 MR. JOHNSTON: Thank you, Mr. Chair.
12 This is a continuation--and I have to thank
13 Principal Member Tim Owen on Panel 18 for bringing
14 it to the attention of the body before the vote.
15 I couldn't get here before they called a question
16 last time.

17 This essentially only adds two words
18 into the scope statement of 600.30, which Mr.
19 Owens was trying to address to complete the task
20 of what was trying to be accomplished by the
21 acceptance of Comment 18-103.

22 So in effect, by accepting Comment
23 18-107 it does what we try to do on 103, and it
24 just places the words "signed wiring" into that
25 statement which accomplishes the task and

1 completes it for a more uniform fit in the code.

2 CHAIR ISMAN: Thank you.

3 Mr. Chair.

4 MR. CARPENTER: I'd like to defer to
5 Chair of Panel 18, Michael Ber.

6 MR. BER: Thank you, Mr. Chairman, and
7 Mr. Chairman. I remain Michael Ber representative
8 of Independent Contractors Association. I must be
9 losing my voice. It must be late in the day.

10 I'm chairman of Panel Code 18. I'm not
11 sure what's going to happen here, because we are
12 now going to make a real hodge-podge out of Part
13 2 of Article 600, because if I understand Mr.
14 Johnston's proposal--excuse me, comment correctly,
15 he's going to change the wording of Part 2 to
16 read "field-installed sign wiring and skeleton
17 tubing," which we have already changed to read
18 "field-installed secondary wiring," or something
19 like that. Help me out here.

20 What does happen with his comment,
21 though, is he goes one step further and does
22 clear up the conflict that we had with Mr.
23 Moulton's comment in regards to the conflict
24 between the title of the article the title of the
25 part and that which was contained in Article

1 600.30. So I'm not exactly sure how to proceed
2 on this, Mr. Chairman. Maybe staff can provide
3 me with some guidance here. Thank you.

4 CHAIR ISMAN: While the staff looks
5 into that, we'll hear from the gentleman from Mike
6 No--

7 MR. MOULTON: Herbie Moulton, Masters
8 Technology.

9 In reviewing this particular submission
10 and reading it and the comments that were made
11 previously on my particular submission, I would
12 think that it would--I would encourage you to
13 support this particular action, because I think
14 it's very clear and definitive as to what it, its
15 intent is. So I would encourage you to support.

16 If that would in fact pass, then I
17 would probably withdraw my particular function
18 because I think it is more clear and definitive
19 as to the applicability of this particular aspect
20 to the code. Thank you.

21 CHAIR ISMAN: Thank you.

22 To answer the question that came up
23 before, this issue effectively deals with a
24 similar issue or the same issue as 18-103, a
25 comment that we accepted over an hour ago--or

1 almost an hour ago, but also on this same
2 subject. So I guess this body needs to decide
3 which language it likes better, the language in
4 Comment 18-103 which we have accepted as a motion
5 earlier today or the comment that's on the floor
6 now, 18-107.

7 So with that, back to Mike 6.

8 MR. JOHNSTON: Thank you, Mr. Chair.

9 And just to point out, in the comment
10 as submitted, I tried to leave and preserve the
11 term "skeleton tubing" within the title of the
12 section. And if we move to accept, as we did
13 already, if we continue to accept 18-103, we lose
14 that because it just refers to field-installed
15 secondary wiring and, of course, the skeleton
16 tubing installation still needs to be in the rules
17 and that part will still need to apply to those
18 installations. So really in effect, all we're
19 inserting is "sign wiring" in two places, once in
20 the title and once in the applicability statement
21 under Section 600.30.

22 CHAIR ISMAN: Microphone 5.

23 DR. HIRSCHLER: Marcelo Hirschler, GBH
24 International.

25 Could you please clarify for us what

1 happens if this motion gets accepted? Does it
2 supersede the previous motion? Does the title that
3 we accept in 103 disappear?

4 CHAIR ISMAN: Thank you. I've just
5 been consulting with everyone here to see if we
6 can ask the submitter of the motion if we can
7 change the motion. If the motion on the floor--
8 and from what I've heard from the debate, it
9 really seems like what the person who made the
10 motion wanted is to really accept an identifiable
11 part of his comment and not the whole comment
12 that would change the entire section. If the
13 motion is just to accept the identifiable part of
14 the motion of the comment that are the words
15 "sign wiring;" is that the intent of the motion?

16 MR. MOULTON: Mr. Chair, I think the
17 intent of the motion was to refer to the language
18 in Comment 18-107. I feel it more appropriately
19 addresses the concern expressed for acceptance
20 under 18-103, in addition to provide additional
21 clarity.

22 CHAIR ISMAN: Okay. So then I stand
23 corrected. The proposal and the motion is to
24 take the wording as it is in 18-107?

25 MR. MOULTON: Yes, Mr. Chair.

1 CHAIR ISMAN: Then the body will have
2 to decide which they want. If they pass 18-107,
3 they're going to lose what they did in 18-103,
4 that's my understanding.

5 DR. HIRSCHLER: If we pass 18-107,
6 18-103 is gone?

7 CHAIR ISMAN: That's my understanding,
8 yes. Right now we need to change the
9 stenographer's tape, so let's take just a second
10 to change the stenographer's tape.

11 (A recess was taken from 7:31 p.m. to 7:33 p.m.)

