

Constitution and Bylaws

Radiation Effects Committee

IEEE Nuclear and
Plasma Sciences Society

July 20, 2023

Revised by ___Janet Barth_____ Date ___7/16/2023___
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Approved by _____Robert Reed_____ Date ___7/20/2023___
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**CONSTITUTION AND BYLAWS OF THE
RADIATION EFFECTS COMMITTEE OF THE
IEEE NUCLEAR AND PLASMA SCIENCES SOCIETY**

CONSTITUTION

Article I – Title and Objectives

Section 1. This organization shall be known as the Radiation Effects Committee (REC) of the IEEE Nuclear and Plasma Sciences Committee, referred to hereafter as the Committee.

Section 2. The Committee shall strive for the advancement of the theory of radiation effects, the application of radiation effects and its allied sciences, the dissemination of information pertaining to those fields and the maintenance of high scientific and technical standards among its members.

Section 3. The Committee shall aid in promoting close cooperation and the exchange of technical information among its members, and to this end shall hold meetings for the presentation and discussion of original contributions, shall assist in the publication of an annual issue of IEEE Transactions on Nuclear Science, shall coordinate the development of radiation effects measurement definitions and standards within IEEE and other standards organizations, shall provide a sounding board for radiation effects specialists, shall provide for the continued professional development and needs of its members, and shall provide liaison between IEEE and other technical organizations in the areas of radiation effects.

Article II – Field of Interest

The field of interest of the Committee is radiation effects. The Committee shall present, publish, and disseminate original contributions to theory, experiments, educational methods and applications of radiation effects, and develop or support the development of standards. Areas of technical activity will include, but not be limited to the following:

1. Physics and Basic Mechanisms of Radiation Effects on Electronics, Photonics, and Materials.
2. Radiation Effects on Electronic and Photonic Devices and Circuits.
3. Hardened Electronic and Photonic Device and Circuit Fabrication Techniques.
4. Radiation Effects on Systems, System Survivability, and System Hardening.
5. Single-Event Effects (SEE), Electronic and Photonic Device and Circuit Hardening, and Simulation.
6. Space and Terrestrial Radiation Environments, Space and Terrestrial Radiation Effects, and Spacecraft Charging.
7. Modeling of Radiation Effects and Radiation Environments.
8. Dosimetry, Radiation Transport, and Energy-Dependent Effects.
9. Hardness Assurance, Testing Techniques, and Measurement Standards.

10. Microelectronic Processing Induced Radiation Effects.
11. Radiation Effects on Particle Detectors and Associated Electronics for High-Energy Accelerators.
12. Electromagnetic Pulse (EMP) and Related Effects and Hardening Techniques.
13. Simulation Fidelity and Technology.
14. Thermo-mechanical Effects.
15. Synergistic Radiation Effects.

Article III – Membership

General members of the Radiation Effects Committee are defined as those individuals who:

1. Attend the Nuclear and Space Radiation Effects Conference; and/or
2. Request (in writing) membership in the Radiation Effects Committee.

Membership expires three years from the date of last Conference attendance or from the last date of requested membership. Voting privileges are restricted to members in good standing of IEEE and NPSS.

Article IV – Administration

Section 1. The Committee and its affairs shall be managed by a Steering Group (Radiation Effects Steering Group – RESG) consisting of voting and non-voting members. Voting membership shall consist of elected members and certain ex-officio members as specified herein and by the Bylaws. Non-voting membership shall consist of members who are appointed to specific positions for specific terms by the RESG Executive Chair-and approved by the voting membership of the RESG.

Section 2. The Steering Group of the Committee shall be managed by an Executive Chair, Past Chair, Executive Vice-Chair, and Secretary, in accordance with their power and duties as defined hereunder and in the Bylaws. In the event of the Executive Chair's absence or incapacity, his or her duties shall be performed by the Past Chair, Executive Vice-Chair, and then the Secretary.

Section 3. The Executive Chair of the RESG is responsible for the overall operation of the RESG and the REC.

The Executive Vice-Chair maintains/updates the Constitution, Bylaws, and Guidelines for Operation, and provides support as requested by the Executive Chair.

The Secretary serves as the recording secretary for the RESG and the REC (e.g., takes minutes of all meetings) and distributes REC/RESG materials.

