

Mail Stop 4561

May 27, 2010

Abraham N. Reichental
Chief Executive Officer
3D Systems Corporation
333 Three D Systems Circle
Rock Hill, South Carolina 29730

**Re: 3D Systems Corporation
Form 10-K for the Fiscal Year Ended December 31, 2009
Filed February 24, 2010
File No. 001-34220**

Dear Mr. Reichental:

We have reviewed the above-referenced filing and have the following comments. If indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comments are inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with supplemental information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filings. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 10-K for the Fiscal Year Ended December 31, 2009

Consolidated Financial Statements

Note 6. Intangible Assets, page F-20

1. Tell us your consideration of disclosing the weighted-average amortization period and the estimated amortization expense over the next five years for the non-compete agreements. We refer you FASB ASC 350-30-50.

Note 14. Stock-Based Compensation and Stockholders' Rights Plan, page F-24

2. Tell us your consideration of providing all the disclosures required by FASB ASC 718-10-50 for the awards issued under your 2004 Stock Plan. As part of your response, explain whether you estimate the fair value of the awards granted under the 2004 Stock Plan using a valuation technique such as an option pricing model. We refer you to FASB ASC 718-10-30.

Note 18. Computation of Net Income (Loss) per Share, page F-29

3. You have not disclosed whether any potentially dilutive shares were excluded from the calculation of diluted earnings per share as of December 31, 2009. Tell us how you considered the awards issued under your 2004 Stock Plan and previous stock option plans when determining the potentially dilutive shares to be included in diluted earnings per share as of December 31, 2009. We refer you to the guidance in FASB ASC 260-10-10-2 and FASB ASC 260-10-45-22 through 45-32.

Part III (Incorporated by reference from the Definitive Proxy Statement filed on March 31, 2010)

Security Ownership of Certain Beneficial Owners and Management, page 7

4. We note the statement in footnote 1 to the beneficial ownership table that the common stock amounts provided in the table include, with respect to the stockholder in question, common stock issuable upon exercise of vested options. We also note the statements in several of the other footnotes that shares attributed to a particular stockholder include shares of common stock covered by outstanding options that are currently exercisable. Please confirm, and state in future filings, that the shares listed in the table include shares the named persons or entities have a right to acquire within sixty days. See Item 403 of Regulation S-K and Rule 13d-3(d)(1) under the Exchange Act.

Proposal One

Election of Directors, page 10

5. We note your statement in this section that your board "believes that each of the nominees for director is well qualified to continue to serve as a director of the company." With a view toward providing enhanced disclosure in future filings, please identify for each director nominee the particular experience, qualifications, attributes or skills that led your board to conclude that the individual should serve as a director. Refer to Item 401(e)(1) of Regulation S-K and Question 116.05 of our Regulation S-K Compliance and Disclosure Interpretations, available on our website.

Corporate Governance Matters

Board Leadership Structure, page 13

6. You indicate in this section that you believe the separation of the positions of Chairman and Chief Executive Officer has been beneficial to your company, although your board does not view any particular board leadership structure as preferable. With a view toward providing enhanced disclosure in future filings, please explain why you believe that your current leadership structure is appropriate given your specific characteristics and/or circumstances. Also, please discuss the extent of the board's role in risk oversight and the effect that this has on the board's leadership structure. Refer to Item 407(h) of Regulation S-K.

Related Party Transactions Policies and Procedures, page 17

7. We note your disclosure in this section that in adopting your related party transaction policy, your board preapproved certain types of transactions even if the amounts involved exceed \$120,000. We also note the statement in this section that "no transactions that would constitute related-party transactions were considered by the Board or any of its committees since the beginning of 2009." Please clarify whether the company engaged in any transactions since the beginning of fiscal 2009 that are required to be disclosed under Item 404(a) of Regulation S-K.

Director Compensation for 2009, page 18

8. The director compensation table indicates that Messrs. Curran and Kever were paid \$39,663 and \$50,364, respectively, in fees for their services as directors during fiscal 2009. In light of the directors' fees disclosed on page 19, however, it is unclear how these two directors earned the amounts disclosed in the table. Please advise.

Employee Compensation and Attendant Risks, page 22

9. We note your statement in this section that you believe "there are no substantial risks associated with our compensation practices and that any such risks that do exist are not reasonably likely to result in a material adverse effect on us." Please advise us of the basis for this conclusion and describe the process you undertook to reach it.

Employment and Other Agreements with NEOs, page 36

10. We note from the disclosure in this section that you have entered into a consulting arrangement with Mr. Hull and a severance arrangement with Mr. McAlea. No documentation related to these arrangements, or descriptions, appear to have been

filed as exhibits to your Form 10-K or incorporated by reference. Please advise. Refer to Item 601(b)(10)(iii)(A).

* * * * *

Please respond to these comments within 10 business days or tell us when you will provide us with a response. Please submit all correspondence and supplemental materials on EDGAR as required by Rule 101 of Regulation S-T. If you amend your filing(s), you may wish to provide us with marked copies of any amendment to expedite our review. Please furnish a cover letter that keys your response to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing any amendment and your response to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

Abraham N. Reichental
3D Systems Corporation
May 27, 2010
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You may contact Morgan Youngwood, Staff Accountant, at (202) 551-3459 if you have any questions regarding comments on the financial statements and related matters. Please address questions regarding all other comments to Matt Crispino, Staff Attorney, at (202) 551-3456 or Barbara Jacobs, Assistant Director at (202) 551-3735. If you need further assistance, you may contact me at (202) 551-3730.

Sincerely,

Stephen Krikorian
Accounting Branch Chief