12 CHAIR ISMAN: We were discussing
13 Comment 18-107, and I believe we were going to go
14 to Mike 5 for a statement from the proponents of
15 an earlier proposal, 18-103.

16 MR. MOULTON: Thank you, Mr. Chairman.
17 Herbie Moulton from Masters Technology.

18 In looking at this, I think what might
19 be helpful is that should this proposal pass, then
20 I would like to at that time make a motion to
21 withdraw my particular--or reconsider, excuse me,
22 my particular proposal, because I feel this will
23 in fact clarify this. And so I would highly
24 recommend that, if that is acceptable.

25 CHAIR ISMAN: Thank you. So to

1 summarize, if the body likes the language in
2 18-107, you can vote for that language. And if
3 that motion passes, we will then go to a motion
4 to reconsider 18-103, which you can then vote down
5 if you don't like that language, and that will
6 make a clean explanation of where we're going. I
7 don't want to correct anybody's vote. That's if
8 you want the language that's in 107, that's the
9 path we're going to follow. With that being said,
10 I'll go back. You had the floor at Microphone
11 No. 6.

12 MR. JOHNSTON: Thank you, Mr. Chair. I
13 believe I've said everything I need to about
14 Comment 18-107.

15 CHAIR ISMAN: Thank you.
16 Microphone 1.

17 MR. WEBB: Bill Webb, Shermer
18 Engineering. I call the question.

19 CHAIR ISMAN: We have a motion and a
20 second to end debate on 18-107. All those in
21 favor of ending debate, raise your hand. Thank
22 you. That motion passes.

23 We now move into a vote to accept
24 18-107. All those in favor of accepting that
25 comment, please raise your hand. Thank you. All

1 those opposed. That motion passes.

2 Now I will recognize the gentleman at
3 Mike No. 5 to make a motion.

4 MR. MOULTON: Yes, Mr. Chairman. I'd
5 like to make a motion now for the withdrawal of
6 my particular objection and that we go ahead and
7 reject 103.

8 CHAIR ISMAN: We have to do this one
9 step at a time. First we have to have a motion to
10 reconsider Item 18-103.

11 MR. MOULTON: Okay. Okay. Then I
12 would so move that we reconsider the motion a--
13 reconsider a motion for Comment 18-103.

14 CHAIR ISMAN: We have a motion and a
15 second to reconsider 18-103. We know that the
16 person who made the motion was on the affirmative
17 side because he was the maker of that motion, and
18 then we had a second who demands that he was in
19 the affirmative, so we'll believe him.

20 And we now go to discussion, if we want
21 to, on reconsidering of 18-103. I think we've
22 had plenty discussion on that. So let's move
23 into a vote on whether or not we should
24 reconsider 18-103. Those in favor of
25 reconsideration, please raise your hand. Those

1 opposed to reconsideration. Okay. That motion
2 passes.

3 So now we have to dispose of 18-103 now
4 that it's on the floor again.

5 MR. MOULTON: Yes.

6 CHAIR ISMAN: At Mike 5.

7 MR. MOULTON: Thank you so much. Herb
8 Moulton, Masters Technology. I would like to ask
9 the body to consider the rejection of that
10 particular motion.

11 CHAIR ISMAN: Thank you.

12 We now have a motion to reject 18-103,
13 and I have a second from down front. Is there
14 any further discussion on that item? Seeing none,
15 we'll move into a vote. All those in favor of
16 rejecting Item 18-103, please raise your hand.
17 Thank you. Those opposed. Thank you. That
18 motion passes.

19 MR. MOULTON: Thank you, Mr. Chairman.
20 And I want to thank the NFPA for this
21 opportunity, and I certainly--you ought to be
22 proud of the way that this code is handled. It
23 is certainly a democratic and a very, very proud
24 way to establish a document that has the effect
25 that it does.

1 CHAIR ISMAN: Thank you.

2 MR. MOULTON: Thank you so much.

3 CHAIR ISMAN: We return to discussing
4 other items on Code Making Panel 18's report.
5 Are there additional items for Code Making Panel
6 18?

7 Seeing none, we move to Code Making
8 Panel 19 with jurisdiction over Articles 545, 547,
9 550, 551 through 553, 555, 604, 675, Annex D,
10 Examples D11 and D12. Are there any motions with
11 respect to CMP 19?

12 At Microphone 6.

13 MR. OFFERDAHL: Thank you, Mr.
14 Chairman. My name's Don Offerdahl with the North
15 Dakota State Electrical Board and a member of Code
16 Panel 9 and representing myself.

17 I move to accept Comment 19-21.

18 CHAIR ISMAN: It's a motion to accept
19 Comment 19-21. Are you the writer of that comment?

20 MR. OFFERDAHL: Yes, I am, Mr.
21 Chairman.

22 CHAIR ISMAN: We have a motion to
23 accept the comment that is an order; do we have a
24 second? We have a motion and a second. Would
25 you please proceed.

1 MR. OFFERDAHL: This covers site
2 isolation devices, which is unique in Article 547
3 and has been in the code for the last couple of
4 cycles.

5 In rural area sites which are supplied
6 power at a central distribution point, some would
7 fall under 547; other sites have other uses.
8 With no intention to house livestock or farm, some
9 could have a couple horses, this requirement is
10 difficult to enforce. All sites should be treated
11 alike. My proposal and comment adds permissive
12 language and not mandatory, so the jurisdiction
13 may enforce--or excuse me, this would allow local
14 jurisdictions to enforce where it feels it is
15 necessary.

