

CHARTER OF THE AUDIT COMMITTEE

OF

THE BOARD OF DIRECTORS

OF

ASPEN AEROGELS, INC.

Purpose

The Audit Committee (the “Committee”) shall assist the Board of Directors (the “Board”) of Aspen Aerogels, Inc. (the “Company”) in fulfilling its responsibility to oversee management regarding:

- a) the conduct and integrity of the Company’s financial statements and reporting to any governmental or regulatory body, the public or other users thereof;
- b) the Company’s systems of internal accounting, and financial and disclosure controls;
- c) the qualifications, engagement, compensation, independence and performance of the Company’s independent auditors, their conduct of the annual audit, and their engagement for any other services;
- d) the oversight of the performance of the Company’s internal audit function;
- e) the Company’s legal and regulatory compliance;
- f) the Company’s codes of ethics as established by management and the Board; and
- g) the preparation of the audit committee report required by the rules and regulations of the United States Securities and Exchange Commission (the “SEC”) to be included in the Company’s annual proxy statement.

In discharging its role, the Committee is empowered to inquire into any matter that it considers appropriate to carry out its responsibilities, with access to all books, records, facilities and personnel of the Company (see “Additional Resources and Professional Advisors” below). The Committee is empowered to establish an internal audit function within the Company. Such internal audit function will report to, and work under the direction of the Committee. The internal audit function may consist of dedicated internal employees or may be established on

an outsourced basis. As used herein, the term “internal auditors” refers to the individual or individuals who are performing the internal audit function for the Company.

Committee Membership and Qualification

The Committee shall consist of three or more members of the Board, each of whom the Board, in its judgment, has selected and determined to be “independent” in accordance with the independence criteria established by Section 301 of the Sarbanes-Oxley Act of 2002, the rules and regulations of the SEC, and the listing standards of the New York Stock Exchange (the “NYSE”). The Committee members shall be elected annually by the Board and members of the Committee shall hold office until their resignations or until their successors shall be duly elected and qualified. The Chairperson of the Committee shall be appointed from among the Committee members by, shall serve at the pleasure of the Board, and shall have the authority to convene and chair meetings of the Committee, set agendas for meetings, and determine the materials to be provided to the Committee by management in connection therewith. In the absence of the Chairperson at a duly convened meeting, the Committee shall select a temporary substitute from among its members.

a) Special Limitation

If a Committee member simultaneously serves on the audit committees of more than three public companies, the Board must determine that such simultaneous service would not impair such member’s ability to serve effectively on the Committee.

b) Special Qualification

All members of the Committee shall, in the judgment of the Board, meet the financial literacy requirements of the NYSE, and at least one member shall be an “audit committee financial expert” as such term is defined within the meaning of Item 407(d)(5)(ii) of Regulation S-K promulgated under the Securities Act of 1933, as amended (the “Securities Act”).

c) Removal

The entire Committee or any individual Committee member may be removed without cause by the affirmative vote of a majority of the Board. Any Committee member may resign, effective upon delivery of oral or written notice to the Chairperson of the Board, the Secretary of the Company, or the Board (unless the notice specifies a later time for the effectiveness of such resignation). The Board may elect a successor to assume the available position on the Committee when the resignation becomes effective.

Committee Meetings

The Committee shall meet in person or telephonically as often as the Committee in its judgment deems necessary or advisable to adequately discharge its duties hereunder, but not less than once per quarter in any event. The Chairperson of the Committee, in consultation with other members of the Committee and, if the Chairperson deems it necessary and desirable, with the Company's independent auditors and/or with appropriate members of the Company's management team, will be responsible for calling meetings of the Committee, establishing the agenda for each of those meetings, and presiding over each of the meetings. The Committee may also act by unanimous written consent in lieu of a meeting.

A majority of the members of the Committee shall constitute a quorum sufficient for the taking of any action by the Committee. All votes of the Committee shall be made by a majority of its members present at a meeting at which a quorum is present. Any resolution of the Committee confirmed in writing and signed by all of the members of the Committee shall be fully as effective as if it had been made at a meeting duly called and held.

