

# THE COMBUSTION INSTITUTE

## BY-LAWS

### PREAMBLE

The Combustion Institute (“the Institute”) is an international non-profit educational and scientific society whose purpose is to promote the science and application of combustion for the benefit of society. It was incorporated in 1954 in the State of Delaware, United States of America, and its Articles of Incorporation serve in place of a Constitution.

The Institute is organized as a confederation of national or regional sections, whose joint activities are managed by officers and a Business Office, overseen by a Board of Directors. These joint activities have traditionally included biennial International Symposia on Combustion, publications, and other professional activities on behalf of the membership. The Institute does not discriminate with regard to race, religion, gender, sexual orientation, nationality, or occupation.

Toward achieving such ends effectively, these By-Laws describe the Institute’s organizational structures and governance procedures.

### ARTICLE I

#### MEMBERS

**Section 1. Membership eligibility.** The Combustion Institute shall have one class of membership, known as Membership at Large. Membership shall be open to all persons who are engaged or have an interest in scientific or engineering research or educational activities in the field of combustion or related subjects and who are in agreement with the purpose of the Institute.

Membership shall automatically be extended to any member of a recognized National or Regional Section (defined in Article II of these By-Laws) who is in good standing in that Section. If no National Section or Regional Section is available, that person may become a member of the Institute by contacting the Institute’s Business Office.

The single class of membership notwithstanding, the Institute may confer on some distinguished members the title of “Fellow of The Combustion Institute.” This is a lifetime honorific title that confers no special rights, privileges or duties.

**Section 2. Business meetings of the members.** Regular business meetings of members shall be held during the biennial International Combustion Symposium. Special meetings of members may be held whenever called by the President or by vote of the Board of Directors.

**Section 3 - Place of Meetings.** All meetings of members shall be held at such place or places, within or without the State of Delaware, as may from time to time be fixed by the Board of Directors or as shall be specified and fixed in the respective Notices or Waivers of Notice thereof. Meetings may be held by suitable electronic means.

**Section 4 - Notice of Meetings.** Notice of each meeting of members shall be given at least twenty-one (21) days before the day on which the meeting is to be held. Notice will be given by posting information on The Combustion Institute website, by electronic mail to all Section Chairs for distribution to their members, and by electronic mail to the members’ e-mail addresses listed in the records of the Institute.

In the case of a special meeting, the notice shall indicate briefly the objectives of such meeting.

Minutes of all member meetings shall be posted on the website of the Institute and sent by electronic mail to all Section Chairs for distribution to their members.

**Section 5 - Quorum.** Thirty (30) members present at any meeting of members shall constitute a quorum. Attendance and voting may be in person or by Board-approved electronic means. Only one member vote is allowed per person.

**Section 6 – Meeting organization.** The President shall call meetings of members to order and shall act as Chair of such meetings. In the absence of the President, the Vice President (President-Elect) shall preside. The meeting may only proceed if one of these presiding officers is present, except that if both are absent because of death or disability, the Board of Directors may designate a presiding officer.

The Secretary, with the support of the Executive Administrator, shall act as secretary of all meetings of members, but in the absence of the Secretary, the presiding officer may appoint any person to act as secretary of the meeting.

## ARTICLE II NATIONAL AND REGIONAL SECTIONS

**Section 1 – Purpose of National and Regional Section Sections.** Sections may be organized within the Institute to aid the professional communication of members linked through common language or common regional interests, as well as to conduct local professional activities consistent with the purposes of the Institute.

**Section 2 - National and Regional Section Recognition.** National and Regional Sections may be organized and will be recognized as Sections of the Institute upon the fulfillment and maintenance of specific criteria:

1. Any existing organization or any proposed new organization in a political jurisdiction or defined geographical area whose principal purpose and policies are consistent with those of the Institute may apply to the Board of Directors to become a Section by:
  - a. Furnishing the names of the officers (or proposed officers), their present and past professional affiliations, and their research or engineering interests.
  - b. Furnishing the names, professional affiliation and research interests of ten or more members (or proposed members).
  - c. Submitting a copy of either existing or proposed Section By-Laws or Rules for approval by the Board of Directors.
  - d. Furnishing evidence of past or potential participation in Institute affairs; for example, by members submitting combustion-related manuscripts to technical journals such as the Institute's Journals, or by their attending or submitting manuscripts for the International Combustion Symposia or other international combustion meetings.
2. National and Regional Sections must demonstrate a continuous participation in the Institute's activities and commitment to the Institute's purpose and goals in order to be accepted and remain in good standing as recognized Sections of the Institute. This participation must be evidenced by the Section's reporting at the biennial Combustion Symposia, unless there is good cause, recognized prior to the meeting by the President of the Institute. Holding Section meetings is another example of participation in addition to examples listed in Part 1.d.
3. National and Regional Sections must select one member to serve as a Section Administrator who verifies on annual basis that the membership listing is updated. A current list must be provided each year before 1 March to be used for all membership notices.

The satisfactory fulfillment of these criteria will be determined by the Board of Directors at the biennial meetings of the Board, based on information provided to them by the Vice President for Sectional Affairs. If any Section is found to be deficient, it will be promptly notified and its operation reviewed at the next biennial meeting of the Board, at which time the decision will be made to continue or not to continue that Section as a Section of the Institute in good standing.

**Section 3 - The Combustion Institute Committee.** This committee shall consist of the Vice-President for Sectional Affairs, who shall serve as chair; the Secretary for Sectional Affairs, who shall serve as secretary; and the Chairs of all National and Regional Sections of the Institute, or their designees.

The duties of this committee are to bring to the attention of the President and the Board of Directors matters affecting National and Regional Sections that concern the Institute and to advise the President and the Board of Directors on issues that the President or the Board may refer to the Committee.

The Vice-President for Sectional Affairs shall convene at least one meeting biennially. The Editors of the Institute journals shall be invited to attend the meetings.

The Vice-President for Sectional Affairs may appoint such sub-committees as may be necessary in the exercise of the functions of the Committee.

## ARTICLE III BOARD OF DIRECTORS

**Section 1 – Roles of Directors.** The management of all the affairs, property, and interests of the Institute shall be vested in a Board of Directors (the "Board"). The Institute and Directors shall be protected by appropriate insurance.

**Section 2 – Director Categories and Terms of Office.** The Directors shall consist of two categories: regular Directors (which shall include Executive Officers defined in Article IV) and Honorary Directors. The number of regular Directors shall be established by the Board and shall not be fewer than twenty-three (23) or more than twenty-seven (27). There shall be no more than four (4) non-officer Directors from any Section.

Election of regular Directors shall be held biennially using a voting procedure approved by the Board of Directors and announced to the membership at least two months prior to the election. Normally the election is held prior to or during the International Combustion Symposium. If the Symposium is postponed or cancelled then the election shall be held prior to the date that was originally scheduled for the Symposium. Normally the election is held prior to or during the International Combustion Symposium. If the Symposium is postponed or cancelled then the election shall be held prior to the date that was originally scheduled for the Symposium. At each biennial election, regular Directors shall be chosen for a full term of six years. No regular Director who has served a full term shall be eligible for re-election to the board except for the current President, Vice-President (President-Elect), Vice-President for Sectional Affairs, Secretary for Sectional Affairs, Secretary, and Treasurer.

When there is a vacancy in the number of regular Directors, the remaining Directors, by majority vote, may elect a successor to hold office for the unexpired portion of the vacated term.

Past Presidents shall become eligible for election as Honorary Directors upon expiration of their terms as Directors. Honorary Directors shall be non-voting members of the Board of Directors.

**Section 3 – Meetings of the Board.** The Board of Directors shall meet at each biennial International Combustion Symposium. The nominated or newly elected directors shall be invited to this meeting. If the Symposium occurs at the normally scheduled time, the nominated or newly elected directors shall not enjoy voting privileges until the end of the Combustion Symposium. Other meetings of the Board of Directors shall be held whenever called by the direction of the President or by a majority of the directors.

The Secretary, with the support of the Executive Administrator, shall give notice of each meeting by verbal, written, or electronically transmitted notification at least twenty-one (21) days before the meeting.