16 Let me add, I believe the panel did not
17 receive any substantiation of any electrical
18 accidents or injuries. There has been a lot of
19 changes in Article 547 the last couple of code
20 cycles. Supporting my motion would allow the code
21 panel to get more information on this and how it
22 would impact the farming industry.

23 CHAIR ISMAN: Thank you. Mr. Carpenter.

24 MR. CARPENTER: Yes. I would like to
25 defer to the Chair of Panel 19, Bob McCullough,

1 at Microphone 2.

2 MR. McCULLOUGH: Thank you, Mr.
3 Chairman. Bob McCullough, Chairman of Code Panel
4 19.

5 In the interest of fatigue, I would let
6 the panel statement stand for itself and the
7 action of the panel, both on Mr. Offerdahl's
8 proposal and comment, which were basically the
9 same. Both ballots were eight to nothing,
10 unanimous to reject this. We did not have any
11 compelling technical substantiation to make the
12 installation of the site isolation device an
13 option. The '99 code cycle made it mandatory.
14 There was much discussion at that point. There
15 was discussion again on this section in the 2002
16 code and again the panel has received no technical
17 substantiation to change this requirement. Thank
18 you.

19 CHAIR ISMAN: Thank you. Is there any
20 additional discussion on Comment 19-21?

21 At Mike 6.

22 MR. OFFERDAHL: Thank you, Mr.
23 Chairman.

24 When you look at this site isolation
25 switch, how many people have installed it? Well,

1 you're not working on a farm. The only place
2 this is covered is 547, where you house livestock.
3 Why is it necessary? I don't know. It isn't
4 required if you have a site in a couple of
5 buildings, but only on a farm. Why are we
6 picking on the farmers? If it's necessary to
7 have a site isolation switch, why isn't utility
8 providing one?

9 If you take a look at this and you go
10 to a site--and we have some farmers that have
11 1000-, 1500-amp service which has a disconnecting
12 means that is not service rated. This requires
13 the electrician to charge the farmer whatever it
14 costs for 1000-amp disconnect or a group of
15 disconnects, and the farmer's saying, Why do I
16 have to do this? I don't know if we have an
17 answer for him.

18 This is something, if you put it in
19 permissive language, would allow the local
20 jurisdiction to see where there is a problem and
21 address it. The utility already has the power to
22 have a disconnect there, and they haven't done it.
23 They want to put on the shoulders of the farmer.

24 CHAIR ISMAN: Before you leave the
25 mike, sir, can you give us your name again for

1 the record.

2 MR. OFFERDAHL: Excuse me. Don
3 Offerdahl for the North Dakota Electrical Board.

4 CHAIR ISMAN: Mike 2.

5 MR. LaBRAKE: My name is Neil LaBrake
6 representing the Edison Electric Institute, and I
7 work for Niagara Mohawk Power Corporation in
8 Syracuse, New York.

9 For about 15 years now our utility has
10 required the site-isolating device, as mentioned
11 here in Panel 19. In fact, we require a service
12 implement at the point of service. And that is
13 performing the same function, and it's performed
14 at greatly over those years to do just that, to
15 provide a means for the emergency response teams
16 to isolate situations on the premise for things
17 that could happen in the farm or other
18 outbuildings. And it also provides for
19 flexibility for the customer, the premise owner,
20 to manage their own premises wiring system. Thank
21 you.

22 CHAIR ISMAN: Thank you.

23 Microphone 5.

24 MR. JANIKOWSKI: Mr. Chairman, my name
25 Ron Janikowski, State of Wisconsin.

1 Up in our area we are known as the
2 dairy state, and we do have several farms. The
3 site-isolation device has been in our local Com-16
4 state code for many years. It works very well.

5 I stand opposed to the comment for a
6 couple of reasons. Number one, it gives the
7 farmer who has multiple buildings the latitude to
8 feed those overhead from several different
9 feeders. And it also gives him a point to
10 connect emergency generators so he doesn't lose
11 several hundred pounds of milk during a power
12 outage. So I would recommend that this motion on
13 the floor be rejected and the panel action as
14 stated accepted. Thank you.

15 CHAIR ISMAN: Thank you.

16 Is there additional discussion on
17 Comment 19-21? Microphone 7. Just a second. We
18 need that mike up. Go ahead, try again. Why
19 don't you move to another mike. Can you truck
20 over to Mike 4 or Mike 3?

21 MR. WILLIAMS: My name is Noel
22 Williams. I'm representing myself.

23 I just want to point out that the
24 thrust of this proposal--or the comment, rather,
25 is to make this permissive. If we look at the

1 requirement as it's written, it says, "Where
2 required, a site-isolating device shall be
3 installed at the distribution point where two or
4 more agricultural building, structures, associated
5 farms dwellings or other buildings are supplied
6 from the distribution point." Distribution point
7 is defined in 547.2.

8 There is no requirement that we use
9 this particular method of distributing power. So
10 it is already permissive if we want to go back to
11 the method that's more typically used, say, in a
12 campus, a building where we have a single service
13 point and then we distribute power through feeders
14 instead from an overhead--a single overhead
15 location. So I don't see that we really need to
16 make this permissive rule, because it's only when
17 we use a distribution point that we have to do
18 it.