The Past Chair provides advice and counsel to the RESG and chairs the nominating committee for the election of officers.

Section 4. The Executive Chair, as soon as possible after his or her election, shall appoint the Chairs of the sub-committees provided for in the Bylaws, after approval of those nominations by the voting membership of the RESG.

Article V – Nomination and Election of Radiation Effects Steering Group Members

Section 1. Elections of the Executive Vice-Chair and Secretary are held every three years. Nominations for Executive Vice-Chair and Secretary shall be made by a Nominating Committee. The Nominating Committee shall propose a minimum of two names for each elected position except the Executive Chair. The current Executive Vice-Chair will, except in circumstances deemed unusual by a majority of voting members of the RESG, automatically become Executive Chair. In a circumstance deemed unusual by the RESG, the RESG will itself determine the slate of candidates or candidate for this position. The Nominating Committee shall be made up of the three elected Members-at-Large and the past Senior Member-at-Large of the RESG and shall be chaired by the Past Chair who shall have the tie-breaking vote. Members of the Nominating Committee shall determine the official slate of nominees for officers of the RESG. Nominees must be members in good standing of IEEE and NPSS and be able to attend RESG meetings.

The Past Chair shall provide the slate of nominees to the IEEE Technical Activities, Society Membership, and Committee Services administrator, who will administer the election process.

The IEEE is responsible for administering the election, tabulating the votes, and notifying the Past Chair and the candidates of the results.

Section 2. Elections for Member-at-Large are held each year during the Annual Open Meeting of the REC. Nominations shall be taken from the floor. Nominees must be members in good standing of IEEE and NPSS, and must also be able to attend the RESG meetings. Election of the Member-at-Large shall be by majority vote by ballot of the voting members of the REC that are present at the meeting. If no majority occurs on the first ballot, the top three candidates will go on to a second ballot. The person receiving the largest number of votes on the second ballot will be declared the winner.

Section 3. The terms of office of elected members shall be three years. Members-at-Large shall be elected to overlapping terms in successive years. Members elected to three-year terms may not succeed themselves. Election of one of the Members-at-Large shall be held annually to fill the vacancy that occurs when one of the current Members-at-Large reaches the end of his or her term (during the time that the open meeting is held).

Section 4. If an elected member of the RESG is unable to complete his or her term (or has been dropped from membership), the Executive Chair of the RESG, after approval of the voting membership of the RESG, shall appoint a replacement for the unexpired portion of the term.

Article VI – Technical Meetings

Section 1. The RESG shall meet to conduct business in accordance with the Bylaws.

Section 2. Four voting members of the RESG shall constitute a quorum for conducting business. No voting member shall have more than one vote.

Section 3. A majority of the votes cast by those voting members of the RESG attending a meeting shall be necessary for the approval of all pending issues, except as otherwise provided in this Constitution or its Bylaws. The Executive Chair will vote only in the case of a tie.

Section 4. Business of the RESG may be handled by correspondence, telephone, web services, electronic mail or other means where, in the opinion of the Executive Chair, matters requiring prompt action can be adequately handled in that manner. A majority vote of the full voting membership of the RESG is required to take action in such a case. Telephone actions shall be promptly confirmed in writing (or by electronic mail) by the Executive Chair and provided to all members of the RESG.

Article VII – Amendments

Section 1. Amendments of this Constitution may be initiated by petition submitted by a two-thirds vote of the full voting membership of the RESG, such petition being submitted to the Ad Com of the NPSS for approval. After such approval, the proposed amendment shall be publicized in the Nuclear and Plasma Sciences Society Newsletter, after which it goes into effect unless 30 voting members of the REC object in writing within 90 days of the date of mailing or publication of the notice. If such objections are received, the amendment must be voted on by ballot of voting membership of the REC. When such a vote is necessary, approval of the amendment by two-thirds of the votes received is required.

Section 2. Bylaws and Amendments thereto may be adopted by a two-thirds vote of the full voting membership of the RESG, provided that notice of the proposed Bylaw or Amendment has been sent to each voting member of the RESG at least two weeks prior to such a meeting; or a Bylaw or Amendment thereto may be adopted by a two-thirds mail vote of the voting members of the RESG, provided a 30-day period is provided for such responses. In either event, the proposed Bylaw or Amendment shall be published in the NPSS Newsletter. No Bylaw change, or Amendment to, shall take effect until it has been approved by the Ad Com of the NPSS.

