



DIVISION OF
CORPORATION FINANCE

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

December 22, 2011

Via E-mail

Mr. Richard J. Gaynor
Vice President and Chief Financial Officer
GT Advanced Technologies Inc.
243 Daniel Webster Highway
Merrimack, New Hampshire 03054

**Re: GT Advanced Technologies Inc.
Form 10-K for the fiscal year ended April 2, 2011
Filed May 25, 2011
Form 10-Q for the quarterly period ended October 1, 2011
Filed November 9, 2011
File No. 001-34133**

Dear Mr. Gaynor:

We have reviewed your filings and have the following comments. We have limited our review to only your financial statements and related disclosures and do not intend to expand our review to other portions of your documents. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by providing the requested information or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

Form 10-K for the Fiscal Year Ended April 2, 2011

Note 8. Valuation and Qualifying Accounts, page 100

1. Please tell us the why you made reclassifications from deferred revenue to allowance for doubtful accounts.

Note 11. Income Taxes, page 104

2. Please show us the significant components of your deferred income tax assets - current of \$62,359 and your deferred income tax liability – long-term of \$59,080 as of April 2, 2011.

Note 13. Commitments and Contingencies, page 106

3. You disclose that during the year ended April 3, 2010, a customer reimbursed you \$20.5 million for the costs incurred to terminate certain impacted vendor commitments and the company recorded the reimbursement and related costs as deferred revenue and deferred cost of goods sold. Please explain further the nature of this termination and the costs incurred by you which were reimbursed. Discuss why you deferred recognition of the costs and the related reimbursement.

Form 10-Q for the Quarterly Period Ended October 1, 2011

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations, page 23

Results of Operations, page 29

4. You disclose that during the six months ended October 1, 2011, you recorded revenues of \$29.1 million from terminated contracts and during the fiscal year ended April 2, 2011, you recorded revenues of \$44.4 million from terminated contracts. Please tell us the impact of terminations on your gross margins and why this is not discussed as a significant factor contributing to changes in your gross margins.
5. With respect to sales in your polysilicon business, please summarize the significant terms of the contracts, including payment, acceptance and termination terms. Please also discuss those contracts that grant contractual rights which require revenue to be recognized ratably over the contract period.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Mr. Richard Gaynor
GT Advanced Technologies Inc.
December 22, 2011
Page 3

In responding to our comments, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

You may contact Julie Sherman, Staff Accountant, at (202) 551-3640 or Kate Tillan, Assistant Chief Accountant, at (202) 551-3604 if you have any questions regarding these comments. In this regard, do not hesitate to contact me at (202) 551-3671.

Sincerely,

/s/ Kate Tillan for

Martin James
Senior Assistant Chief Accountant