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

FORM 10-K/A
AMENDMENT NO. 1 TOFORM 10-K

(Mark one)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2003

o **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to

Commission file number 000-30941

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

Delaware	**34-1818596**
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)

108 Cherry Hill Drive
Beverly, Massachusetts 01915
(Address of principal executive offices, including zip code)

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

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

Title of class	Name of each exchange on which registered
None	None

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

Common Stock, $0.001 par value
Preferred Share Purchase Rights

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15 (d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No o.

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. o

Indicate by check mark whether the registrant is an accelerated filer (as defined in Rule 12b-2 of the Act). Yes ☒ No o.

Aggregate market value of the voting stock held by nonaffiliates of the registrant as of June 30, 2003: $602,990,041

Number of shares outstanding of the registrant's Common Stock, $0.001 par value, as of March 31, 2004: 99,446,126

Documents incorporated by reference:

Portions of the definitive Proxy Statement for Axcelis Technologies, Inc.'s Annual Meeting of Stockholders to be held on April 29, 2004 are incorporated by reference into Part III of this Form 10-K.

AMENDMENT NO. 1

EXPLANTORY NOTE

We are filing this amendment to our Annual Report on Form 10-K for the fiscal year ended December 31, 2003, originally filed with the Securities and Exchange Commission on March 8, 2004, solely for the purpose of complying with Regulation S-X, Rule 3-09. Rule 3-09 requires that Form 10-K, but not the annual shareholders' report, contain separate financial statements for unconsolidated subsidiaries and investees accounted for by the equity method when such entities are individually significant.

We have determined that our 50% owned joint venture with Sumitomo Heavy Industries, Ltd., known as Sumitomo Eaton Nova Corporation ("SEN"), which is not consolidated in the Axcelis Technologies, Inc. financial statements (and is accounted for under the equity method) was significant under Rule 3-09 in relationship to the Axcelis Technologies, Inc. financial results for the year ended December 31, 2003. Since SEN's fiscal year ended after the date of the filing of our Form 10-K, Rule 3-09 provides that the SEN financial statements may be filed as an amendment to our Form 10-K within 90 days after the end of SEN's fiscal year ended March 31, 2004.

Therefore, this Form 10-K/A amends the following portions of the Axcelis Technologies Form 10-K filed on March 8, 2004:

- Item 8 is being amended by submitting the financial statements of SEN for the fiscal years ended March 31, 2003, 2002 and 2001 (the "SEN Financial Statements") as a separate section of this report immediately following Item 15;

- Item 15 is being amended to:

  - include the list of the SEN Financial statements being filed herewith as required by Item 15(a); and

  - add to the list of exhibits and exhibits filed in accordance with Item 601 of Regulation S-K an Exhibit 23.2, Consent of Ernst & Young - Independent Auditors relating to the SEN Financial Statements, as required by Item 15(c).

As required by Rule 3-09, we will determine with respect to each future fiscal year, whether SEN has been significant with respect to Axcelis' financial results for such year, and file SEN financial statements as necessary to comply with Rule 3-09.

Item 15. Exhibits, Financial Statement Schedules and Reports on Form 8-K

(a) The following documents are filed as part of the Company's Form 10-K, as originally filed on March 8, 2004, and as amended by this form 10-K/A:

(1)(A) Financial Statements of Axcelis Technologies, Inc.:

Report of Ernst & Young LLP - Independent Auditors

Consolidated Statements of Operations-For the years ended December 31, 2003, 2002 and 2001

Consolidated Balance Sheets-December 31, 2003 and 2002

Consolidated Statements of Stockholders' Equity-For the years ended December 31, 2003, 2002 and 2001

Consolidated Statements of Cash Flows-For the years ended December 31, 2003, 2002 and 2001

Notes to Consolidated Financial Statements

(1)(B) Financial Statements of Sumitomo Eaton Nova Corporation:

Report of Ernst & Young LLP - Independent Auditors

Consolidated Statements of Income-For the years ended March 31, 2003, 2002 and 2001

Consolidated Balance Sheets-March 31, 2003 and 2002

Consolidated Statements of Stockholders' Equity-For the years ended March 31, 2003, 2002 and 2001

Consolidated Statements of Cash Flows-For the years ended March 31, 2003, 2002 and 2001

(2) Financial Statement Schedules:

Schedule II - - Valuation and Qualifying Accounts for the years ended December 31, 2003, 2002 and 2001

All other schedules for which provision is made in the applicable regulation of the Securities and Exchange Commission are not required under the related instructions or are inapplicable, and therefore have been omitted.

(b) Reports on Form 8-K

A current report on Form 8-K was furnished with the Securities and Exchange Commission on October 27, 2003 relating to the Company's announcement of earnings for its quarter ended September 30, 2003.

(c) Exhibits

The exhibits filed as part of this Form 10-K are listed on the Exhibit Index immediately preceding such Exhibits, which Exhibit Index is incorporated herein by reference.

(d) Financial Statement Schedules

The response to this portion of Item 15 is submitted as a separate section of this report.

Report of Independent Registered Public Accounting Firm

The Board of Directors
Sumitomo Eaton Nova Corporation

We have audited the accompanying consolidated balance sheets of Sumitomo Eaton Nova Corporation (the "Company") as of March 31, 2004 and 2003, and the related consolidated statements of income, shareholders' equity and cash flows for each of the three years in the period ended March 31, 2004, all expressed in Japanese yen. Our audits also included the translation of these statements as of and for the year ended March 31, 2004 into U.S. dollars on the basis described in Note 1. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance Standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion the financial statements referred to above expressed in Japanese yen present fairly, in all material respects, the consolidated financial position of Sumitomo Eaton Nova Corporation at March 31, 2004 and 2003, and the consolidated results of its operations and its cash flows for each of the three years in the period ended March 31, 2004, in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, the financial statements expressed in U.S. dollars as of and for the year ended March 31, 2004, when considered in relation to the basic financial statements taken as a whole, have been properly translated on the basis described in Note 1.

