

Preprint Proposals for the 2012 Edition of the National Electrical Safety Code®

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Preprint Proposals for the 2012 Edition of the National Electrical Safety Code

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Foreword

This publication has been prepared to provide all interested persons an opportunity to study and comment on the Proposed Revisions to be incorporated into the 2012 Edition of the National Electrical Safety Code (NESC®).

This Preprint provides the full text of each proposal to revise the 2007 Edition of the NESC together with the recommendation of the subcommittee that has cognizance of the rule addressed by the change proposal (CP).

The deadline for receipt of comments on the Proposal Revision contained herein is 1 May 2010. All comments shall be submitted through the Web site shown below. Only comments that are submitted electronically through the Web site will be accepted.

<http://standards.ieee.org/nesc/rp/welcome.html>

Comments for each separate topic are to be uploaded separately using the template at the following URL:

<http://standards.ieee.org/nesc/rp/Comment.doc>.

In those cases where a single CP or a group of related CPs affects rules within the scopes of two or more subcommittees, the recommendation of all subcommittees affected are included. Where the recommendation of two or more subcommittees are not compatible with each other, a recommendation by Subcommittee 1, which is responsible for coordination, is also included.

Please note that the subcommittee recommendations herein are subject to further review and revision by the cognizant subcommittee following study and evaluation of all comments received. The subcommittee final recommendation will be prepared for a January 2011 letter ballot of the National Electrical Safety Code Committee. It is anticipated that the approved text will be submitted for American National Standards Institute approval in May 2011, with publication of the NESC 2012 Edition on 1 August 2011.

Procedure for Revising the National Electrical Safety Code

1. Preparation of Proposals for Amendment

NOTE: The procedures for the collection of change proposals are subject to change as the revision of the 2012 Edition of the NESC approaches. Logon to the NESC Zone at <http://standards.ieee.org/nesc/> for updates.

1.1 A proposal may be prepared by any

- (a) Substantially interested person
- (b) Interested organization
- (c) NESC Subcommittee
- (d) Member of the NESC Committee or its subcommittees

1.2 Change proposals shall be submitted to Secretary of the National Electrical Safety Code Committee via the following URL: <http://standards.ieee.org/nesc/>, using the change proposal form on the Web site.

1.3 Each separate topic shall begin on a separate form and shall only address one rule, unless a change in a rule directly affects another rule. If a proposal references documents not readily available to all subcommittee members, sufficient copies of the referenced documents to supply the subcommittee must be furnished.

1.4 The proposal shall consist of

- (a) A statement, in NESC rule form, of the exact change, rewording, or new material proposed
 - (b) Words to be deleted shall be indicated via strike-throughs, and words to be added shall be underlined.
 - (c) The name of the submitter (organization or individual as applicable)
 - (d) Supporting comments, giving the reasons why the NESC should be revised
- (NOTE: A change proposal will not be accepted if these steps are not followed.)

2. The NESC Secretary will

- (a) Acknowledge receipt of proposals for revision
- (b) Distribute to each member of the appropriate NESC Subcommittee all of the proposals received, arranged in a coordinated sequence

3. Subcommittee recommendation

The NESC Subcommittee responsible will consider each proposal and take one or more of the following steps:

- (a) Endorse the proposal as received.
- (b) Prepare a proposed revision or addition for the NESC (this may be a coordination of several comments, or a committee consensus on a modification of a proposal).
- (c) Refer the proposal to a technical working group for detailed consideration.
- (d) Request coordination with other NESC Subcommittees.
- (e) Recommend rejection of the proposal, for stated reasons.

For each item, the responsible subcommittee shall prepare a voting statement, accompanied by all members' statements concerning their votes (cogent reasons are required for negative votes). Steps (c) and (d) are intended to result, eventually, in a proposal of category (b).

Action under steps (c) or (d) shall be completed and reported to the subcommittee before the end of the public review period if the item is to be included in the upcoming revision.

4. Preprint of proposals

The NESC Secretary shall organize and publish a Preprint of the proposed revisions including:

- (a) The original proposal as received from the submitter.
- (b) The recommendation of the subcommittee with respect to the proposal (including a voting statement and subcommittee members' statements).
- (c) Copies of submittal form for comments.

The Preprint shall be distributed to all members of NESC Subcommittees and representatives of organizations comprising the NESC Committee. Copies shall be available for sale to other interested parties. Notice of availability of the Preprint shall be submitted to ANSI for publication in *ANSI Standards Action*. The Preprint shall carry information on how to submit comments on the proposals and the final date for such submissions.

