CENTER FOR ADVANCED SEPARATION TECHNOLOGIES

CONSTITUTION

Article 1. Name and Purpose

Sec. 1. The name of this organization shall be Center for Advanced Separation Technologies (CAST).

Sec. 2. The purpose of this organization shall be to develop advanced separation technologies for the coal and minerals industries through its research and development (R&D) efforts, particularly in the areas of physical separation, chemical/biological separation and environmental control. Emphasis of the center programs shall be on fundamental research, which is useful for i) developing cross-cutting technologies that can be used for both coal and minerals industries, ii) addressing the needs for long-term high-risk research, and iii) training future industry leaders. The center program shall also address short-term needs of the mining industry to foster industrial participation. Availability of advanced separation technologies should render the U.S. mining industry more efficient, protective of the environment, and sustainable.

Sec. 3. The Center shall serve its membership by guiding, stimulating and aiding their efforts i) to conduct research in advanced separations, ii) to help secure research funds from various sources, iii) to share research results with one another and with other interested parties in the U.S., iv) to encourage industrial companies to implement new findings, and v) to promote educational programs in both basic and applied research which are essential for producing skilled personnel with advanced degrees.

Article 2. Membership

Sec. 1. The Charter Membership of the Center consists of the two universities who originated the concept of establishing the Center. The Charter Member Universities are West Virginia University and Virginia Polytechnic Institute and State University (Virginia Tech), both of which have long histories of excellence in coal and minerals research.

Sec. 1a. The University Membership of the Center shall consist of the Charter Members and those universities who have unique expertise that can complement the capabilities of the Charter Member universities and can also address the technological needs of the mining industry in different geographical regions of the U.S.

Sec. 1b. Affiliate Members can be any organization interested in advancing the science and technologies that can benefit the U.S. mining industry. They include both for-profit and non-profit corporations, interest groups, other universities, and government agencies. Affiliate Members shall bear no financial responsibilities unless they are involved in specific projects with University Members. Affiliate Members will be provided access to the nonproprietary technical information generated by the Center and will be invited to
participate in workshops, short courses and other technology transfer activities sponsored by
the Center.

Sec. 2. Applications for the Membership shall be accepted only at the invitation of
the Director. Candidates shall be admitted to the Center with the majority approval of the
Advisory Board. A membership may be cancelled by a two-thirds vote of the Advisory
Board.

Sec. 2a. Any member of the Center may withdraw its membership from the Center
when the member institution formally notifies the Director thirty (30) days in advance of its
desire to do so. Any member that withdraws from the Center will still be required to fulfill
any contractual obligations pending at the time of withdrawal.

Article 3. Organization and Officers

Sec. 1. The Advisory Board shall advise the Director on matters concerning the
policies and governance of the center. It approves, disapproves, and/or amends the
roadmaps for the R&D programs recommended by the Director, and establishes research
priorities in view of the national and regional needs. In addition, the Advisory Board
provides a list of the companies that may be interested in i) participating in the Cooperative
Research Program and ii) joining the Industry Affiliate Program. The Advisory Board shall
be briefed of the progress and research results obtained at the Center, and then advise the
Director on developing technology transfer plans. The Board may also advise the Director
for possible routes for raising the R&D funds for the Center.

Sec. 1a. The Advisory Board shall be composed of five industry (5) representatives
and one (1) representative from each of the Charter Member Universities. One of these
Board Members will be elected to serve as the Chair. The Industry Board Members shall be
appointed by the Director based the recommendations from industry, while the University
Board Members shall be appointed by the respective university management. The Director
shall serve as a non-voting, ex-officio member for the Advisory Board. In addition, one
DOE official shall serve as a non-voting member.

Sec. 1b. The Chair of the Advisory Board will preside over the board meetings, and
be responsible for maintaining communications with the Director. The term of office for the
Chair shall be two (2) years, and he or she can be re-elected once. If the Chair is unable to
complete his or her term, the Board shall elect a new Chair for the remainder of the term.