As discussed in Note 1 to the Consolidated Financial Statements, effective July 1, 2003, the Company adopted the provisions of Emerging Issues Task Force Issue No. 00-21, "Accounting for Revenue Arrangements with Multiple Deliverables."

/s/ Ernst & Young ShinNihon

Tokyo, Japan
May 21, 2004

Sumitomo Eaton Nova Corporation

Consolidated Statements of Income

	Years ended March 31, 2002	2003	2004	Year ended March 31, 2004
	(Thousands of yen)			(U.S. dollars in thousands)
Net sales *(Notes 1, 6 and 13)*				
Systems	¥ 13,612,008	¥ 12,281,385	¥ 17,838,626	$ 157,752
Services	4,435,251	5,579,160	5,630,836	49,795
Net sales	18,047,259	17,860,545	23,469,462	207,547
Cost of products sold *(Note 6)*	10,832,128	10,320,596	12,946,966	114,494
Gross profit	7,215,131	7,539,949	10,522,496	93,053
Selling, general and administrative expenses *(Note 6)*	4,793,246	4,587,471	5,066,003	44,800
Income from operations	2,421,885	2,952,478	5,456,493	48,253
Other income (expense):				
Interest expense	(23,771)	(949)	—	—
Other income (expense), net	118,945	(12,039)	(7,190)	(63)
Income before income taxes	2,517,059	2,939,490	5,449,303	48,190
Income taxes (benefit) *(Note 8)*:				
Current	666,674	1,342,811	2,212,528	19,566
Deferred	367,311	(129,316)	(118,800)	(1,051)
	1,033,985	1,213,495	2,093,728	18,515
Net income	¥ 1,483,074	¥ 1,725,995	¥ 3,355,575	$ 29,675

See accompanying notes to consolidated financial statements.

Sumitomo Eaton Nova Corporation

Consolidated Balance Sheets

	March 31, 2003	March 31, 2004	March 31, 2004
	(Thousands of yen)		(U.S. dollars in thousands)
Assets			
Current assets:			
Cash and cash equivalents	¥ 3,043,118	¥ 6,571,767	$ 62,180
Trade receivables, net *(Note 2)*	9,050,300	10,178,713	96,308
Due from affiliates – current *(Note 6)*	55,932	80,720	764
Inventories *(Note 3)*	3,849,217	7,429,764	70,297
Deferred income taxes and other current assets *(Note 8)*	335,030	370,720	3,508
Total current assets	16,333,597	24,631,684	233,057
Property, plant and equipment, net *(Note 4)*	3,609,819	3,291,712	31,146
Deferred income taxes and other assets *(Note 8)*	454,219	405,557	3,837
	¥ 20,397,635	¥ 28,328,953	$ 268,040
Liabilities and shareholders' equity			
Current liabilities:			
Trade payables:			
Notes	¥ 966,586	¥ 2,145,931	$ 20,304
Accounts	1,915,691	3,842,233	36,354
	2,882,277	5,988,164	56,658
Due to affiliates *(Note 6)*	1,268,548	1,958,962	18,535
Income taxes payable and other current liabilities	1,429,582	2,343,980	22,178
Total current liabilities	5,580,407	10,291,106	97,371
Accrued retirement benefits for employees and directors *(Note 9)*	108,477	83,165	787
Shareholders' equity *(Note 10)*:			
Capital stock:			
Authorized – 20,000 shares			
Issued and outstanding – 12,000 shares	600,000	600,000	2,511
Retained earnings	14,119,107	17,354,682	153,497
Accumulated other comprehensive income (loss)	(10,356)	—	13,874
Total shareholders' equity	14,708,751	17,954,682	169,882
	¥ 20,397,635	¥ 28,328,953	$ 268,040

See accompanying notes to consolidated financial statements.

Sumitomo Eaton Nova Corporation

Consolidated Statements of Shareholders' Equity

	Capital stock	Retained earnings (Note 10)	Accumulated other comprehensive income (loss)	Total
	(Thousands of yen)			
Balance at March 31, 2001	¥ 600,000	¥ 11,150,038	—	¥ 11,750,038
Net income	—	1,483,074	—	1,483,074
Cash dividends	—	(120,000)	—	(120,000)
Balance at March 31, 2002	600,000	12,513,112	—	13,113,112
Net income	—	1,725,995	—	1,725,995
Minimum pension liability adjustment	—	—	(10,356)	(10,356)
Total comprehensive income				1,715,639
Cash dividends	—	(120,000)	—	(120,000)
Balance at March 31, 2003	600,000	14,119,107	(10,356)	14,708,751
Net income	—	3,355,575		3,355,575
Minimum pension liability adjustment	—	—	10,356	10,356
Total comprehensive income				3,365,931

Cash dividends	—	(120,000)	—	(120,000)
Balance at March 31, 2004	¥ 600,000	¥ 17,354,682	—	¥ 17,954,682

	Capital stock	Retained earnings (Note 10)	Accumulated other comprehensive income (loss)	Total
		(U.S. dollars in thousands)		
Balance at March 31, 2003	$ 2,511	$ 124,846	$ (4,987)	$ 122,370
Net income	—	29,675	—	29,675
Minimum pension liability adjustment	—	—	86	86
Foreign currency translation adjustment	—	—	18,775	18,775
Total comprehensive income				48,536
Cash dividends	—	(1,024)		(1,024)
Balance at March 31, 2004	$ 2,511	$ 153,497	$ 13,874	$ 169,882

See accompanying notes to consolidated financial statements.

