

INTERNATIONAL ISOTOPES INC  
Form S-8 POS  
April 14, 2009

**As filed with the Securities and Exchange Commission on April 14, 2009**

**Registration No. 333-108776**

**SECURITIES AND EXCHANGE COMMISSION**

**Washington, D.C. 20549**

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**FORM S-8  
POST-EFFECTIVE AMENDMENT NO. 1 TO  
REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933**

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**INTERNATIONAL ISOTOPES INC.**  
*(Exact name of Registrant as specified in its charter)*

**Texas**  
*(State or other jurisdiction of incorporation or  
organization)*

**74-2763837**  
*(I.R.S. Employer Identification No.)*

**4137 Commerce Circle**  
**Idaho Falls, Idaho**  
*(Address of Principal Executive Offices)*

**83401**  
*(Zip Code)*

**INTERNATIONAL ISOTOPES INC. 2002 LONG TERM INCENTIVE PLAN**  
*(Full title of the plan)*

**Steve T. Laflin**

**President, Chief Executive Officer, Secretary and Director**

**International Isotopes Inc.**

**4137 Commerce Circle**

**Idaho Falls, Idaho 83401**

**(208) 524-5300**

(Name, address and telephone number, including area code, of agent for service)

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**Copy to:**

**Sonny Allison**

**Perkins Coie LLP**

1899 Wynkoop Street, Suite 700

**Denver, Colorado 80202-1043**

**303-291-2300**

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of large accelerated filer, accelerated filer, and smaller reporting company in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer  (Do not check if a smaller reporting company)

Smaller reporting company

**CALCULATION OF REGISTRATION FEE**

| <b>Title of Securities to Be Registered</b>  | <b>Amount to Be Registered</b> | <b>Proposed Maximum Offering Price Per Share</b> | <b>Proposed Maximum Aggregate Offering Price)</b> | <b>Amount of Registration Fee</b> |
|--|--------------------------------|--|---|-----------------------------------|
| Common Stock, \$.01 par value per share, together with associated preferred stock purchase rights, under the International | (1)                            | (1)  | (1)   | (1)                               |

Isotopes Inc. 2006 Equity Incentive Plan

(1)

No additional shares are being registered and registration fees were paid upon filing of the original Form S-8 Registration Statement with the Securities and Exchange Commission on September 12, 2002 (Registration No. 333-108776) for the plan. Therefore, no further registration fee is required.

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**EXPLANATORY NOTE**

The Registrant suspended its 2002 Long Term Incentive Plan (the "2002 Plan") with respect to issuances of new stock option grants thereunder, effective July 12, 2006, and adopted a new plan, the International Isotopes Inc. 2006 Equity Incentive Plan (the "2006 Plan"), effective as of July 12, 2006. The Registrant's Form S-8 Registration Statement filed with the Securities and Exchange Commission (the "Commission") on September 12, 2002 (Registration No. 333-108776) (the "Registration Statement") is hereby amended to provide that up to 1,350,000 shares available for issuance, but not issued or subject to outstanding options, under the 2002 Plan (the "Unissued Option Shares") are no longer issuable under the 2002 Plan and may now be issued under the 2006 Plan. A registration statement on Form S-8 with respect to the Unissued Option Shares, is being filed with the Commission concurrently with this Post-Effective Amendment No. 1.

The Registration Statement shall remain in effect for purposes of outstanding stock options granted under the 2002 Plan.

The contents of the Registration Statement are otherwise incorporated by reference into this Post-Effective Amendment No. 1 to such Registration Statement, except as described herein. Required consents and signatures are included in this amendment.

**PART II**

**INFORMATION REQUIRED IN REGISTRATION STATEMENT**

**Item 8.**

**EXHIBITS**

| <b>Exhibit</b> |   |
|----------------|---|
| <b>Number</b>  | <b>Description</b>  |
| 4.1            | Form of Class E Warrant (incorporated by reference to Exhibits 4.1 of the Company's Current Report on Form 8-K filed on April 21, 2008)     |
| 4.2            | Form of Class F Warrant (incorporated by reference to Exhibits 99.1 of the Company's Current Report on Form 8-K filed on November 12, 2008) |

- 5.1\* Opinion of Perkins Coie LLP regarding legality of the Common Stock being registered
- 23.1 Consent of Hansen, Barnett & Maxwell, P.C.
- 23.2\* Consent of Perkins Coie LLP
- 24.1\* Power of Attorney

\* Previously filed.

**SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all the requirements for filing on Form S-8 and has duly caused this Post-Effective Amendment No. 1 to Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Idaho Falls, State of Idaho, on April 14, 2009.

INTERNATIONAL ISOTOPES INC.

By: /s/ Steve T. Laflin

Name: Steve T. Laflin

Title: President, Chief Executive Officer, Secretary and Director

Pursuant to the requirements of the Securities Act of 1933, this Post-Effective Amendment No. 1 to Registration Statement has been signed by the following persons in the capacities indicated below on April 14, 2009.

| <b>Signature</b>           | <b>Title</b>  |
|----------------------------|---|
| /s/ Steve T. Laflin        | President, Chief Executive Officer, Secretary, and Director |
| Steve T. Laflin            |   |
| /s/ Laurie McKenzie-Carter | Chief Financial Officer                                     |
| Laurie McKenzie-Carter     |   |
| /s/ Christopher Grosso     | Director, Audit Committee Chairman                          |
| Christopher Grosso         |   |
| /s/ Dr. Ralph Richart      | Chairman of the Board of Directors                          |
| Dr. Ralph Richart          |   |



**INDEX TO EXHIBITS**

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