



Standardization Policies and Procedures of the National Electrical Manufacturers Association

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CONTENTS

1	Definition of a NEMA Standard	8
2	NEMA Technical Publications.....	8
3	Management, Authority, and Responsibility for NEMA Standardization Activities	8
3.1	Standards and Conformity Assessment Policy Committee (SCAPC)	8
3.1.1	SCAPC Mission.....	8
3.1.2	SCAPC Membership	8
3.1.3	SCAPC Meetings, Quorum, and Voting	9
3.1.4	SCAPC Scope	9
3.1.5	SCAPC Executive Committee.....	10
3.1.6	SCAPC Nominations Committee	10
3.1.7	SCAPC Subgroups	10
3.2	Codes and Standards Committee (C&S).....	10
3.2.1	C&S Mission	10
3.2.2	C&S Membership	11
3.2.3	C&S Meetings, Quorum and Voting.....	11
3.2.4	Interim Power of C&S Committee Officers	11
3.2.5	C&S Subgroups.....	11
3.2.6	C&S Scope	12
3.2.7	C&S Nominations Committee	12
3.2.8	Development of Technical Publications by C&S	13
3.3	International and Regional Standardization Committee (IRSC)	13
3.3.1	IRSC Mission	13
3.3.2	IRSC Membership.....	13
3.3.3	IRSC Meetings, Quorum and Voting	13
3.3.4	IRSC Subgroups	14
3.3.5	IRSC Scope.....	14
3.3.6	IRSC Nominations Committee.....	14
3.3.7	Development of Technical Publications by IRSC.....	15
3.4	Maintenance Committee on the Standardization Policies and Procedures (MC on the SP&P)...	15
3.4.1	MC on the SP&P Mission.....	15
3.4.2	MC on the SP&P Membership	15

3.4.3	MC on the SP&P Meetings, Quorum and Voting	15
3.4.4	MC on the SP&P Subgroups	16
3.4.5	MC on the SP&P Scope	16
3.5	Joint Sections Committees of Product Groups	16
4	Categories of NEMA Technical Publications	16
4.1	NEMA Standard	16
4.1.1	NEMA/ANSI Standard	16
4.2	Engineering Bulletins	16
4.3	Guides	16
	NEMA Guides are documents meant to provide informative guidance to the industry.....	17
4.4	Recommended Practices	17
4.5	Whitepapers.....	17
4.6	Position Papers.....	17
4.7	Other Technical Documentation	17
5	Development of NEMA Technical Publications	17
5.1	Scope of NEMA Technical Publications	17
5.2	Technical Committee	21
5.2.1	Composition and Officers	21
5.2.2	Designation of Representatives	21
5.2.3	Scope.....	21
5.2.4	Power to Act.....	21
5.2.5	Limit on Power to Act.....	21
5.3	Notice of Intent to Develop a Technical Publication	21
5.3.1	Initiation of Project	21
5.3.2	Letter Ballot Procedure	22
5.4	Required Vote for Product Group, Council, or Committee Approval	23
5.4.1	If Required Vote a Fraction	23
5.4.2	Technical Publication Proposal	23
5.5	Review of Approval and Opportunity for Reconsideration.....	23
5.5.1	Review of Approval	23
5.6	Revisions, Withdrawals, and Reaffirmations	24
5.7	Sponsorship of Standard by SCAPC in Absence of Requisite Plurality	24
5.8	Public Input	24
5.8.1	Public Input Web Page	24
5.8.2	Public Input Outreach	24

5.8.3	Public Input During Ballot Period.....	24
5.8.4	Requirements for User Input Statements.....	24
5.8.5	Contents of User Input Statement Accompanying a Standard Submitted to C&S.....	25
5.8.6	Statement in Foreword of Technical Publication.....	25
5.9	Minutes and Record Keeping.....	26
5.9.1	Minutes.....	26
5.9.2	Record Keeping.....	26
6	Approval Procedures by C&S Committee.....	26
6.1	C&S Committee Approval Required.....	26
6.2	Criteria Applied by C&S Committee.....	26
6.3	Assent by Other Concerned Product Group(s).....	26
6.4	Reconsideration of C&S Committee Decision.....	27
6.5	Effective Date of NEMA Standards.....	27
7	Emergency Standards.....	28
7.1	Purpose.....	28
7.2	Procedure.....	28
7.3	Approval of Officers of C&S Committee and Appeal.....	28
7.4	Publication.....	28
7.5	Identification of Emergency NEMA Standards.....	28
7.6	Review of Emergency NEMA Standards.....	28
8	Contents of NEMA Technical Publications.....	28
8.1	Scope.....	28
8.2	Definitions.....	29
8.3	General.....	29
8.4	Rating.....	29
8.5	Manufacturing.....	29
8.6	Dimensions.....	29
8.7	Performance.....	29
8.8	Testing.....	29
8.9	Marking.....	29
8.10	Application.....	29
8.11	Appendices.....	29
8.12	References to Brand-Name Products.....	29
9	NEMA Standardization Policies.....	30
9.1	Illegal Use of Standards.....	30
9.2	Voluntary Adherence to Standards.....	30
9.3	Engineering, Technical, and Safety Considerations.....	30

9.4	Commercial Practices	30
9.5	Standard Practice	30
9.6	“Special” Products	30
9.7	Minimums and Maximums	30
9.8	Inclusion of Products	31
9.9	NEMA patent policy - Inclusion of Essential Patent Claims in NEMA Standards	31
9.9.1	Definitions	31
9.9.2	No Requirement to Search Patent Portfolio	32
9.9.3	Disclosures of Essential Patent Claims	32
9.9.4	Timing of Disclosure Statements	33
9.9.5	Record of Statement	34
9.9.6	Notice	34
9.9.7	Responsibility for identifying patents	34
9.9.8	Discussions of patent issues at technical committee meetings	34
9.10	Metrication	34
9.11	Accessories	35
9.12	Effective Date	35
9.13	Reviewed by Counsel	35
9.14	Copyright	35
10	Interpretations of NEMA Standards	36
11	Appeals	36
11.1	Appeals to C&S Committee	36
11.1.1	Procedures	36
11.1.2	Disqualification to Hear Appeals	36
11.2	Appeals to SCAPC	36
11.2.1	Procedure	36
11.2.2	Scope of Appeal	37
11.2.3	Disqualification to Hear Appeals	37
11.3	Final Appeal to Board of Governors	37
12	Review of NEMA Technical Publications	37
12.1	Product Group Action	37
12.1.1	Reaffirmation	37
12.1.2	Withdrawal or Extension	38
12.1.3	Stabilized Maintenance	38
13	Standardization Activities with Outside Bodies	38

13.1	General Rules on Contacts with Outside Bodies	38
13.2	Instructions to and Reports from NEMA Representatives	39
13.3	Obtaining Product Group Recommendations for Instructions to NEMA Representatives.....	39
13.4	Basis of C&S Committee Instructions to NEMA Representatives	40
13.5	IRSC Instructions to NEMA Representatives.....	40
14	Revisions of Rules, Policies, and Procedures	41
15	Appendices	41
	Appendix A, Notice and Disclaimer for NEMA Technical Publications.....	42
	Appendix B, Guide For Members of NEMA Joint Sections Committees.....	43
	Appendix C, User Input Statement.....	45
	Appendix D, Instructions to NEMA Representatives Appointed to Serve On Technical Groups Of Outside Bodies.....	47
	Appendix E, Procedures for A Hearing by The Codes and Standards Committee.....	52
	Appendix F, Sample Patent Disclosure Letter	53
	APPENDIX G APPLICATION OF NEMA APPEALS PROCEDURES TO ANSI STANDARDS.....	56
	APPENDIX H – NEMA Standards Pricing Policy.....	60

FOREWORD

The rules, policies, and procedures contained herein govern the development of technical publications by the National Electrical Manufacturers Association (NEMA), and the participation by NEMA in the formulation of standards and other technical publications by other organizations, or in the development of joint technical publications.

They do not cover promotional activities related to standards, such as NEMA efforts advocating the adoption and use of the National Electrical Code® and other nationally recognized standards.

NEMA represents electrical equipment and medical imaging manufacturers. It is NEMA's belief that technical publications play a vital part in the design, production, and distribution of products destined for both national and international commerce. Sound technical publications benefit the user, as well as the manufacturer, by improving safety, bringing about economies in product, eliminating misunderstandings between manufacturer and purchaser, and assisting the purchaser in selecting and obtaining the proper product for their particular need.

NEMA devotes much of its time, effort, and resources to voluntary standardization activities. NEMA standards are offered and recommended to become American National Standards under the procedures of the American National Standards Institute (ANSI). This decision rests with the Product Groups, Councils, or Committees concerned. It is the intent of the Association to continue its support of these activities as the best method to continue providing sound and safe electrical and medical imaging products for the use of all.

1 Definition of a NEMA Standard

A standard of the National Electrical Manufacturers Association (NEMA) is a document that includes requirements for a product, process, or procedure with reference to one or more of the following: nomenclature, composition, construction, dimensions, tolerances, safety, operating characteristics, performance, rating, testing, installation, and the service for which it is designed.

2 NEMA Technical Publications

NEMA technical publications include NEMA standards and other technical documents such as white papers, engineering bulletins, technical position papers, and the like. Each technical publication can be revised individually, and the publication maintained by issuance of revisions as they are approved. Major revisions to NEMA technical publications, for practical reasons, may require the issuance of an entire new publication. In addition, NEMA technical publications and revised standards contained therein are identified by number and date.

NEMA technical publications are subject to periodic review as described in Section 12, *Review of NEMA Technical Publications*.

Each NEMA technical publication shall contain the Notice and Disclaimer in Appendix A.

3 Management, Authority, and Responsibility for NEMA Standardization Activities

Overall management of the Association is vested in the Board of Governors. Management, authority, and responsibility for the Association's technical publication development activities lie with the Standards and Conformity Assessment Policy Committee (SCAPC) and its appointed standing committees the Codes and Standards Committee (C&S), the International and Regional Standardization Committee (IRSC), and the Maintenance Committee on the SP&P (MC on the SP&P) and are implemented by the Product Groups, Committees, and Councils. Section 3 of this document serves as the charter for SCAPC, C&S, IRSC and the MC on the SP&P.

3.1 Standards and Conformity Assessment Policy Committee (SCAPC)

3.1.1 SCAPC Mission

SCAPC is responsible for overseeing NEMA standardization and conformity assessment activities in the domestic, regional, and international fields. SCAPC is a decision-making body and has strategy and policy responsibility for all NEMA work in the development and review of technical standards, rules, codes, specifications, or other regulations, both within NEMA and in cooperation with other organizations and agencies. The committee is also responsible for policy positions on proposed and enacted legislation under which such standards or regulations might be developed or adopted. In addition, the committee is responsible for recommending and annually reviewing NEMA-wide and horizontal programs in this work area.

3.1.2 SCAPC Membership

The membership of SCAPC shall be persons who are representatives of members of the association (see By-Laws, Art. II, Sec. 7, Subsection A) and based on the following criteria: balanced representation, expertise and commitment to active participation. The committee members shall be nominated by the Nominations Committee (See Section 3.1.6) and shall be appointed by the NEMA Board of Governors to serve for one-year terms. There is no term limit for members of SCAPC.

3.1.2.1 Voting Members

SCAPC voting members should include up to five members from the Board of Governors. The number of members shall be determined by the Board of Governors. Membership is limited to one member per parent company.

SCAPC voting members should also include up to 15 regular members who are representatives from member companies. Membership is limited to one member per parent company, but regular members and the Board of Governors members may be from the same parent company.

3.1.2.2 Non-Voting Members

The Chairs of the Standing Committees (i.e., Codes and Standards Committee and the International and Regional Standardization Committee) are eligible to serve as non-voting members of SCAPC. If the Chair cannot attend a meeting, they are to delegate the responsibility to an Officer of the committee and notify the Secretary.

Liaison members who are appointed by the Product Groups to provide relevant industry input and feedback serve on the committee as non-voting members, subject to approval by the NEMA Board of Governors.

3.1.2.3 Chair

The chair of SCAPC shall be a member of the Board of Governors. The chair of SCAPC may serve in that position for no more than five consecutive years.

3.1.3 SCAPC Meetings, Quorum, and Voting

SCAPC shall hold meetings at such times and places as may be fixed by the chair, normally three times a year.

A majority of the voting members of the Committee shall constitute a quorum at all meetings.

There shall be one vote per NEMA member company. Approval of committee actions at meetings requires a quorum and approval by a majority of the voting members present. Approval of Committee actions between meetings requires approval by a majority of the voting members. Liaison members may attend meetings by giving advance notice.

3.1.4 SCAPC Scope

In addition to such other powers and duties granted or prescribed by the Board of Governors, from time to time, and subject to the direction of the Board of Governors, the scope of the committee shall be:

- a) Develop, maintain, and communicate a dynamic strategy for NEMA international, regional and national standards and conformity assessment activities in furtherance of the business objectives of its members. Such strategy shall encompass the changing global markets, increased focus on health, safety, and environmental issues and the impact of new and emerging technologies.
- b) Establish and articulate policies to influence public opinion, legislators, and regulators in support of NEMA members' positions on standards and conformity assessment. Coordinate with other NEMA committees as appropriate.
- c) Enhance NEMA influence through developing alliances with other organizations both public and private to promote these policies.
- d) Manage the NEMA standards and conformity assessment programs through prioritizing the activities of the standing committees in accordance with the developed strategies and policies.
- e) Review the core and horizontal programs annually in order to ensure they deliver value to the members and minimize overhead costs.

- f) Must not provide technical direction to Product Groups, Councils, or Committees.

3.1.5 SCAPC Executive Committee

The members of the Board of Governors on SCAPC and the Chair of SCAPC shall serve as the Executive Committee. The Chairs of its appointed standing committees shall be non-voting ex-officio members of the Executive Committee. The Executive Committee is empowered to act on behalf of SCAPC between meetings on matters requiring immediate attention and on such matters delegated to SCAPC by the Board of Governors, except financial matters. Actions undertaken between meetings are subject to confirmation at the next SCAPC meeting. A majority of the voting Executive Committee members shall constitute a quorum of any meeting of the Executive Committee, and the vote of a majority of the Executive Committee members attending a meeting shall be the action of the Executive Committee.

3.1.6 SCAPC Nominations Committee

At least four months before each Annual Meeting of the Association, the chair of SCAPC shall appoint a Nominations Committee to nominate individuals for membership on SCAPC. Recommendations for SCAPC membership may come from all sources within NEMA. The Nominations Committee shall make a recommendation to SCAPC by September 15 annually. SCAPC shall review and approve such a recommendation and send it to the Board of Governors for final approval.

The Nominations Committee shall consist of three members of SCAPC, one of whom shall be chair. The term for the Nominations Committee shall be from August 1 through July 31 annually.

In the interest of maintaining balance on SCAPC, the Nominations Committee shall consider attendance records, active participation on standing NEMA committees, the need for special areas of technical and technical policy expertise not already represented on SCAPC, and diversified representation of NEMA membership (including representation from individuals associated with larger and smaller enterprises, individuals associated with industry product groups not already represented on SCAPC, and whether an individual(s) associated with the same enterprise as a nominee already is a member of or candidate for SCAPC and similar industry expertise and/or active participation is not available from a person associated with a different enterprise) on the working group or task force expertise matrix.

3.1.7 SCAPC Subgroups

SCAPC may appoint subgroups as needed. Standing Committees or Subcommittees shall be created to address long term or permanent interest areas, and task forces to address short term issues. All subgroup work is subject to the approval of the full committee. Subgroups shall be open to participation of any representative of a NEMA member company. The majority of the work shall be undertaken using electronic means. Meetings may be called at the discretion of the chair of the subgroup.

3.2 Codes and Standards Committee (C&S)

3.2.1 C&S Mission

The Codes and Standards Committee (C&S) is responsible for supervising and correlating all work of the Association in the development of technical standards, rules, codes, specifications, or other regulations, both within the Association and in cooperation with other organizations, except as such authority is assigned to another NEMA Committee or Council. In addition, C&S promotes the direct adoption of the National Electrical Code® and supports harmonization of electrotechnical product and conformity assessment procedures on a regional basis in accordance with the expressed wishes of the affected NEMA Product Groups, Councils, and Committees. Additional information regarding C&S Operations can be found in *C&S Committee Operating Procedures*.