Sumitomo Eaton Nova Corporation

Consolidated Statements of Cash Flows

	Year ended March 31, 2002	2003	2004	Year ended March 31, 2004
	(Thousands of yen)			(U.S. dollars in thousands)
Operating activities				
Net income	¥ 1,483,074	¥ 1,725,995	¥ 3,355,575	$ 29,675
Adjustments to reconcile net income to net cash provided by operating activities:				
Depreciation	999,174	963,207	609,639	5,391
Deferred income taxes (benefit) provision	367,311	(136,349)	(118,800)	(1,051)
Changes in operating assets and liabilities:				
Trade receivables	6,869,172	(138,988)	(1,128,413)	(9,979)
Due from affiliates	340,248	9,183	(24,788)	(219)
Inventories	3,264,224	(294,216)	(3,580,547)	(31,664)
Trade payables	(4,412,363)	1,220,204	3,105,887	27,467
Due to affiliates	(617,062)	(511,245)	690,414	6,106
Income taxes payable and other current liabilities	(4,278,645)	834,143	914,398	8,086
Other, net	(8,007)	(5,715)	267,344	2,364
Net cash provided by operating activities	4,007,126	3,666,219	4,090,709	36,176
Investing activities				
Purchases of property, plant and equipment, net	(979,922)	(204,247)	(474,019)	(4,192)
Other, net	4,741	11,663	31,959	283
Net cash used in investing activities	(975,181)	(192,584)	(442,060)	(3,909)
Financing activities				
Decrease in short-term borrowings, net	(3,400,000)	(800,000)	—	—
Cash dividends paid	(120,000)	(120,000)	(120,000)	(1,024)
Other	(5,358)	—	—	—
Net cash used in financing activities	(3,525,358)	(920,000)	(120,000)	(1,024)
Effect of exchange rate changes on cash and cash equivalents	—	—	—	5,620
Net increase (decrease) in cash and cash equivalents	(493,413)	2,553,635	3,528,649	36,863
Cash and cash equivalents at beginning of the year	982,896	489,483	3,043,118	25,317
Cash and cash equivalents at end of the year	¥ 489,483	¥ 3,043,118	¥ 6,571,767	$ 62,180
Supplementary information				
Interest paid during the year	¥ 23,660	¥ 949	¥ —	$ —
Income taxes paid during the year	¥ 4,585,607	¥ 467,339	¥ 1,528,519	$ 13,517

See accompanying notes to consolidated financial statements.

Sumitomo Eaton Nova Corporation
Notes to Consolidated Financial Statements
March 31, 2004

Note 1. Nature of Business and Significant Accounting Policies

General

Sumitomo Eaton Nova Corporation (the "Company") was established on April 1, 1983 under the Commercial Code of Japan. The Company is owned equally by Sumitomo Heavy Industries, Ltd. ("SHI"), a Japanese corporation, and Axcelis Technologies, Inc. ("Axcelis"), a U.S. corporation. The Company designs, manufactures, sells and repairs ion implantation equipment and semiconductor equipment primarily for Japanese semiconductor manufacturing customers under a license agreement with Axcelis.

The Company and its wholly-owned subsidiary maintain their records and prepare their financial statements in accordance with accounting principles generally accepted in Japan. Certain adjustments and reclassifications have been incorporated in the accompanying consolidated financial statements to conform with accounting principles generally accepted in the United States of America. These adjustments were not recorded in the statutory books of account.

Basis of Financial Statements

The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiary. All significant intercompany balances and transactions are eliminated in consolidation.

Use of Estimates

The preparation of consolidated financial statements in conformity with generally accepted accounting principles in the United States of America requires management to make certain estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. The actual results could differ from those estimates.

Foreign Currency

The Company's functional currency is the Japanese yen. Transaction gains and losses, which arise from exchange rate fluctuations on transactions denominated in a currency other than the functional currency, are included in the results of operations as incurred. Transaction gains and losses in each of the years in the three year period ended March 31, 2004 were not material.

The accompanying consolidated financial statements expressed in U.S. dollars have been prepared for use in conjunction with the preparation of the consolidated financial statements of Axcelis and have been translated into U.S. dollars in accordance with Statement of Financial Accounting Standards No. 52, *Foreign Currency Translation*. Assets and liabilities are translated using the exchange rate in effect at year-end. Statement of income items are translated using the average rates for the year. The effects of these translation adjustments are accumulated and included in accumulated other comprehensive loss, a separate component of shareholders' equity.

Cash Equivalents

All highly liquid investments with a maturity of three months or less when purchased are considered to be cash equivalents.

Inventories

Inventories are stated at the lower of cost or market, cost being determined by the average method.

Long-Lived Assets

Property, plant and equipment is stated on the basis of cost. Depreciation is computed by the declining-balance method over the estimated useful lives of the respective assets (buildings – 6 to 40 years; machinery – 4 to 13 years; and furniture, fixtures and automobiles – 2 to 20 years) except for buildings purchased after April 1, 1998, which are depreciated on the straight-line basis over 31 years.

Long-lived assets are reviewed for impairment losses whenever events or changes in circumstances indicate the carrying amount may not be recoverable. The asset would be considered impaired when the future net undiscounted cash flows generated by the asset are less than its carrying value. An impairment loss would be recognized based on the amount by which the carrying value of the asset exceeds its fair value.

Accumulated Other Comprehensive Income (Loss)

At March 31, 2003, accumulated other comprehensive income (loss) was comprised of a minimum pension liability of ¥(10,356) thousand.

At March 31, 2004, accumulated other comprehensive income (loss) on a U.S. dollar basis was comprised of an accumulated foreign currency translation adjustment of U.S. $13,874 thousand.

Concentration of Credit Risk

Financial instruments, which potentially expose the Company to concentrations of credit risk, consist primarily of trade notes and accounts receivable. These financial instruments are carried at cost less an allowance for doubtful accounts, which approximates fair value. Substantially all of the Company's notes and accounts receivable are due from companies in the semiconductor industry located in Japan. The Company performs ongoing credit evaluations of its customers' financial condition and provides an allowance for specific doubtful notes and accounts receivable and generally does not require collateral to secure the notes and accounts receivable.