Minutes of all meetings of the Board shall be posted on the website of the Institute and sent by electronic mail to all Section Chairs for distribution to their members.

**Section 4 - Place of Meetings.** The directors shall hold meetings in such place or places in the State of Delaware or outside of Delaware as the Board from time to time may determine. Special meetings shall be accessible by electronic means.

**Section 5 - Quorum.** One-third of the regular directors shall constitute a quorum. Attendance and voting may be in person or by Board-approved electronic means.

**Section 6 - Nomination and Election of Directors.** Nominations for election to membership on the Board of Directors shall be made by a nominating committee appointed by the President in agreement with the Executive Committee of the Board of Directors. The appointment of the committee and the committee's operations should be in accord with the "Guidelines for the Nominating Committee" as approved by the Board of Directors. The Nominating Committee shall propose a slate of candidates, and the President shall approve this slate, provided that it is consistent with these By-Laws and broadly consistent with the Guidelines. The election shall be conducted in a manner approved by the Board of Directors, with only one member vote allowed per person.

The result of the election shall be announced at the International Combustion Symposium. If the Symposium is cancelled or postponed, the results of the election shall be announced near the time that the Symposium initially was scheduled. The directors-elect shall take office at the conclusion of the regular International Combustion Symposium at which their election is announced. If the Symposium is cancelled or postponed, the directors-elect shall take office at the completion of the scheduled week in which the Symposium was to be held.

**Section 7 - Board Committees.** Standing committees of the Board are its Executive Committee, the Finance Committee and the Fellows Selection Committee. The Board of Directors is empowered to designate additional committees of the Board to carry out functions as may be deemed advisable.

**Section 8 - Executive Committee.** The Executive Committee shall consist of the President, who will serve as Chair; the Vice President (President-Elect), who will serve as Vice Chair; the Treasurer; the Secretary, the Vice President for Sectional Affairs; and the Secretary for Sectional Affairs.

During the interval between meetings of the Board of Directors, the Executive Committee shall possess and may exercise all the powers of the Board of Directors in the management and direction of the business and affairs of the Institute.

During the interval between meetings of the Executive Committee, the President shall possess and may exercise such of the powers vested in the Executive Committee as from time to time may be conferred upon the Chair by resolution of the Board of Directors or of the Executive Committee.

The Committee shall be convened at least once a year by the Chair at such times and places as may be necessary to conduct the business of the Institute. Notice of all meetings will be given at least twenty-one (21) days before the day on which the meeting will be held. Minutes of these meetings shall be provided to the Board of Directors in timely fashion.

**Section 9 - Finance Committee.** The Finance Committee shall advise the Board of Directors on the financial implications of Institute administration and activities and shall recommend financial policy to the Board. It shall also advise the Treasurer on all financial matters, including selection of an accountant and an auditor, and will assist the Treasurer in developing the Institute's biennial budget. The Finance Committee shall propose maximum levels of pre-authorized spending by officers and staff of the Institute, to be approved by the Board. Spending larger amounts will require prior approval of the Board. An external auditor, approved by the Board of Directors, shall conduct financial reviews and provide review results annually.

The Finance Committee shall be composed of at least three members of the Combustion Institute, appointed by the President in consultation with the Executive Committee, to four-year, staggered terms of office. It shall include the Treasurer as an ex officio member. The President will appoint a Chair of the Committee who will serve a four-year term.

The Finance Committee shall be responsible for prudent advice on management of the investments of the Institute, including: (i) selection of a broker and/or bank to handle the Institute's investments; (ii) semi-annual review of the performance of the Institute's investments; (iii) making changes in investments; and (iv) reporting the semi-annual reviews of investments and financial policy to the Board of Directors. Where the Board specifies particular purposes for some or all of the Institute's funds, the Finance Committee shall employ investment strategies appropriate to those purposes.

A member of the Finance Committee shall be appointed by the President to serve on any Committee of the Institute that impacts the finances of the Institute.

**Section 10 – Fellows Selection Committee.** Each year, based on nominations received from the membership, this Committee selects the distinguished members to be elected "Fellows of The Combustion Institute." The appointment of the Committee and the Committee's operations shall be in accord with the document, "The Fellows Program of The Combustion Institute" as approved by the Board of Directors.

