

Mail Stop 4561

March 17, 2010

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-3  
Filed February 24, 2010  
File No. 333-165053**

**Form 10-K for the Fiscal Year Ended December 31, 2009  
Filed February 24, 2010  
File No. 001-34220**

Dear Mr. Grace:

We have limited our review of the above-referenced filings to those issues addressed in our comments below. Where indicated, we think you should revise your filings 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-3

Signatures

1. Please revise to include the signature of the company's principal accounting officer. See Instruction 1 to Signatures in the Form S-3.  
Form 10-K for the Fiscal Year Ended December 31, 2009

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures, page 49

2. Your effectiveness conclusion does not cite the definition of disclosure controls and procedures set forth in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act. Instead, it states that your “disclosure controls and procedures were effective as of December 31, 2009 to provide reasonable assurance that our Consolidated Financial Statements included in this 10-K were prepared in accordance with generally accepted accounting principles (“GAAP”) and present fairly, in all material respects, our financial position, results of operations and cash flows for the periods presented in conformity with GAAP.” Please tell us whether your disclosure controls and procedures were effective as of December 31, 2009 to provide reasonable assurance that the information that you are required to disclose in the reports that you file or submit under the Securities Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms, and that such information is accumulated and communicated to your management, including your Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure. Also, confirm that in future Exchange Act filings your effectiveness conclusions will cite, or cite to, the definition of disclosure controls and procedures as set forth in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act.

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As appropriate, please amend your registration statement in response to these comments. Your 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 amendment 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 amendment and responses 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 Act of 1933 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 the 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 filing or in response to our comments on your filing.

We will consider a written request for acceleration of the effective date of the registration statement as a 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.

If you have any questions regarding these comments, please contact Matthew Crispino at (202) 551-3456. Should you require further assistance, you may contact the undersigned at (202) 551-3462.

Sincerely,

Mark P. Shuman  
Branch Chief - Legal

cc: Via Facsimile: (704) 331-5135

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3D Systems Corporation  
March 17, 2010  
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Andrew A. Gerber, Esq.  
Hunton & Williams LLP