For the year ended March 31, 2002, one customer accounted for net sales of 22%. For the year ended March 31, 2003, three customers accounted for net sales of 15%, 13% and 11%. Three customers accounted for net sales of 21%, 13% and 8% for the year ended March 31, 2004.

At March 31, 2003 and 2004 accounts receivables from one customer approximated 22% and 15% of consolidated trade receivables, respectively.

Revenue Recognition

For revenue arrangements prior to July 1, 2003, the Company recognized sales at the later of the time of shipment to the customer or the transfer of risk of ownership (which is generally upon customer inspection for machinery sales to domestic customers). The cost of system installation at the customer's site was accrued at the time of shipment for installation and acceptance testing performance obligations incurred at the time of sales. Management believes the customer's post delivery acceptance provisions and the installation process have been established to be routine, commercially inconsequential and perfunctory because the process is a replication of the pre-shipment procedures. The majority of the Company's systems are designed and tailored to meet the customer's specifications as outlined in the contract between the customer and the Company. To ensure that the customer's specifications are satisfied, per contract terms, the systems are tested at the Company's facilities prior to shipment, normally with the customer present, under conditions that substantially replicate the customer's production environment and the customer's criteria are confirmed to have been met. The Company has never failed to successfully complete a system installation. The Company has a demonstrated history of customer acceptance subsequent to shipment and installation of these systems.

In November 2002, the Financial Accounting Standards Board's Emerging Issues Task Force reached a consensus on Issue No. 00-21, "Accounting for Revenue Arrangements with Multiple Deliverables" ("EITF 00-21"). This issue addresses the determination of whether an arrangement involving more than one deliverable contains more than one unit of accounting and how the arrangement consideration should be measured and allocated to the separate units of accounting. EITF 00-21 became effective for revenue arrangements entered into in periods beginning after June 15, 2003.

For revenue arrangements occurring on or after July 1, 2003, the Company has revised its revenue recognition policy to comply with the provisions of EITF 00-21. The Company's revenue transactions include sales of systems under multiple element arrangements. Revenue under these arrangements is allocated to all elements, except systems, based upon their estimated fair market value. The amount of revenue allocated to systems is calculated on a residual method. Under this method, the total value of the arrangement is allocated first to the undelivered elements based on the greater of the fair value of the undelivered elements or the portion of the sales price that will not be received until the elements are delivered, with the residual amount being allocated to systems revenue. The amount allocated to installation is based upon hourly rates and the estimated time to complete the service. The fair value of all other elements is based upon the price charged when these elements are sold separately. System revenue and installation revenue are generally recognized at the time of customer acceptance.

Service revenue includes revenue from spare parts, maintenance services and equipment overhaul services. Revenue related to maintenance service contracts is recognized ratably over the duration of the contracts. Revenue related to equipment overhauls is recognized upon completion of the service. Revenue related to spare parts is recognized upon the later of shipment or when title and risk of loss passes to the customer.

Under the provisions of EITF 00-21, the Company has accounted for this change in accounting principle on a prospective basis for revenue arrangements occurring on or after July 1, 2003. The impact of this change for the year ended March 31, 2004 was to decrease net income by ¥666,258 (U.S. $5,892). The pro-forma effect of this accounting change, had it been applied consistently for the years ended March 31, 2002, 2003 and 2004 is as follows:

	2002	2003	2004	2004
	(Thousands of yen)			(U.S. dollars in thousands)
Reported net income	¥ 1,483,074	¥ 1,725,995	¥ 3,355,575	$ 29,675
Pro-forma effect of EITF 00-21	879,721	(24,780)	642,631	5,683
Pro-forma net income	¥ 2,362,795	¥ 1,701,215	¥ 3,998,206	$ 35,358

Shipping and Handling Costs

Shipping and handling costs are included in cost of products sold.

Research and Development Costs

Research and development costs are expensed in the year in which such costs are incurred, except for costs relating to equipment that is acquired or constructed for research and development activities and have alternative future uses. Net amounts capitalized relating to equipment that is used in research and development activities and has alternative future uses during the years ended March 31, 2003 and 2004 amounted to ¥54,506 and ¥75,825 thousand and is included in property, plant and equipment on the consolidated balance sheet at March 31, 2004. Research and development expense for the years ended March 31, 2002, 2003 and 2004 was ¥2,074,594 thousand, ¥1,528,782 thousand and ¥1,665,889 thousand (U.S.$ 14,732 thousand), respectively.

Retirement Benefits

The cost of retirement benefits for seconded employees is incurred by and reimbursed to SHI (see Note 6). The provision for accrued employees' retirement benefits represents the cost for employees who have been employed directly by the Company (see Note 9).

Recent Accounting Pronouncements

In January 2003, the Financial Accounting Standards Board ("FASB") issued Interpretation No. 46 "Consolidation of Variable Interest Entities, an Interpretation of Accounting Research Bulletin No. 51" ("FIN 46"). FIN 46 provides a new consolidation model, which determines control and consolidation based on potential variability in gains and losses. The provisions of FIN 46 are effective for enterprises with variable interests in variable interest entities created after December 31, 2003. For nonpublic companies with variable interest in variable interest entities created before January 1, 2004, the provisions of FIN 46 are to be applied by the Company no later than April 1, 2004. FIN 46 did not and will not have any impact on the Company's consolidated financial statements.

