

IsoRay, Inc.
Form 8-A12B
April 12, 2007

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

FORM 8-A

FOR REGISTRATION OF CERTAIN CLASSES OF SECURITIES
PURSUANT TO SECTION 12(b) OR 12(g) OF THE
SECURITIES EXCHANGE ACT OF 1934

IsoRay, Inc.

(Exact name of registrant as specified in its charter)

Minnesota

(State of incorporation or organization)

41-1458152

(I.R.S. Employer Identification No.)

**350 Hills Street, Suite 106,
Richland, Washington**

(Address of principal executive
offices)

99354

(Zip Code)

Securities to be registered pursuant to Section 12(b) of the Act:

Title of Each Class To Be So
Registered

Name of Each Exchange On
Which

Each Class Is To Be Registered

Common Stock, \$0.001 par
value per share

American Stock Exchange

Securities to be registered pursuant to Section 12(g) of the Act:

None

If this Form relates to the registration of a class of securities pursuant to Section 12(b) of the Exchange Act and is effective pursuant to General Instruction A.(c), check the following box. x

If this Form relates to the registration of a class of securities pursuant to Section 12(g) of the Exchange Act and is effective pursuant to General Instruction A.(d), check the following box. o

Securities Act registration statement file number to which this form relates: N/A (if applicable).

Item 1. Description of Securities to be Registered

The description of the common stock of Registrant set forth under the caption “Description of Capital Stock” in Registrant’s Registration Statement on Form S-3 filed with the Securities and Exchange Commission on January 26, 2007 (Registration No. 333-140246) (the “Registration Statement”), and in the prospectus included in the Registration Statement, is hereby incorporated by reference in response to this item.

Item 2. Exhibits

Because no other securities of the Registrant are registered on the American Stock Exchange, and the securities being registered by this Form 8-A are not registered pursuant to Section 12(g) of the Securities Exchange Act of 1934, no exhibits are required to be filed with this Form 8-A.

Signature

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereto duly authorized.

ISORAY, INC.

Date: April 12, 2007

/s/ Roger E. Girard

Roger E. Girard
Chief Executive Officer