3.2.2 C&S Membership

The membership of C&S shall be persons who are representatives of members of the association (see By-Laws, Art. II, Sec. 7, Subsection B) and shall be based on the following criteria: balanced representation of the broadly diversified interests and products within NEMA (See Section 3.2.7), technical expertise, and commitment to active participation. Committee members are appointed to represent the technical best interests of NEMA as a whole and not of particular Product Groups or members. The committee members and officers shall be nominated by the C&S Nominating Committee and shall be appointed by the SCAPC to serve for one-year terms.

Voting membership on C&S shall be limited to a maximum of one voting member from any one parent member company. A member company may have one or more non-voting members on C&S.

The Officers of C&S shall be voting members of the committee and consist of a chair and not less than two, nor more than four, vice chairs. The chair shall not serve more than a maximum of two years in that position. The Officers shall not serve more than a maximum of six years, except the immediate past chair may be permitted to serve an additional one-year term as vice chair provided the total term of service does not exceed seven years. The vice chair with the most years of service as vice chair, who is eligible to serve as chair and excluding the past chair, shall be the Parliamentarian of the Committee. The Parliamentarian shall help to train new Officers and ensure that proper procedures are followed.

3.2.3 C&S Meetings, Quorum and Voting

The committee shall hold meetings at such times and places as may be fixed by the chair. Five voting members of the Committee shall constitute a quorum at all meetings except for approval of standards. All matters submitted to C&S, its officers, and any committee of C&S for decision or action shall require, for approval, the affirmative vote of a majority of those members voting.

3.2.4 Interim Power of C&S Officers

The officers of C&S shall hold meetings or conduct ballots at such times and places as may be fixed by the chair, and shall be empowered to act between meetings of the full committee on all matters except for approval of standards (except as otherwise specifically provided in Section 7, Emergency Standards), which requires committee action. A majority of the officers shall constitute a quorum.

The officers may meet or conduct ballots between the regular committee meetings to act upon items of urgency such as ballots or comments that have a close due date, letters to agencies or the like that need immediate attention to be effective, special instances as dictated by the committee, etc. on these issues on behalf of C&S. The recommendations of concerned Product Groups, Councils, and Committees shall be solicited. If, for some reason, any of the officers feels that there has been insufficient solicitation for Product Group, Council, or Committee recommendations, or if the issue needs to have exposure to the full committee, the item can be balloted to the committee prior to their regular meeting through conference call or by electronic means.

Once the officers of C&S have taken an action, each committee member that has enrolled for automatic notification will receive an automatic notification through the NEMA website, and the action must also be submitted to C&S at its next meeting for approval. If any such action is disapproved by C&S, the committee shall then take such action as is required to supersede the disapproved action.

3.2.5 C&S Subgroups

C&S may appoint subgroups as needed. All subgroups must have a charter approved by C&S and the NEMA President and CEO. Standing Committees or Subcommittees shall be created to address long term or permanent interest areas, and task forces to address short term issues. All subgroup work is

subject to the approval of the full committee. A voting or non-voting member of the committee shall chair all subgroups and a minimum of two additional members of the committee shall be required to participate in the subgroups. Subgroups shall be open to participation of any representative of a NEMA member company. The majority of the work shall be undertaken using electronic means. Meetings may be called at the discretion of the chair of the subgroup.

3.2.6 C&S Scope

In addition to other powers and duties granted or prescribed by the SCAPC from time to time, and subject to the supervision and direction of the SCAPC, the scope of C&S shall be:

- a) Approve NEMA standards or technical publications developed by Product Groups, Councils, and Committees in accordance with Section 6.
- b) Appoint representatives of the Association to act with outside bodies in the development of standards, rules, codes, and regulations of outside bodies; and to supervise and correlate the work of such representatives, except as such authority is assigned to another NEMA Committee or Council (see Appendix D).
- c) Authorize the appointment of, and to supervise the work of, Joint Committees of Product Groups on technical matters, and to notify the secretary of each interested Product Group when a Joint Committee has been appointed to consider any technical matter (see Appendix B).
- d) Approve or disapprove all explanatory data and information of a technical or engineering nature to be issued as Authorized Engineering Information.
- e) Address regional (U.S. and Canadian) conformity assessment issues.
- f) Administer the Field Program by defining and publicizing the program, assisting in representative training, evaluating effectiveness of the program, and developing a budget for the program.
- g) Advise and recommend to the SCAPC a formula for the allocation to the various Product Groups of the costs of all C&S projects.
- h) Approve Engineering Bulletins that come under the scope of the committee.
- i) At the discretion of the NEMA President, approve other items that explicitly contain technical content such as, Product Group, Council, or Committee requests to send letters to outside organizations, NEMA presentations, NEMA websites, marketing information, guides, white papers and other technical publications.
- j) Hear appeals of technical issues between Product Groups, Councils, and Committees or between members within a Product Group, Council, or Committee (See Section 11).
- k) Advise and recommend to SCAPC any change to the policies and procedures governing technical issues of the association.
- l) Monitor proposed electrical statutes, ordinances or regulatory actions which fulfill the mission as stated in Section 3.2.1.
- m) Approve responses to requests for interpretation of NEMA standards (See Section 10).
- n) Communicate with the IRSC on issues of mutual concern to coordinate NEMA positions and in order to mitigate overlapping scope.

3.2.7 C&S Nominations Committee

At the beginning of each year prior to the first meeting of SCAPC, the chairperson of the SCAPC shall appoint a Nominations Committee to nominate individuals for membership on C&S for the next calendar year. Recommendations may come from all sources. The Nominations Committee shall make a recommendation to C&S by August 1 annually. C&S shall review and approve such a recommendation and send it to the SCAPC by September 15 annually for final approval. The recommendations shall indicate how the Nominations Committee considered the factors outlined below. Interim appointments to C&S shall be similarly processed.

The Nominations Committee shall consist of a Chair and at least three members of C&S and/or SCAPC. Service on the Nominating Committee is for a one-year term; no person may serve on the Nominations Committee for more than three consecutive years. The chair of SCAPC shall consider rotating some members on and off the Nominations Committee each year.

In the interest of maintaining balance on C&S, the Nominations Committee shall consider attendance records, active participation on standing NEMA committees, the need for special areas of technical and technical policy expertise not already represented on C&S, and diversified representation of NEMA membership (including representation from individuals associated with larger and smaller enterprises, individuals associated with industry product groups not already represented on C&S, and whether an individual(s) associated with the same enterprise as a nominee already is a member of or candidate for C&S and similar industry expertise and/or active participation is not available from a person associated with a different enterprise) on the working group or task force expertise matrix.

3.2.8 Development of Technical Publications by C&S

C&S may develop technical publications that address issues that impact multiple NEMA Product Groups, Councils, and Committees. When C&S develops a proposal for development of a new technical publication, the proposal shall be forwarded to the SCAPC Executive Committee for approval. Technical publications developed by C&S are subject to the requirements of Section 5.

3.3 International and Regional Standardization Committee (IRSC)

3.3.1 IRSC Mission

The International and Regional Standardization Committee (IRSC) is responsible for representing, supervising, and coordinating all work of the Association in the development and implementation of International/Regional programs outside the United States and Canada that address technical standards, product and manufacturing regulations and their respective conformity assessment systems. The latter includes evaluation and promotion of specific conformance criteria through development of Association position statements on required and proposed product marking systems and market access requirements. The IRSC, in collaboration with NEMA Product Groups, Councils, and Committees and to meet NEMA member company needs, is required to propose and implement strategies and tactical programs that comport with NEMA-agreed standardization policies and strategies expressed by SCAPC, and to coordinate with the appropriate NEMA committees.

3.3.2 IRSC Membership

The membership of the IRSC shall be persons who are representatives of members of the association (see By-Laws, Art. II, Sec. 7, Subsection B) and shall be based on the following criteria: balanced representation of the broadly diversified interests and products within NEMA (see Section 3.3.6), technical expertise, and a commitment to active participation. Committee members are appointed to represent the technical best interests of NEMA as a whole and not particular Product Groups or members. The committee members and officers shall be nominated by the IRSC Nominations Committee and shall be appointed by the SCAPC to serve for one-year terms.

3.3.2.1 Leadership

The chair of the IRSC and chair of all IRSC working groups may serve in those positions for no more than three consecutive terms. The officers of the IRSC shall be a chair, a vice chair, and past chair.

3.3.3 IRSC Meetings, Quorum and Voting

The committee shall hold meetings at such times and places as may be fixed by the chair. Five members of the committee shall constitute a quorum at all meetings. Approval of committee actions at meetings requires a quorum and approval by a majority of the members present. Approval of committee actions between meetings requires approval by a majority of the members.

3.3.4 IRSC Subgroups

The International and Regional standardization committee may appoint subcommittees for long term interest areas and/or task forces to address short term issues that make up the working agenda of the IRSC committee. All subgroup work is subject to the approval of the full IRSC committee. All subgroups must have a charter approved by IRSC and the NEMA President and CEO.

A member of the IRSC will chair all subgroups and a minimum of two additional members of the IRSC shall be required to participate in the groups. Subgroups shall be open to participation of any representative of a NEMA member company. The majority of the work shall be undertaken using electronic means. Meetings may be called at the discretion of the chair of the subgroup.

3.3.5 IRSC Scope

In addition to other powers and duties granted or prescribed by the SCAPC from time to time, and subject to the supervision and direction of the SCAPC, the scope of the committee shall be:

- a. Define objectives and establish priorities to achieve timely and comprehensive positions on international and regional standards and conformity assessment issues of interest to NEMA.
- b. Monitor the international, regional, and other activities of individual NEMA Product Groups, Councils, and Committees including NEMA regional offices, together with activities of the national, regional and international organizations actively participating in markets of interest to NEMA members, and then implement strategies and actions to achieve NEMA member company needs.
- c. Appoint representatives of the Association to act with regional and international management committees of outside bodies, including the USNC; and to supervise and correlate the work of such representatives, except as such authority is assigned to another NEMA committee or council. (See Appendix D).
- d. Implement and oversee maintenance of a system to ensure a succession of qualified industry representatives to serve on committees of outside bodies, within the scope of IRSC.
- e. Maintain primary responsibility and contact in the international activities of national, regional, and international organizations.
- f. Implement all NEMA international and regional strategy activities.
- g. Support NEMA Product Group, Council, and Committee activities for participation in international and regional standards development.
- h. Direct coordination between the Operations and Government Affairs departments for regulatory issues, particularly related to standardization and conformity assessment.
- i. Develop NEMA positions for input to the USNC and IEC, and other international or regional standards bodies, activities including policy statements, strategic goals, advisory committee actions, guides for participants, etc.
- j. Identify global certification issues, develop action plan and coordinate Product Groups, Councils, and Committees responses.
- k. Serve as a resource for the NEMA Regional Offices on subjects concerning standards and conformity assessment issues.
- l. Communicate with C&S on issues of mutual concern to coordinate NEMA positions and in order to mitigate overlapping scope.

3.3.6 IRSC Nominations Committee

At least four months before each annual meeting of the Association the chair of the Standards and Conformity Assessment Policy Committee shall appoint a Nominations Committee to nominate individuals for membership in the International and Regional Standardization Committee. Recommendations may come from Product Groups and/or Individual Company members. The Nominations Committee shall make a recommendation to the IRSC by August 1 annually. The IRSC shall review and approve such a recommendation and send it to the SCAPC by September 15 annually for final approval.

The Nominations Committee shall consist of a chair and at least three members of the International and

regional Standardization Committee. Nominations shall be submitted to International and Regional Standards Committee for endorsement and then submitted to the SCAPC for approval.

In the interest of maintaining balance on IRSC, the Nominations Committee shall consider attendance records, active participation on standing NEMA committees, the need for special areas of technical and technical policy expertise not already represented on IRSC, and diversified representation of NEMA membership (including representation from individuals associated with larger and smaller enterprises, individuals associated with industry product groups not already represented on IRSC, and whether an individual(s) associated with the same enterprise as a nominee already is a member of or candidate for IRSC and similar industry expertise and/or active participation is not available from a person associated with a different enterprise) on the working group or task force expertise matrix.

3.3.7 Development of Technical Publications by IRSC

IRSC may develop technical publications that address international issues that impact multiple NEMA Product Groups, Councils, and Committees. When IRSC develops a proposal for development of a new technical publication, the proposal shall be forwarded to the SCAPC Executive Committee for approval. Technical publications developed by IRSC are subject to the requirements of Section 5.

3.4 Maintenance Committee on the Standardization Policies and Procedures (MC on the SP&P)

3.4.1 MC on the SP&P Mission

The *Standardization Policies and Procedures* (SP&P) includes the rules, policies, and procedures that govern the development of NEMA standards and other technical documents, as well as the participation by NEMA in the formation of standards, Codes, and other technical documents of other organizations. The SP&P can only be modified by the NEMA Board of Governors. The SCAPC MC on the SP&P is responsible for reviewing proposed changes to the SP&P submitted by NEMA members, Staff, Sections, Divisions, or Councils and developing recommendations to SCAPC regarding whether or not to revise the SP&P based upon the proposals.

3.4.2 MC on the SP&P Membership

Participation in the SCAPC SP&P MC is open to NEMA members. Each participating member company is entitled to designate one voting representative. Membership should be limited to no more than 10 individuals and a Chair. Members shall be nominated by the Chair of SCAPC, who shall consider the size of the committee and the balanced representation of the broadly diversified interests and products within NEMA. SCAPC shall appoint members to serve for one-year terms with no limitation on the number of terms that may be served.

3.4.2.1 Chair

The SCAPC Chair shall nominate and SCAPC shall appoint a Chair for the SP&P MC. The MC Chair will work with the Secretary of the MC to determine the agenda for MC meetings, lead discussion to collectively set goals and priorities, and ensure development of an execution plan.

The chair of MC on the SP&P may serve in that position for no more than five consecutive one-year terms.

3.4.3 MC on the SP&P Meetings, Quorum and Voting

The committee shall hold meetings at such times and places as may be fixed by the chair. A majority of voting members of the SCAPC SP&P MC present at a meeting shall constitute a quorum necessary to undertake any action. The affirmative vote of a majority of the voting members at any meeting or

electronically where a quorum is present shall constitute the action of the SCAPC SP&P MC. In the case of an electronic ballot, the affirmative vote of a majority of the voting members shall constitute the action of the SCAPC SP&P MC. For an electronic ballot, the length of the ballot period shall be 21 calendar days.

3.4.4 MC on the SP&P Subgroups

The MC on the SP&P may appoint subcommittees for long term interest areas and/or task forces to address short term issues that make up the working agenda of the MC on the SP&P. All subgroup work is subject to the approval of the full committee. A member of the MC on the SP&P will chair all subgroups. Subgroups shall be open to participation of any representative of a NEMA member company. The majority of the work shall be undertaken using electronic means. Meetings may be called at the discretion of the chair of the subgroup.

3.4.5 MC on the SP&P Scope

In addition to other powers and duties granted or prescribed by the SCAPC from time to time, and subject to the supervision and direction of the SCAPC, the scope of the committee shall be to review proposed changes to the SP&P that are submitted by NEMA members, Staff, Sections, Divisions, or Councils and develop recommendations to SCAPC regarding whether or not to revise the SP&P based upon those proposals. The Maintenance Committee is dedicated to accelerating the pace of technical document development and strengthening the process by which NEMA reaches industry consensus positions.

3.5 Joint Sections Committees of Product Groups

Joint Sections Committees (JSCs) of Product Groups may be appointed by C&S or IRSC to work on technical matters which overlap the scopes of the Product Group involved (see Appendix B). These committees may also, when authorized by C&S or IRSC, develop and maintain NEMA standards in accordance with the same procedures used by a Product Group. These standards shall be approved by all participating Product Groups and are subject to final approval by C&S.

4 Categories of NEMA Technical Publications

The term "Technical Publication" is inclusive of the following document types:

4.1 NEMA Standard

A NEMA standard is a document approved by C&S describing technical requirements for comment and repeated use and related to a product, process, procedure, or practice.

4.1.1 NEMA/ANSI Standard

After approval of a NEMA standard by C&S, NEMA may choose to seek American National Standard (ANS) status for that standard. The process for approval of a NEMA/ANSI standard is governed by the [NEMA Procedures for Development of American National Standards](#).