Note 2. Trade Receivables

The components of trade receivables, net follow:

	2003	2004	2004
	(Thousands of yen)		(U.S. dollars in thousands)
Notes	¥ 75,826	¥ 5,189	$ 49
Accounts	8,984,106	10,184,876	96,366
	9,059,932	10,190,065	96,415
Allowance for doubtful accounts	(9,632)	(11,352)	(107)
	¥ 9,050,300	¥ 10,178,713	$ 96,308

Note 3. Inventories

The components of inventories follow:

	2003	2004	2004
	(Thousands of yen)		(U.S. dollars in thousands)
Work in process	¥ 2,373,795	¥ 5,583,318	$ 52,827
Raw materials and parts	1,475,422	1,846,446	17,470
	¥ 3,849,217	¥ 7,429,764	$ 70,297

Note 4. Property, Plant and Equipment, Net

The components of property, plant and equipment, net follow:

	2003	2004	2004
	(Thousands of yen)		(U.S. dollars in thousands)
Land	¥ 299,485	¥ 299,485	$ 2,834
Building and land improvements	4,248,389	4,369,429	41,342
Machinery	4,682,890	4,415,740	41,780
Furniture, fixtures and automobiles	2,011,974	1,901,901	17,995
Construction in process	2,316	17,485	165
	11,245,054	11,004,040	104,116
Accumulated depreciation	(7,635,235)	(7,712,328)	(72,970)
	¥ 3,609,819	¥ 3,291,712	$ 31,146

Note 5. Product Warranty

The Company offers a one year warranty for all of its products, the terms and conditions of which vary depending upon the product sold. The Company estimates the costs that may be incurred under its warranty and records a liability in the amount of such costs at the time product revenue is recognized. Factors that affect the Company's warranty include the number of installed units, historical and anticipated product failure rates, material usage and service labor costs. The Company periodically assesses the adequacy of its recorded warranty and adjusts the amount as necessary.

Changes in the Company's product warranty (included in income taxes payable and other current liabilities on the consolidated balance sheets) for the years ended March 31, 2003 and 2004 are as follows:

	2003	2004	2004
	(Thousands of yen)		(U.S. dollars in thousands)
Beginning balance	¥ 21,200	¥ 23,300	$ 192
Warranties issued during the period	35,192	78,640	695
Settlements made during the period	(33,092)	(65,240)	(577)
Foreign currency exchange rate changes	—	—	37
Balance as of March 31	¥ 23,300	¥ 36,700	$ 347

Note 6. Transactions with Affiliates

Transactions with affiliates for the years ended March 31, 2002, 2003 and 2004 were as follows:

	2002	2003	2004	2004
		(Thousands of yen)		(U.S. dollars in thousands)
Revenues:				

Sales:								
Axcelis and affiliates	¥	619,002	¥	612,738	¥	1,219,911	$	10,788
SHI affiliates		5,765		—		—		—
	¥	624,767	¥	612,738	¥	1,219,911	$	10,788
Inventories purchased:								
SHI	¥	1,375,433	¥	1,161,380	¥	1,877,370	$	16,602
Axcelis		344,347		599,863		410,708		3,632
	¥	1,719,780	¥	1,761,243	¥	2,288,078	$	20,234

		2002		2003		2004		2004
				(Thousands of yen)				(U.S. dollars in thousands)
Other expenses to affiliates:								
Royalties to Axcelis	¥	493,961	¥	452,874	¥	682,681	$	6,037
Commissions to Axcelis and affiliates		287,162		403,412		263,183		2,327
Management fees and royalties to SHI		111,223		101,761		149,297		1,320
Subcontract charges to SHI affiliates		445,921		335,773		316,826		2,802
Other expenses to SHI and affiliates		345,720		30,065		198,723		1,757
	¥	1,683,987	¥	1,323,885	¥	1,610,710	$	14,243

Balances due from and to affiliates at March 31, 2003 and 2004 were as follows:

		2003		2004		2004
		(Thousands of yen)				(U.S. dollars in thousands)
Due from affiliates:						
SHI and affiliates	¥	476	¥	—	$	—
Axcelis and affiliates		55,456		80,720		764
	¥	55,932	¥	80,720	$	764
Due to:						
SHI	¥	794,682	¥	1,306,569	$	12,363
Axcelis		390,340		602,368		5,699
SHI affiliates		78,991		32,573		308
Axcelis affiliates		4,535		17,452		165
	¥	1,268,548	¥	1,958,962	$	18,535

Pension funding for the seconded employees (employees on temporary assignment) is provided through a plan administered by SHI. Under this arrangement, the Company is billed monthly for the pension costs attributable to those individuals. Under the terms of the pension agreement with SHI, no additional costs related to earned benefits are to be borne by the Company. Pension contributions paid to SHI for the years ended March 31, 2002, 2003 and 2004 were ¥153,469 thousand, ¥155,201 thousand and ¥158,155 thousand (U.S.$1,399 thousand), respectively.

Note 7. Financing Arrangements

Leases

Rental expenses for equipment, land and office space for the years ended March 31, 2002, 2003 and 2004 amounted to ¥300,612 thousand, ¥331,178 thousand and ¥278,315 thousand (U.S.$ 1,948 thousand), respectively. Future minimum non-cancelable rental commitments at March 31, 2004 under operating leases are as follows:

Year ended March 31		(Thousands of yen)
2005	¥	153,271
2006		73,875
2007		60,780
2008		60,780
2009		60,780
Later years		60,780
	¥	470,266

Note 8. Income Taxes

Income taxes include corporation, enterprise, and inhabitants' taxes which, in the aggregate, resulted in a statutory tax rate of approximately 41.74% in 2002, 2003 and 2004, respectively. The difference between income tax expense and the amount computed by applying the statutory income tax rate to income before income taxes is summarized as

follows:

2002	2003	2004	2004

	(Thousands of yen)			(U.S. dollars in thousands)
Tax at statutory rate	¥ 1,050,620	¥ 1,226,943	¥ 2,279,147	$ 20,155
Tax effect of:				
Nondeductible expenses	6,088	6,198	12,757	113
Change in future statutory tax rate	—	1,776	—	—
Tax credit for costs of information technologies and research and development activities	—	—	(211,432)	(1,870)
Other items, net	(22,723)	(21,422)	13,256	117
Income tax expense	¥ 1,033,985	¥ 1,213,495	¥ 2,093,728	$ 18,515

In March 2003, the Japanese government enacted a tax law change that will result in a decrease in the aggregate statutory tax rate for the Company's fiscal year beginning on April 1, 2004. The effect of this change on the Company's 2003 income tax expense is included in the above table as the change in future statutory tax rate.