5. Final processing of proposed revisions and comments

5.1 Following the public review period, the Secretary shall organize and distribute for subcommittee consideration all comments received electronically via the following URL:

<http://standards.ieee.org/nesc/rp/welcome.html>.

5.2 The Preprint and the comments received shall be reconsidered by the subcommittees. No new change proposals may be considered.

- (a) The subcommittee may recommend adoption or rejection of the proposal by majority vote.
- (b) When extended technical consideration or resolution of differing or conflicting points of view is necessary, the subcommittee shall refer the problem to a working group of the subcommittee for proposed resolution. If expeditious resolution is not possible, the subject shall be held on the docket.

Each working group shall provide, to its parent subcommittee, recommendations on matters considered as a result of subcommittee referrals under items 3(c) and 5.2(b).

Each subcommittee shall prepare a report showing its proposed revisions and all items held on the docket together with a plan for their disposition.

5.3 The Secretary shall provide commenters with copies of actions taken on the rules affected by their comments, and shall make all such reports available for examination upon request.

6. Final approval

6.1 Based upon the subcommittee reports, the Secretary shall prepare a draft of the revision of the NESC and distribute copies to

- (a) The NESC Committee for approval by a six-week letter ballot
- (b) The American National Standards Institute Board of Standards Review for concurrent 60-day public review

6.2 Comments received in response to the letter ballot and public review shall be referred to the Executive Subcommittee for resolution or referral to the appropriate subcommittee. Those items on which consensus cannot be reached shall be referred to the appropriate subcommittee for consideration during the next revision cycle. Unless a consensus for revision is established, the requirements of the current edition shall carry over to the proposed edition.

Committee Membership

Michael J. Hyland, Chair

James R. Tomaseski, Vice Chair

O. C. Amrhyn, Past Chair

William A. Ash, Secretary

Organization represented	Voting position	Name	Employed by
Chair	(Principal)	Michael J. Hyland	American Public Power Association
Past Chair	(Principal)	O. C. Amrhyn	OPEC
AEIC	(Principal)	Swapon Dey	NSTAR Electric & Gas Corp.
	(Alternate)	Billy Raley	Progress Energy
APPA	(Principal)	Nathan Mitchell	American Public Power Association
APTA	(Principal)	George S. Pristach	Parsons Brinckerhoff
ATIS	(Principal)	Lawrence M. Slavin	Outside Plant Consulting Services, Inc.
BPA	(Principal)	Maggie Emery	Bonneville Power Administration
EEI	(Principal)	Ewell T. Robeson	Progress Energy
	(Alternate)	Edward Harrel	Oncor Electric Delivery
EIA	(Principal)	Percy E. Pool	Verizon Network Services
	(Alternate)	Marie Shaw	Verizon Network Services
IBEW	(Principal)	James R. Tomaseski	IBEW
IEC	(Principal)	James C. Tuggle	Malpasco Group Inc.
	(Alternate)	Robert W. Baird	Independent Electrical Contractors
	(Alternate)	John Masarick	Independent Electrical Contractors
IEEE	(Principal)	Frank A. Denbrock	D&A Consulting Engineers
	(Alternate)	Vernon R. Lawson	Allgeier, Martin & Associates
Intl Munic Sign Assn	(Principal)	Warren S. Farrell	International Municipal Signal Association
NARUC	(Principal)	Paul Emerson	NY State Dept. of Public Service
NCTA	(Principal)	Rex Bullinger	National Cable Television Association
	(Alternate)	Christopher Austin	Time Warner Cable, NYC-Liberty Division
NECA	(Principal)	O. L. Davis	Manzano-Western Incorporated
NEMA	(Principal)	Vincent Baclawski	National Electrical Manufacturers Assoc.
	(Alternate)	Scott Choinski	National Electrical Manufacturers Assoc.
NRECA	(Principal)	Robert D. Saint	National Rural Electric Cooperative Assoc.
	(Alternate)	Michael C. Pehosh	National Rural Electric Cooperative Assoc.
NSC	(Principal)	Kenneth Schriener	Western Area Power Administration
NSPE	(Principal)	Robert S. Fuller	Texas-New Mexico Power Co.
RUS	(Principal)	Georg A. Shultz	Rural Utilities Service
SCTE	(Principal)	Timothy Cooke	Times Fiber Communications, Inc.
TVA	(Principal)	Clayton L. Clem	TVA Power System Operations
	(Alternate)	Stephen Cantrell	TVA Power System Operations
WAPA	(Principal)	Jeffrey Wild	WAPA
Canadian Stds Assoc.	Liaison	David Singleton	Cogeco Cable Canada Inc.

