

UNITED STATES
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):
January 6, 2003

AXCELIS TECHNOLOGIES, INC.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

000-30941
(Commission file number)

34-1818596
(IRS employer identification
number)

55 Cherry Hill Drive
Beverly, Massachusetts 01915
(Address of Principal Executive Offices) (Zip Code)

Registrant's telephone number, including area code:
(978) 787-4000

Item 9. Regulation FD Disclosure

Completion of Sale of Shares by 401(k) plans.

As disclosed in Axcelis' Form 10-Q for the quarter ended September 30, 2002, all of the shares of Axcelis common stock held in Eaton Corporation's 401(k) plans (the "Eaton Plans") and in the Axcelis Long Term Investment Plan, a 401(k) plan maintained by Axcelis (the "Axcelis Plan") as of December 31, 2002 were required to be sold by the trustees of the plans. All of the Axcelis shares in the Axcelis Plan were sold by January 6, 2003. On January 19, 2003, Eaton Corporation informed Axcelis that all of the Axcelis shares in the Eaton Plans had been sold.

SIGNATURE

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.

AXCELIS TECHNOLOGIES, INC.

Dated: January 21, 2003

By: /s/ Cornelius F. Moses, III

Cornelius F. Moses, III
Executive Vice President and
Chief Financial Officer