Deferred income taxes reflect the net tax effect of the temporary differences between the amounts of the assets and liabilities recorded for financial and income tax purposes. Significant components of the Company's deferred tax assets as of March 31, 2003 and 2004 were as follows:

	2003	2004	2004
	(Thousands of yen)		(U.S. dollars in thousands)
Deferred tax assets:			
Accrued enterprise tax	¥ 97,212	¥ 170,551	$ 1,614
Loss on disposal of inventory	10,886	7,311	69
Warranty reserve	9,725	14,841	140
Bonus payment reserve	123,580	165,735	1,568
Accrued retirement benefits	43,869	33,631	318
Depreciation	—	12,057	114
Other	15,358	8,271	79
Total deferred tax assets	¥ 300,630	¥ 412,397	$ 3,902

Note 9. Employees' and Directors' Retirement Benefits

The Company has a defined benefit pension plan that covers substantially all employees. Benefits under the plan are based on the employees' compensation as of the date of retirement and years of service. The Company's policy is to fund amounts which are actuarially determined to provide the plan with sufficient assets to meet future benefit payment requirements. Assets of the plan are invested in equity securities, debt securities, money market instruments, and insured products.

The Company also provides certain defined benefits to its statutory auditors and directors who are not statutory auditors, directors or employees of SHI, Axcelis or one of their affiliates. Their benefits are based on years of service, compensation at retirement and position. This plan is unfunded.

The measurement date used to determine the pension obligation for the benefit plan is March 31.

The reconciliation of beginning and ending balances of the projected benefit obligation and plan assets, and the funded status of the Company's plans are as follows:

	2003	2004	2004
	(Thousands of yen)		(U.S. dollars in thousands)
Change in benefit obligation			
Benefit obligation at beginning of year	¥ 575,271	¥ 647,050	$ 5,382
Service cost	52,628	59,578	527
Interest cost	13,449	11,847	105
Actuarial (gains) and losses	(5,630)	73,601	651
Foreign currency exchange rate changes	—	—	806
Change in additional minimum liability	17,388	(17,388)	(145)
Benefits paid	(6,056)	(5,137)	(45)
Benefit obligation at end of year	647,050	769,551	7,281
Change in plan assets			
Fair value of plan assets at beginning of year	329,278	344,161	2,863
Actual gain (loss) on plan assets	(54,383)	65,488	579
Foreign currency exchange rate changes	—	—	481
Contributions	75,322	77,939	689
Benefits paid	(6,056)	(2,937)	(26)
Fair value of plan assets at end of year	344,161	484,651	4,586
Funded status	(302,889)	(284,900)	(2,695)
Unrecognized transition obligation	75,393	64,621	611
Unrecognized net loss	119,019	137,114	1,297
Net amount recognized	¥ (108,477)	¥ (83,165)	$ (787)

Total amount recognized in the consolidated balance sheets:						
Accrued pension cost	¥	(91,089)	¥	(83,165)	$	(787)
Minimum pension liability – before income tax		(17,388)		—		—
Net amount recognized	¥	(108,477)	¥	(83,165)	$	(787)

The components of net pension expense of the Company's plans for the years ended March 31, 2002, 2003 and 2004 were as follows:

	2002	2003 (Thousands of yen)	2004	2004 (U.S. dollars in thousands)
Service cost	¥ 52,178	¥ 52,628	¥ 59,578	$ 527
Interest cost	12,688	13,449	11,847	105
Expected return on plan assets	(10,954)	(13,171)	(13,766)	(122)
Net amortization and deferrals	10,771	10,994	14,555	129
Net pension expense	¥ 64,683	¥ 63,900	¥ 72,214	$ 639

The aggregate accumulated benefit obligation of this plan was as follows:

	2003	2004	2004
	(Thousands of yen)		(U.S. dollars in thousands)
Aggregate accumulated benefit obligation	¥ 415,327	¥ 519,506	$ 4,915

The discount rates and weighted average rates of increases in future salary levels used in determining the actuarial present value of the projected benefit obligation as of March 31, 2003 and 2004 were as follows:

	2003	2004
Discount rate	2.0%	1.5%
Weighted average rates of increases in future salary levels	2.67%	2.67%

The discount rates, weighted average rates of increases in future salary levels and the expected long-term rates of return on plan assets used in determining net pension expense for the years ended March 31, 2002, 2003 and 2004 were as follows:

	2002	2003	2004
Discount rate	2.5%	2.0%	1.5%
Weighted average rates of increases in future salary levels	2.67%	2.67%	2.67%
Expected long-term rates of return on plan assets	4.0%	4.0%	4.0%

The expected long-term rate of return on plan assets assumption is determined from the plan's asset allocation using forward-looking assumptions in the context of historical returns.

The investment strategy is to manage the assets of the plan to meet the long-term liabilities while maintaining sufficient liquidity to pay current benefits. This is primarily achieved by holding equity-like investments while investing a portion of the assets in long duration bonds in order to match the long-term nature of the liabilities. The Company will periodically undertake an asset and liability modeling study if a material shift in the plan's liability profile or changes in the capital markets call for such a study. The Company's weighted-average asset allocations for its defined benefit plan at March 31, 2003 and 2004, by asset category, are as follows:

Asset Category	2003	2004	Target
Equity securities	42.4%	38.6%	29-43%
Debt securities	24.9	26.5	24-38
Foreign currency securities investment fund	28.7	28.7	19-43
Loan receivables	4.0	6.2	0-7
	100%	100%	100%

The Company expects to contribute approximately ¥87,924 thousand (U.S.$832 thousand) to its defined benefit plan for the year ending March 31, 2005.

Note 10. Shareholders' Equity

The Commercial Code of Japan ("Code") provides that an amount equal to at least 10% of the amount to be

disbursed as a distribution of earnings be appropriated to the legal reserve until the total of such reserve and the additional paid-in capital account equals 25% of the common stock account. The Codes also provides to the extent that the sum of additional paid-in capital account and the legal reserve account exceed 25% of the common stock account then the amount of the excess (if any) is available for appropriations by resolution of the shareholders.