19 CHAIR ISMAN: Thank you.

20 Any additional discussion on Comment
21 19-21? Seeing none, we'll move to a vote. All
22 those in favor of accepting the comment, please
23 raise your hand. All those opposed. Thank you.
24 That motion fails.

25 Are there additional motions on CMP 19?

1 Mr. Hirschler, do you have a comment on CMP 19?

2 No.

3 Seeing no one at the mike, as indicated
4 earlier in the proceedings, I will now open up
5 the floor for motions on any of the code making
6 panels, if we may have missed something. Are
7 there further motions?

8 Mike No. 4.

9 DR. HIRSCHLER: Thank you, Mr. Chair.
10 Marcelo Hirschler, GBH International, speaking for
11 the Fire Retardant Chemicals Association, now the
12 American Fire Safety Council and the Plenum Cable
13 Association. I want to move acceptance of Comment
14 16-09 on page .7766, 16-109 on 766. It's my
15 comment.

16 CHAIR ISMAN: We have a motion to
17 accept Comment 16-109 on Page .766. Is there a
18 second? I hear a second from down front. Please
19 proceed, Dr. Hirschler.

20 DR. HIRSCHLER: Thank you. This is a
21 fairly simple issue. This really should have been
22 part of the items addressed by the Standards
23 Council. We have the Standards Council state that
24 we shouldn't change all the wording associated
25 with cabling in docks and plenums and other

1 spaces, and that's what this proposal--what this
2 comment does, because if you look at the comment
3 that was actually accepted, one in 16-76, and the
4 difference between that and this is that instead
5 of talking about ducts, it talks about air ducts.

6 As you can see in the negative for Mr.
7 Harold Ohde from the IBEW, a panel member, this
8 is very significant difference. Air ducts, where
9 the definition if you look at 16-11 shows that if
10 it came from '98 air ducts. The term "air ducts"
11 is not used in Article 770. So this is being
12 added here just to correlate with the comment of
13 air duct cable.

14 Furthermore, if you look at 322, which
15 is where all of these type of sections are
16 listed, Section 322 doesn't talk about air ducts.
17 It talks about ducts and plenums and other air-
18 handling spaces. So I request that the audience--
19 that the assembly accept my comment. Thank you.

20 CHAIR ISMAN: Mr. Carpenter.

21 MR. CARPENTER: I'd like to defer to
22 chair of Panel 16, Stanley Kahn, at Mike 2.

23 MR. KAHN: Stanley Kahn, Chair of Panel
24 16. I think this is covered by the panel's
25 statement, the referral in the panel's statement,

1 and I think we'll stand on that position.

2 CHAIR ISMAN: Thank you. We'll move to
3 Mike No. 7.

4 MR. GUIDRY: My name is Eddie Guidry,
5 Fluor Enterprises, representing myself. I would
6 like to make a motion to accept Comment 3

7 CHAIR ISMAN: I'm sorry, we're still
8 discussing Comment No. 16-109 at the moment.

9 Further discussion on 16-109?

10 At Mike 3.

11 MR. OHDE: Yes. Thank you, Mr.
12 Chairman. My name's Harold Ohde, representing
13 IBEW, the International Brotherhood of Electrical
14 Workers. I'm a principal member of Code Making
15 Panel 16.

16 I am in support to accept this comment.
17 This particular comment that was written doesn't
18 appear to be answered the way or the way--it was
19 not--let me start from the beginning. I'm going
20 to go exactly what I put my explanation of
21 negative.

22 I am voting negative on both the panel
23 action and panel statement. This comment should
24 have been accepted as written. The panel action
25 puts 16-76 is not an editorial nor does it

1 accomplish the submitter's intent. The submitter
2 submitted the following language. Ducts, plenums
3 and other air-handling spaces as described in
4 300.22. He does not use the word "air duct."

5 So the panel action--the panel
6 statement here says, "See panel action and panel
7 statement in Comment 16-76," which is editorial
8 similar and accomplishes the--accomplishes the
9 submitter's purpose. It does not accomplish the
10 submitter's purpose. Thank you.

11 CHAIR ISMAN: Thank you.

12 Microphone No. 5.

13 DR. KAUFMAN: I'm Stanley Kaufman, a
14 member Panel 16 and submitter of the proposal.

15 The proposal was originally made
16 because there's oversight in the code. In the
17 2002 code you can bring outside plant telephone
18 cable. And by the way, the same thing applies to
19 cable TV and fiber optic cable. We have three
20 articles where the outdoor cable is allowed to go
21 50 feet anywhere up a riser in an air duct
22 anywhere. I made a proposal saying that's wrong,
23 we have no intention of allowing unlisted cable in
24 those areas.

25 So what we wound up passing is 16-76

1 where it says, "Unlisted outside plan, "I'm
2 reading the one on fiber now, "optical fiber cable
3 shall be permitted within buildings and spaces
4 other than risers," you surely don't want a
5 towering inferno, "air ducts," and we said "air
6 ducts" to distinguish an air duct from a telephone
7 duct, and then we said, "plenums and other spaces
8 used for environmental air with the length of
9 unlisted cable is 50 feet." I hope we're not
10 having an argument by saying "air duct" versus
11 "duct," because that's pretty trivial. But we
12 definitely want to distinguish between telephone
13 ducts and air ducts because, of course, you can
14 put cable in a telephone duct. So I stand in
15 support of the panel and I'm speaking in
16 opposition of the motion.

