

Mail Stop 6010

May 24, 2006

Roger Girard, CEO
IsoRay, Inc.
350 Hills Street, Suite 106
Richland, WA 99354

**Re: IsoRay, Inc.
Amendment No. 3 to Registration Statement on Form SB-2
Filed May 12, 2006
File No. 333-129646**

Dear Mr. Girard:

We have reviewed your filing and have the following comments. Where 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 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.

Prior comment refers to our letter dated May 5, 2006.

General

1. Please update the disclosure to the extent practical, such as the last sentence on page 14 about the number of customers who have ordered the Cs seed, the disclosure in the last sentence of the first full paragraph on page 17 and the disclosure on page 36 concerning the customers for the nine months ended March

31, 2006. Also, update the financial statements as necessary to comply with Item 310(g) of Regulation S-B.

Results of Operations, page 14

2. Please expand page 16 to disclose why general and administrative expenses increased.

Liquidity and Capital Resources, page 16

3. Please refer to prior comment 2. Please file the agreement with Columbia River Bank. Also, discuss the status of your relationship with HAEIFC.

Cs-131 Manufacturing Process, page 30

4. Please refer to prior comment 3. Please clarify whether you are obligated to purchase \$30 million over the term of the agreement. Also, quantify how much of the \$300,000 has been delivered in the first year. In addition, expand the disclosure to refer to the May 25, 2006 timeframe.

Selling Shareholders, page 50

5. Please refer to prior comment 10. Please revise footnote 10 to identify which selling shareholders are affiliates of broker-dealers.

Description of Securities, page 63

6. Please refer to prior comment 11. Please expand this section to discuss the units disclosed on page 12. Also, expand the first full paragraph on page 65 to quantify the number of warrants.
7. Please refer to prior comment 13. Please tell us whether the number of holders, the identity of holders of common stock and the percentage ownership of such holders were the same before and after the reverse split. Also, tell us whether shareholder approval was required for the issuance of shares to acquire IsoRay. See Item 11 and Item 14(a)(2) of Schedule 14A.

As appropriate, please amend your registration statement in response to these

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comments. You may wish to provide us with marked copies of the amendment 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.

You may contact Julie Sherman at (202) 551-3640 or Jay Webb at (202) 551-3603 if you have questions regarding comments on the financial statements and related matters. Please contact Alan Morris at (202) 551-3601 or me at (202) 551-3602 with any other questions.

Sincerely,

Thomas A. Jones
Senior Counsel

cc. Stephen R. Boatwright
via FAX at (602) 248-2822