4.2 Engineering Bulletins

Engineering Bulletin consist of explanatory data and other engineering information of an informative character not falling within the classification of a NEMA standard

4.3 Guides

NEMA Guides are documents meant to provide informative guidance to the industry.

4.4 Recommended Practices

NEMA Recommended Practices include engineering studies, environmental studies, observations, and recommended practices. Such documents are informative in nature and do not fall within the classification of a NEMA standard.

4.5 Whitepapers

A NEMA whitepaper is a persuasive, authoritative, in-depth report on a specific technical topic. Whitepapers are created to educate about a particular issue, provide an explanation, or promote a particular methodology.

4.6 Position Papers

NEMA may produce Position Papers that are technical, regulatory or legislative in nature. Those position papers that are regulatory or legislative are outside the scope of the SP&P. A NEMA position paper that is technical in nature is a report outlining the Association's attitude or intentions regarding a particular technical matter. Such position papers shall provide supporting arguments for the Association position and, where possible, provide data to support the position. The purpose of a such a position paper is to validate a NEMA technical position. These publications do not include public comments submitted to a federal or state regulatory agency or legislature in response to a request from that governmental body.

4.7 Other Technical Documentation

On occasion, a NEMA Product Group, Council, or Committee of the Association may desire to develop a technical publication that does not fit into one of the other categories outlined in Section 4. When this occurs, the Product Group, Council or Committee may designate the document in a way that differentiates it from other categories but shall follow the procedures for the development of NEMA technical publications included in Section 5.

5 Development of NEMA Technical Publications

5.1 Scope of NEMA Technical Publications

Any Product Group, Council, or Committee of the Association may develop NEMA technical publications that cover products within the product scope of the Product Group, Council, or Committee. Upon approval of C&S, any Product Group, Council, or Committee may develop standards for products not within the product scope of the Product Group, provided that standards for those products are not within the scope of any other Product Group, Council, or Committee. If approval is granted, the product scope of the Product Group, Council, or Committee shall be extended to include the product which is the subject of the standard so approved, providing that members of the Product Group, Council, or Committee either manufacture or promote the manufacture for sale of such product. The Product Group, Council, or Committee oversees the development of such standards in accordance with the procedures outlined in Section 5, *Development of NEMA Technical Publications*.

The process for developing a NEMA standard is depicted in

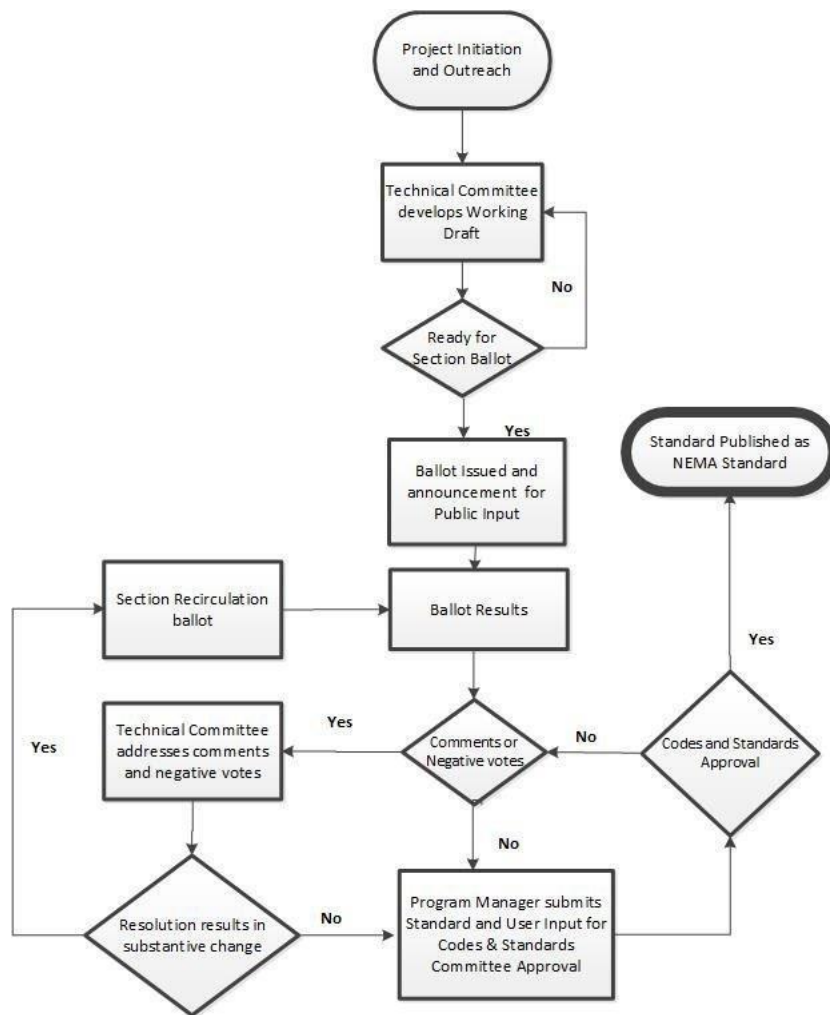


Figure 1. The process for developing other NEMA Technical Publications is depicted in Figure 2. The organizational structure for NEMA technical work is provided in Figure 3.

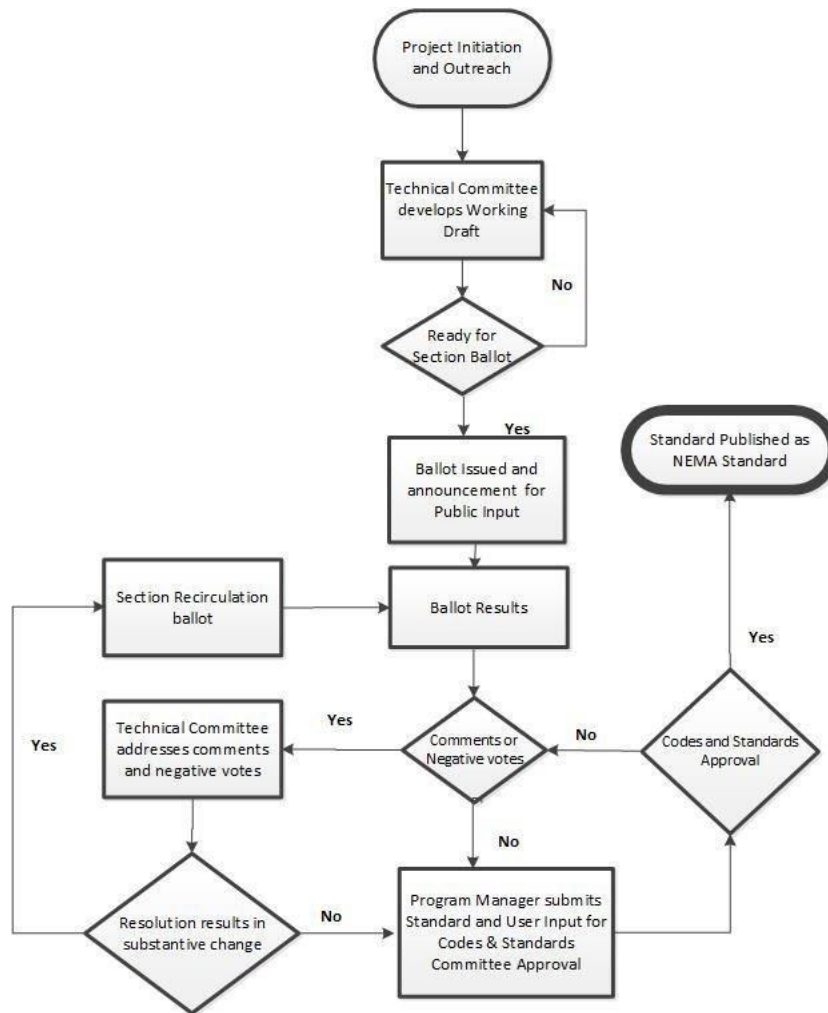


Figure 1 Development of NEMA Standards

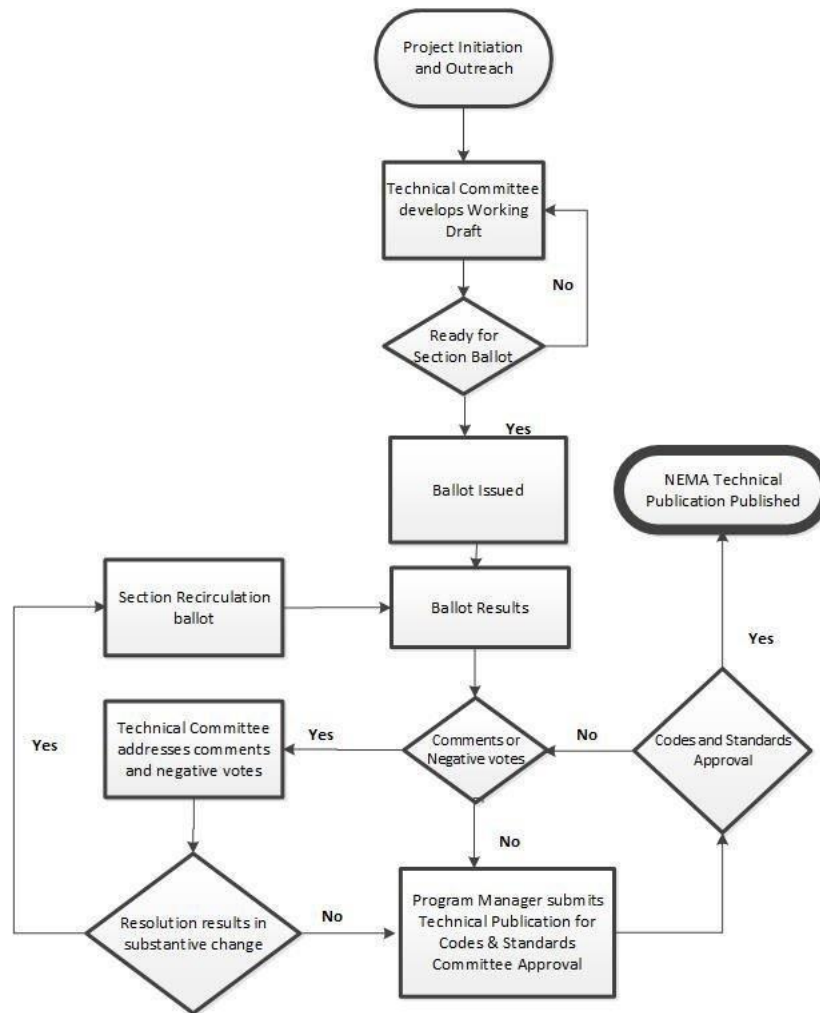


Figure 2 Development of NEMA Technical Documents

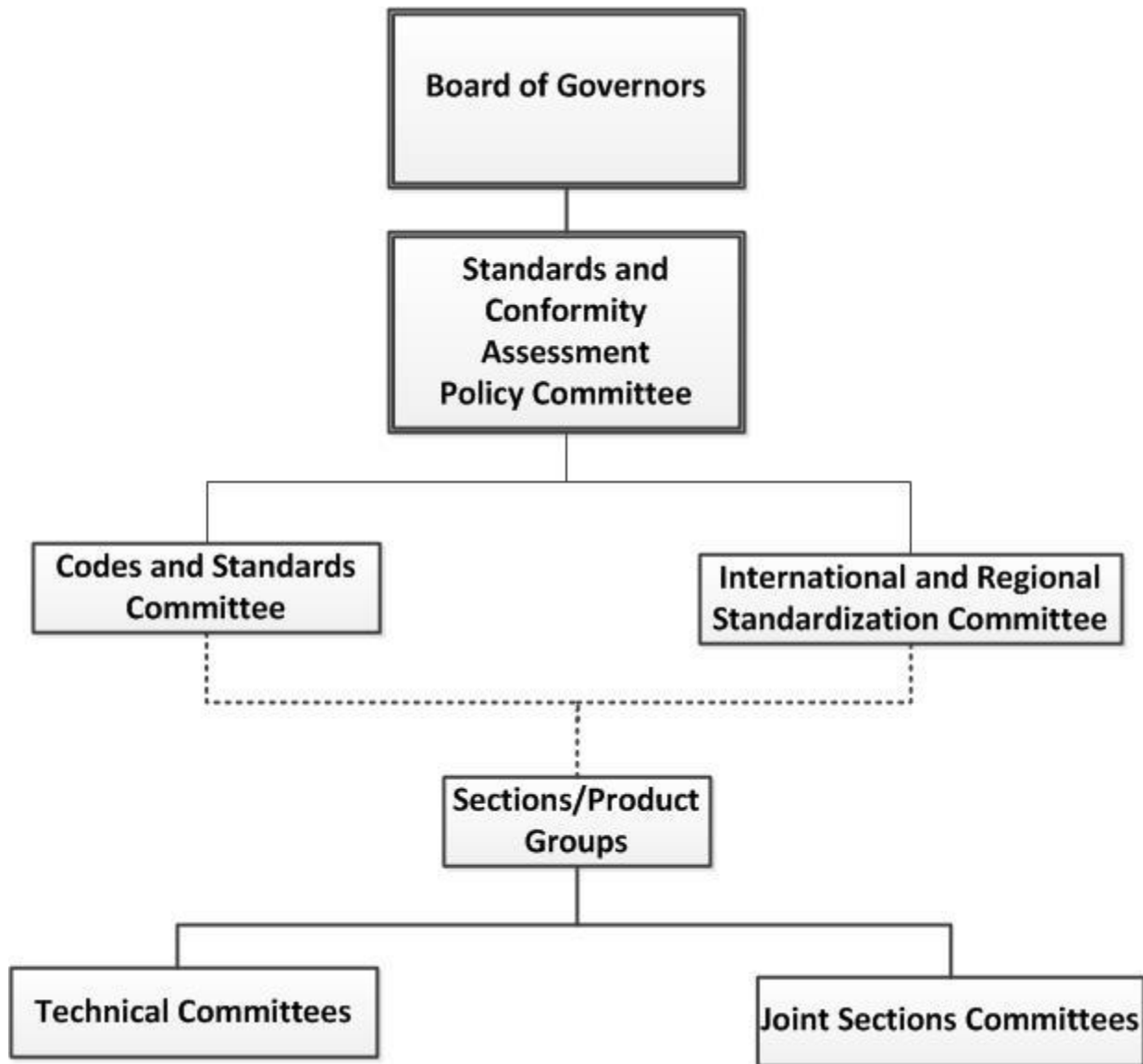


Figure 2 General Flow Chart

5.2 Technical Committee

5.2.1 Composition and Officers

Each Product Group, Council, or Committee may have a Technical Committee, or the Product Group, Council, or Committee may act as its own Technical Committee. The Technical Committee shall consist of any member of the Product Group, Council, or Committee who desires to be represented.

The chair of each such Technical Committee and vice chair, if any, shall be appointed by the chair of the Product Group, Council, or Committee. The Secretary shall be a member of the staff of the Association designated in accordance with the provisions of Article VII, Section 2 of the Association By-Laws.

5.2.2 Designation of Representatives

Any member of the Product Group, Council, or Committee may designate to the secretary in writing its company representative (and any alternates) on such committee.

5.2.3 Scope

The scope of the Technical Committee is to develop recommendations on technical standards, rules, codes, specifications, or regulations dealing with the safety of electrical apparatus or supplies, and on other engineering matters.

In addition, the Technical Committee shall determine whether any standard or other technical matter which has been proposed by another Product Group, Council, or Committee of the Association or by an outside organization, and which has been referred to the Product Group, Council, or Committee by C&S, is of sufficient interest, in its character or effect, to require its submission to the Product Group for letter ballot or otherwise.

5.2.4 Power to Act

The Product Group, Council, or Committee, by majority vote of its members, may grant to the Technical Committee limited or general authority to act for the Product Group, Council, or Committee on all technical matters, including standards development and approval and on such other general matters as it deems desirable.

Each Technical Committee may have Working Groups or Task Forces, ad hoc or standing, as it deems necessary to perform its functions. The Technical Committee Chair shall have authority to review and appoint membership on such Working Groups or Task Forces.

5.2.5 Limit on Power to Act

When any such authority is given to the Technical Committee, any member of the Product Group, Council, or Committee may request the Product Group, Council, or Committee to withdraw the authority to act on any specific matter.