17 CHAIR ISMAN: Thank you. Behind you
18 also at Mike No. 5. Try again. Mike 5 was just
19 working a second ago. Can you try to move over
20 to Mike No. 4?

21 MS. HORTON: Pat Horton representing
22 the Steel Tube Institute.

23 I think that we have to look very
24 carefully at this because comment 16-76 on Page
25 .77 is very closely related to this. That's the

1 whole reason for Mr. Hirschler's motion, and I am
2 in support of his motion. Either that or it
3 should not--you can make a determination here. It
4 might be that it's one of those that should not
5 be addressed in accordance with the Standards
6 Council instructions, because if you look at 16-
7 76, it plainly states in the substantiation that
8 continued acceptance of this proposal will remove
9 a conflict between an NFPA 7, NFPA 70 and NFPA
10 90A.

11 The whole reason for doing this was to
12 get the word "air duct" in. Mr. Jensen makes a
13 comment on that in 16-76 that "air duct" should
14 be taken out. It was obvious to everybody--and I
15 was one who was at the meeting--that this was a
16 roundabout attempt to get the word "air duct" in
17 and it really is related to the 90A situation.
18 And so if you're not going to put it on hold in
19 accordance with the Standards Council's
20 instruction, both 16-76 and 16-109. But
21 otherwise, you should accept Dr. Hirschler motion
22 so the word "air duct" doesn't get in there and
23 we have the same wording we have for other
24 sections relating to 300.22 in the current code.

25 CHAIR ISMAN: Dr. Hirschler, Mike 4.

1 DR. HIRSCHLER: Thank you. Marcelo
2 Hirschler, GBH International.

3 Just to clarify, all the statement that
4 Dr. Kaufman made with regard to the 50-foot issue
5 of the unlisted outside cables, that's perfectly
6 acceptable, I have no objection to that. And
7 that's why I never--this comment didn't address
8 any of that issue. This comment addresses
9 specifically the reference to "air duct cables" to
10 air duct as to opposed to ducts. That's the
11 fundamental difference. And the reason very--the
12 reason why air ducts were put in--air ducts were
13 put in to go in the wording with air duct cable
14 which the proponents, including Dr. Kaufman, were
15 trying to put in. So that is the difference, air
16 ducts versus ducts.

17 CHAIR ISMAN: Thank you. At Microphone
18 7, did you want the address the issue?

19 UNIDENTIFIED SPEAKER: Yes, I did. I
20 want to call the question. CHAIR ISMAN: Okay.
21 We have a motion to end debate. And we have a
22 second.

23 We'll move immediately into a vote.
24 All those in favor of ending debate on Comment
25 16-109, please raise your hand. And those opposed

1 to ending debate. Thank you. That motion
2 passes.

3 So we'll move right into a vote on
4 accepting the motion to accept Comment 16-109.
5 All those in favor of accepting that comment,
6 please raise your hand. Thank you. And those
7 opposed. That motion carries.

8 DR. HIRSCHLER: Mr. Chairman, Marcelo
9 Hirschler, GBH International, speaking for the
10 Fire Retardant Chemical Association, now the
11 American Fire Safety Council, and the Plenum Cable
12 Association.

13 There are several other proposals that
14 are identical. Can I make the motion one time
15 for all of them, or do you want to make the
16 motions independently?

17 CHAIR ISMAN: We're going to let you
18 make all as one motion to save a lot of time. So
19 I hope everybody can write this down. Dr.
20 Hirschler had talked to us in advance, and we
21 realized these are all the same motion just on
22 pieces of CMP 16's report. So we're going to let
23 him make one motion that covers the acceptance of
24 a number of comments that cover the same subject
25 as the one we just voted on. Please proceed.

1 DR. HIRSCHLER: They are 16-226,
2 16-227, 16-397, 16-715, 16-716, 16-717 and 16-718.
3 And in each case they are my comments, and they
4 are the exact same issue, and I move to accept my
5 comments.

6 CHAIR ISMAN: We have a motion to
7 accept seven comments that are identical in
8 technical nature to what you've just voted on
9 16-109. We'll read the list one more time just
10 to make sure everyone can catch up. The comments
11 are 16-226, 16-227, 16-397, 16-715, 16-716, 16-717
12 and 16-718.

13 DR. HIRSCHLER: Thank you.

14 CHAIR ISMAN: Is there a second to that
15 motion? I heard a second to the motion up front.
16 Please proceed again.

17 DR. HIRSCHLER: Again, I don't want to
18 belabor the issue, it's the identical issue. The
19 change is from "air ducts" to "ducts." That's
20 the change. Thank you.

21 CHAIR ISMAN: Thank you. Further
22 discussion? I should go to the Chair, Mr.
23 Carpenter.

24 MR. CARPENTER: I'll defer to the Chair
25 of Panel 16, Stanley Kahn.

1 MR. KAHN: No need to comment.

2 CHAIR ISMAN: At Microphone 5.

3 MR. GADDELL: Yes, Mr. Chairman. My
4 name Loren Gaddell (phonetic) with DuPont
5 representing myself and the Cable Fire Research
6 Association.

