

Item 2.02. Results of Operations and Financial Condition.

On October 28, 2010, Varian Medical Systems, Inc. announced that: “Varian Medical Systems Reports Results for Fourth Quarter of Fiscal Year 2010.” A copy of the press release is attached as Exhibit 99.1 and incorporated by reference into this item.

Item 9.01. Financial Statements and Exhibits.

(c)

Exhibits.

99.1 Press Release dated October 28, 2010 entitled “Varian Medical Systems Reports Results for Fourth Quarter of Fiscal Year 2010.”

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Varian Medical Systems, Inc.

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| By: | /s/ John W. Kuo |
| Name: | John W. Kuo |
| Title: | Corporate Vice President, General Counsel and Secretary |

Dated: October 28, 2010

EXHIBIT INDEX

| Number | Exhibit |
|--------|--|
| 99.1 | Press Release dated October 28, 2010 entitled "Varian Medical Systems Reports Results for Fourth Quarter of Fiscal Year 2010." |