Any such request must be acted upon by the Product Group, Council, or Committee at the next succeeding meeting following receipt of such request.

5.3 Notice of Intent to Develop a Technical Publication

5.3.1 Initiation of Project

Before any significant work is done on a project, it shall be approved by a simple majority of the Product Group, Council, or Committee or duly authorized committee of the Product Group, Council, or Committee.

Project initiation shall be recorded by the Product Group, Council, or Committee and submitted for information in a timely fashion to the Operations Department. Project Initiation Information shall include the date the project was authorized, the intent of the project (new document, revision, reaffirmation, withdrawal), the name of the Product Group, Council, or Committee, a proposed designation, title and scope statement, and an expected date for distribution of a letter ballot. Project Initiation Information shall be shared with affected Product Groups, Councils, or Committees to allow for input.

5.3.2 Letter Ballot Procedure

5.3.2.1 Letter Ballots

Except as provided in Section 5.4.2 (100% attendance) any Product Group, Council, or Committee vote on a standard shall be taken by letter ballot. Letter ballots shall include the name and designation of the subject document, an explanation of the ballot, a closing date, indication of the group(s) being asked to vote and instructions for voting. Electronic means of letter ballot distribution are permissible in accordance with Article I, Section II of the Association By-Laws.

5.3.2.2 Input by Affected Groups

At the time of letter ballot, a draft technical publication shall be shared with affected Product Groups, Councils, and Committees for input. Affected Product Groups, Councils, and Committees shall be given at least 30 calendar days to review proposed standards and at least 14 calendar days to review other proposed technical publications. Comments submitted by affected Product Groups, Councils, Committees and members shall be handled according to Section 5.5.1.

5.3.2.3 Proper Subjects and Standard Voting Period

Unless otherwise specifically provided in the By-Laws, or unless otherwise provided in certain cases by C&S, the voting period for approval of NEMA standards shall be at least 30 calendar days and for other NEMA technical publications, the voting period shall be at least 14 calendar days.

5.3.2.4 Votes—How Recorded

All letter ballots shall provide for recording the votes of members in the affirmative, in the negative, or as not voting.

5.3.2.5 Voting Eligibility on Technical Publications

A member who manufactures the product within the scope of a Voting Classification is eligible to vote on technical publications pertaining to that product. Upon two-thirds affirmative vote of all members of the Product Group, Council, or Committee or authorized Technical Committee, the above voting eligibility may be expanded to other members.

5.3.2.6 No Change in Vote After Expiration

Except for Section 5.5.1 subsection b.ii, no member may change its vote given by letter ballot after the expiration of the voting period. Any member may change its vote within the voting period unless the member has specifically waived the right to do so by statement on such letter ballot.

5.3.2.7 Limit on Immediate Action

In any case where authority to take any action is requested by letter ballot, such action may be taken immediately upon return of the number of ballots needed to authorize such action, if the letter ballot contained a notice of intention so to act and if each of the returned ballots so needed to authorize such action contains a waiver of the right to change the vote made thereby.

5.4 Required Vote for Product Group, Council, or Committee Approval

Except as provided in Section 5.7, Sponsorship of Standard by SCAPC in Absence of Requisite Plurality, a technical publication, when presented to any Product Group, Council, or Committee or authorized Technical Committee for approval, shall require the affirmative vote of at least two-thirds of the votes cast in the affirmative or negative.

5.4.1 If Required Vote a Fraction

Any fraction equal to or less than one-half shall be disregarded, and any fraction greater than one-half shall be taken as one in determining the number of affirmative votes required for adoption.

5.4.2 Technical Publication Proposal

In lieu of a letter ballot, a technical publication proposal may be approved at a Product Group, Council, or Committee or authorized Technical Committee meeting, provided 100% of the Product Group, Council, or Committee or authorized Technical Committee membership is present.

5.5 Review of Approval and Opportunity for Reconsideration

5.5.1 Review of Approval

A proposed technical publication approved by letter ballot may be submitted to C&S for approval in accordance with the provisions laid out in Section 6, Approval Procedures by C&S, subject to the provisions enumerated below:

- a. Where the votes of a successful ballot are not accompanied by comments, the appropriate NEMA staff may, prior to the next meeting of the Product Group, Council, or Committee, submit such proposed technical publication to C&S.
- b. Where there are votes accompanied by comments, the proposed technical publication and result of the letter ballot shall be referred to the Technical Committee or its delegated Working Group or Task Force and the comments reviewed and resolved within 30 calendar days following completion of the letter ballot.
 - I. If after due consideration the Technical Committee cannot resolve all negative comments of a successful ballot, the appropriate NEMA staff shall submit the proposed technical publication to C&S. C&S may request written comments or oral presentations from both sides of the issue to assist in the committee's review. (Procedures for the submittal to and hearing by C&S are provided in Appendix E.)
 - II. A comment may be withdrawn or, at the option of the member, changed to an affirmative vote in writing or by a statement in the minutes of a meeting.
 - III. If resolution of comments necessitates substantive changes to the technical publication, such changes shall be distributed for at least a 7-calendar day recirculation ballot. Voting members may choose to respond, reaffirm or change their vote.
 - IV. If comments accompanying all negative votes on the letter ballot are so withdrawn, the appropriate NEMA staff may, prior to the next meeting of the Product Group, Council, or Committee, submit such proposed technical publication to C&S.

Note: Comments by members of affected Product Groups, Councils, or Committees shall be handled in the same way as comments received by members of the sponsoring Product Group, Council, or Committee.

- c. The result of a letter ballot on a proposed standard or technical publication, together with such further action as may have been taken thereon, shall be reported at and recorded in the minutes of the next meeting of the Product Group, Council, or Committee.

5.6 Revisions, Withdrawals, and Reaffirmations

Any change in, withdrawal of, or reaffirmation of any standards shall be subject to the same procedure as is followed when a standard is submitted for adoption, except as provided in Section 12, Review of NEMA technical publications.

5.7 Sponsorship of Standard by SCAPC in Absence of Requisite Plurality

Any proposed NEMA standard which fails to receive the affirmative vote of two-thirds of the votes cast in the affirmative or negative by members of the Product Group, Council, or Committee or two-thirds of the votes cast in the affirmative or negative by members of each of the participating Product Groups in a Joint Sections Committee, but which does receive the affirmative vote of a majority of such members or such Product Groups in a Joint Sections Committee, shall be reviewed by C&S if such review is requested by the SCAPC.

C&S may adopt the proposal as a NEMA standard after review and with Counsel's approval as to the legality of the proposal and its conformity with the By-laws.

5.8 Public Input

5.8.1 Public Input Web Page

NEMA shall maintain on its website a Standards Activity Web Page informing members of the public of the status of NEMA standards that are up for reaffirmation, revision, or withdrawal. The web page shall invite members of the public to inform NEMA whether there are any issues with or questions about the current version of a NEMA standard that should be brought to the attention of the technical committee during their review of the NEMA standard and provide a means of communicating the public input to NEMA. At the request of a member of the public, NEMA shall provide the requestor a non-downloadable, read-only version of the NEMA standard for their review.

5.8.2 Public Input Outreach

Each Technical Committee of a Product Group shall maintain a list of persons or organizations who are believed to have an interest in the use and application of the NEMA standard, and reasonable efforts should be made to identify non-domestic entities who are believed to have an interest in the standard. In developing the list of such persons or organizations, a Technical Committee should give consideration to the list of users in Section 5.8.4. When a Technical Committee of a Product Group begins its review of the current version of a NEMA standard with a view to revise, reaffirm or withdraw the standard, NEMA shall inform the contacts on the Technical Committee's list by mail or email that a review of the NEMA standard has commenced and direct their attention to the Public Input Web Page inviting them to consider providing public input.

5.8.3 Public Input During Ballot Period

When letter ballot of a proposed NEMA standard up for revision, reaffirmation, or withdrawal is initiated, a notice shall be posted on the Standards Activity Web Page informing members of the public of that fact and inviting final public comment. At the same time, NEMA shall undertake public input outreach as provided in Section 5.8.2. A copy of the proposed NEMA standard or NEMA standard (showing proposed revisions, if any) shall be posted to the Standards Activity Web Page in a non-downloadable, read-only format for inspection by the public during the ballot period. Any public comment received during the ballot period shall be referred to the Technical Committee for consideration and addressed under Section 5.5.1.b.

5.8.4 Requirements for User Input Statements

For the purpose of this manual, a user is broadly defined as anyone knowledgeable about the particular product or its application who can make a contribution to the proposed standard, other than a manufacturer of the product. The term thus includes purchasers, users, installers, inspectors, specifiers, standards development and conformity assessment organizations relevant to the NEMA Product Group, and others. In some circumstances, government agencies may be considered a user.

User input may be obtained by submission of a NEMA standard to ANSI for consideration as an American National Standard in anticipation of review by all interested parties in the course of the ANSI procedure. A user input statement for NEMA standards to be submitted immediately for ANSI approval needs only to indicate that this is the case.

User input may also be obtained as public input pursuant to this Section 5.8.

A User Input Statement (see the form used in Appendix C) is required to accompany any submission to C&S of a proposed new or revised NEMA standard, Suggested Standard for Future Design, Authorized Engineering Information, or Official Standards Proposal.

The simple statement that the user input was through normal marketing channels is generally unsatisfactory for new or completely revised standards. In the case of revisions of standards, assessment of user needs by this method may be considered adequate, depending on the extent and nature of the revision. Where such input is submitted in lieu of more direct and affirmative canvassing, the Product Group's User Input Statement shall provide adequate explanation.

Contacts with users for the purposes of obtaining input, like other outside contacts on technical matters, are subject to approval by C&S, as delegated by NEMA President and Counsel. It is anticipated that in order to expedite matters, the Operations Department will continue to be delegated such clearance function in routine situations where no major new contact is involved and where no conflict with other ongoing NEMA contacts seem likely.

Those individuals and organizations canvassed as users by a Product Group, Council, or Committee shall be informed of a specific, reasonable closing date for replies. The Product Group, Council, or Committee, in its report to C&S, may properly imply that users not responding before the closing date have no objection to the proposal.

5.8.5 Contents of User Input Statement Accompanying a Standard Submitted to C&S

The statement accompanying the proposed standard before C&S shall contain:

- a. The reason for the standard or the importance of its revision.
- b. A list of individuals and organizations canvassed. When an organization is listed, its representatives shall be named. If a NEMA Product Group, Council, or Committee or trade association is a user and has been canvassed, it shall be included in the list.
- c. The number of responses.
- d. The number of negative responses and their disposition by the submitting Product Group, Council, or Committee.
- e. A statement that consideration was given to any international standards concerning the products covered in the standard.
- f. A statement as to whether or not North American harmonization was considered.
- e. Approval of the chair of either the Product Group, Council, or Committee or the Technical Committee attesting to its accuracy.

5.8.6 Statement in Foreword of Technical Publication

Upon publication of a proposed standard or revision after approval by C&S, the Foreword to the applicable NEMA technical publication shall contain the following statement, or equivalent:

In the preparation of this technical publication input of users and other interested parties has been sought and evaluated.

Inquiries, comments, and proposed or recommended revisions should be submitted to the concerned NEMA Product Group, Council, or Committee through the following:

*C&S Secretary
National Electrical Manufacturers Association
1300 North 17th Street, Suite 900
Rosslyn, VA 22209-3801*

5.9 Minutes and Record Keeping

5.9.1 Minutes

Appropriate NEMA staff shall take the minutes of all meetings of the Product Group, Council, Committee, Technical Committee, and all Working Groups or Task Forces, and shall file such minutes in accordance with the By-Laws. Minutes, while not a verbatim transcript, shall concisely record the substance of discussion and actions taken at a meeting.

5.9.2 Record Keeping

The appropriate NEMA staff shall keep records regarding the development of a standard. Such records shall contain drafts, correspondence, reports, and other such documents to reflect both the rationale behind and the development of any standard.

6 Approval Procedures by C&S

6.1 C&S Approval Required

All actions of Product Groups, Council, or Committee and authorized Technical Committees in approving, revising, reaffirming, or withdrawing standards or technical publications of the Association shall be subject to the approval of C&S.

6.2 Criteria Applied by C&S

In its review of proposed standards or technical publications, C&S shall consider whether:

- a. The standard is in harmony with the policies of NEMA standardization activities and has been developed according to the procedures contained in this manual and in the NEMA Constitution and By-Laws.
- b. The interests of all affected NEMA Product Groups, Councils, and Committees have been considered.
- c. The standard is technically sound and accurately drawn.
- d. Any recommendations should be made to NEMA Counsel concerning compliance of the standard with NEMA policies and procedures.
- e. The record presented by the Product Group, Council, or Committee proposing the standard shows that adequate consideration has been given to user needs.

If referral to other Product Groups, Councils, and Committees is not necessary and the technical publication also complies with the criteria above, C&S shall approve the proposal for publication as a NEMA technical publication.

6.3 Assent by Other Concerned Product Group(s), Council(s), or Committee(s)

C&S may determine that a proposed standard is of possible concern to other Product Groups, Councils,

or Committees of NEMA and refer it to them before taking action on approval, if such distribution did not occur at project initiation or during ballot.

When a standard proposed by one Product Group, Council, or Committee is referred to another Product Group, Council, or Committee for assent, that other Product Group, Council, or Committee shall be given a period of at least 30 calendar days to reply. If no reply is received within that time, C&S may assume that the Product Group, Council, or Committee has no interest or no objection to the proposed standard. If there is dissent, negative comments must be addressed by the Product Group, Council, or Committee originating the proposed standard prior to resubmittal to the committee. Comments shall be handled in accordance with Section 5.5.1.

6.4 Reconsideration of C&S Decision

Any NEMA member may request the reconsideration of a decision made by C&S. The request for reconsideration of a decision must be submitted in writing to the secretary of C&S within 14 calendar days of the date of notification of the decision, and it must state the basis for which reconsideration is requested as provided in this Section.

The request for reconsideration will be considered by the Officers of C&S. The basis for the request for reconsideration must be technical in nature and shall be for one of the following reasons:

- a) New technical information has come to light since the date that information pertinent to the issue was submitted to C&S (e.g., UL has completed an Outline of Investigation, the findings of which affect the issue). Technical information, which existed prior to the submittal to C&S but was not presented, is not sufficient justification to warrant granting the reconsideration.
- b) The member requesting the reconsideration believes that technical information presented to C&S has been misinterpreted by the committee resulting in a faulty decision.

The Officers will consider the request for reconsideration and decide if there is sufficient justification to warrant the reconsideration. If the decision is to grant the request, the request will be placed on the agenda for the next regularly scheduled C&S meeting, and the Officers may, in their discretion, authorize oral presentations, not to exceed 30 minutes in total, by representative interested parties at the committee's next meeting. The Officers shall have the authority and discretion to allocate time for any presentations. If the request is denied by the Officers, the decision will be reviewed by the entire C&S by electronic ballot or at the next meeting for confirmation of the Officers action. If confirmed, the member will be so informed. Pending confirmation by C&S, the decision of the Officers is final.

If the request for reconsideration is granted by the Officers, all materials to be presented to C&S must be presented to the secretary 14 calendar days prior to the date at which the reconsideration will be heard.

C&S shall find in one of two ways:

- 1) The committee may find in support of the arguments for reconsideration, in which case it will need to amend its initial decision on the matter; or
- 2) The committee may find in opposition to the arguments for reconsideration, in which case its initial decision on the matter stands.

C&S may reach a decision during the meeting or, if additional time is required, the committee will have up to 14 calendar days following the meeting to reach its decision.

6.5 Effective Date of NEMA Standards

The effective date of a NEMA standard shall be the date of its approval by C&S. When such approval is subject to the assent of one or more Product Groups, Councils, or Committees, the effective date shall be the date of the meeting of C&S at which the assent of all such Product Groups, Councils, or Committees is reported.

7 Emergency Standards

7.1 Purpose

Standards may be acted upon in accordance with the provisions of this Section in those cases in which the interested Product Group, Council, or Committee believes that prompt action is required to meet emergency requirements.

7.2 Procedure

An Emergency NEMA Standard, which may replace one or more standards, shall be developed by the Product Group, Council, or Committee in accordance with the preceding rules, except the voting period shall be 15 calendar days, and shall be conducted by telephone and electronic communications and confirmed by letter ballot.