7 I guess I'd like to ask the question--
8 and I agree with Pat Horton. All this hinges on
9 what's occurring in 90A. I thought this was not
10 going to be a topic of the discussion based on
11 the letter that was read at the beginning of the
12 meeting. Certainly what Dr. Hirschler's talking
13 about is being discussed in 90A, and I think it's
14 inappropriate for action to be taken. Thank you.

15 CHAIR ISMAN: Just to address that
16 issue, we did look at this yesterday in-depth and
17 decide that it was open for discussion at this
18 meeting, that the technical panels had taken a
19 position on this and, therefore, it was open for
20 further discussion.

21 MR. GUIDRY: I move to call the
22 question.

23 CHAIR ISMAN: Microphone 7. We have a
24 motion to call the question. Can we get your
25 name, please, sir?

1 MR. GUIDRY: Eddie Guidry, Fluor
2 Enterprises.

3 CHAIR ISMAN: Thank. You we have a
4 motion to end debate, do we have a second? We
5 have seconds. All those in favor of ending
6 debate on the seven comments under consideration,
7 please raise your hand. Thank you. All those
8 opposed to ending debate. Thank you. That
9 motion passes.

10 So we move immediately to acceptance of
11 the seven comments that are up on the screen with
12 the data show, and all those in favor of
13 accepting those comments, please raise your hand.
14 Thank you. All those opposed. That motion
15 passes. We'll go to Microphone 7 since you've been
16 so patient now.

17 MR. GUIDRY: Thank you, sir. I'm Eddie
18 Guidry, Flour Enterprises, representing myself. I
19 move to accept Comment 3-172 of which I am the
20 author of that. This is the same issue.

21 CHAIR ISMAN: I'm sorry, just a second.
22 We have a motion to accept Comment 3-172; do we
23 have a second? I do hear several seconds from
24 the center section. And you are the maker of
25 that--writer of that original comment?

1 MR. GUIDRY: That is correct.

2 CHAIR ISMAN: Okay. Please proceed.

3 MR. GUIDRY: This is somewhat the
4 similar subject or issue that we spoke of earlier
5 regarding 600-volt cables in the same cable tray.

6 I really have a concern for the
7 electricians out in the field working on these
8 installations. And I know they're going to be
9 asked at one point to move these cables around.
10 They're 20- and 30-year-old cables many times.
11 Sometimes they're older than that.

12 What this comment does is allow an
13 exception for industrial installations to allow
14 all 600-volt cables, regardless of whether they're
15 functionally associated or not, to be installed in
16 the same cable tray.

17 CHAIR ISMAN: Thank you.

18 Mr. Carpenter.

19 MR. CARPENTER: I'd like to defer to
20 chair of Panel 3, Richard Owen, at Mike 2.

21 MR. OWENS: Mr. Chairman, Richard Owen,
22 Chairman of Panel 3.

23 As Mr. Guidry pointed out, we discussed
24 this issue about 15 hours ago, I think, now, and
25 I would let the panel statement stand on its own

1 merits. It's very similar to the one rejected
2 quite a while ago.

3 CHAIR ISMAN: Additional discussion on
4 Comment 3-172? Did you wish to discuss it more,
5 sir?

6 MR. PAUL GUIDRY: I would just like to
7 point out that in numerous places throughout the
8 code industrial installations are recognized as
9 being different than those of residential and
10 commercial installations.

11 In residential installation you
12 usually--in fact, I've never seen any industrial
13 installation without highly-trained electricians
14 out in the field. I think that if you recognize
15 the fact that these people are highly trained and
16 they know that there's going to be a mixture of
17 cables in these cable trays, which there have been
18 for years, that we can continue the practice
19 that's been in place in the code for the last 30
20 or 40 years, and there won't be any safety
21 issues. In fact, it will prevent the safety issue
22 from electricians getting into cable trays where
23 the wires have been there for 20 or 30 years or
24 more and possibly causing a ground-fault or a
25 shock hazard.

1 CHAIR ISMAN: Just for the record, you
2 were Paul Guidry, right?

3 MR. PAUL GUIDRY: That is correct. I'm
4 Paul Guidry, Fluor Enterprises.

5 CHAIR ISMAN: Mike No. 1.

6 MR. ODE: Mark Ode, Code Panel No. 3.
7 And this goes back to the same argument we had.
8 Like Mr. Chairman said--or Panel Chairman Dick
9 Owens said quite a while ago, and the same issue
10 still stands here, when they're functionally
11 associated and my disconnecting means, I turn that
12 equipment off, the same issue is still at task
13 here, and that's the safety of those people
14 working on the systems.

15 And I think we had this argument--or
16 discussion, I shouldn't say argument, but
17 discussion quite some time ago, and we elected to
18 reject this and I would recommend we reject this
19 comment for the same reason.

20 CHAIR ISMAN: Microphone No. 6.

21 MR. ELDRIDGE: Mr. Chairman, I'm
22 Charlie Eldridge representing the EEI, speaking in
23 favor of this motion. The heavy industrials have
24 been exempted from a lot of things in the code
25 and rightfully so. They have trained personnel

1 onsite, they have engineering supervision in most
2 cases, they know how to handle this equipment and
3 they need to be treated differently. And I'd
4 like to move to call for the question.

