



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

DIVISION OF
CORPORATION FINANCE

Mail Stop 3030

September 21, 2015

Via E-mail

Dwight Babcock
Chief Executive Officer
IsoRay, Inc.
350 Hills Street, Suite 106
Richland, WA 99354

**Re: IsoRay, Inc.
Registration Statement on Form S-3
Filed August 25, 2015
File No. 333-206559**

Dear Mr. Babcock:

We have limited our review of your registration statement to those issues we have addressed in our comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

General

1. Update your financial statements for the year ended June 30, 2015.

Signatures, page 21

2. Please indicate who is signing in the capacity of principal financial officer and controller or principal accounting officer.

Exhibit 5.1

3. Please file an opinion that does not include the qualifications as to jurisdiction contained in the first paragraph on page 3. For guidance, refer to Section II.B.3.b of Staff Legal Bulletin No. 19 (October 14, 2011).
4. Please file an opinion that addresses whether the shareholder rights associated with your common stock will be legally issued, fully paid, and non-assessable. Refer to Item 601(b)(5) of Regulation S-K.
5. Please file an opinion that addresses whether the units will be legally issued, fully paid, and non-assessable. Refer to Item 601(b)(5) of Regulation S-K.

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 the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. 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 responding to our comments, please provide a written 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.

Dwight Babcock
IsoRay, Inc.
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Please contact Heather Percival at (202) 551-3498 or me at (202) 551-3528 with any questions.

Sincerely,

/s/ Amanda Ravitz

Amanda Ravitz
Assistant Director
Office of Electronics and Machinery

cc: Stephen R. Boatwright, Esq.
Gallagher & Kennedy, P.A.