Subcommittee 1
Purpose, Scope, Application, Definitions, and References
(Sections 1, 2, and 3)

Allen L. Clapp, *Chair*

Charles C. Bleakley, *Secretary*

Name	Voting position	Employed by	Organization represented
Donald Hooper	(Principal)	ES&C, Inc.	Int. SC
Michael J. Hyland	(Principal)	American Public Power Association	Main
Allen L. Clapp	(Principal)	Clapp Research Associates, P.C.	SC1
John B. Dagenhart	(Principal)	Clapp Research Associates, P.C.	SC2
Ewell T. Robeson	(Alternate)	Progress Energy	SC2
D. J. Christofersen	(Principal)	CeCe	SC3
Gary R. Engmann	(Alternate)	IEEE PES/Sub	SC3
David G. Komassa	(Principal)	We Energies	SC4
Eric K. Engdahl	(Alternate)	American Electric Power	SC4
Frank A. Denbrock	(Principal)	D&A Consulting Engineers	SC5
Charles C. Bleakley	(Principal)	Retired	SC7
John C. Spence	(Alternate)	Baltimore Gas & Electric Co.	SC7
James R. Tomaseski	(Principal)	IBEW	SC8
Samuel Stonerock	(Alternate)	Southern California Edison Co.	SC8

Subcommittee 2
Grounding Methods
(Section 9)

John B. Dagenhart, *Chair*

Ewell T. Robeson, *Secretary*

Name	Voting position	Employed by	Organization represented
Trevor Bowmer	(Principal)	Telcordia	ATIS
Michael M. Dixon	(Principal)	Ameren	EEI
Robert Molde	(Principal)	Xcel Energy	EEI
Gregory Obenchain	(Alternate)	Edison Electric Institute	EEI
Justin Rush	(Alternate)	Westar Energy	EEI
Lauren E. Gaunt	(Alternate)	Northeast Utilities	EEI
Marcus Schlegel	(Alternate)	American Electric Power	EEI
Ron Wellman	(Alternate)	American Electric Power	EEI
Timothy P. Hayden	(Alternate)	National Grid	EEI
Ewell T. Robeson	(Principal)	Progress Energy	EEI
Percy E. Pool	(Principal)	Verizon Network Services	EIA
John Korman	(Alternate)	National Grid	EIA
James R. Tomaseski	(Principal)	IBEW	IBEW

Name	Voting position	Employed by	Organization represented
Donald W. Zipse	(Principal)	Zipse Electrical Engineering Inc.	IEEE/IAS
John B. Dagenhart	(Principal)	Clapp Research Associates, P.C.	IEEE/PES/ T&D
Ned Maxwell	(Principal)	Public Utilities Commission of OH	NARUC
Roger J. Montambo	(Principal)	Galvan Industries	NEMA
Robert D. Saint	(Principal)	National Rural Electric Cooperative Assoc.	NRECA
Michael C. Pehosh	(Alternate)	National Rural Electric Cooperative Assoc.	NRECA
Harvey L. Bowles	(Principal)	Rural Utilities Service	RUS
Timothy Cooke	(Principal)	Times Fiber Communications, Inc.	SCTE
Keith Reese	(Principal)	Georgia Power Company	SEEX
John Bruce	(Alternate)	Dominion Virginia Power	SEEX

Subcommittee 3
Electric Supply Stations
(Sections 10–19)