5 CHAIR ISMAN: I'm sorry, after you've
6 made debate, I can't allow you to call the
7 question.

8 At Mike 7.

9 MR. PAUL GUIDRY: Paul Guidry, Fluor
10 Enterprises.

11 I just want to rebut Mark Ode's comment
12 in that "functionally associated," like I said
13 before, is not defined. You can make the argument
14 that everything in one process unit is
15 functionally associated. That argument is very
16 poor. If we're going to go with that type of
17 language, then we need to put the term
18 "functionally associated" in Article 100, because
19 it can be interpreted very many, many ways.

20 CHAIR ISMAN: Thank you.

21 Mike No. 1.

22 MR. WEBB: Bill Webb, Shermer
23 Engineering. I call the question.

24 CHAIR ISMAN: We have a motion to end
25 debate. I've heard a number of seconds from the

1 center section. All those in favor of ending
2 debate on Comment 3-172, please raise your hand.
3 Thank you. All those opposed to ending debate.
4 Thank you. That motion passes. We'll move
5 immediately to a vote on accepting Comment 3-172.
6 All those in favor of that motion, please raise
7 your hand. All those opposed to that motion.
8 That motion fails.

9 We are now on a motion to accept the
10 entire document as amended by the body today.
11 Are there additional motions?

12 I saw a person at Mike 4 first.

13 MR. CONRAD: Thank you, Mr. Chair. Jim
14 Conrad with Rockbestos. I'm the writer of
15 Proposal 13-99 and would like a motion to accept
16 it as written.

17 CHAIR ISMAN: So we have a motion to
18 accept Proposal 13-99. And you were the submitter
19 of that proposal?

20 MR. CONRAD: Yes, sir.

21 CHAIR ISMAN: Give everybody a few
22 minutes to get there. While folks are getting
23 there, I'll ask, is there a second to the motion?
24 I did hear a second from the back of the room.
25 Just a second. Yes, we have a legitimate motion

1 and a second. Please proceed.

2 MR. CONRAD: Thank you, Mr. Chair. The
3 proposal is pretty simple. It is to try to size
4 cables from the disconnect to the far pump
5 controller using the Tables 310.16, 75 degrees C.
6 The substantiation that I used was that it's
7 pretty clear that in 695.6 it says you have to
8 protect these cables against the fire. One of
9 the means of doing this is using an electrical
10 circuit protective system. These are two-hour fire
11 rated cables.

12 Up until 2002 this really wasn't an
13 issue because all the cables were sized at a
14 310.16. However, in 2002 they permitted single
15 conductor cables, such as MI and MC cables, to be
16 sized using Tables 310.17. And what this does,
17 it clearly makes it a safety issue because if you
18 size these cables other than 310-16, one, you're
19 putting a lot less copper in that circuit, and
20 two, the grounding conductor would not be in
21 compliance with 251-22.

22 CHAIR ISMAN: Thank you.

23 Mr. Carpenter.

24 MR. CARPENTER: I would like to defer
25 to panel chair of 13, Thomas Wood.

1 MR. WOOD: Thank you, Mr. Chairman. I
2 am Tom Wood, Chairman of Panel 13.

3 This panel action initially was
4 rejected. I'd like to read you the panel
5 statement from that action. "There are many types
6 of cables and methods of sizing the cables that
7 are adequate. Limiting the cable selection to
8 adjust 310.16, 75 degrees C column, is too
9 restrictive and unnecessary." I'll let that stand
10 as our panel statement.

11 CHAIR ISMAN: Thank you.

12 At Mike 4.

13 MR. CONRAD: Yes. If I could comment
14 on that briefly.

15 The idea is to make it very restrictive
16 because these are life safety cables. They're
17 designed to operate in a fire. And if you put
18 less copper in this circuit, you're jeopardizing
19 the whole circuit. And for an example, if you
20 look in the 2002 handbook, you will see an
21 example there of 100-horsepower pump or motor, and
22 they suggest that you size it from that Table
23 310.16, 75 degrees C. That would require a two-
24 aught conductor. If you used other than that,
25 you could--and, for instance, 310.17 you could

1 actually use a conductor of a No. 3, but yet the
2 overcurrent device which would be mandated in 695
3 for lock rotor would require a one-aught
4 conductor. So now you don't even have enough
5 copper to equal the grounding. Thank you.

6 CHAIR ISMAN: Any additional discussion
7 on Proposal 13-199?

8 Seeing none, we'll move to a vote.

9 I'm sorry, I'm trying to move a little
10 faster. At Mike 1.

11 MR. ODE: Mark Ode, Underwriters
12 Laboratories.

13 If you go back to 110-14(C)(1), if I
14 have equipment that's listed for or basically can
15 utilize termination at 60 degrees C, and I have a
16 90 degree C conductor insulation, which is what MI
17 cable is, you go back to 310.17, it's 90 degree C
18 column. But if I have equipment that's listed
19 for use at 100 amperes or less, and it's not
20 marked or marked at 60 degrees C, I can't use the
21 75 degrees C ampacity for those terminations, and
22 I'm not sure that the submitter looked at that
23 110.14) issue.

24 CHAIR ISMAN: Thank you.

25 Microphone No. 4.

1 MR. CONRAD: No other.

2 CHAIR ISMAN: You're not to address
3 this issue? Seeing no further discussion on
4 Proposal 13-99, we'll move to a vote. Okay. We
5 will move to a vote. All those in favor of
6 accepting Proposal 13-99, please raise your hand.
7 All those opposed. Thank you. That motion
8 fails. Mr. Wechsler at Mike 5.

