



DIVISION OF
CORPORATION FINANCE

Mail Stop 3030

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

November 16, 2009

Valentin P. Gapontsev, Ph.D.
Chief Executive Officer and Chairman of the Board
IPG Photonics Corporation
50 Old Webster Road
Oxford, Massachusetts 01540

**Re: IPG Photonics Corporation
Registration Statement on Form S-3
Filed November 9, 2009
File No. 333-162996**

Dear Mr. Gapontsev:

This letter is to advise you that we will monitor the above-captioned filing to ensure that, before your registration statement becomes effective, you have filed the indenture covering the securities to which the registration statement relates. Refer to Questions 201.02 and 201.04 of the Division's Trust Indenture Act of 1939 Compliance and Disclosure Interpretations, available on our website. No further review of your registration statement has been or will be made.

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 facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Notwithstanding our comment, 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;

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- 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 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 Rules 460 and 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 Ruairi Regan at (202) 551-3269 with any questions.

Sincerely,

Peggy Fisher
Assistant Director

cc (by facsimile): Robert W. Ericson, Esq.