

Mail Stop 4561

September 14, 2007

Robert M. Grace, Jr.
Vice President, General Counsel and Secretary
3D Systems Corporation
333 Three D Systems Circle
Rock Hill, SC 29730

**Re: 3D Systems Corporation
Registration Statement on Form S-1
Filed August 16, 2007
File No. 333-145493**

**Form 10-K/A for the Year Ended December 31, 2006
Form 10-Q for the Quarter Ended June 30, 2007
Form 10-Q for the Quarter Ended March 31, 2007
File No. 000-22250**

Dear Mr. Grace:

We have limited our review of your filings to those issues we have addressed in our comments. Where indicated, we think you should revise your documents in response to these comments. If you disagree, we will consider your explanation as to why our comment is 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 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 filing. 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 S-1

Prospectus

Selling Shareholders, page 4

1. With respect to the shares to be offered for resale by selling stockholder Kirsch-Cassis Profit Sharing Plan, please disclose the natural person or persons who exercise sole or shared voting and/or dispositive powers with respect to the shares to be offered by that stockholder.
2. We note your disclosure in footnote 3 to the selling stockholder table regarding selling stockholders who are registered broker-dealers or affiliates of broker-dealers. Please delete the “to our knowledge” limitation and either state that none of the selling stockholders is a registered broker-dealer, or revise where appropriate to indicate which selling stockholders are broker-dealers or affiliates of broker-dealers. For any selling stockholders who are broker-dealers, please either identify the selling stockholder as an underwriter, or revise your disclosure to indicate that the selling stockholder acquired the securities as compensation for investment banking services.

Part II

Undertakings, page II-3

3. We note that your registration statement includes the undertakings required for registrants relying on Rule 430B as well as those for registrants relying on Rule 430C. It does not appear, however, that the company is relying on Rule 430B in the prospectus as filed. Please clarify which rule the company is relying on in this filing by including only the undertakings required for that rule. If the company intends to rely on Rule 430B, please advise of the basis for your belief that the company is eligible to do so.

Form 10-K/A and Forms 10-Q

Controls and Procedures

4. We note the following final sentence in the “Controls and Procedures” section in each of your Form 10-K-A and Forms 10-Q: “Other than actions we have taken to remedy the material weaknesses identified above, there were no material changes in our internal control over financial reporting during the period covered by this [annual or quarterly report, as applicable] that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.” We note further that substantial portions of

the subsection entitled "Remediation of material weaknesses" in each of the three periodic reports appear to be identical, and as a result it is unclear what progress, if any, the company has made during each period. Consistent with Item 308(c) of Regulation S-K, please clarify which remedial actions were taken during the relevant quarter (the fourth fiscal quarter in the case of an annual report) that constitute changes in your internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, the company's internal control over financial reporting.

5. We note your statement in the third full paragraph on page 41 of your Form 10-Q for the quarter ended June 30, 2007, that evaluation and testing has not yet been completed to determine whether the company's material weaknesses have been remediated. In future filings, when you refer to remediation or other steps associated with your evaluations, please provide an estimate of when such steps expected to be completed.

As appropriate, please amend your filings in response to these comments. Each responsive amendment should also include a marked copy of the amended filing that conforms with the provisions of Rule 310 of Regulation S-T. Marked copies such as those in HTML format that show changes within paragraphs help us to expedite our review. Please furnish a cover letter with your amendments that keys your responses 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 your amendments and responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings to be certain that the filings include all information required under the Securities Act of 1933 and 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.

Notwithstanding our comments, in the event the company requests acceleration of the effective date of the pending registration statement, it should furnish a letter, at the time of such request, acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and

- the company may not assert staff comments and the declaration of effectiveness 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 connection with our review of your filings or in response to our comments on your filings.

We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

We direct your attention to Rule 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

Please contact Katherine Wray at (202) 551-3483 with any questions. If you require further assistance you may contact me at (202) 551-3462 for additional assistance. You may also contact the Assistant Director, Barbara C. Jacobs, if you thereafter have any other questions.

Sincerely,

Mark P. Shuman
Branch Chief – Legal

cc: Via Facsimile (704) 353-3106
Sean M. Jones, Esq.
Kennedy Covington Lobdell & Hickman, L.L.P.
Telephone: (704) 331-7406