## **ARTICLE IV OFFICERS**

**Section 1 - Officers.** The Executive Officers of the Institute shall be a President, a Vice-President (President-Elect), a Vice-President for Sectional Affairs, a Treasurer, a Secretary, and a Secretary for Sectional Affairs.

They shall be elected for four-year terms by the Board of Directors from current or previous members of the Board. All such officers shall hold office until their successors are elected and take office. Newly elected officers will take office at the conclusion of the regular biennial Combustion Symposium following their election. If the Symposium is postponed or cancelled, the newly elected officers will take office at the completion of the scheduled week in the Symposium was to be held.

**Section 2 - President.** The President shall be the Chief Executive Officer of the Institute and the Chair of the Executive Committee. It shall be the President's duty to preside at all meetings of the members of the Institute, of the Board of Directors, and of the Executive Committee. The President shall have general and active management of the business of the Institute; see that all orders and resolutions of the Board of Directors are carried into effect; and execute all contracts and agreements authorized by the Board.

The President shall submit a report of the operations of the Institute at the biennial meeting of the members of the Institute and shall have the general duties and powers of supervision and management usually vested in the office of president of a corporation.

**Section 3 – Vice President (President-Elect).** The Vice President (President-Elect) shall be vested with all the powers and required to perform all the duties of the President in the President's absence or disability and shall perform such other duties as may be prescribed by the Board of Directors. The Vice President (President-Elect) shall succeed the President and shall be the Vice Chair of the Executive Committee.

**Section 4 - Vice-President for Sectional Affairs.** The Vice-President for Sectional Affairs shall chair The Combustion Institute Committee and, together with the Secretary for Sectional Affairs, shall represent the Institute in working with groups wishing to become Sections of the Institute and in assuring that National and Regional Sections fulfill their responsibilities.

**Section 5 - Treasurer.** The Treasurer, with the support of the Executive Administrator, shall have custody of the funds of the Institute, shall keep full and accurate accounts of receipts and disbursements in records belonging to the Institute, and shall deposit all moneys and other valuable effects in the name and to the credit of the Institute in such depositories as may be designated by the Board of Directors.

The Treasurer, in agreement with the Finance Committee and approval of the President, has authority to remove funds from the investment accounts of the Institute and so should be a citizen of the nation hosting the Institute Business Office. The Treasurer and Finance Chair shall have the ability to monitor the bank accounts and see transactions.

The Treasurer, in consultation with the President and the Finance Committee, will develop a biennial budget for the Institute for approval by the Board.

All checks, drafts, or orders for payment of money unless otherwise ordered by the Board of Directors shall be signed by the Treasurer or Executive Administrator.

The Treasurer shall disburse the funds of the Institute as may be ordered by the Board, taking proper vouchers for such disbursements, and shall render annually to the President, Directors, and the Finance Committee an account of all financial transactions and of the financial condition of the Institute.

The Treasurer shall perform such other financial duties as the Board of Directors may from time to time prescribe or require.

The Treasurer will be an ex officio member of the Finance Committee with full voting privileges.

**Section 6 - Secretary.** The Secretary, with the support of the Executive Administrator, shall keep the minutes of all meetings of members and of the Board of Directors; shall attend to the giving and serving of all notices of the Institute; shall keep the seal of the Institute and when authorized by the Board, shall sign and affix the seal of the Institute to any instrument requiring the same.

**Section 7 - Secretary for Sectional Affairs.** The Secretary for Sectional Affairs shall be the Secretary of The Combustion Institute Committee and shall be vested with all the powers required to perform all duties of the Vice President for Sectional Affairs in the event of absence or disability of the Vice President for Sectional Affairs.

**Section 8 - Delegation of duties.** In case of the resignation, death, incapacity, nonparticipation, violation of responsibilities, or temporary inability of any officer of the Institute to serve, or for any reason deemed sufficient by the Board of Directors, the Board of Directors may delegate that officer's powers or duties to another officer or director until the missing officer or director is replaced by election or the absence or disability is corrected to the satisfaction of the Board of Directors.