The Committee as a group shall meet separately in private with each of the Company's independent auditors, and the Company's internal auditors in executive session. In addition, the Committee may also meet privately with the Chief Financial Officer and with such other members of the Company's management team, or with the Company's legal counsel, as the Committee deems appropriate in its judgment.

The Committee may meet in executive session (i.e., with only Committee members in attendance) as often as the Committee in its judgment deems necessary. The Committee may ask any officer, manager or employee of the Company, the Company's internal auditors, the Company's legal counsel, the Company's independent auditors, and/or third-party consultants to the Company or the Committee to attend one or more meetings of the Committee, at their discretion.

Duties and Responsibilities

The Committee is responsible for overseeing the Company's financial reporting process on behalf of the Board. The Company's management is responsible for the preparation, presentation and integrity of the Company's financial statements and the appropriateness of the accounting and reporting policies used by the Company. The independent auditors are responsible for auditing the Company's annual financial statements and for reviewing the Company's interim financial statements. The independent auditors shall report directly to the Committee. The Committee recognizes that the Company's management, including the internal auditors, and the independent auditors have more time, knowledge and detailed information about the Company than do Committee members. Consequently, in carrying out its oversight responsibilities, the

Committee is not providing any expert or special assurance as to the Company's financial statements or any professional certification as to the independent auditors' work.

In carrying out its duties and responsibilities, the following are within the responsibilities and authority of the Committee. The Committee is authorized to carry out these activities and other actions reasonably related to the Committee's purposes or assigned by the Board from time to time. The Committee shall not delegate any of its functions to a different committee, although it may, in its sole discretion, form, and delegate any of its responsibilities to, a subcommittee so long as such subcommittee is solely comprised of one or more members of the Committee.

a) Internal and Disclosure Controls

The Committee will receive and review any disclosure contained in the certifications of the Chief Executive Officer and the Chief Financial Officer regarding any material weakness or any significant deficiency in the design or operation of internal controls, or regarding any fraud, whether or not material. In light of such disclosure, the Committee will review and discuss with management and the independent auditors:

- i) The adequacy of the Company's internal and disclosure controls and procedures, including whether such controls and procedures are designed to provide reasonable assurance that transactions entered into by the Company are properly authorized, assets are safeguarded from unauthorized or improper use, and transactions by the Company are properly recorded and reported.
- ii) Any significant deficiencies or material weaknesses in the design or operation of the Company's internal controls which could adversely affect the Company's ability to record, process, summarize and report financial data, including any related findings and recommendations of management together with the independent auditors' report.
- iii) Any fraud, whether material or not material, that involves management or other employees who have a significant role in the Company's internal controls.
- iv) Any significant risks or exposures and assess the steps management has taken to minimize such risks, including discussion and oversight of the Company's underlying policies with respect to risk assessment and risk management.

The Committee will establish and oversee procedures for the receipt, retention and treatment of complaints regarding accounting, internal accounting controls or auditing matters, and the confidential, anonymous submission by employees of concerns

regarding questionable accounting or auditing matters. The Committee will also i) receive regular reports from the internal auditors and the Chief Compliance Officer on the effectiveness of internal accounting controls and auditing matters and ii) consult with management about the performance and compensation of the internal auditors and the Chief Compliance Officer.

b) Oversee Financial Reporting

In connection with its general oversight of the Company's financial reporting, the Committee shall:

- i) Evaluate analyses prepared by the Company's management and/or the internal or independent auditors setting forth significant financial reporting issues and judgments made in connection with the preparation of the financial statements.
- ii) Review and discuss with the Company's management and the independent auditor:
 - A. All critical accounting policies and practices used by the Company, including any significant changes in such accounting policies.
 - B. Any material alternative accounting treatments within GAAP that have been discussed with management, including the financial impacts and other ramifications of the use of such alternative accounting treatments, and the treatment preferred by the accounting firm.
 - C. Any accounting and financial reporting proposals or initiatives that may have a significant impact on the Company's financial reports.
 - D. The provision of any "pro forma" or "adjusted" non-GAAP financial information.
- iii) Inquire as to the independent auditors' view of the accounting treatment related to significant new transactions or other significant matters or events not in the ordinary course of business.
- iv) Inquire as to whether the independent or internal auditors have any concerns regarding the possibility of significant accounting or reporting risks, the appropriateness and quality of significant accounting treatments and whether

such treatments have been aggressive or unusually creative, any business transactions which may affect the fair presentation of the Company's financial condition or results of operations, or any weaknesses in the Company's system of internal controls.