Section 3. As an alternate to the procedure outlined in Section 1 or 2 above, 30 members of the REC may submit a petition for amendment to the RESG. The proposed amendment shall be submitted to the membership and voted on by ballot, two-third of the votes received being required for passage, prior to being submitted to the NPSS Ad Com for approval.

Article VIII – Revision

When deemed appropriate, the Executive Chair of the RESG shall appoint, subject to the approval of the RESG, a subcommittee to evaluate the effectiveness of this Constitution and its Bylaws, to study the rules of governance required by the activities of the Committee at that time, and to consider modifying these or writing a new Constitution and Bylaws appropriate to the existing and anticipated needs of the Committee. The Subcommittee shall report its findings to the RESG within one year, who shall report to the next REC Open Meeting.

Article IX – Guidelines for Operations

The NSREC and its Functional Committees operate and conduct activities in accordance with Guidelines approved by the voting membership of the RESG. Those Guidelines are subordinate to the Constitution and Bylaws. Guidelines can be changed, or exceptions can be made by a majority vote of the voting membership of the RESG.

**CONSTITUTION AND BYLAWS OF THE
RADIATION EFFECTS COMMITTEE OF THE
IEEE NUCLEAR AND PLASMA SCIENCES SOCIETY**

BYLAWS

1. Radiation Effects Steering Group (RESG):

Article IV of the Constitution provides for the voting membership of the RESG.

1.1 The RESG shall consist of 7 voting members. The voting members of the RESG shall be the three elected officers (Executive Chair, Executive Vice-Chair, and Secretary), the three elected Members-at-Large, and the Past Chair.

1.2 The RESG shall meet at least three times per year, upon dates determined by the Executive Chair at least three weeks in advance of the meeting. Additional meetings may be called at the discretion of the Executive Chair, or upon request of at least five voting members of the RESG, with at least three weeks notice.

1.3 In the absence of extenuating circumstances (as agreed to by a majority of the RESG), elected members who miss two successive meetings shall automatically be dropped from the RESG.

2. Elections:

Prior to nominating anyone for an elected position, the nominator(s) shall determine in advance that the nominee has agreed to serve if elected.

All nominees must be members in good standing of the REC, IEEE, and the NPSS, and have registered for and attended at least two of the last four Annual Conferences (NSREC).

Majority vote for election from nominations taken from the floor shall be determined as follows: All seconded nominations shall be accepted. If a majority vote is not obtained on the first ballot, the top three candidates shall go to a second ballot. The person receiving the largest number of votes on the second ballot shall be declared the winner. In the event of a tie on the second ballot, a third ballot is held to break the tie between the individuals tied for the lead.

The RESG Executive Chair shall submit to the Secretary of the NPSS Ad Com the names of individuals elected to the RESG.

The Executive Chair of the RESG is responsible for nominating REC candidates for election to the NPSS Ad Com, subject to ratification by the RESG.

All terms of elected members of the RESG shall begin at the conclusion of the REC Annual Open Meeting immediately following their election.

3. Functional Committees:

The Executive Chair of the RESG shall appoint Chairs for each of the following Functional Subcommittees, subject to ratification by the RESG:

- A. Publications/Technical Program
- B. Publicity
- C. Finance
- D. RADECS Liaison
- E. NSREC Chairs

3.1 The terms of office of Functional Committee Chairs shall be concurrent with the RESG Executive Chair's term; or in the case of Conference Chairs, three years prior to and one year beyond the date of their conference.

3.2 Each of the Functional Committees shall submit a written report of its activities to the RESG prior to the Annual Meeting. The membership and activities of the Functional Committees should be publicized to the membership through an Annual Summary report in the NPSS Newsletter.

4. Quality of Publications:

The Publications/Technical Program Chair and TNS Senior Editor for Radiation Effects shall strive to ensure that publications of papers in the IEEE Transactions on Nuclear Science depend only on the merits of the paper.

Revised July 16, 2023

Janet Barth

Past-Chair, RESG