**Section 9 – Presidential succession in case of vacancy.** In case the Presidency becomes vacant, the Vice President (President-Elect) shall succeed immediately to the office for the remainder of the President's term. At the earliest opportunity, the Directors shall elect a new Vice President (President-Elect) to complete the former Vice President's (President-Elect's) term. If less than half of the term is left, the new President and Vice President (President-Elect) may be nominated to continue in the office for a single term beyond their partial terms.

## ARTICLE V CONFLICTS OF INTEREST

**Section 1 – Ethical practices.** The Board of Directors, Executive Officers, and Committee members (“Responsible Parties”) are individually responsible for their adherence to high ethical standards, including avoidance of conflicts of interest.

**Section 2 – Material conflicts.** No Responsible Party shall derive any personal profit or gain, directly or indirectly, by reason of his or her participation with the Institute as an officer, director or committee member.

Any Responsible Party who is an officer, board member, committee member, or staff member of an organization that benefits directly or indirectly from a relationship with the Institute shall identify his or her affiliation with said organization. Further, in connection with decisions specifically directed to that organization, the individual shall not participate in the decision affecting that organization.

Responsible Parties shall refrain from obtaining any list of Institute members or sponsoring organizations for personal or private solicitation purposes at any time during the term of their affiliation.

**Section 3 – Responsibility of recusal.** Each Responsible Party shall disclose to the President any conflict of interest that he or she may have in any matter pending before the Institute and shall refrain from participation in any decision on such matters.

**Section 4 – Procedures.** The Responsible Parties shall review this conflict-of-interest policy prior to the biennial International Combustion Symposium and upon election. They shall execute a written affirmation, normally at the start of the Board meeting, that they understand the Conflict of Interest Policy and that they are in conformance with it. The Institute office shall maintain these affirmations during the time of service of the individual.

If an individual is for any reason in a situation that presents a conflict, then that individual shall recuse himself or herself from any decision or vote related to the matter and shall report such conflict to the President and to the Business Office, which will maintain a confidential file of such reports.

## ARTICLE VI BUSINESS OFFICE AND DOCUMENTS

**Section 1 – Business Office.** The Institute shall have a Business Office where the corporate seal and physical records of the Institute shall be kept. The Business Office shall be supervised by an Executive Administrator, who shall be hired by the President with the approval of the Executive Committee.

**Section 2 - Institute seal.** The seal of the Institute shall show the name of the Combustion Institute and the year of incorporation.

**Section 3 - Inspection.** The books, accounts, and records of the Institute shall be opened to inspection by the Board of Directors at all times.

Any member shall have the right to request review of the financial records after stating a specific, appropriate purpose in a written request, this review to occur within office time limits and at the expense of the member.

## ARTICLE VII THE JOURNALS OF THE COMBUSTION INSTITUTE

**Section 1 – Purpose.** The journals of the Combustion Institute shall be called *Combustion and Flame* and *Proceedings of the Combustion Institute*. Each journal shall be devoted to publication of experimental, theoretical, and computational investigations of lasting value.

**Section 2 – Editors.** Editors and Associate Editors of the Journals shall be appointed by the President of the Institute with the advice and consent of the Executive Committee. The appointments shall be reviewed from time to time, but in no case less often than every six years.

When a vacancy arises, a nominating committee, appointed by the President (and approved by the Board of Directors), shall recommend a candidate to the President. When a new Editor is to be appointed, the current Associate Editors will automatically be considered as candidates for nomination as Editor.

The Editors shall appoint an Editorial Board to assist and advise them.

The Editors shall present a report on the state of the Journals at each biennial meeting of the Board of Directors of the Institute.

**Section 3 - Editorial Policies and Journal Management.** The establishment and maintenance of the highest standards for the Journals shall be the responsibility of the Editors, who together with the President, shall represent the Combustion Institute in liaison and negotiations with the publisher regarding format, frequency of publication, size of the volumes, subscription charges, and similar matters.

The Editors shall communicate regularly with the President on these matters and call upon the Institute Officers for advice or assistance in handling them as may be necessary.