7.3 Approval of Officers of C&S and Appeal

When the vote is completed, the results shall be forwarded immediately to the officers of C&S. All Emergency NEMA Standards shall be subject to the approval of the officers of C&S. Any interested member shall have the right to appeal per Appendix G.

7.4 Publication

Emergency NEMA Standards, approved in accordance with this Section, shall be forwarded to the President of the Association for publication. Publication may be in any form desired or determined by the President.

7.5 Identification of Emergency NEMA Standards

Emergency NEMA Standards shall be identified by the word “emergency” placed in brackets preceding the number of the standard.

7.6 Review of Emergency NEMA Standards

All Emergency NEMA Standards shall be subject to review by the full C&S at its next meeting, and annually thereafter. At the end of the emergency, they shall be referred to the Product Group, Council, or Committee for adoption as a NEMA standard, or for withdrawal.

8 Contents of NEMA Technical Publications

A NEMA technical publication shall contain a combination of the following items, except that a NEMA Adoptive Standard shall comply with the rules and procedures of the standards organization responsible for its development.

8.1 Scope

A clear, concise, and comprehensive statement of the coverage of the technical publication shall always be included.

8.2 Definitions

If items used in the standards require definition, the definitions shall be included as a separate part of the Technical Publication.

8.3 General

General standards, when used, are those having broad applications to the products covered by the Technical Publication and not otherwise classified.

8.4 Rating

Rating standards, when used, include specific ratings of, or methods of rating, the equipment in such units or measurements as are appropriate.

8.5 Manufacturing

Manufacturing standards, when used, include requirements for items such as construction, materials, dimensions, provisions for mounting, spacings between live parts, precautionary labels, and nameplate markings. Standards for materials may refer to tensile and compressive strengths, dielectric strengths, insulation resistance, and other pertinent physical properties.

8.6 Dimensions

Where dimensions are given for interchangeability purposes, alternate dimensions satisfying the other provisions of the Technical Publication may be capable of otherwise equivalent performance.

8.7 Performance

Performance standards, when used, cover characteristics such as temperature rise, interrupting capacity, voltage regulation, speed regulation, number of operations without deterioration, and the ability to withstand specified conditions.

8.8 Testing

Testing standards, when used, include procedures for tests to determine compliance with manufacturing ratings and performance standards included in testing standards.

8.9 Marking

Marking standards, when used, generally require the manufacturer's symbol and identification.

8.10 Application

Application information for the product may be included as part of the general standards or as a separate part of the NEMA Technical Publication.

8.11 Appendices

All appendices, which may include text, figures, and tables, are designated as Authorized Engineering Information.

8.12 References to Brand-Name Products

If it is necessary to refer to a particular device, a generic description should be used rather than a

brand-name reference, unless such reference is essential for technical reasons and has been approved by Counsel.

9 NEMA Standardization Policies

9.1 Illegal Use of Standards

NEMA standards shall not be written so as to attempt to fix prices, exclude competition from the marketplace, curtail production, restrain trade, or otherwise be in conflict with U.S. antitrust laws.

9.2 Voluntary Adherence to Standards

Adherence or non-adherence to a NEMA standard shall be left to the individual discretion of every manufacturer, unaffected by agreements, understandings, or direction of any type by the Association.

9.3 Engineering, Technical, and Safety Considerations

NEMA activity in the field of standardization shall be confined to the definition of the engineering, technical, and safety characteristics of electrical products within the scope of NEMA.

9.4 Commercial Practices

NEMA standards shall not include provisions which are a part of the commercial relationship between the manufacturer and the purchaser, such as warranties, allocation of the risk of loss, conditions of acceptance or rejection, or the determination of which party is to provide services incidental to the installation of a standard item.

9.5 Standard Practice

The statement that a method or procedure shall be the “standard practice” or any similar statement shall refer only to an engineering, technical, or safety method or procedure and shall not constitute a recommendation or statement of what the actual practices of the various manufacturers should be.

9.6 “Special” Products

NEMA standards shall not include statements to the effect that certain items are to be considered as “special” or any similar term.

9.7 Minimums and Maximums

If a standard is framed to specify a technically adequate level of performance or characteristic, it shall be phrased in such a way as to not constitute a ceiling preventing the development of a superior product. This shall be accomplished by specifying the technically adequate level as a minimum. In the case of certain undesirable characteristics, such as leakage current or radio influence voltage, the technically adequate level shall be expressed as a maximum.

In some cases, however, where the minimum or maximum of a whole class is inappropriate due to the complexity of the relationship among the various characteristics of the product, or because of other valid technical or engineering reasons, it is permissible to fix on specific or preferred ratings. A NEMA standard must present an adequate number of ratings so that the field is adequately covered and no exclusion or restriction takes place.

9.8 Inclusion of Products

NEMA standards shall ordinarily include all technically adequate equipment in the field; that is, all products which fall within the definitions or the criteria of the standard.

Note: There may be certain limited circumstances, such as interchangeability standards, where not all technically adequate products need necessarily be included.

9.9 NEMA patent policy - Inclusion of Essential Patent Claims in NEMA Standards

There is no objection in principle to drafting a NEMA standard in terms that include the use of an essential patent claim if it is considered that technical reasons justify this approach.

No participant in the development of a NEMA standard or proposed NEMA standard shall knowingly conceal from NEMA or the other firms or persons participating in the development of a NEMA standard or proposed NEMA standard any patent or published patent application containing an essential patent claim that the participant (or any Affiliate) owns, controls, or has the ability to license.

Each participant in the development of a NEMA standard or proposed NEMA standard is encouraged to bring to the attention of NEMA and the other participants at any time during and after the development of the standard any patent(s) or published patent application(s) that are believed to contain an essential patent claim, which (a) the participant owns, controls, or has the ability to license, or (b) is owned by others in the manner set forth in this policy. Participants in the development of a NEMA standard or proposed NEMA standard are encouraged to identify and disclose early in the standards development process essential patent claims of which the participant has knowledge and provide a written statement as required by [9.9.3.3b](#) so that the relevant technical committee may consider this information in the course of the development of a NEMA standard.

9.9.1 Definitions

9.9.1.1 Essential Patent Claim

An “essential patent claim” means a claim contained in a patent or published patent application, the use of which is necessary to create a compliant implementation of the mandatory portions of the normative clauses of the NEMA standard or proposed NEMA standard when there is no commercially and technically feasible non-infringing alternative. An essential patent claim does not include any claim that is essential only for enabling technology (technology that may be necessary to make a product that complies with the NEMA standard, but is neither explicitly required by nor expressly set forth in the NEMA standard) or any claim other than that set forth above even if contained in the same patent as the essential patent claim.

9.9.1.2 Knowledge or Knowingly

“Knowledge” or “knowingly” means or refers to the actual personal awareness by an individual of information relating to a particular matter. Knowledge shall not be deemed to include knowledge held by other personnel of the relevant individual participant’s sponsor or employer; *provided however*, that such sponsor or employer will not deliberately withhold relevant information from individual participants in NEMA standardization activities for the purpose of avoiding disclosure or licensing under this policy.

9.9.1.3 Participant or Individual Participant

“Participant” means a NEMA member of a Product Group, Council, or Committee authorized under Sections 5.1 or 5.3 to develop a NEMA standard, and it also refers to an individual participant. “Individual participant” means the individual person representing or employed by a participant in the development of a NEMA standard.

9.9.1.4 Affiliate

“Affiliate” means an entity that directly or indirectly through one or more intermediaries, controls, is controlled by, or is under common control with such entity. “Control” means ownership of or ability to direct more than 50% of the voting power of a corporation or other organization.

9.9.1.5 Development

“Development” means the entire effort in proposing, drafting, meeting and discussing, voting upon, revising, and reaffirming a NEMA standard or proposed NEMA standard.

9.9.2 No Requirement to Search Patent Portfolio

Participants in the development of a NEMA standard or proposed NEMA standard do not have an affirmative duty to search their patent portfolio to determine if they own a patent containing an essential patent claim.

9.9.3 Disclosures of Essential Patent Claims

To implement the policy of Section 9.9, the procedures in Sections [9.9.3](#) - [9.9.8](#) shall be followed.

9.9.3.1 Self-Disclosure by Patent Holder

A participant in the development of a NEMA standard or proposed NEMA standard, on behalf of itself, shall disclose in writing to NEMA essential patent claims that they (including any Affiliate) own, control, or have the ability to license as expeditiously as possible after that participant recognizes it has an obligation of disclosure under this policy. The disclosure shall be accompanied by the written statement required by [9.9.3.3B](#) below. A participant may also submit to NEMA at any time a written disclaimer as provided in [9.9.3.3A](#) below.

9.9.3.2 Disclosure at Request of NEMA

At the request of any firm or person who states that another identified party owns, controls, or has the ability to license an essential patent claim, NEMA shall request, without coercion, that the identified party, on behalf of itself (or any Affiliate as appropriate), provide the statement required by [9.9.3.3A](#) or [9.9.3.3B](#) below.

9.9.3.3 Written Disclosure Statements.

A participant or an identified party providing a written statement under [9.9.3.1](#) or [9.9.3.2](#) shall submit a written communication addressed to NEMA Vice President of Operations containing either:

- A. a statement containing an assurance in the form of a general disclaimer to the effect that such party (including any Affiliate) does not own, control or have the ability to license patents or published patent applications containing essential patent claim(s), but in the event that it is later discovered that such party (or any Affiliate as appropriate) does own, control or have the ability to license such patents, a license will be made available as prescribed in [9.9.3.3 B\(c\)](#); or
- B. a statement:
 - (a) identifying the patent registration or application number(s) of the patent(s) or published patent applications that is believed to contain essential patent claim(s);
 - (b) identifying the NEMA standard or proposed NEMA standard and the part and/or section of the NEMA standard or proposed NEMA standard that would include the use of an essential patent claim; and

- (c) containing an assurance that a license to such essential patent claim(s) will be made available by such party (or any Affiliate as appropriate) to applicants desiring to utilize the license for the purpose of implementing the standard either:
- (1) under reasonable terms and conditions that are demonstrably free of any unfair discrimination; or
 - (2) without compensation and under reasonable terms and conditions that are demonstrably free of any unfair discrimination, or
 - (3) containing an assurance that the participant or identified party will not enforce any present and/or future essential patent claims against any person or entity making using, selling, offering to sell, importing distributing, or implementing such a compliant implementation; or
 - (4) provided that the written communication is received five (5) calendar days prior to the Codes & Standards Committee's approval of a NEMA standard proposed for adoption, revision or reaffirmation, a statement that the participant or identified party is unwilling or unable to grant licenses according to [9.9.3.3 B\(c\)\(1\)](#) or (2) or to agree that it will not enforce its essential patent claims as described in [9.9.3.3 B\(c\)\(3\)](#) above, and
 - (5) at the option of the participant or identified party, that such license under (c)(1) or (2) is subject to a condition of reciprocity, where reciprocity means with respect to other parties that have a patent or published patent application containing an essential patent claim, the assurance under (c) is conditioned on their willingness to license their patent(s) containing an essential patent claim on these terms. A participant or identified party who provides an assurance to license without compensation under [9.9.3.3 B\(c\)\(2\)](#) on a condition of reciprocity, may require a license with compensation on reasonable terms and conditions that are demonstrably free of discrimination if the reciprocating licensee will only license on such terms.
- (d) stating that the assurance contained in the written communication will be brought to the attention of any future assignees or transferees of the essential patent claim, that the assurance will be included in any documents transferring ownership of patents subject to the assurance together with provisions sufficient to ensure that the commitments in the assurance are binding on the transferee, and that the transferee will similarly include appropriate provisions in the event of future transfers with the goal of binding each successor-in-interest. The assurance shall also indicate that it is intended to be binding on successors-in-interest regardless of whether such provisions are included in the relevant transfer documents.
- C. Without prejudice to any existing licenses granted to persons implementing a NEMA standard, the assurance provided under [9.9.3.3B\(c\)\(1\)](#) or (2) may be withdrawn when it is established that there are commercially and technically feasible non-infringing alternatives to creating a compliant implementation of the NEMA standard.
- D. A statement under this paragraph may be made in the form provided in Appendix F.

9.9.4 Timing of Disclosure Statements

For so long as a participant is a member of NEMA or, an individual participant in NEMA standards development activities, a participant in the development of a NEMA standard or proposed NEMA standard shall continue to satisfy the requirements of [9.9](#). At the time a NEMA standard or proposed NEMA standard is submitted for approval by letter ballot under [5.3.2](#) or for a vote under [5.4.2](#), the participant shall provide the written statement required by [9.9.3.3](#). NEMA letter ballots shall contain a statement for compliance with [9.9](#), which states: "I state that [check one]:

- I am not aware of patents or published patent applications containing essential patent claims, which I or my employer or sponsor (or an affiliate of any of them) own, control or have the ability to license, but if it is later discovered after the NEMA standard is approved that I, or my employer or sponsor do own,

control or have the ability to license such patents, a license will be made available as required by NEMA Standardization Policies and Procedures, [9.9.3.3B\(c\)\(1\)](#) or (2) or an assurance will be made pursuant to [9.9.3.3B\(c\)\(3\)](#);

- I am aware of patents or published patent applications containing essential patent claims, which I or my employer or sponsor (or an affiliate of them) own, control or have the ability to license, and a written statement has been submitted to NEMA as required by NEMA Standardization Policies and Procedures, [9.9](#).

9.9.5 Record of Statement

A record of the patent holder's statement under [9.9.2](#) shall be retained in the files of NEMA. The Vice-President, Operations shall cause a copy of the written communication to be sent to the firms or persons participating in the development of the NEMA standard or proposed NEMA standard that would include the use of an essential claim.

9.9.6 Notice

When NEMA receives from a patent holder the assurance set forth in [9.9.3.3](#) (c) above, the standard shall include a note substantially as follows:

Note – The user's attention is called to the possibility that compliance with this standard could require use of an invention covered by patent rights.

By publication of this standard, no position is taken with respect to the validity of any such claim(s) or of any patent rights in connection therewith. If a patent holder has filed a statement of willingness to grant a license under these rights on reasonable and nondiscriminatory terms and conditions to applicants desiring to obtain such a license, then details may be obtained from NEMA.

9.9.7 Responsibility for identifying patents

NEMA is not responsible for identifying patents or published patent applications for which a license may be required by a NEMA standard or for conducting inquiries into the legal validity or scope of those patents that are brought to their attention.

9.9.8 Discussions of patent issues at technical committee meetings

At technical committee meetings, firms or persons shall not discuss the following:

- (a) the construction, validity, or essentiality of patents or patent claims;
- (b) specific license rates, licensing costs, terms or conditions, or the relative costs of different technical approaches to the standard; or
- (c) the status or substance of ongoing or threatened patent litigation.

9.10 Metrication

NEMA supports voluntary metrication of standards. Each NEMA Product Group, Council, and Committee is required to make an informed decision whether to metricate its standards. Product Groups, Councils, and Committees shall identify standards that will utilize the metric system and determine whether "soft" (exact conversion from imperial to metric) or "hard" (change product dimensions to conform more rationally to metric measurements) conversion is to be used.

Standards outside the control of the Product Group, Council, or Committee shall be brought to the attention of those responsible for the standard. Additionally, each Product Group, Council, or Committee shall consider the impact of metrication of their standards on other NEMA Product Groups.

Product Groups, Councils, and Committees shall review Engineering Bulletin No. 79, "Guidelines for Metric Conversion of NEMA Standards" when considering whether to metricate a standard. Use of the metric system shall be in accordance with the current edition of NEMA Technical Publication NS 1, "Guide for Preparation of NEMA Technical Publications."

9.11 Accessories

NEMA standards for accessories shall be completely justified by engineering, technical, or safety considerations, and shall be limited to accessories genuinely needed for the proper and safe operation of a product covered in a NEMA Technical Publication.

9.12 Effective Date

The effective date of a NEMA standard shall be the date of its approval by C&S. When such approval is subject to the assent of one or more Product Groups, Councils, or Committees, the effective date shall be the date of the meeting of C&S at which time the assent of all such Product Groups, Councils, or Committees is reported.

9.13 Reviewed by Counsel

All NEMA standards shall be reviewed by NEMA Counsel for compliance with NEMA policies and the law prior to their approval by C&S.

9.14 Copyright

NEMA owns the copyright in all NEMA technical publications.

