SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 8-K

CURRENT REPORT

PURSUANT TO SECTION 13 OR 15(d) of the SECURITIES EXCHANGE ACT OF 1934

Date of Report (Date of earliest event reported): July 21, 2006

AtriCure, Inc.

(Exact name of registrant as specified in charter)

Delaware (State or other jurisdiction of incorporation) 000-51470 (Commission File Number) 34-1940305 (IRS Employer Identification No.)

6033 Schumacher Park Drive West Chester, OH (Address of principal executive offices)

45069 (Zip Code)

Registrant's telephone number, including area code: (513) 755-4100

Not Applicable

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 5.02. Departure of Directors or Principal Officers; Election of Directors; Appointment of Principal Officers.

On July 24, 2006, we announced that Thomas J. Etergino resigned as our Vice President and Chief Financial Officer. We expect Mr. Etergino to stay through August 18, 2006, at which point he will leave to pursue other endeavors. Until Mr. Etergino's successor is named, David J. Drachman, our President and Chief Executive Officer, will work with our controller to manage our finances. All finance functions will report directly to Mr. Drachman.

A copy of the press release announcing Mr. Etergino's resignation is attached as Exhibit 99.1 to this Form 8-K and is incorporated herein by reference in its entirety.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits.

No. Description

Press Release of AtriCure, Inc. dated as of July 24, 2006.

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.

ATRICURE, INC.

By: /s/ David J. Drachman

David J. Drachman President and Chief Executive Officer

Dated: July 24, 2006

EXHIBIT LIST

Description
Press Release of AtriCure, Inc. dated as of July 24, 2006. No. 99.1



Contacts:

AtriCure

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Press Release

AtriCure Announces Resignation of Chief Financial Officer - Thomas J. Etergino

WEST CHESTER, Ohio, July 24, 2006 — AtriCure, Inc. (Nasdaq: ATRC), a medical device company focused on developing, manufacturing and selling innovative surgical devices, announced today that Thomas J. Etergino resigned as the Company's Vice President and Chief Financial Officer. The Company expects Mr. Etergino to stay through August 18, 2006, at which point he will leave to pursue other endeavors. Until Mr. Etergino's successor is named, David J. Drachman, President and Chief Executive Officer, will work with the Company's controller to manage the Company's finances. All finance functions will report directly to Mr. Drachman.

Dave Drachman, President and CEO, said, "Tom has led a strong finance team here at AtriCure. With its depth and experience, we expect this team will ensure a smooth and orderly transition through his departure and eventual replacement. This dedicated team remains focused on achieving our long-term financial goals. We appreciate the contributions Tom has made while at AtriCure and wish him well in his future endeavors."

About AtriCure, Inc.

AtriCure, Inc. is a medical device company focused on developing, manufacturing and selling innovative surgical devices to create precise lesions, or scars, in soft and cardiac tissues. Medical journals have described the adoption by leading cardiothoracic surgeons of the AtriCure, Inc. bipolar ablation system as a standard treatment alternative during open-heart surgical procedures to safely, rapidly and reliably create lesions in cardiac, or heart, tissue to block the abnormal electrical impulses that cause atrial fibrillation, a rapid, irregular quivering of the upper chambers of the heart.

This press release contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements include statements that address activities, events or developments that AtriCure expects, believes or anticipates will or may occur in the future, such as earnings estimates, other predictions of financial performance, launches by AtriCure of new products and market acceptance of AtriCure's products. Forward-looking statements are based on AtriCure's experience and perception of current conditions, trends, expected future developments and other factors it believes are appropriate under the circumstances and are subject to numerous risks and uncertainties, many of which are beyond AtriCure's control. These risks and uncertainties include the rate and degree of market acceptance of AtriCure's products, AtriCure's ability to develop and market new and enhanced products, the timing of and ability to obtain and maintain regulatory clearances and approvals for its products, the timing of and ability to obtain reimbursement of procedures utilizing AtriCure's products, competition from existing and new products and procedures or AtriCure's ability to effectively react to other risks and uncertainties described from time to time in AtriCure's SEC filings, such as fluctuation of quarterly financial results, reliance on third party manufacturers and suppliers, litigation or other proceedings, government regulation and stock price volatility. AtriCure does not guarantee any forward-looking statement, and actual results may differ materially from those projected. AtriCure undertakes no obligation to publicly update any forward-looking statement, whether as a result of new information, future events or otherwise.