D. J. Christofersen, Chair

Gary R. Engmann, Secretary

Name	Voting position	Employed by	Organization represented
Alton L. Comans	(Principal)	Alabama Power Company	AEIC
James Houston	(Alternate)	Alabama Power Company	AEIC
George Zaczek	(Principal)	Eugene Electric & Water Board	APPA
Brian Winoski	(Principal)	Niagara Mohawk Power Corp.	EEI
Kenneth Posey	(Alternate)	American Electric Power	EEI
Kevin Robinson	(Alternate)	American Electric Power	EEI
Timothy Jyrkas	(Alternate)	Xcel Energy	EEI
James R. Tomaseski	(Principal)	IBEW	IBEW
D. J. Christofersen	(Principal)	CeCe	IEEE/PES/ SUB
Gary R. Engmann	(Principal)	Burns and McDonnell Engineering	IEEE/PES/ SUB
W. Bruce Dietzman	(Principal)	Oncor Electric Delivery Company	IEEE/PES/ SUB
Kenneth D. White	(Alternate)	Georgia Transmission Corporation	IEEE/PES/ SUB
Keith Harrison	(Principal)	KAMO Power Cooperative	NRECA
Robert D. Saint	(Alternate)	National Rural Electric Cooperative Assoc.	NRECA
Mark A. Konz	(Principal)	Gulf Power Company	SEEX
Christopher A. Carson	(Alternate)	Georgia Power Company	SEEX

Subcommittee 4
Overhead Lines—Clearances
(Sections 20, 21, 22, and 23)

David G. Komassa, Chair

Eric K. Engdahl, Secretary

Name	Voting position	Employed by	Organization represented
Charles C. Bleakley	(Principal)	Retired	AEIC
Keith Reese	(Alternate)	Georgia Power Company	AEIC
Jan Howard	(Principal)	Owensboro Municipal Utilities	APPA
Lawrence M. Slavin	(Principal)	Outside Plant Consulting Services, Inc.	ATIS
Trevor Bowmer	(Principal)	Telcordia	ATIS
Dennis Henry	(Alternate)	Telcordia	ATIS
Maggie Emery	(Principal)	Bonneville Power Administration	BPA
Allen L. Clapp	(Principal)	Clapp Research Associates, P.C.	Consultant
Donald E. Hooper	(Principal)	ES&C, Inc.	Consultant
O. C. Amrhyn	(Principal)	OPEC	Consultant
Rudolph J. Bednarz	(Principal)	JayCo Engineering, Inc.	Consultant
David G. Komassa	(Principal)	We Energies	EEI
Eric K. Engdahl	(Principal)	American Electric Power	EEI
Kevin Drzewiecki	(Principal)	National Grid	EEI
Mickey B. Gunter	(Principal)	Engineering Consultant	EEI
Thomas R. Crowell	(Principal)	OH Distribution Design Engineer AIP Public Service Co. of Oklahoma	EEI
Tracy Dencker	(Alternate)	Ameren	EEI
Barrett Thomas	(Alternate)	American Electric Power	EEI
Frank Tucker	(Alternate)	American Electric Power	EEI
Alan Kuipers	(Alternate)	Consumer Energy	EEI
Chris Ann Shellberg	(Alternate)	Consumer Energy	EEI
Gregory Obenchain	(Alternate)	Edison Electric Institute	EEI
Jeffrey Steiner	(Alternate)	National Grid	EEI
Jeffery Hall	(Alternate)	Florida Power and Light	EEI
Alan T. Young	(Principal)	Verizon Network Services	EIA
Mark Berlinger	(Alternate)	Verizon Network Services	EIA
Joseph Renowden			Emeritus
James R. Tomaseski	(Principal)	IBEW	IBEW
Marc Candels	(Principal)	Candels Consulting	IEC
Robert G. Oswald	(Principal)	Power Engineers, Inc.	IEE/PES/T&D
Mathew C. Schwarz	(Principal)	HDR Engineering, Inc.	IEEE/IAS
Darren Gill	(Principal)	Pennsylvania Public Utility Commission	NARUC
Christopher Austin	(Principal)	Time Warner Cable	NCTA
Rex Bullinger	(Alternate)	National Cable Television Association	NCTA

Name	Voting position	Employed by	Organization represented
Steve Mace	(Alternate)	National Cable & Telecommunication Assoc.	NCTA
Ernest H. Neubauer	(Principal)	Southern Rivers Energy	NRECA
Michael C. Pehosh	(Alternate)	National Rural Electric Cooperative Assoc.	NRECA
Charles Crawford	(Principal)	Oncor Electric Delivery	NSPE
David J. Marne	(Principal)	Marne and Associates, Inc.	NSPE
Donald Junta	(Principal)	Rural Utilities Service	RUS
Joseph J. White	(Principal)	KCI Technologies	SEEX
Donnie Trivitt	(Alternate)	OG&E Electric Services	SEEX
Branch Davis	(Alternate)	Entergy Corporation	SEEX

Subcommittee 5
Overhead Lines—Strength and Loading
(Sections 24, 25, and 27)