9 MR. WECHSLER: Thank you, Mr. Chairman.
10 14-33 on page .391, comment, I'd like to propose
11 that we accept the panel action except with the
12 comments of the writer, myself, on page .392.

13 CHAIR ISMAN: Just a moment. Let me
14 get this. We're looking at Comment 14-33?

15 MR. WECHSLER: Correct.

16 CHAIR ISMAN: On page .391?

17 MR. WECHSLER: Correct.

18 CHAIR ISMAN: I'm sorry, we're getting
19 a little slower here as the evening drags.

20 MR. WECHSLER: That's perfectly
21 acceptable.

22 CHAIR ISMAN: I'm sorry, could you--
23 since you're not the author of Comment 14-33,
24 could you clarify what it is you'd like to do?

25 MR. WECHSLER: I am the writer

1 representing American Chemistry Council, the
2 principal on Panel 16. Therefore, I am the
3 author. Panel 14, sorry.

4 CHAIR ISMAN: No. We don't have you as
5 an organizational delegate on our list of
6 organizational delegates at the meeting. Do you
7 have authorization, possibly, from the submitter
8 of the comment?

9 MR. WECHSLER: I'm the writer. I
10 didn't know that the primary principal
11 representative to the association that you
12 represent needs authorization to speak on behalf
13 of the proposal at the organization you represents
14 to speak on. Since when?

15 CHAIR ISMAN: Well, the regulations
16 state who can speak to a proposal or a comment,
17 and it's the submitter of the proposal or the
18 comment, unless the organization is an
19 organizational member of the NFPA.

20 MR. WECHSLER: Well, if you want to
21 choose to take that ruling, I will accept that
22 and send it back to the American Chemistry
23 Council. I'm not going to debate it for an hour.
24 But that's different than the rules have been in
25 the past. We can change if you want. If that's

1 the ruling, fine, we'll move on.

2 CHAIR ISMAN: I'm sorry, that's how--
3 we're going to have to move on.

4 We'll move to Microphone 4. DR.

5 HIRSCHLER: Thank you, Mr. Chairman. Marcelo
6 Hirschler, GBH International, speaking for the
7 Fire Retardant Chemical Association, now the
8 American Fire Safety Council, and the Plenum Cable
9 Association.

10 I move to reject Comment 16-11 on page
11 .70-723, Comment 16-11 on page .70-723.

12 CHAIR ISMAN: We have a motion to
13 reject Comment 16-11; do we have a second? I did
14 not hear a second to the motion. I'm sorry, we
15 now have people waving their hands. Okay. If you
16 could speak out with the second, I'd appreciate
17 it.

18 So we have a motion and a second,
19 please proceed, Dr. Hirschler.

20 DR. HIRSCHLER: Thank you, Mr.
21 Chairman.

22 I think this is a direct consequence of
23 the vote we took before in all the actions on air
24 ducts. What this comment does is include the
25 definition of "air duct." There is no use of the

1 word "air duct" anymore in Article 770, 800, 820
2 or 830. So there's no point in having the
3 definition of air duct in those articles. That's
4 why I urge the assembly to reject this comment.
5 Thank you.

6 CHAIR ISMAN: Thank you.

7 Mr. Carpenter.

8 MR. CARPENTER: No comment.

9 CHAIR ISMAN: Thank you.

10 Microphone 3.

11 MR. OHDE: Thank you, Mr. Chairman. My
12 name is Harold Ohde, principal member of the Panel
13 16 representing the International Brotherhood of
14 Electrical Workers.

15 I agree with this. I'd like to see
16 this comment rejected, and I'm in support of it.
17 Thank you.

18 CHAIR ISMAN: Thank you.

19 Microphone 6? No. Seeing no further
20 discussion, we'll move into a vote to reject
21 Comment 16-11. All those in favor of that
22 comment--of the rejection of that comment, please
23 raise your hand. Thank you. And those opposed.
24 That motion passes.

25 Now Microphone 1.

1 MR. CROUSHORE: Thank you, Mr.
2 Chairman. My name is Tim Croushore. I work for
3 Allegheny Power, representative of the Edison
4 Electric Institute. It's been a long day. I
5 move that we close the deliberations.

6 CHAIR ISMAN: There's been a motion and
7 a second to end debate on NFPA 70. This would
8 have the effect of the body not being able to
9 discuss any more amendments to NFPA 70. The
10 motion is non-debatable, so we'll move directly to
11 a vote. All those in favor of ending debate on
12 NFPA 70, please raise your hands. And all those
13 opposed to ending debate, please raise your hands.
14 The motion overwhelmingly passes. We now have
15 ended debate on NFPA 70.

16 So the motion now before the body is to
17 adopt NFPA 70 of the National Electrical Code as
18 it has been amended by floor action. All those
19 in favor of adoption of this motion, please
20 signify by raising your hand. Thank you. And
21 those opposed. Thank you. That motion passes.

22 Thank you, Mr. Carpenter.

23 MR. CARPENTER: Thank you.

24 CHAIR ISMAN: This officially concludes
25 the Technical Committee Report session of the 2004

1 May meeting. We want to thank you for your
2 participation, your interest and your support, and
3 I now declare this meeting officially closed.

4 (Proceedings concluded at 8:20 p.m.)

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