Participants as well as others who submit contributions to NEMA for inclusion in a NEMA Technical Publication are solely responsible for determining whether disclosure of any contributions that they submit to NEMA requires the prior consent of other parties and, if so, to obtain it.

All contributions from previously published sources under an explicit claim of copyright ownership (*e.g.*, © or "Copyright") that are not public domain shall be accompanied by a Copyright Permission Form that is completed by the copyright owner, or by a person with the authority or right to grant copyright permission. The Copyright Permission Form shall outline the specific material being used and the planned context for its usage in the NEMA Technical Publication.

For any contribution, whatever the source, that has not been previously published under an explicit claim of copyright ownership, and that is not public domain:

- a) NEMA has the non-exclusive, irrevocable, royalty-free, worldwide rights (*i.e.*, a license) to use the contribution in connection with the development of the NEMA Technical Publication for which the contribution was made.
- b) Upon (i) approval of the standard; or (ii) final release or publication of a NEMA Technical Publication, NEMA has the right to exploit and grant permission to use the NEMA Technical Publication's content derived from the contribution in any format or media without restriction and without compensation. Copyright ownership of the original contribution is not transferred or assigned to NEMA.

As used in this paragraph 9.14, "Public Domain" shall mean material that is no longer under copyright protection or did not meet the requirements for copyright protection.

10 Interpretations of NEMA Standards

All inquiries requesting interpretation of the language of a NEMA standard shall be submitted in writing and referred to the Product Group, Council, Committee, or Technical Committee which developed the standard. The appropriate group should determine first whether the standard was intended to answer the question posed. If so, the committee shall formulate a response supported by explicit technical reasoning which shall be submitted to the Product Group, Council, or Committee chair for approval and to the Operations Department and NEMA Counsel for review. Following approval and review, the response shall be transmitted to the inquirer. Upon request of either NEMA Counsel or the Operations Department, the proposed response shall be reviewed by C&S prior to transmission to the inquirer. If the group determines that the standard was not intended to answer the question posed, the inquirer shall be so advised.

11 Appeals

Action of any Product Group, Council, or Committee or of C&S in connection with the approval, disapproval, change, reaffirmation, withdrawal or review of standards of the Association shall be subject to appeal to the SCAPC by any interested member or nonmember of the Association. Any action of the SCAPC upon any such appeal may be further appealed to the Board of Governors by any interested member or nonmember of the Association. Notice of time and place at which appeals will be considered by the SCAPC or by the Board of Governors, and an opportunity to be heard thereon, shall be given to all members of the Product Group, Councils, Committees, or non-NEMA members concerned.

11.1 Appeals to C&S

11.1.1 Procedures

On matters within the scope of the of C&S, they shall be the first body to hear appeals where there is a disagreement

- between Product Groups, Councils, or Committees, or
- among members within a Product Group, Council, or Committee, or
- between Product Groups, Councils, or Committees and non-NEMA member(s), e.g., a standards committee where NEMA is the secretariat.

See [3.2.6](#) a-h for issues that are NOT appealable to C&S.

The appeal shall be initiated and conducted in accordance with NEMA By-Laws, Article VII, Section 10. The Chair of C&S shall be a member of the appeals panel and preside at any hearing on the appeal, unless the Chair shall not qualify to be a member of an appeals panel, in which case the Chair of the SCAPC shall appoint a presiding officer from among the appeals panel members. (Procedures for the submittal to and hearing by C&S are provided in Appendix E.)

11.1.2 Disqualification to Hear Appeals

A person shall be disqualified to be a member of an appeals panel if they are not a disinterested member as described in Article VII, Section 10, Subsection of B of NEMA By-Laws.

11.2 Appeals to SCAPC

11.2.1 Procedure

A decision of C&S may be appealed to the SCAPC in the manner set forth in this section. The appeal shall be initiated and conducted in accordance with NEMA By-Laws, Article VII, Section 10. A member of the NEMA Board of Governors shall be a member of the appeals panel and preside at any hearing on the

appeal, unless no member of the Board of Governors shall qualify to be a member of an appeals panel, in which case the Chair of the Board of Governors shall appoint a presiding officer from among the appeals panel members.

11.2.2 Scope of Appeal

A decision of C&S may be appealed only on the grounds that (1) the decision was obtained by corruption or fraud, (2) the committee improperly refused to receive relevant and material information from an interested member of NEMA or the public, (3) that a procedure or policy of NEMA as set forth in its Certificate of Incorporation, by-laws, or the written policies and procedures or resolutions adopted by the Board of Governors (including the *Standardization Policies and Procedures*) were not followed, or (4) that the decision is a violation of applicable law. The decision of the appeals panel shall be limited to a determination in favor or against the appellant on one or more of these grounds and shall provide reasons for the appeals panel's determination. A decision in favor of an appellant shall state that the Codes & Standards Committee and/or a Product Group's Technical Committee shall take such action in response to the decision consistent with the decision and reasoning of the appeals panel.

11.2.3 Disqualification to Hear Appeals

A person shall be disqualified to be a member of an appeals panel if they are not a disinterested member as described in Article VII, Section 10, Subsection of B of NEMA By-Laws.

11.3 Final Appeal to Board of Governors

Any interested Product Group or member of a Product Group or any non-NEMA member shall have the right to appeal to the Board of Governors any decision of a SCAPC appeals panel in the manner provided in Article VII, Section 10 of NEMA By-Laws. Notice of the time and place at which the appeal will be considered and an opportunity to be heard thereon shall be given to all members of the Product Group Committees, or non-NEMA members concerned.

12 Review of NEMA Technical Publications

C&S shall review NEMA Standards, Adoptive Standards, Suggested Standards for Future Design, Authorized Engineering Information, White Papers and other technical publications, to determine that none is older than 5 years, unless maintained under stabilized maintenance. The committee shall notify the appropriate Product Group 2 years prior to expiration of the 5-year period that Product Group action is required.

12.1 Product Group Action

Upon notification by C&S, the Product Group, Council, or Committee shall take action to reaffirm, revise, or withdraw the subject NEMA Standard, Authorized Engineering Information, or Suggested Standard for Future Design (in accordance with the requirements laid out in [5.3.2](#)).

A document shall be reaffirmed when no technical changes are needed to update the document. Reaffirmed standards shall not include any substantive changes. A document shall be revised when the technical content is relevant but technical changes are needed to update the document. A document shall be withdrawn¹ when the technical content is no longer valid, or when it has been included in another technical document. Withdrawn documents are discontinued by NEMA and may be withdrawn with or without a replacement.

12.1.1 Reaffirmation

¹ In past versions of the SP&P, the term "rescinded" was used synonymously with "withdrawn".

In addition, a standard may be reaffirmed by either of the following:

- a. In the case of a letter ballot, by an affirmative vote of at least two-thirds of all members of the Product Group, Council, or Committee eligible to vote thereon.
- b. At a properly called meeting of the appropriate Product Group, Council, or Committee by the affirmative vote of at least two-thirds of the members of the Product Group, Council, or Committee eligible to vote. Additionally, it is required that all (100 percent) of the members eligible to vote on the subject be present at the meeting.

In either case, reaffirmations are effective upon approval by C&S.

12.1.2 Withdrawal or Extension

If a Product Group, Council, or Committee, following notification by C&S, fails to reaffirm, revise, or withdraw the subject NEMA Standard, Suggested Standard for Future Design, Authorized Engineering Information, or Adoptive Standard within the five-year period, C&S shall take action to withdraw the NEMA Standard, Authorized Engineering Information, Suggested Standard for Future Design, or Adoptive Standard. C&S may, however, for good cause shown, grant annual extensions. No extension of time beyond 10 years from the date of approval shall be granted for action on a standard.

12.1.3 Stabilized Maintenance

The term “Stabilized Maintenance” means a process by which NEMA standards can be placed under a ten-year review cycle under certain conditions.

A Product Group, Council, or Committee may recommend that a standard be maintained under Stabilized Maintenance if it satisfies the following criteria:

- a) The standard addresses mature technology or practices, and as a result, is not likely to require revision;
- b) The standard is other than safety or health related;
- c) The standard has been reaffirmed at least once;
- d) At least ten years have passed since approval or revision of the standard;
- e) The standard is required for use in connection with existing implementations or for reference purposes.

Approval of Stabilized Maintenance shall follow the same procedures as approval of a new or revised standard. A standard maintained under Stabilized Maintenance is not required to be revised or reaffirmed on a routine cycle. It shall be subject to review of such status on a ten-year cycle. If the Product Group, Council, or Committee agrees that the standard shall continue to be maintained under Stabilized Maintenance and does not require revision or withdrawal, the appropriate NEMA staff shall notify C&S.

If a written recommendation is made at any time that a standard under Stabilized Maintenance requires revision or should be withdrawn, that recommendation shall be considered by the Product Group, Council, or Committee within 60 calendar days of receipt. Recommendations shall include a rationale to withdraw or revise and shall not be dismissed because it does not suggest a specific revision.

13 Standardization Activities with Outside Bodies

13.1 General Rules on Contacts with Outside Bodies

13.1.1 Approval of New Contacts

New contacts or negotiations on technical matters with outside bodies concerning standards or conformity assessment shall be made only with the approval of C&S or IRSC, within their respective scopes, and Counsel or at the direction of the President as provided in the NEMA By-laws. Product Group, Council, or Committee ongoing activity for the development of technical positions for submittal to an ISO or USNC

TAG need not be approved by the IRSC. Interface with governmental bodies is outside the scope of the SP&P and shall be coordinated by NEMA Government Relations.

13.1.2 Scope of Outside Bodies

When new contacts or negotiations on technical matters with outside bodies are authorized, the scope of the activity of the Association representatives shall be clearly defined. No activities beyond that authorized scope shall be engaged in by the Association representatives.

13.1.3 General Policy

In contacts with outside bodies the policy of the Association shall be, in general, to request the appointment either of Joint Committees composed of representatives of the Association and of the outside body directly concerned, or of accredited representatives of the Association to serve on such outside bodies.

13.1.4 Reports

Copies of the minutes of all meetings, or drafts of all proposed publications, and of all official communications to or from outside representatives, shall be filed with the president, the Product Group NEMA staff, or the Operations Department. For international activities, instructions for participation by individuals sponsored by an Association Committee or Product Group can be obtained from the NEMA IEC-ISO Guidelines for Delegate Funding Activity. Association Committees and Product Groups are encouraged to adopt these guidelines as requirements for delegates they support.

13.2 Instructions to and Reports from NEMA Representatives

13.2.1 Instructions from C&S

NEMA representatives who cooperate with outside bodies in developing standards represent the interests of members who (from the nature of standards) are in any way affected by the standards being contemplated, and who shall vote in accordance with official instructions furnished by C&S whenever formal action is being taken.

13.2.2 Requests for Instructions

Communications from representatives on matters requiring official action shall be addressed to the NEMA Technical Director and shall not be addressed directly to Product Groups. Instructions must not be sent directly to a representative by a Product Group or Committee unless C&S has given specific authorization thereof. (See Appendix D.)

All pertinent supporting information that will be helpful to the Association in formulating voting instructions to Association representatives shall be filed with the NEMA Technical Director.

13.3 Obtaining Product Group Recommendations for Instructions to NEMA Representatives

13.3.1 Determination of Interest in Questions Considered

C&S shall determine which Product Groups are interested in any proposed instructions and shall obtain from those Product Groups or authorized Technical Committees, recommendations for instructions to NEMA representatives.

13.3.2 Recommendations of Product Groups

Recommendations of a Product Group or authorized Technical Committee shall be determined by a majority vote of those present at any meeting at which a quorum is present, or, in the case of a letter ballot, by the vote of a majority of the members of the Product Group or authorized Technical Committee. If the time allotted by the outside body for voting on any technical matter does not permit a 30 calendar day letter ballot, the recommendations of interested Product Groups or authorized Technical Committees may be obtained by a letter ballot upon notice of less than 30 calendar days. If the time allowed is not sufficient to permit a letter ballot, the recommendations of interested Product Groups or authorized Technical Committees shall be obtained by C&S by such means as may be available within the time allowed. The opinions of the interested Product Groups or authorized Technical Committees may be obtained from the records, or may be expressed on behalf of Product Groups by the Product Group's chair, or by a Product Group Committee designated by the chair for that purpose, subject to confirmation by the Product Group.

13.3.3 Filing Product Group Recommendations

The recommendations of a Product Group shall be filed with C&S by the appropriate NEMA staff. When there is a difference of opinion within any Product Group, NEMA staff shall file a statement of the situation with C&S.

13.4 Basis of C&S Instructions to NEMA Representatives

13.4.1 Basis of Instructions

Except as otherwise directed, C&S, in formulating instructions to NEMA Representatives, shall give due consideration to the recommendations of the interested Product Groups.

13.4.2 Basis of Action in Conflicts

When there is a difference of opinion, in the Product Group or between two or more Product Groups, C&S shall base its instructions to be sent to Association representatives on engineering consideration of the question and of the majority and minority opinions submitted.

13.4.3 Basis of Action Within the Time Limit

When the recommendations of interested Product Groups are not received within the time limit set by the outside organization, C&S shall formulate official instructions based on engineering consideration of the question and shall notify the appropriate NEMA staff of the interested Product Groups of the action taken or not taken.

13.4.4 Appeals Relative to Voting Instructions in Standardization With Outside Bodies

Action of any Product Group or C&S in connection with the formulation of voting instructions to Association representatives cooperating with outside bodies in the development of standards shall be subject to appeal to the SCAPC by any interested member of the Association. Any action of the SCAPC upon any appeal may be further appealed to the Board of Governors by any interested member of the Association. Notice of the time and place at which appeals will be considered by the SCAPC and the Board of Governors, and an opportunity to be heard thereon, shall be given to all members of the Product Group or Committee concerned.

13.5 IRSC Instructions to NEMA Representatives

Interaction concerning management or strategic issues with respect to international or regional standards bodies (not under the scope of C&S) on behalf of NEMA shall be approved by the IRSC.

14 Revisions of Rules, Policies, and Procedures

Revisions of any of the rules, policies, and procedures included in this manual require approval by the Board of Governors. All suggestions for revision to this manual shall be addressed to the Vice President, Operations for consideration by the MC on the SP&P. The MC on the SP&P should review this manual and propose updates as needed, but no less frequently than every five years.

15 Appendices

All appendices included herein are NEMA standards development governance documents and shall be considered part of the *Standardization Policies and Procedures of the National Electrical Manufacturers Association*.

Appendix A, Notice and Disclaimer for NEMA Technical Publications

The information in this publication was considered technically sound by the consensus of persons engaged in the development and approval of the document at the time it was developed. Consensus does not necessarily mean that there is unanimous agreement among every person participating in the development of this document.

NEMA standards and guideline publications, of which the document contained herein is one, are developed through a voluntary consensus standards development process. This process brings together volunteers and/or seeks out the views of persons who have an interest in the topic covered by this publication. While NEMA administers the process and establishes rules to promote fairness in the development of consensus, it does not write the document and it does not independently test, evaluate or verify the accuracy or completeness of any information or the soundness of any judgments contained in its standards and guideline publications.

NEMA disclaims liability for any personal injury, property, or other damages of any nature whatsoever, whether special, indirect, consequential or compensatory, directly or indirectly resulting from the publication, use of, application, or reliance on this document. NEMA disclaims and makes no guaranty or warranty, express or implied, as to the accuracy or completeness of any information published herein, and disclaims and makes no warranty that the information in this document will fulfill any of your particular purposes or needs. NEMA does not undertake to guarantee the performance of any individual manufacturer's or seller's products or services by virtue of this standard or guide.

In publishing and making this document available, NEMA is not undertaking to render professional or other services for or on behalf of any person or entity. Nor is NEMA undertaking to perform any duty owed by any person or entity to someone else. Anyone using this document should rely on his or her own independent judgment or, as appropriate, seek the advice of a competent professional in determining the exercise of reasonable care in any given circumstances. Information and other standards on the topic covered by this publication may be available from other sources, which the user may wish to consult for additional views or information not covered by this publication.

NEMA has no power, nor does it undertake to police or enforce compliance with the contents of this document. NEMA does not certify, test or inspect products, designs or installations for safety or health purposes. Any certification or other statement of compliance with any health or safety-related information in this document shall not be attributable to NEMA and is solely the responsibility of the certifier or maker of the statement.