Frank A. Denbrock, *Chair*

Allen L. Clapp, *Secretary*

Name	Voting position	Employed by	Organization represented
John Busel	(Principal)	ACMA	ACMA
Brian Lacoursiere	(Alternate)	RS Technologies	ACMA
Dustin Troutman	(Alternate)	Creative Pultrusions Inc.	ACMA
Helen Chen	(Principal)	American Iron and Steel Institute	AISI
Richard Aichinger	(Alternate)	Valmont-Newmark	AISI
Christopher Jones	(Principal)	Springfield City Utilities	APPA
Joseph Rempe	(Principal)	Tacoma Power	APPA
Lawrence M. Slavin	(Principal)	Outside Plant Consulting Services, Inc.	ATIS
Nelson G. Bingel	(Principal)	Osmoste Utilities Services, Inc.	AWPA
Leon Kempner	(Principal)	Bonneville Power Administration	BPA
Allen L. Clapp	(Principal)	Clapp Research Associates, P.C.	Consultant
Bruce Freimark	(Principal)	American Electric Power	EI
C. Jerry Wong	(Principal)	Florida Power & Light	EI
Edward Harrel	(Principal)	Western Area Power Administration	EI
Jeffrey Erdle	(Principal)	Duke Energy	EI
Richard J. Stanford	(Principal)	National Grid	EI
Robert O. Kluge	(Principal)	American Transmission Company	EI
Ronald Cotant	(Principal)	American Electric Power	EI
John-Chung Ng	(Alternate)	American Electric Power	EI
David West	(Alternate)	Duke Power Company	EI
G. Paul Anundson	(Alternate)	National Grid	EI
Bryan L. Williams	(Alternate)	Oncor	EI

Name	Voting position	Employed by	Organization represented
Mark Berlinger	(Principal)	Verizon Network Services	EIA
Alan T. Young	(Alternate)	Verizon Network Services	EIA
Frank A. Denbrock	(Principal)	D&A Consulting Engineers	IEE/PES/T&D
Andrew Schwalm	(Principal)	Victor Insulators, Inc.	IEEE
Donald Soderberg, Jr.	(Principal)	Consumers Energy	IEEE
Robert C. Peters	(Principal)	RCP Engineering	IEEE
Richard W. Hensel	(Alternate)	CMS Energy	IEEE
Walter D. Jones	(Principal)	Stanley Consultants, Inc.	IEEE/IAS
Grant Glaus	(Principal)	Marne and Associates, Inc.	Marne and Assoc.
Jacob Joplin	(Principal)	Carteret-Craven Electric Cooperative	NCEMC
Rex Bullinger	(Principal)	National Cable Television Association	NCTA
Steve Mace	(Alternate)	National Cable & Telecommunication Assoc.	NCTA
Christopher Austin	(Alternate)	Time Warner Cable, NYC-Liberty Division	NCTA
Jim Byrne	(Principal)	Poudre Valley Rural Electric Association, Inc.	NRECA
Michael C. Pehosh	(Alternate)	National Rural Electric Cooperative Assoc.	NRECA
Robert S. Fuller	(Principal)	Texas-New Mexico Power Co.	NSPE
Otto J. Lynch	(Principal)	Power Line Systems, Inc.	Power Line Systems
Thomas Haire	(Principal)	Rutherford EMC	REMC
Donald G. Heald	(Principal)	RUS-U.S. Dept. of Agriculture	RUS
Robert Lash	(Alternate)	Rural Utilities Services	RUS
Timothy Cooke	(Principal)	Times Fiber Communications, Inc.	SCTE
Ron Corzine	(Principal)	Georgia Power	SEEX
Wade Shultz	(Principal)	Alabama Power Company	SEEX
Frank Agnew	(Alternate)	Alabama Power Company	SEEX
Russell Guerry	(Alternate)	Edgecombe-Martin County EMC	SEEX
Clayton L. Clem	(Principal)	TVA Power System Operations	TVA
Douglas Hanson	(Principal)	Western Area Power Administration	WAPA
Terry Burley	(Alternate)	Western Area Power Administration	WAPA

Subcommittee 7 Underground Lines (Sections 30–39)