If the need arises to consider changing the publisher, the President or the President's appointee shall conduct negotiations and discuss pertinent issues with the Editors, the Vice President (President-Elect), the Vice President for Sectional Affairs, and the contract negotiator, if one was appointed.

## **ARTICLE VIII AFFILIATE ORGANIZATIONS**

**Section 1.** Recognizing the mutual benefits of coordinated activities, combustion-related nonprofit organizations may become Affiliates of the Combustion Institute. The purposes of the Affiliates must be consistent with those of the Institute.

**Section 2.** Affiliate status will be approved by the Board of Directors based on a petition from the organization that affirms its agreement with the purposes of the Institute and identifies how the organization's activities complement those of the Institute.

**Section 3.** Affiliates may coordinate scheduling of activities with the Institute, such as events and workshops held at the Institutes' meetings, and to disseminate information beneficial to Institute members through the Institute's website.

**Section 4.** Upon notice (by any member of the Combustion Institute) that the purposes, interests, or activities of the Affiliate organization are at odds with those of the Combustion Institute, the President (at his/her prerogative) or his/her designees shall conduct a review of the issues and recommend to the board for an appropriate response, including removal of the organization as an Affiliate of the Combustion Institute.

## **ARTICLE IX AMENDMENTS**

Subject to the limitations in the Certificate of Incorporation, the Board of Directors shall have the power to make, alter, amend, and repeal any By-Law or By-Laws by the affirmative vote of two-thirds (2/3) of all regular Directors of the Institute.

Original date of adoption: 19 February 2013

Amendment approved: 15 October 2013 (Article III, Section 2 and 6)

Amendment approved: 6 August 2014 (Article III, Section 6 and 9)

Amendment approved: 22 September 2015 (Article III, Section 2)

Amendment approved: 3 August 2016 (Article IV)

Amendments approved: 23 March 2017 (Article I, Section 1; Article III, Section 7 and 10)

Amendments approved: 15 July 2020 (Article III, Section 2, 3, and 6; Article IV, Section 1)

Appended: Certificate of Incorporation.

CERTIFICATE OF INCORPORATION  
OF  
THE COMBUSTION INSTITUTE

WE, the undersigned, in order to form a corporation for the purposes hereinafter stated, under and pursuant to the provisions of the General Corporation Law of the State of Delaware, being Title 8 of the Delaware Code of 1953 and the acts amendatory thereof and supplementary thereto, DO HEREBY CERTIFY as follows:

FIRST: The name of the corporation is:

THE COMBUSTION INSTITUTE.

SECOND: Its principal office in the State of Delaware is to be located at No. 100 West Tenth Street, in the City of Wilmington, County of New Castle. The name and address of its resident agent is The Corporation Trust Company, No. 100 West Tenth Street, Wilmington, Delaware.

THIRD: The objects and purposes to be transacted, promoted and carried on are:

- (a) to operate exclusively for charitable, scientific and educational purposes in any part or parts of the United States of America or elsewhere;
- (b) to receive donations for charitable, scientific and educational purposes to be used in the United States of America or elsewhere for such purposes;
- (c) to establish and maintain charitable, scientific and educational activities and institutions;
- (d) to grant scholarships and fellowships in any art or science;
- (e) to grant aid to schools, colleges and universities anywhere in the United States of America or elsewhere;
- (f) to use all its income exclusively for charitable, scientific and educational purposes;
- (g) to acquire, receive, purchase, lease, hold, use and enjoy and to take by gift, grant, devise or bequest property, real, personal or mixed and any interest therein, located anywhere, and to grant, bargain, sell, give, exchange, demise, hold, assign, mortgage, pledge, transfer and set over the same at pleasure and generally to deal therewith without restriction but only for the uses, objects and purposes herein provided;
- (h) to conduct and carry on classes or symposia, in any educational or scientific field and to provide for the delivery and holding of lectures, exhibits, meetings, symposia and classes, for scientific and educational purposes with respect to any legitimate subject;
- (i) to publish and circulate reports, pamphlets, books or other matter or material dealing with charitable, scientific or educational subjects;
- (j) to act as trustee in any instance or instances where any property, real, personal or mixed, is received by gift, grant, devise or bequest in trust for the uses, objects and purposes hereinbefore set forth, in accordance with the terms and conditions of such trust or trusts;
- (k) to engage in any other exclusively charitable, scientific or educational activity or activities in the United States of America or elsewhere;

(l) to possess and exercise all the powers and privileges necessary or convenient to the attainment of the objects and purposes set forth in this Certificate of Incorporation and such incidental powers as shall be necessary to the exercise of the powers herein expressly conferred;

(m) without limitation on the generality of the foregoing to promote the science and application of combustion.