Appendix B, Guide For Members of NEMA Joint Sections Committees

The members of a Joint Sections Committee (JSC) are appointed by the C&S or IRSC, within their respective scopes, to resolve a technical problem or develop a draft of a technical standard, involving more than one NEMA Product Group. JSC members should be appointed in such a way that one Section's position is not favored over another Section's. The JSC shall establish how it will determine mutually acceptable solutions.

1. Scope to be Defined

The problem, standard, or the work of the JSC is more specifically defined by a committee scope which requires approval of C&S or IRSC.

The nature of the problem assigned to the JSC will be described in more or less specific terms in the minutes of C&S or IRSC approving the JSC. However, it is often desirable that any such general description of the task be refined into a precise scope outlining an assignment that the JSC will be capable of accomplishing within a reasonable length of time.

Therefore, each new JSC is requested to review its scope and possibly draft a scope which will more precisely cover its assignment. (Such scope will then be referred by the staff to C&S or IRSC for approval.)

Subsequent activity of the JSC will be expected to fulfill and be confined to the scope approved by C&S or IRSC. However, should developments later indicate the desirability of modifying its original scope, the JSC or some other NEMA Product Groups or Committee may at any time recommend such modification to C&S or IRSC.

2. Early Initiation of Activity

Since a JSC is generally appointed only as a result of an already apparent need, early initiation of activity is desirable and is expected by C&S or IRSC. It is the responsibility of the chair of the JSC to initiate activity promptly and early suggestions by all members are helpful.

Since more than one NEMA Product Group is involved in a JSC, it is generally important that the JSC work toward a solution of the assigned problem or the development of the standard or the other assigned technical task, which will be mutually acceptable to the NEMA Product Groups represented on the JSC. This agreement is often necessary because C&S or IRSC may refer the proposed final report or solution of the problem or proposed standard to the Product Group for comment, before taking action to approve the work of the JSC.

As work progresses, it is best for the members of the JSC to keep the NEMA Product Groups informed of the progress and possibly to ask for guidance on major issues or conflicting views that may require resolution within the JSC.

The NEMA staff, represented as secretary, will distribute any background material available and, on request of the chair, arrange meetings, prepare agenda, circulate items for written comment, etc., but the staff is not otherwise principally responsible for initiating action.

3. Annual Status Report by the JSC Chair

In order that C&S may be apprised of the progress, a brief progress report is requested each year from the Chair. C&S or IRSC will review all the JSC annual reports covering the future need for the JSC and

whether to continue the length of service.

4. Technical Reports Processed through C&S or IRSC

The results of the work of a JSC will generally be contained in one or more technical reports (not to be confused with the status report in No. 3). When completed by the JSC, these technical reports will be referred by the staff to C&S or IRSC for approval. Ordinarily, C&S or IRSC will seek formal concurrence of the Product Groups participating in the JSC, and possibly others having an interest, before issuing final approval. At this time also, Legal Counsel's approval or comment(s) on the report will be obtained if not already available as a result of Counsel's review of the JSC minutes.

Even though the substance of the report may be a recommendation to a NEMA Product Group or some other body, the report must be made to C&S or IRSC rather than directly to the Product Groups. C&S or IRSC, after approval of the report, will refer it to the appropriate body and, if personal contact by the JSC with somebody is needed to explain or discuss the report, C&S or IRSC will authorize such contact.

Appendix C, User Input Statement

NEMA Standard _____
Date _____

Submitted to the NEMA Codes and Standards Committee on behalf of _____ (Product Group, Council, or Committee)

1. If user input has been identified in the formulation of this standard(s), explain how it was accomplished by one or more of the following:

- A. Through formal participation of the following user groups:

- B. Through survey(s), questionnaire(s), or correspondence undertaken by the NEMA Product Group, Council, or Committee. (Summarize briefly.)

- C. Through other channels identified as follows:

2. If it is proposed to process this standard(s) through further committees having user participation (e.g., ANSI, ICEA, etc.), explain how:

3. If no user input was required for this particular standard(s) explain why:

4. Is the standard(s) harmonized with an existing standard(s)?

Yes _____
No _____

5. Does the Product Group, Council, or Committee intend to harmonize this standard(s) with comparable international standard(s)

Yes _____
No _____

If "yes":

- A. List the comparable international standard(s)

- B. Circle one of the following comparing this standard to the listed international standard(s)
 - i. Technically equivalent
 - ii. NEMA has more severe requirements
 - iii. NEMA has less severe requirements

If "ii" or "iii" are circled, list plan and schedule for harmonization.

6. Has the Product Group, Council, or Committee considered North American harmonization?

Yes _____

No _____

DATE _____

SIGNATURE (electronic signature acceptable)

(Chair of Product Group, Council, or Committee)

Appendix D, Instructions to NEMA Representatives Appointed to Serve On Technical Groups Of Outside Bodies

1. Introduction

Official NEMA activities on technical groups of outside organizations occur only after approval by C&S or the IRSC. Hereafter, C&S and the IRSC are referred to as the “appropriate SCAPC Standing Committee”. The “appropriate SCAPC Standing Committee” is that which appoints a NEMA representative. An individual approved for such official NEMA activity is designated as “NEMA Representative.” The appropriate SCAPC Standing Committee oversees the conduct of its NEMA Representatives.

Because representation is of the whole Association, the NEMA Representative assumes specific duties, obligations, and accountability. These authorized activities have been established to best serve the overall NEMA viewpoint and to promote the interests of all NEMA members. These instructions are to assist the NEMA Representative in carrying out the duties, and understanding the actions expected of the NEMA Representative by the appropriate SCAPC Standing Committee and the members of NEMA. All official NEMA Representatives appointed by the appropriate SCAPC Standing Committee are instructed representatives.

Acceptance of appointment as a NEMA Representative assumes the individual is comfortable with and willing to act under these instructions.

2. Purpose and Objectives

2.1 Purpose

A NEMA Representative on a technical group or committee of an outside body is expected to promote and act for the furtherance and acceptance of established NEMA positions and to vote as instructed by the appropriate SCAPC Standing Committee.

2.2 Objectives

The objectives of a NEMA Representative’s participation in an outside technical committee are to monitor and review the activities of the outside organization(s) and to advise the appropriate SCAPC Standing Committee of issues potentially of concern to NEMA Product Groups, Councils, and Committees and members.

To accomplish these NEMA objectives, the Representative will:

- a. Actively promote acceptance of established NEMA positions.
- b. Participate in committee activities as required.
- c. Conduct or see to the review of documents, statements, and trends of the outside committee.
- d. Ensure that the appropriate SCAPC Standing Committee is made aware of all aspects of the issues before the outside body.
- e. Assist the appropriate SCAPC Standing Committee in understanding how issues impact NEMA Product Groups, Councils, and Committees.
- f. Recommend to the appropriate SCAPC Standing Committee a position and provide a rationale for this recommendation.
- g. Vote as instructed by the appropriate SCAPC Standing Committee.

3. Requirements and Procedures for Appointment, Reappointment, and Termination

3.1 Appointment of a NEMA Representative

NEMA participation in a technical group or committee of an outside organization is by the appointment of a NEMA Representative by the appropriate SCAPC Standing Committee.

Requests for appointment may come from:

- a. Outside organization.
- b. The appropriate SCAPC Standing Committee.
- c. Member company.
- d. Operations Department.
- e. NEMA Product Group(s)
- f. NEMA Council(s)
- g. NEMA Committee(s)

The appropriate SCAPC Standing Committee provides opportunities for any NEMA entity to make recommendations concerning the appointment of a NEMA representative.

3.2 Procedures—Documentation—Initial Appointment

As prerequisites for consideration by the appropriate SCAPC Standing Committee, any recommendation for an initial appointment must be accompanied by the following:

- a. One-page curriculum vitae of the nominee relative to the appointment sought.
- b. Statement from the member company or other NEMA entity indicating its intention to support the nominee's participation.
- c. Statement from the nominee:
 - 1) Agreeing to adhere to the NEMA policies and procedures for representatives and this Appendix D of the Standardization Policies and Procedures.
 - 2) Providing specific statements over and above the curriculum vitae concerning the nominee's knowledge and competence in the technical field of the committee and stating the nominee's association with at least one of the NEMA entities affected by the work of the outside committee.
- d. Completed application, if required, by the outside organization.

3.3 Appointment and Reappointment

The recommendation, with the supporting documentation as described in 2) above, is to be sent to the NEMA Operations Department for documentation compliance checking and for addition to the agenda of the appropriate SCAPC Standing Committee. Depending on the vacancies available on the outside group or committee, and the recommendations received, one or more NEMA Representatives may be appointed.

When there are two or more NEMA Representatives, the appropriate SCAPC Standing Committee may designate one of them as chair of the NEMA Delegation.

The appropriate SCAPC Standing Committee will designate an appointment period for each NEMA Representative.

3.4 Review of Representations

NEMA Product Groups, Councils, and Committees, on at least an annual basis, should review the NEMA representations pertaining to their product interest and submit any comments or recommendations on that representation to the appropriate SCAPC Standing Committee.

3.5 Termination of Representations

All concerns on the part of the Product Groups, Councils, and Committees, regarding NEMA representation on outside organizations, are encouraged to be brought to the attention of the appropriate SCAPC Standing Committee prior to any reappointment.

Without any such concerns, at the end of each individual appointment period, the appropriate SCAPC Standing Committee shall notify the current NEMA Representative(s) of their reappointment. The term of such reappointment shall be stated by the appropriate SCAPC Standing Committee. There is no limit to the number of reappointments, unless required by the procedures of the outside body.

Should there be any change in the Representative's status of the relationship with the sponsoring member company (i.e. retirement, job change), the Representative should notify the appropriate SCAPC Standing Committee. The appropriate SCAPC Standing Committee will then review the status change and reconfirm or terminate the appointment as required. For other reason(s) deemed by the appropriate SCAPC Standing Committee as sufficient, the Representative will be notified by the appropriate SCAPC Standing Committee that the Representative's appointment is terminated.

3.6 Principles of NEMA Representation

- a. On issues where the NEMA position has been established, the NEMA Representatives will espouse that position in all stages of the committee's work.
- b. Keep the activity within the approved scope of the committee as understood by the appropriate SCAPC Standing Committee and the affected NEMA entities.

The NEMA Representatives may not participate in any activity on behalf of NEMA beyond that authorized by the appropriate SCAPC Standing Committee. If the scope of the committee should be revised subsequent to appointment, the Representative is required to notify the NEMA Operations Department, so that the appropriate SCAPC Standing Committee can reevaluate NEMA representation.

- c. In the preliminary outside committee work, use individual judgment.

Since the NEMA Representative is selected with assurance of his or her familiarity with the topic and with the NEMA concerns, it is expected that generally the Representative will act on his or her own good judgment in the preliminary stages of the development of the committee's work. On issues for which the Representative does not have expertise, the views of the particular Product Groups, Councils, and Committees should be obtained. NEMA staff will assist in this effort. Should any NEMA Representative have a need to formally contact any other Product Groups, Councils, and Committees of NEMA, this may be done by contacting the Operations Department. Where differences of opinion between NEMA Product Groups, Councils, and Committees occur, NEMA staff should ensure that all interested parties are provided with the necessary information to reach a position.

- d. Try to arrive at a unified NEMA position before the meeting, within and between affected NEMA entities and among the delegation. To do so:
 - General agreement between the affected NEMA entities and among the NEMA Delegation should be reached apart from the meetings of the outside committee.
 - Principal and alternate shall coordinate their views and position on all issues to be addressed by the committee. If major differences of opinion should develop between NEMA

Representatives, no attempts should be made to resolve such differences during a meeting of the outside committee. If the principal and alternate have opposing positions regarding an issue, the representative(s) shall notify the NEMA Operations Department as soon as possible for decision by the appropriate SCAPC Standing Committee.

- If representatives from various NEMA Product Groups, Councils, and Committees are unable to reach an agreement, the matter should be referred to the NEMA Operations Department for decision by the appropriate SCAPC Standing Committee.
- e. Remember that the appropriate SCAPC Standing Committee supervises NEMA work with technical committees of outside organizations.

The appropriate SCAPC Standing Committee supervises and coordinates all technical standardization work, both within the Association and in outside organizations.

It is the duty of the NEMA Representative (or of the Chair of the NEMA Delegation) to make a brief report of every meeting of the committee to the Operations Department, reporting the NEMA Representative's attendance at that meeting and summarizing the work in progress, actions taken at the meeting, and the schedule of future meetings.

- f. The NEMA Representatives shall abstain when all of the following apply:
- a. there is no established NEMA Technical Position, and
 - b. the NEMA Representatives on the group considering the matter cannot agree, and
 - c. the appropriate SCAPC Standing Committee cannot be reached for decision.
- g. Ask for official instructions from the appropriate SCAPC Standing Committee before any formal votes (e.g., letter ballots, votes included in meeting agendas, etc.).

Whenever formal action is being taken by the committee requiring voting by the NEMA Representatives, official voting instructions must be obtained from the appropriate SCAPC Standing Committee.

The exception to this limitation is that voting instructions need not be obtained for outside committee votes on matters which concern only that outside committee's organization and procedures. With the above exception noted, the NEMA Representative should not cast votes on his or her own initiative nor on instructions received from any NEMA Product Groups, Councils, and Committees.

To secure voting instructions, the NEMA Representatives should write to the NEMA Operations Department requesting such instructions. This should be done as soon as the ballot is received. At the same time, each Representative should give his or her own recommendations.

In general, a NEMA Representative can only express NEMA positions which are those positions that have been officially adopted by the appropriate SCAPC Standing Committee. The appropriate SCAPC Standing Committee may delegate clearly defined discretion to the NEMA Representative to formulate and express tentative NEMA positions to an outside organization so long as it is indicated that the positions are tentative. The appropriate SCAPC Standing Committee will review them before they become final NEMA positions, and the final positions are reported to the outside organization.

Although the NEMA Representative is expected to support established NEMA positions, conditions before or during the meeting may cause reconsideration of the original position. In this situation, if substantial new evidence comes to light which, in the Representative's judgment, could have resulted in different outcome had the appropriate SCAPC Standing Committee considered this new evidence, the Representative must restate the NEMA position that had been actually authorized and then abstain from voting. The appropriate SCAPC Standing Committee can be notified in advance of the

intended change and authorize a new position. Under no circumstances shall the NEMA Representatives speak against the NEMA position.

- h. Send the NEMA Operations Department a copy of all official correspondence to the outside committee or its officials, or other members of the outside committee.

Copies of the official minutes of all meetings, of drafts of all proposed publications, reports and standards, and of all communications by the NEMA Representative to outside organizations, shall be sent to the NEMA Operations Department. Usually, the Representative finds it feasible to arrange with the secretary of the outside committee to add the NEMA Operations Department to the distribution list for minutes, drafts, ballots, etc., thus leaving the Representative with the need for filing only copies of the correspondence they write.

- i. As an Alternate, be an active and supportive participant.

NEMA Representatives designated as Alternates should attend all meetings of the outside committee to which they are appointed. Alternates are, in many cases, appointed in order to broaden the NEMA coverage. They should feel free to enter into all discussions in meetings of the committee. If the Principal is unable to attend a meeting, they should assure that the Alternate will attend, and should ensure that the Alternate is knowledgeable of the material to be discussed as well as the NEMA position on the subject as directed by the appropriate SCAPC Standing Committee. If neither the Principal nor the Alternate is able to attend a meeting, the Operations Department should be notified sufficiently in advance to arrange substitute representation or take other measures as appropriate.

Alternates should receive all material mailed to the committee members. If an Alternate finds that they are not receiving such materials, the committee secretary should be advised.

- j. Problems? Contact the NEMA Operations Department for counsel and to get instructions from the appropriate SCAPC Standing Committee.

The NEMA Operations Department is the most direct route to the appropriate SCAPC Standing Committee. Often the Operations Department personnel have the information at hand to clear any problems. The Operations Department has accelerated procedures for getting an appropriate SCAPC Standing Committee position/decision so that the schedules of the outside committee should not become a problem.