Retained earnings available for dividends under the Code are based on the amount presented in the Company's non-consolidated financial statements, which are prepared in accordance with accounting principles and practices generally accepted in Japan. Under the Code, the amount of retained earnings available for dividends as of March 31, 2004 amounted to ¥17,229,638 thousand (U.S.$163,021 thousand).

Note 11. Financial Instruments

The total carrying amount reported in the balance sheets for financial instruments, cash and cash equivalents, notes and accounts receivables, short-term debt, notes and accounts payables approximates their respective fair value.

Note 12. Supplemental Balance Sheet Information

Changes in allowance for doubtful accounts:

	2002	2003	2004	2004
	(Thousands of yen)			(U.S. dollars in thousands)
Balance at beginning of year	¥ 64,702	¥ 23,958	¥ 9,632	$ 80
Addition	—	—	1,720	16
Utilization	—	—	—	—
Reversal	(40,744)	(14,326)	—	—
Foreign currency exchange rate changes	—	—	—	11
Balance at end of period	¥ 23,958	¥ 9,632	¥ 11,352	$ 107

Note 13. Sales to Foreign Customers

The Company's sales to foreign customers amounted to ¥ 3,932,523 thousand, ¥ 4,878,493 thousand and ¥3,303,006 thousand (U.S.$29,209 thousand) for the years ended March 31, 2002, 2003 and 2004, respectively.

SIGNATURE

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

AXCELIS TECHNOLOGIES, INC.

DATED: June 29, 2004 By: /s/ MARY G. PUMA

Mary G. Puma, President and Chief Executive Officer

AXCELIS TECHNOLOGIES, INC.

INDEX TO EXHIBITS

to Form 10-K for the Year ended December 31, 2003.

These Exhibits are numbered in accordance with the Exhibit Table of Item 601 of Regulation S-K:

EXHIBIT INDEX

Exhibit No.	Description
2.1	Tax Sharing and Indemnification Agreement between Eaton Corporation and the Company. Incorporated by reference from Exhibit 2.5 of the Company's Registration Statement on Form S-1 (Registration No. 333-36330).
3.1	Amended and Restated Certificate of Incorporation of the Company. Incorporated by reference from Exhibit 3.1 of the Company's Registration Statement on Form S-1 (Registration No. 333-36330).
3.2	Bylaws of the registrant, as amended as of January 23, 2002. Incorporated by reference from Exhibit 3.2 of the Company's Form 10-K for the year ended December 31, 2001, filed with the Commission on March 12, 2002.
3.3	Certificate of Designation of Series A Participating Preferred Stock, filed with the Secretary of State of Delaware on July 5, 2000. Incorporated by reference from Exhibit 3.3 of the Company's Form 10-K for the year ended December 31, 2000, filed with the Commission on March 30, 2001.
4.1	Specimen Stock Certificate. Incorporated by reference from Exhibit 4.1 of the Company's Registration Statement on Form S-1 (Registration No. 333-36330).

4.2	Rights Agreement between the Company and EquiServe Trust Company, N.A. Incorporated by reference from Exhibit 4.1 of the Company's Registration Statement on Form S-1 (Registration No. 333-36330).
4.3	Indenture between the Company and State Street Bank and Trust Company, as trustee, including the form of note, dated as of January 15, 2002. Incorporated by reference from Exhibit 4.1 to the Company's Report on Form 8-K filed with the Commission on January 15, 2002.
4.4	Registration Rights Agreement by and among the Company, Morgan Stanley & Co., Incorporated, Salomon Smith Barney Inc. and SG Cowen Securities Corporation, dated as of January 15, 2002. Incorporated by reference from Exhibit 4.2 to the Company's Report on Form 8-K filed with the Commission on January 15, 2002.

4.5	Revolving Credit Agreement dated as of October 3, 2003, among the Company, ABN Amro Bank N.V. and the other lenders named therein, as amended. Pursuant to Regulation S-K, Item 601(b)(4)(iii), this exhibit has not been filed, since the total amount of the facility does not exceed 10% of the Company's total assets at this time. The Company will furnish a copy of the Credit Agreement to the Commission on request.
10.1*	2000 Stock Plan, as amended on December 18, 2003. Filed with the original Form 10-K for the year ended December 31, 2003 (the "Original Form 10-K") on March 8, 2004.
10.2*	Employee Stock Purchase Plan. Incorporated by reference from Exhibit 10.2 of the Company's Report on Form 10-Q filed with the Commission on November 14, 2000.
10.3	Form of Indemnification Agreement entered into by the Company with each of its directors and executive officers. Incorporated by reference from Exhibit 10.2 of the Company's Registration Statement on Form S-1 (Registration No. 333-36330).
10.4*	Form of Change in Control Agreement between the registrant and certain of its executive officers. Incorporated by reference from Exhibit 10.3 of the Company's Registration Statement on Form S-1 (Registration No. 333-36330).
10.5	Intentionally omitted.
10.6	Intentionally omitted.
10.7*	Employment Agreement between the Company and Mary G. Puma. Incorporated by reference from Exhibit 10.5 of the Company's Registration Statement on Form S-1 (Registration No. 333-36330).
10.8**	Organization Agreement dated December 3, 1982 between Eaton Corporation and Sumitomo Heavy Industries, Ltd. relating to Sumitomo Eaton Nova Corporation, as amended. Incorporated by reference from Exhibit 10.6 of the Company's Registration Statement on Form S-1 (Registration No. 333-36330).
10.9**	Master License Agreement dated January 16, 1996 between Eaton Corporation and Sumitomo Eaton Nova Corporation. Incorporated by reference from Exhibit 10.7 of the Company's Registration Statement on Form S-1 (Registration No. 333-36330).
10.10*	Executive Officer Agreement dated as of December 18, 2003 between the Company and Stephen G. Bassett. Filed with the Original Form 10-K on March 8, 2004.
14.1	Ethical Business Conduct at Axcelis, revised through January 2003. Incorporated by reference from Exhibit 14.1 of the Company's report on Form 10-K filed with the Commission on March 28, 2003.
21.1	Subsidiaries of the Company. Filed with the Original Form 10-K on March 8, 2004.