Charles C. Bleakley, *Chair*

John C. Spence, *Secretary*

Name	Voting position	Employed by	Organization represented
Michael Dyer	(Principal)	Salt River Project	APPA
George S. Pristach	(Principal)	Parsons Brinckerhoff	APTA
Lawrence M. Slavin	(Principal)	Outside Plant Consulting Services, Inc.	ATIS
Trevor Bowmer	(Principal)	Telcordia	ATIS
Dennis Henry	(Alternate)	Telcordia	ATIS
James D. Mars	(Principal)	Genesis Engineering, Inc.	Consultant
O. C. Amrhyn	(Principal)	OPEC	Consultant
Dennis B. Miller	(Principal)	Exelon Energy Delivery	EEI
John C. Spence	(Principal)	Baltimore Gas & Electric Co.	EEI
Lauren E. Gaunt	(Principal)	Northeast Utilities	EEI
Donald Guinn	(Alternate)	Progress Energy	EEI
Gregory Obenchain	(Alternate)	Edison Electric Institute	EEI
Jonathan Gonyrnor	(Alternate)	National Grid	EEI
Katie Croteau	(Alternate)	National Grid	EEI
Raymond Pregler	(Alternate)	American Electric Power	EEI
John Korman	(Principal)	Verizon Network Services	EIA
Percy E. Pool	(Alternate)	Verizon Network Services	EIA
James R. Tomaseski	(Principal)	IBEW	IBEW
James Cowan	(Principal)	Wakker Engineering	IEC
Ewell T. Robeson	(Principal)	Progress Energy	IEEE
Richard S. Vencus	(Principal)	Northeast Utilities	IEEE
Christopher Austin	(Principal)	Time Warner Cable, NYC-Liberty	NCTA
Rex Bulinger	(Alternate)	National Cable Television Association	NCTA
Steve Mace	(Alternate)	National Cable & Telecommunication	NCTA
Monte Szendre	(Principal)	Wilson Construction Company Inc.	NECA
Michael C. Pehosh	(Principal)	National Rural Electric Cooperative Assoc.	NRECA
Robert D. Saint	(Alternate)	National Rural Electric Cooperative Assoc.	NRECA
Trung Hiu	(Principal)	Rural Development-Electric Program	RUS
Timothy Cooke	(Principal)	Times Fiber Communications, Inc.	SCTE
Charles C. Bleakley	(Principal)	Retired	SEEX
Mickey B. Gunter	(Principal)	Engineering Consultant	SEEX
Michael Kosinski	(Alternate)	Appalachian Power Company	SEEX

Subcommittee 8
Work Rules
(Sections 40–44)

James R. Tomaseski, Chair

Samuel Stonerock, Secretary

Name	Voting position	Employed by	Organization represented
Greg Herbinger	(Principal)	Alabama Power Company	AEIC
William C. Weintritt	(Alternate)	Gulf Power Company	AEIC
Brent McKinney	(Principal)	City Utilities of Springfield	APPA
Kevin Dody	(Alternate)	City Utilities of Springfield	APPA
Wayne Blackley	(Principal)	Associated Training Corporation	ATC
Dennis Henry	(Alternate)	Telcordia	ATIS
Trevor Bowmer	(Alternate)	Telcordia	ATIS
Charles W. Grose	(Principal)	Consultant	Consultant
J. Frederick Doering	(Principal)	J. F. Doering Associates	Consultant
Tommy Russell	(Principal)	American Electric Power	EEI
Michael Granata	(Principal)	AEP	EEI
Samuel Stonerock	(Principal)	Southern California Edison Co.	EEI
Alan Kuipers	(Alternate)	Consumer Energy	EEI
Thuy Nguyen	(Alternate)	American Electric Power	EEI
Patrick Geoffrey	(Alternate)	PG&E	EEI
Larry Nash	(Alternate)	Dominion Virginia Power	EEI
George Kerstetter	(Principal)	Verizon	EIA
John Korman	(Alternate)	Verizon	EIA
James R. Tomaseski	(Principal)	IBEW	IBEW
Charles Woodings	(Principal)	Anderson & Wood Constructions Co. Inc.	IEC
James C. Tuggle	(Alternate)	Malpasco Group Inc.	IEC
Robert W. Baird	(Alternate)	IEC	IEC
Lawrence Schweitzer	(Principal)	InfraSource Power	IEEE/PES/ T&D
Thomas Verdecchio	(Principal)	PSE&G	IEEE/PES/ T&D
Stephen Poholski	(Principal)	Newkirk Electric	NECA
Kenneth Brubaker	(Principal)	National Rural Electric Cooperative Assoc.	NRECA
Mark Zavislan	(Alternate)	Ohio Rural Electric Cooperatives, Inc.	NRECA
Albert Smoak	(Principal)	Southwestern Electric Power Company	NSPE
F. M. Brooks	(Principal)	Brooks & Jackson, Inc.	NSPE
Steven Theis	(Principal)	MYR Group, Inc.	NUCA
Brian Erga	(Principal)	ESCI Inc.	NWPPA
David M. Wallis	(Principal)	OSHA Office of Engineering Safety	OSHA
Charles Shaw	(Principal)	Alabama Power Company	SEEX