FOURTH:

(a) This corporation shall not have authority to issue capital stock and is not organized for profit.

(b) No part of its net earnings shall inure to the benefit of any private member or individual.

(c) No substantial part of the activities of this corporation shall be carrying on propaganda or otherwise attempting to influence legislation and it shall make no donation to any institution or institutions if any substantial part of the activities of such institution or institutions is carrying on propaganda or otherwise attempting to influence legislation.

(d) The members of this corporation, for the organization hereof, shall be all of the incorporators mentioned herein and there after shall be those persons who shall have been admitted to membership pursuant to the By-Laws of the corporation.

FIFTH: The name and place of residence of each of the incorporators are as follows:

NAME	ADDRESS
Thomas E. Clough	Wilmington, Delaware
Henry W. Bryan	Wilmington, Delaware
Florence J. Whitehead	Wilmington, Delaware

SIXTH: The existence of this corporation is to be perpetual.

SEVENTH: The private property of the members shall not be subject to the payment of corporate debts.

EIGHTH: The direction and management of the corporation and the control of its property shall be vested in a Board of Directors; the number of which shall be fixed from time to time by the By-Laws, and the number may be increased or decreased, and the terms of office fixed as therein provided.

The Directors of this corporation, pursuant to appropriate provision in the By-Laws, may be divided into one, two or three classes; the term of those of the first class to expire at the annual meeting stated therein; of the second class a stated period thereafter; of the third class another stated period thereafter; and at meetings of the members held for the election of Directors after such classification and election, Directors shall be chosen for a full term, as the case may be, to succeed those whose terms expire.

In case of any increase in the number of directors, the additional directors shall be elected as provided by the By-Laws, by the directors or by the members at an annual or special meeting.

In case of any vacancy in the Board of Directors for any cause, the remaining directors, by affirmative vote of a majority of the whole Board of Directors, may elect a successor to hold office for the unexpired term of the director whose place is vacant, and until the election of his successor.

In furtherance, but not in limitation of the powers conferred by law, the Board of Directors are expressly authorized:

(a) To hold their meetings outside of the State of Delaware at such places as from time to time may be designated by the By-Laws or by resolution of the Board. The By-Laws may prescribe the number of directors necessary to constitute a quorum of the Board of Directors, which number may be less than a majority of the whole number of directors.

(b) To appoint the regular officers of the corporation, and such other officers as it may deem necessary for the proper conduct of the business of the corporation.

(c) To remove at any time any officer elected or appointed by the Board of Directors, but only by the affirmative vote of a majority of the whole Board of Directors.

(d) To remove any employee of the corporation or to confer such power on any committee or superior officer of the corporation, unless such removals are otherwise regulated by the By-Laws.

(e) The Board of Directors may, by resolution passed by a majority of the whole board, designate one or more committees, each committee to consist of two or more of the directors of the corporation, which to the extent provided in the resolution or in the ByLaws of the corporation, shall have and may exercise the powers of the Board of Directors in the management of the business and affairs of the corporation, and may authorize the seal of the corporation to be affixed to all papers which may require it.

Such committee or committees shall have such name or names as may be stated in the By-Laws of the corporation or as may be determined from time to time by resolution adopted by the Board of Directors.

# State of Delaware



## Office of Secretary of State

*I, John N. McDowell, Secretary of State of the State of Delaware,*  
*do hereby certify that the above and foregoing is a true and correct copy of*  
Certificate of Incorporation of "THE COMBUSTION INSTITUTE", as received  
and filed in this office the first day of July, A.D. 1954, at 10  
o'clock A.M.