- v) Inquire of management and of the internal and independent auditors as to the existence and the effects on financial reporting of any off-balance sheet structures, and / or the existence of any material financial or non-financial arrangements that do not appear in the financial statements of the Company.
- vi) Affirm in connection with the Committee's review of the Company's annual and quarterly financial statements that the independent auditors communicate certain matters to the Committee as required by professional auditing standards regarding their audit of the annual financial statements and their review of the interim financial information.
- vii) Establish a procedure whereby the Company's management discusses with the Committee on a pre-issuance basis the types of information to be disclosed and the types of presentations to be made to third parties, including earnings press releases, other financial information and earnings guidance, paying particular attention to any pro-forma and non-GAAP financial information.

In connection with the preparation and audit of the Company's annual financial statements, and prior to public release of such financial statements, the Committee shall:

- i) Meet with the Company's management and the independent auditors (including a separate private meeting between the committee and the independent auditors) to review the annual audited financial statements of the Company (on a timely basis prior to completion of any required filings which include such financial statements) and related notes, as well as any accompanying Management's Discussion and Analysis of Financial Condition and Results of Operation ("MD&A"), and any certifications regarding the financial statements or the Company's internal accounting and financial control. This review should include discussions with management and the Company's independent auditors about the existence and disposition of any significant reporting issues and accounting risks, including any involving accounting principles and financial statement presentations, significant changes in the Company's selection or

application of accounting principles, issues regarding the adequacy of the Company's internal controls and any additional audit procedures applied in light of significant internal control deficiencies.

- ii) Review and discuss with the independent auditors any accounting adjustments that were noted or proposed by the auditors but were "passed" (as immaterial or otherwise), any communications between the audit team and the audit firm's national office in respect of issues presented by the engagement, and any "management" or "internal control" letter issued, or proposed to be issued by the independent auditors to the Company.
- iii) Discuss with the independent auditors and with management as to whether there were any restrictions on the scope of activities or access to required information during the audit, and whether there were any changes required in the scope of the audit plan.
- iv) Review any complex and/or unusual transactions and matters requiring significant estimates of asset valuation allowances or liability reserves, and evaluate management's handling of proposed audit adjustments identified by the independent auditors.
- v) Review the independent auditors' judgments about the quality and acceptability of the accounting principles applied to the Company's financial statements.
- vi) The Committee shall make a recommendation to the Board regarding inclusion of such financial statements, related notes and the related MD&A in the Company's Annual Report on Form 10-K to be filed with the SEC.
- vii) The Committee will also discuss with management and the independent auditors, as appropriate, earnings press releases and financial information and earnings guidance (including non-GAAP financial measures) provided by the Company to rating agencies, analysts or other third parties, in each case to the extent permissible under Regulation FD promulgated under the Securities Exchange Act of 1934, as amended, and other applicable SEC rules and regulations.

With respect to the Company's interim quarterly unaudited financial statements, the Committee shall meet with management, and with the independent auditors regarding their quarterly reviews performed under applicable Statements of Auditing Standards

conducted to review the interim financial statements and related notes, as well as any related MD&A on a timely basis. Such review will generally consider, and be consistent with, those issues and matters addressed in the review of the preparation and audit of the Company's annual financial statements as noted above

c) Independent Auditors

In its oversight of the Company's independent auditors, the Committee shall:

- i) Appoint, evaluate (taking into account opinions of management and the internal auditors, and including an evaluation of the lead audit partner), compensate, oversee the work of, and if appropriate terminate the independent auditors, who shall report directly to the Committee.
- ii) Review and approve the terms of the independent auditors' retention, engagement and scope of the annual audit, and pre-approve any audit-related and permitted non-audit services (including fees and terms thereof) to be provided by the independent auditors. The authority to grant such pre-approvals may be delegated to one or more members of the Committee, whose pre-approval decisions must be presented to the full Committee at its next scheduled meeting.
- iii) Meet with the independent auditors at least once a year in private sessions without any members of management being present to discuss matters that the Committee or the independent auditors believe should be discussed, including without limitation the plans for and scope of the annual audit, and any other discussion items contemplated elsewhere in this Charter.
- iv) At least annually, obtain and review a written report from the independent auditors describing the accounting firm's internal quality-control procedures, as well as any material issues raised by the most recent internal quality-control review, or peer review, of the firm, or by any inquiry or investigation by governmental or professional authorities (including the Public Company Accounting Oversight Board) within the preceding five years, respecting one or more independent audits carried out by the firm, and any steps taken to deal with any such issues. The Committee shall discuss with the independent auditors the contents of such report and the impact of matters addressed therein on the quality of services performed by the independent auditors.

- v) On an annual basis, obtain and review a written report from the independent auditors delineating all relationships between the independent auditors and the Company (including the amount and nature of all related compensation), actively engage in a dialogue with the independent auditors with respect to any disclosed relationships or services that may impact the objectivity and independence of the independent auditors, and review that the regular rotation of the lead audit partner has been considered as required by applicable law or regulation. With regard to the results of the above reviews and in response to the independent auditors' report, the Committee shall take appropriate action to satisfy itself of the auditors' independence.

- vi) Evaluate periodically whether the Company should change its independent auditors, or the partner in charge of performing or reviewing the Company's audit or other audit team personnel. Such evaluation should be based on all relevant circumstances known to the Committee, including, but not limited to, qualifications of the independent auditing firm, quality of services performed by the independent auditing firm and the assigned primary audit partner, opinions of the Company's management, length of tenure, factors having the potential to impact objectivity, the impact of the required five year rotation of the primary audit partner in charge of the Company's audit, possible conflicts with audits of other companies, possible efficiencies to be realized from engaging a different audit firm, and relevant expertise regarding the Company and its industry. The Committee should present to the full Board a summary of the Committee's evaluation and conclusions.

- vii) Establish hiring policies with respect to offering employment by the Company to employees or former employees of the Company's independent auditors, which policies shall include the restrictions set forth in Section 206 of the Sarbanes-Oxley Act of 2002, and the rules promulgated thereunder by the SEC. Management shall present to the Committee on a timely basis any plan by the Company or any of its subsidiaries to hire anyone who has served within the preceding two years as a member of the independent audit firm who has performed services in connection with the Company. The Committee shall evaluate and approve or disapprove of any such planned hire by the Company or any of its subsidiaries, with the Committee having final approval of any such hire.

- viii) Review and discuss with the independent auditors the report of their annual audit or proposed annual audit, any material written communications between

the independent auditors and the Company's management provided by the independent auditors or Company management, the reports of the independent auditors' reviews of the Company's interim financial statements, and the reports or the results of such other examinations outside the course of the independent auditors' normal audit procedures that the independent auditors may from time to time undertake.

- ix) Review and resolve any disagreements between management and the independent auditors concerning financial reporting, or relating to any audit report or other audit, review or attest services provided by the independent auditors.