Sec. 1c. The duties of the Advisory Board shall include: approval of the road map of
the Center, establishment of research priorities, review of the Center activities and research
results, periodic review of the Director’s performance, approval of new membership,
cancellation of membership, and modification of the Constitution and Bylaws. The latter
two requires a two-thirds vote of the full membership. In addition, the Board advises the
Director on matters concerning fund raising and technology transfer plans.
Sec. 1d. Unless indicated otherwise in the Constitution or the Bylaws, all decisions for and on behalf of the Board shall be made by a majority vote for those present in a Board meeting. In the event of a tie vote, the Chair may cast the deciding vote. Except for the election of officers, all votes shall be open ballots unless a majority of the Advisory Board prefers a closed ballot.

Sec. 2. The Center shall be managed by Virginia Tech, who in turn shall appoint a Director. The Director shall serve as the chief representative of the Center and shall be responsible for the administration of its affairs. He or she shall represent the Center in situations where a single representative of the Center is necessary. In his or her job as the chief fund-raiser, the Director shall interact with public and private funding sources, with the assistance from the University and Affiliate Members, to secure and maintain the funding that is necessary to meet the objectives of the Center.

Sec. 2a. As administrator, the Director shall in consultation with the Advisory Board oversee the daily operations of the Center. The Director will establish and maintain necessary communication systems among all of the members and affiliate members. The Center funds will be operationally controlled by the Director. The Director shall solicit peer reviews of the research proposals under the guidelines established by the Advisory Board. The Director shall have the authority to establish and maintain reporting requirements and protocols using the guidelines of the Advisory Board and of the research sponsor where applicable. The Director shall publicize the Center and its research results through publications, Web sites, newsletters, and any other means approved by the Advisory Board.

Sec. 2b. The Director shall form a Technical Committee, whose primary role is to review the proposals submitted to the Director by the faculty members of the Member Universities of the Center. The Director shall make appropriate recommendations to the sponsor(s) for funding after considering the recommendations of the Technical Committee.

Sec. 2c. The Director of the Center is appointed by Virginia Tech, who serves as the prime contractor of the funds awarded to the Center, in close consultation with West Virginia University.

Sec. 2d. The duties of the Director shall include: representation of the Center, chief administrator, chief fund raiser from public and private sources, implementation of the recommendations of the Advisory Board, establishment and maintenance of efficient communication systems, fiscal control of the funds available at the Center, solicitation of research proposals and peer reviews, establishment of reporting protocols and requirements, formation of the Technical Committee, appointment of Industry Advisory Board Members following the recommendations of industry, and recommendation to the Advisory Board for modifications of the Constitution and Bylaws.

Article 4. Industrial Programs

Sec. 1. The Center shall promote the Cooperative Research Program, in which groups of companies jointly fund projects of common interest to solve specific industrial
problems using the wide-spectrum of expertise available at the Center. The universities participating in this program may use part of the funds available to them as matching funds, which can reduce the financial burdens of the companies.

Sec. 2. The Center shall invite companies to the Industry Affiliate Memberships, which will give them the privilege to: i) receive all or part of the non-proprietary technical information available at the Center, and ii) send a limited number of representatives from each company to attend the Annual Technical Workshops sponsored by the Center without paying full registration fees. Any membership fees obtained from this program shall be used to support the R&D and administrative functions of the Center. The membership fees and the expenditure of the funds raised from this program shall be determined by the Advisory Board.

Article 5. Modifications and Amendments

Sec. 1. Any member may propose a modification in the Constitution and the Bylaw to the Director, who shall use his or her discretion to make or not to make a recommendation to the Advisory Board to do so.

Sec. 1a. Any change in the Constitution or the Bylaws requires a two-third vote of the Advisory Board.

Article 6. Intellectual Properties

The ownership of the intellectual properties developed at the Center will reside with the institution(s) where the inventions were made, subject to the terms and conditions negotiated between the financial sponsor and the institution(s) who performed the R&D work. Joint inventions between participating institutions, whether they are part of the Center or not, shall result in joint ownerships. The universities participating at the Center shall have the rights for nonexclusive, royalty-free, nontransferable licenses to all of the intellectual properties developed at the Center solely for the purpose of their on-going missions of research, education and public service. The institutions who have the ownership of the intellectual properties developed at the Center will have the rights to negotiate and establish private sector licensing agreements on an ad-hoc basis for each project.