Appendix E, Procedures for A Hearing by The Codes and Standards Committee

1. Preparations for a Hearing

In preparation for a hearing by the Codes and Standards (C&S) Committee, the following steps shall be taken:

- a. The reason(s) for requesting a hearing must be submitted to the Secretary of C&S.
- b. The Officers shall review the request for the hearing and, if appropriate, determine the date of the hearing by C&S. The Secretary shall notify the interested parties of the hearing date.
- c. Information provided in Procedures pertaining to the time allotted to each side in the hearing to make its presentation shall be communicated by the Secretary of C&S to the individuals who will be presenting the information to C&S. As part of these communications, the secretary will inquire if the amount of time allotted is sufficient for the parties to present their evidence. If a request is made by one of the parties for additional time, the matter will be resolved by C&S Officers.

2. Responsibilities of the Presenters

For a hearing by C&S, the following procedures shall be followed:

- a. The individuals that will be presenting evidence at C&S meeting must provide their contact information to the Chair and Secretary of C&S and the Product Group, Council, or Committee Chair at least four weeks prior to the scheduled hearing by C&S meeting.
- b. All evidence to be presented by the initiator of the hearing shall be provided to C&S Secretary at least six weeks prior to C&S meeting date to allow sufficient time for C&S members to familiarize themselves with the information to be presented. All evidence to be presented by the other side shall be provided to C&S Secretary at least four weeks prior to the hearing by C&S. Information received will be distributed within three business days to the other side, the appropriate NEMA staff, and C&S members.
- c. Information provided less than six weeks prior to C&S hearing date by the initiator of the hearing or less than four weeks prior to C&S hearing date by the other side will not be allowed to be presented to C&S.

3. Procedures

The following procedures shall be followed for a hearing by C&S:

- a. Unless otherwise decided by the C&S Officers and subject to the agreement of both parties, the two sides shall each have up to 30 minutes (including rebuttal time) to present their case. members of C&S will then be provided the opportunity to ask questions.
- b. C&S shall be permitted to utilize any independent resource it deems necessary to fully evaluate the information that is presented during the hearing.
- c. C&S, upon hearing the evidence of the opposing sides, shall enter executive session (i.e., voting and non-voting members of C&S and NEMA staff) to deliberate and shall choose one of the following options for resolution of the matter:
 1. Uphold the position of the initiator of the hearing.
 2. Reject the position of the initiator of the hearing.
 3. Table the discussion.

Note: C&S will make every effort to reach a decision at the meeting, but, if the committee determines that additional time is needed to consider the evidence and to formulate its decision, it may Table the discussion to allow additional time. Should C&S choose this option, it is required to communicate its final decision to both sides within 14 calendar days of the date of the hearing, unless good cause is shown for an extension.

Appendix F, Sample Patent Disclosure Letter

DATE

National Electrical Manufacturers Association
 Attention: Vice-President Operations
 1300 N. 17th Street, Suite 900
 Rosslyn, VA 22209

In accordance with NEMA *Standardization Policies and Procedures* (“SPP”) Section 9.9², the undersigned notifies NEMA that the undersigned or an **Affiliate** [does][does not]³ own, control or have the ability to license one or more patents or published patent applications containing one or more **Essential Patent Claims** with respect to a NEMA standard or proposed NEMA standard, and the undersigned or its **Affiliate** will grant a license to practice and use such **Essential Patent Claims** to applicants desiring to utilize the license for the purpose of implementing the NEMA standard or proposed NEMA standard as our licensing position is described below.

The undersigned identifies the following NEMA standard or proposed NEMA standard with respect to which it or an **Affiliate** [does] [does not] own, control, or have the ability to license patents or published patent applications containing one or more **Essential Patent Claims**:

Title of (Proposed) NEMA standard (including NEMA Identification Number): _____

Part or Section of this NEMA standard that includes the use of an **Essential Patent Claim**:

Patent Reg'n/Application Number(s) containing an **Essential Patent Claim**: _____

Licensing Assurance:

With respect to patent claims that are **Essential Patent Claims** or which may become **Essential Patent Claims**, our licensing position is as follows (check the appropriate boxes below):

1. A license to such **Essential Patent Claims** will be granted without compensation to all applicants with reasonable terms and conditions that are demonstrably free of unfair discrimination.

† (Optional) A sample of such a license or material licensing terms similar to what would be offered is attached to this letter.

† (Optional) That such license is offered under a **condition of reciprocity**.

2. A license to such **Essential Patent Claims** will be granted to all applicants under reasonable terms and conditions that are demonstrably free of unfair discrimination.

² Terms highlighted in **bold** are defined in Section 9.9 of the NEMA SPP.

³ If disclosing that you do not own, control, or have the ability to license **Essential Patent Claims**, no Licensing Assurance is required; however the Contact and Signature provisions of this letter apply.

† (Optional) These reasonable rates will not exceed _____ (e.g. a percent of product price or sales, a flat fee, per unit, other).

† (Optional) A sample of such a license or material licensing terms similar to what would be offered is attached to this letter.

† (Optional) That such license is offered under a **condition of reciprocity**.

3. We will not enforce any present or future **Essential Patent Claims** against any person or entity making, using, selling, offering to sell, importing, distributing, or implementing a compliant implementation of the NEMA standard.

4. We are unwilling or unable to grant licenses according to the provisions of either 1. or 2. above or to agree that it will not enforce its **Essential Patent Claims** as described in 3. above. [Note: this option may only be selected if this Disclosure is received by NEMA prior to the distribution of a letter ballot for approval of a NEMA standard proposed for adoption, revision or reaffirmation].

We further assure NEMA that the foregoing assurance will be brought to the attention of any future assignees or transferees of the **Essential Patent Claims**, that the assurance will be included in any documents transferring ownership of patents subject to the assurance together with provisions sufficient to ensure that the commitments in the assurance are binding on the transferee, and that the transferee will similarly include appropriate provisions in the event of future transfers with the goal of binding each successor-in-interest. and shall not be circumvented through the sale or transfer of patents. Our assurance will also indicate that it is intended to be binding on successors-in-interest regardless of whether such provisions are included in the relevant transfer documents.

Our licensing assurance is (check one box):

irrevocable;

subject to a reservation that it may be withdrawn when it is established that there are commercially and technically feasible non-infringing alternatives to creating a compliant implementation of the NEMA standard.

Contact Information for entity that owns, controls or has the ability to license **Essential Patent Claims**:

Contact Name and Title: _____

Company Name: _____

Address:

Telephone: _____

Email:

SIGNATURE:

By signing this letter, I represent that I have the authority to bind the undersigned to the representations and commitments provided in this letter and acknowledge that the users and implementers of the [proposed] NEMA standard identified above are relying upon or will rely upon those representations and commitments.

If it is later discovered that the undersigned (including any Affiliate) does own, control, or have the ability to license patents containing **Essential Patent Claims**, a license will be made available as prescribed in Section 9.9 of the SPP.

Date

Signature

Print Name and Title

Company (if applicable)

APPENDIX G APPLICATION OF NEMA APPEALS PROCEDURES TO ANSI STANDARDS

A critical element of the American National Standards Institute’s Essential Requirements: Due Process Requirements for American National Standards (“Essential Requirements”) is the right to an appeal of “any procedural action or inaction by a standards developer”:

Persons who have directly and materially affected interests and who have been or will be adversely affected by any procedural action or inaction by a standards developer with regard to the development of a proposed American National Standard or the revision, reaffirmation, or withdrawal of an existing American National Standard, have the right to appeal.

Essential Requirements at 2.8.1.⁴

The Essential Requirements state: “Appeals shall be directed to the standards developer responsible for the action or inaction in accordance with the appeals procedures of the standards developer.” Id.

The written procedures of an ANSI-Accredited Standards Developer (ASD) shall contain an identifiable, realistic, and readily available mechanism for the impartial handling of procedural appeals regarding any action or inaction. Appeals shall be addressed promptly and a decision made expeditiously. A standards developer may choose to offer an appeals process to address appeals on other than procedural issues. Procedural appeals include whether a technical issue was afforded due process. Appeals procedures shall provide for participation by all parties concerned without imposing an undue burden on them. Consideration of appeals shall be fair and unbiased and shall fully address the concerns expressed.

Essential Requirements, id.

NEMA’s appeals procedures are set forth in the NEMA By-laws at Article VII, Section 10.

The purpose of this Appendix is to set forth the procedures that both NEMA and a “person who [has] directly and materially affected interests and who [has] been or will be adversely affected by any procedural action or inaction by a standards developer with regard to the development of a proposed American National Standard or the revision, reaffirmation, or withdrawal of an existing American National Standard” must follow in connection with an appeal from an ANSI Accredited Standards Committee or ANSI canvass body.⁵

I. Notice of an appeal

A. To initiate an appeal, a written Notice of Appeal shall be filed with the Secretary of the Association [NEMA General Counsel] within forty (40) days following the decision appealed from.⁶

B. The Notice of Appeal shall contain the following information:

- (a) the name and address of the party(ies) filing the appeal and the principal contact for the appellant who will represent the appellant during the appeal,
- (b) the identity of the ANSI committee whose decision is appealed (the appellee),

⁴ References to the *ANSI Essential Requirements* are to the 2019 edition. The Essential Requirements are reviewed and updated each year.

⁵ It is important to recognize that an American National Standard cannot be approved by ANSI until “any appeal to the standards developer with respect to the standard [i]s completed.” *Essential Requirements* at 4.2.1.1.

⁶ The Essential Requirements state: “Appeals of actions shall be made within reasonable time limits; *appeals of inactions may be made at any time.*” The forty-day time requirement will be waived in case of alleged inactions; however unreasonable delay in making an appeal may be considered by the NEMA Secretary if it is prejudicial.

- (c) the date of the ANSI committee's decision,
- (d) the identity of the entity within the Association to whom the appeal is made,⁷ and
- (e) a statement of the decision which is appealed and a brief statement of the reasons⁸ why that decision(s) should be overturned.

II. Response to Notice of Appeal

- A. The NEMA Secretary shall review the Notice for compliance with the above requirements.⁹
- B. No later than one week after receipt of the notice of appeal, the Secretary of the Association shall promptly notify
 - (i) the President of the Association,
 - (ii) the Chairperson of the appellee [ANSI Accredited Standards Committee],
 - (iii) the Chairperson of the entity within the Association [SCAPC] to whom the appeal is taken that a Notice of Appeal has been filed, and
 - (iv) any other persons, entities or Product Group(s) (including their members) or non-members who are known to be interested in the outcome of the appeal.
- C. The Chairperson of the [Accredited Standards Committee or canvass body] shall identify to the Secretary a principal contact for the appellee who will represent the appellee during the appeal.

III. Appellant's Statement of Reasons

Within twenty-one days of filing a Notice of Appeal with the Secretary, the appellant shall file a Statement of Reasons why the decision of the Appellee [procedural action or inaction] should be overturned. The appellant may request from the Secretary a one-time enlargement of the time, not to exceed fourteen days, to file its Statement of Reasons in accordance with this paragraph. The Secretary shall promptly provide a copy of the Statement of Reasons to the Appellee [Accredited Standards Committee].

IV. Accredited Standards Committee's Response

Within twenty-one days of the Appellant filing of a Statement of Reasons with the Secretary, the [Accredited Standards Committee or canvass body] shall file its response to the Statement of Reasons and explaining why the decision from which the appeal is made should be upheld. The [Accredited Standards Committee] may request from the Secretary a one-time enlargement of the time, not to exceed fourteen days, to file its Statement of Reasons in accordance with this paragraph. The Secretary shall promptly provide a copy of the [Accredited Standards Committee's] Response to the Appellant. There shall be no right to file a written reply to the Appellee's response.

V. Formation of an Appeals Panel and Opportunity to Object

The appeals panel shall consist of three "disinterested" members of the NEMA Standards and Conformity Assessment Policy Committee (SCAPC):

⁷ This would be the NEMA Standards and Conformity Assessment Policy Committee (SCAPC).

⁸ The brief statement of reasons should articulate the "procedural action or inaction by a standards developer [the accredited standards committee]." Appeals do not address disagreements about technical judgments made by the accredited standards committee.

⁹ It should be noted that Section 8 of the Operating Procedures of ANSI Board of Standards Review states: "ANSI encourages settlement of disputes at any time if the settlement is consistent with the objectives of the ANSI Essential Requirements. Any settlement (to which the parties agree in writing) that is consistent with these procedures, or an agreement to withdraw the appeal, will terminate the appeal process. If the settlement leads to a substantive change in the standard, the change must be processed in accordance with the ANSI Essential Requirements." The NEMA Secretary may decide to explore a settlement of an appealed issue, in which case the timelines set forth herein will be extended.

A. An appeal shall be heard and decided by a panel consisting of representatives of disinterested [persons].¹⁰ For purposes of this subsection, a “disinterested [person]” is a [person] who is

- (i) not affiliated with the Accredited Standards Committee or the person or entity that is either an appellant or appellee,
- (ii) not a member of a committee [or entity] that is either an appellant or appellee,
- (iii) does not have a material financial or competitive interest in the outcome of the appeal, and/or
- (iv) does not have any other relationships with either the appellant or the appellee that the panel member believes would impair his or her ability to make a fair and impartial decision on the appeal.

B. The Chairperson of [SCAPC] shall designate the members and presiding officer of the appeals panel conforming to these requirements. The Secretary shall communicate to the Appellant and Appellee the identity of the appeals panel members. The appellant and appellee shall notify the Secretary within one week whether they have any objections to the members of the appeals panel on the ground that the panel member is not a disinterested member.

V. Hearing

A. The chairperson of [SCAPC] shall designate a time, date and place for the hearing of the appeal as soon as is reasonably practical, no later than thirty (30) days following the receipt of the Appellee’s response, before an appeals panel [of disinterested persons]. For good cause shown, including but not limited to the availability of the panel members and the representatives of the appellant and appellee, the time period for the hearing may be enlarged by thirty (30) days.

B. With the permission of the presiding officer of the appeals panel, other persons or entities including non-members may submit a written statement, no longer than three pages, of their interest in the appeal and a statement of whether they believe the decision on appeal should be affirmed or overturned. The chairperson of [SCAPC] shall have discretion to set limits on the number of persons who may make statements at the hearing.

C. The Secretary shall promptly notify the appellant, appellee, and other interested persons of the chairperson’s designations and hearing rules.

D. Within three days following the setting of the time, date and place for the hearing, the appellant and the appellee shall identify to the Secretary the person(s) who will make statements at the hearing on their behalf.

E. The appellant and the appellee shall each have thirty minutes (including rebuttal time) to present their respective case to the appeals panel.

VI. Written decision

An appeals panel shall make its decision no later than ten (10) business days following the hearing, unless good cause is shown for an extension. The decision of an appeals panel shall be in writing and state the reasons for its decision.¹¹

VII. Right of Appeal to ANSI

“Persons who have directly and materially affected interests and who have been or will be adversely affected by any procedural action or inaction by ANSI or by any ANS-related process have the right to appeal [to ANSI]. ANSI will not normally hear an appeal of an action or inaction by a standards developer relative to the development of an American National Standard until the appeals procedures provided by

¹⁰ Every effort is to be made to form this appeals panel in a timely way to have a timely hearing. The schedules of the disinterested persons have to be coordinated and sometimes this takes some time.

¹¹ A decision should also note that there is a right to appeal the Appeals Panel decision to ANSI as discussed below.

the standards developer have been completed. Appeals of actions shall be made within reasonable time limits; appeals of inactions may be made at any time. Such appeals shall be directed to ANSI in accordance with the procedures of the appropriate ANSI board or council (e.g., the ANSI Board of Standards Review). ANSI Essential Requirements at 2.8.2.¹²

¹² For further information, see https://www.ansi.org/standards_activities/domestic_programs/appeals/appeals Appeals procedures at ANSI can be found in Section 7 of the *Operating Procedures ANSI Board of Standards Review* (May 2017, current edition).

APPENDIX H – NEMA Standards Pricing Policy

NEMA by default offers new standards at a reasonable market price, but maintains the authority to offer the standard for free if one or more of the following requirements have been met:

- Safety considerations associated with the installation, operation, and/or maintenance of product outweigh potential revenue from the sale of document
- Product sales are increased demonstrably as a result of offering standard for free
- Number of inferior products in the market are minimized demonstrably by documenting key performance requirements
- Section members vote to provide free document download and free copy privileges to NEMA members where NEMA members are the principal users of the standard

If the standard doesn't meet the above requirements to offer free copies, then a price shall be charged for both hard copies and electronic copies.