Name	Voting position	Employed by	Organization represented
Bruce Gurley	(Principal)	Duke Energy	SEEX
Edward Hunt	(Principal)	WAPA	WAPA
Jeffrey Wild	(Alternate)	WAPA	WAPA

Executive Subcommittee

Michael J. Hyland, *Chair*

James R. Tomaseki, *Vice Chair*

Name	Employed by	Organization represented
Ewell T. Robeson	Outside Plant Consulting Services, Inc.	EEI
Frank A. Denbrock	D&A Consulting Engineers	IEEE
James R. Tomaseski	IBEW	IBEW
Leon Kempner	Progress Energy	BPA
Lawrence M. Slavin	Outside Plant Consulting Services, Inc.	ATIS
Michael J. Hyland	American Public Power Assoc.	APPA
O. C. Amrhyn	OPEC	Consultant

Interpretations Subcommittee

Donald E. Hooper, *Chair*

Name	Employed by	Part	Section
O. C. Amrhym	OPEC	A	
Rudolph J. Bednarz	JayCo Engineering, Inc.	A	
Charles C. Bleakley	Retired	A	
D. J. Christofersen	CeCe	1	
Allen L. Clapp	Clapp Research Associates, P.C.	A	
Alton L. Comans	Alabama Power Company	1	9
John B. Dagenhart	Clapp Research Associates, P.C.	2	9
O. L. Davis	Manzano-Western Incorporated	3	
Frank A. Denbrock	D&A Consulting Engineers	A	
Eric K. Engdahl	American Electric Power	A	
Gary R. Engmann	Burns and McDonnell Engineering	1	
Bruce Freimark	American Electric Power	2	
Charles W. Grose	Consultant	4	
Mickey B. Gunter	Retired	A	
Donald E. Hooper	ES&C, Inc.	A	
Herman N. Johnson, Jr.	Shaw Energy Delivery Services, Inc.	A	
Robert G. Oswald	Power Engineers, Inc.	2	
Percy E. Pool	Verizon Network Services	3	9

Name	Employed by	Part	Section
Ewell T. Robeson	Progress Energy	3	9
Wayne B. Roelle	Consultant	2	
Lanny L. Smith	Consultant	A	
James R. Tomaseski	IBEW	A	

A = All areas, P1 = Part 1, P2 = Part 2, P3 = Part 3, P4 = Part 4, S9 = Section 9 Grounding
When a member has S9 and a Part number, they cover grounding and grounding for that part.

AAR—Association of American Railroads	NCEMC—North Carolina Electric Membership Cooperative
ACMA—American Composites Manufacturers Association	NCTA—National Cable Television Association
AEIC—Association of Edison Illuminating Companies	NECA—National Electrical Contractors Association
AISI—American Iron and Steel Institute	NEMA—National Electrical Manufacturers Association
APPA—American Public Power Association	NRECA—National Rural Electric Cooperative Association
APTA—American Public Transit Association	NSC—National Safety Council
ATIS—Alliance for Telephone Industry Solutions	NSPE—National Society of Professional Engineers
AWPA—American Wood Preserves Association	OHSA—Occupational Safety and Health Administration
BPA—Bonneville Power Admin., U.S. Dept. of Energy	REMC—Rutherford Electric Membership Corporation
EEI—Edison Electric Institute	RUS—Rural Utilities Services, U.S. Dept. of Agriculture
EIA—Electronic Industries Association	SCTE—Society of Telecommunication Engineers
IBEW—International Brotherhood of Electrical Workers	SEEX—Southeastern Electric Exchange
IEC—Independent Electrical Contractors	TVA—Tennessee Valley Authority
IEEE—Institute of Electrical and Electronics Engineers, Inc.	WAPA—Western Area Power Administration, U.S. Dept. of Energy
IMSA—International Municipal Signal Association	
NARUC—National Association of Regulatory Utility Commissioners	

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