23.1	Consent of Ernst & Young LLP, Independent Auditors. Filed with the Original Form 10-K on March 8, 2004.
23.2	Consent of Ernst & Young ShinNihon, Independent Auditors, relating to the financial statements of Sumitomo Eaton Nova Corporation filed herewith.
31.1	Certification of the Chief Executive Officer under Exchange Act Rule 13a-14(a)/15d-14(a) (Section 302 of the Sarbanes-Oxley Act), dated June 29, 2004. Filed herewith.
31.2	Certification of the Chief Financial Officer under Exchange Act Rule 13a-14(a)/15d-14(a) (Section 302 of the Sarbanes-Oxley Act), dated June 29, 2004. Filed herewith.
32.1	Certification of the Chief Executive Officer pursuant to Section 1350 of Chapter 63 of title 18 of the United States Code (Section 906 of the Sarbanes-Oxley Act), dated June 29, 2004. Filed herewith.
32.2	Certification of the Chief Financial Officer pursuant to Section 1350 of Chapter 63 of title 18 of the United States Code (Section 906 of the Sarbanes-Oxley Act), dated June 29, 2004. Filed herewith.

99.1	Factors affecting future operating results as of December 31, 2003. Filed with the Original Form 10-K on March 8, 2004.
99.2	Charter of the Audit Committee of the Board of Directors of Axcelis, as adopted on January 23, 2003. Incorporated by reference to Exhibit 99.4 of the Company's report on Form 10-K filed with the Commission on March 28, 2003.
99.3	Governance Policies adopted by the Board of Directors of Axcelis on September 26, 2002 and amended on October 22, 2003. Filed with the Original Form 10-K on March 8, 2004.
99.4	Charter of the Nominating and Governance Committee of the Board of Directors, as adopted on September 26, 2002. Incorporated by reference to Exhibit 99.6 of the Company's report on Form 10-K filed with the Commission on March 28, 2003.
99.5	Charter of the Compensation Committee of the Board of Directors of Axcelis, as adopted on January 23, 2003. Incorporated by reference to Exhibit 99.7 of the Company's report on Form 10-K filed with the Commission on March 28, 2003.

* Indicates a management contract or compensatory plan.

Certain confidential information contained in the document has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended, or Rule 24b-2 promulgated under the Securities and Exchange Act of 1934, as amended

CONSENT OF ERNST & YOUNG, INDEPENDENT AUDITORS

We consent to the incorporation by reference in the Registration Statement (Form S-3 No. 333-85214) of Axcelis Technologies, Inc., the Registration Statement (Form S-8 No 333-49726) pertaining to the Axcelis Technologies, Inc. Employee Stock Purchase Plan and the Registration Statement (Form S-8 No. 333-49768) pertaining to the Axcelis Technologies, Inc. 2000 Stock Plan, of our report dated May 21, 2004, with respect to the consolidated financial statements of Sumitomo Eaton Nova Corporation included in the Axcelis Technologies, Inc. amended Annual Report (Form 10-K/A) for the year ended December 31, 2003.

/s/ Ernst & Young ShinNihon

Tokyo, Japan
June 25, 2004

Exhibit 31.1

CERTIFICATION

of the Principal Executive Officer

Pursuant to Rule 13a-14(a)/15d-14(a) (implementing Section 302 of the Sarbanes-Oxley Act)

I, Mary G. Puma, certify that:

1. I have reviewed this Form 10-K/A of Axcelis Technologies, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (c) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: June 29, 2004

By: /s/ Mary G. Puma
Mary G. Puma, President and Chief Executive Officer

CERTIFICATION

of the Principal Financial Officer

Pursuant to Rule 13a-14(a)/15d-14(a) (implementing Section 302 of the Sarbanes-Oxley Act)

I, Stephen G. Bassett, certify that:

1. I have reviewed this Form 10-K/A of Axcelis Technologies, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (c) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: June 29, 2004

By: /s/ Stephen G. Bassett
Stephen G. Bassett
Chief Financial Officer

AXCELIS TECHNOLOGIES, INC.

Certification of the Chief Executive Officer

Pursuant to Section 1350 of Chapter 63 of title 18 of the United States Code

The undersigned Chief Executive Officer of Axcelis Technologies, Inc., a Delaware corporation, hereby certify, for the purposes of Section 1350 of Chapter 63 of title 18 of the United States Code (as implemented by Section 906 of the Sarbanes-Oxley Act of 2002) as follows:

This Form 10-K/A annual report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)) and the information contained herein fairly presents, in all material respects, the financial condition and results of operations of the Company.

IN WITNESS WHEREOF, the undersigned have executed this Certification as of June 29, 2004.

/s/ Mary G. Puma
Mary G. Puma
Chief Executive Officer of Axcelis Technologies, Inc.

AXCELIS TECHNOLOGIES, INC.

Certification of the Chief Financial Officer

Pursuant to Section 1350 of Chapter 63 of title 18 of the United States Code

The undersigned Chief Financial Officer of Axcelis Technologies, Inc., a Delaware corporation, hereby certify, for the purposes of Section 1350 of Chapter 63 of title 18 of the United States Code (as implemented by Section 906 of the Sarbanes-Oxley Act of 2002) as follows:

This Form 10-K/A annual report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)) and the information contained herein fairly presents, in all material respects, the financial condition and results of operations of the Company.

IN WITNESS WHEREOF, the undersigned have executed this Certification as of June 29, 2004.

/s/ Stephen G. Bassett
Stephen G. Bassett
Chief Financial Officer of Axcelis Technologies, Inc.