d) Legal and Ethical Compliance Oversight

- i) The Committee shall periodically review with the Company's legal counsel: a) legal and regulatory matters that may have a material impact on the Company's financial statements; and b) the scope and effectiveness of the Company's code of conduct and ethics or any other ethics and compliance programs or policies. In fulfilling its duties, the Committee will periodically obtain reports from management and enter discussions with the Company's legal counsel regarding such matters and/or programs. The Committee will also oversee advising and updating the Board with respect to such matters.
- ii) The Committee shall review and address conflicts of interest of directors and executive officers with regard to the Company.
- iii) The Committee will review in advance, discuss with management and (if appropriate) the independent auditors, and approve or deny, any related person transaction (as defined in Item 404 of Regulation S-K promulgated under the Securities Act) or courses of dealing with related parties that are significant in size or involve terms or other aspects that differ from those that would likely be negotiated with independent parties. Approval of such related person transaction may, at the discretion of the Committee, be conditioned upon the Company and/or the related person at issue taking any actions that the Committee in its judgment determines to be necessary or appropriate. In the event that a member of the Committee has an interest in the related person transaction under discussion, said member must abstain from voting on the transaction. Such member may, if so requested by the Chair of the Committee,

participate in some or all of the discussions about the related person transaction in question.

e) Other Responsibilities

The Committee also shall:

- i) Review and evaluate the Company's policies and practices with respect to risk assessment and risk management, including the Company's major financial risk exposures and steps taken by management to monitor and control such exposures, with the understanding that, while it is the job of the Chief Executive Officer and senior management to assess and manage the Company's exposure to risk, the Committee shall discuss guidelines and policies to govern the process by which this is handled. It is also understood that, while responsibility for the review and evaluation of the Company's policies and practices with respect to risk assessment and risk management remains with the entire Board, the Board may delegate this responsibility to the Committee as it considers appropriate. If deemed necessary, the Committee will initiate special investigations into matters within the Committee's scope of responsibilities or as delegated by the Board.
- ii) Perform an annual self-evaluation of the Committee's performance, including the Committee's effectiveness and compliance with this Charter.
- iii) Review and assess the adequacy of this Charter on at least an annual basis, and recommend to the Board any appropriate changes.
- iv) The Committee will prepare, with the assistance of the Company's management, the independent auditors and outside legal counsel, the Committee report as required by SEC rules for inclusion in the annual proxy statement filed by the Company with the SEC. The report will state (among other items) whether the committee: (i) has reviewed and discussed the audited financial statements with management; (ii) has discussed with the independent auditors the matters required to be discussed by applicable auditing standards; (iii) has received required written disclosures from the independent auditors describing their relationships with the Company and discussed with them their independence; and (iv) based on the review and discussions referred to above, the members of the committee recommended to the Board that the audited financials be included in the Company's Annual Report on Form 10-K for filing with the SEC.

- v) The Committee, through its Chair, will regularly update the Board at its regularly scheduled meetings regarding activities of the Committee, including matters considered and reviewed by the Committee, and as appropriate will make recommendations regarding such matters to the Board.
- vi) Perform any other activities consistent with this Charter, the Company's Bylaws, and governing law, as the Committee or the Board deems necessary or appropriate.

Additional Resources and Professional Advisors

The Committee shall have the resources and authority appropriate to enable it to discharge its responsibilities and carry out its duties in a manner consistent with applicable law and with the provisions of this Charter, including the right and authority to hire independent accounting experts and outside auditors to conduct special audits and reviews, to engage independent counsel and such other advisors, consultants and experts that the Committee in its judgment deems necessary or appropriate to assist and advise the Committee in connection with the performance of the Committee's responsibilities. The Committee shall have the sole authority to retain, compensate, direct, oversee and terminate counsel, independent auditors, and other advisors hired to assist the Committee, who shall be accountable ultimately to the Committee.

Funding

The Committee shall determine, and the Company shall provide, appropriate funding for payment of:

- a) Compensation to any registered public accounting firm engaged for the purpose of preparing or issuing an audit report or performing other audit, review or attest services for the Company.
- b) Compensation to any advisers employed by the Committee in carrying out its duties hereunder.
- c) Ordinary administrative expenses of the Committee that are necessary or appropriate in carrying out its duties.

Compensation

Committee members shall be compensated by the Company solely in the form of directors' fees. Committee members may, however, receive greater fees than those received for Board service by other Board members, in light of their increased duties on behalf of the Company.

Availability of Charter

This Charter will be retained by the Company's Corporate Secretary, and a copy will be included on the Company's website.