



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

Mail Stop 6010

July 29, 2008

Mr. Richard S. Hill
Chief Executive Officer
Novellus Systems, Inc.
400 North First Street
San Jose, California 95134

RE: **Novellus Systems, Inc.**
Form 10-K for the fiscal year ended December 31, 2007
Filed February 29, 2008
Form 10-Q for the period ended March 29, 2008
Filed May 7, 2008
File No. 1-10655

Dear Mr. Hill:

We have reviewed your filing and have the following comments. We have limited our review of your filing to those issues we have addressed in our comments. Where indicated, we think you should revise your document in future filings in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 10-K for the Year Ended December 31, 2007

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 25

Contractual obligations, page 41

1. We note that you have provided disclosure of your contractual obligations in two tables – one for lease payments and one for long-term borrowing arrangements. In your future filings, as applicable, please provide, in one table, disclosure for all of the company's contractual obligations and clearly indicate the company's total contractual obligations. Please refer to Item 303(a)(5) of Regulation S-K.

Notes to Consolidated Financial Statements, page 50

Significant Accounting Policies, page 50

Revenue Recognition, page 51

2. We note that you record deferred revenue and associated cost of sales in deferred profit prior to meeting specific revenue recognition criteria related to delivery. Please tell us and revise in future filings to disclose the "specific revenue recognition criteria" related to delivery that still remains. Also, tell us the amounts of gross deferred revenues and gross deferred costs of sales presented in the deferred profit caption on your balance sheets as of December 31, 2007 and March 31, 2008.
3. We also note your disclosure about customer acceptance, which states, "for sales contracts where final payment is not billable until customer acceptance, the final payment (which typically exceeds the fair value of the installation services) is recognized upon customer acceptance." Please address the following:
 - Tell us what percentage of the total payment is withheld until customer acceptance.
 - Explain your client acceptance process and the documents that record the acceptance by the customer. Explain when these are obtained and how they impact your revenue recognition. In the absence of the formal customer acceptance, explain to us how you assure the customer acceptance.

- Tell us your consideration of the guidance in Question 1 of SAB Topic 13.A.3b which states, “the delivery criterion would generally be satisfied...unless product performance may reasonably be different under the customer’s testing conditions specified by the acceptance provisions.”
- Tell us whether the customer has the right to terminate the contract or to demand a refund if the customer-specified conditions are not met.

Item 9A Controls and Procedures, page 82

4. We note your statement that the chief executive officer and chief financial officer have concluded that the company’s disclosure controls and procedures are effective “subject to the limitations noted in this Part II, Item 9A.” Given the limitations noted, it remains unclear whether your chief executive officer and chief financial officer have concluded that your disclosure controls and procedures are effective. Please revise your disclosure in future filings to state, in clear and unqualified language, the conclusions reached by your chief executive officer and your chief financial officer on the effectiveness of your disclosure controls and procedures. For example, if true, you can state that your disclosure controls and procedures are effective including consideration of the identified matters, so long as you provide appropriate disclosure explaining how the disclosure controls and procedures were determined to be effective in light of the identified matters. Or, if true, you can state that given the identified matters, your disclosure controls and procedures are not effective. You should not, however, state the conclusion in your current disclosure, which appears to state that your disclosure controls and procedures are effective except to the extent they are not effective.

Form 10-Q for the Quarterly Period Ended March 29, 2008

Notes to Consolidated Financial Statements, page 6

Note 3. Financial Instruments, page 9

Auction-Rate Securities, page 10

5. We note that beginning in February 2008, most ARS auctions began to fail, and accordingly the contractual interest rates on the securities reset and the securities became illiquid. Consequently, you reclassified your securities to long-term investments and recorded a temporary unrealized loss of \$5.8 million in the first

quarter of 2008. Please tell us how you determined that a cash flow analysis was the appropriate model to determine the fair value of these securities. Also explain your basis for choosing this method and whether you considered any other valuation techniques. Your discussion should also include the following:

- How you considered trades in the secondary market and if you did not consider trades in the secondary market, why you did not consider this an appropriate analysis;
- The basis for the assumptions used to determine your estimate of the present value of the auction rate securities in your cash flow analysis, including the sensitivity of your estimated present value to those assumptions;
- Whether you considered any broker's estimation of the fair value of your auction rate securities; and
- How you determined, based on your estimate of fair value, that the temporary unrealized loss was only \$5.8 million and that there were no other-than-temporary losses in your auction rate security investments at March 31, 2008, considering the failed auctions for your auction rate securities in February 2008. Please clarify whether you have the intent and the ability to hold these securities until maturity. Refer to SFAS 115, FSP FAS 115-1, SAB Topic 5M, or other authoritative accounting literature which supports your analysis.

Item 2: Management's Discussion and Analysis . . . , page 15

6. We note that your sales have declined since the second half of your 2007 fiscal year, and it appears from your disclosure and the first and second quarter earnings calls for the current fiscal year that management has anticipated and continues to anticipate weak and uncertain market conditions resulting from pricing, supply and demand in the memory market and liquidity conditions. We also note from your disclosure and earnings calls that management has been attempting since at least the 2007 fiscal-year end to reduce your operating expenses to a goal of \$110 million per quarter by the third quarter of your current fiscal year. In your future filings, as applicable, please address any known trends and uncertainties that have had or that you reasonably expect will have a material impact on your operating results in Management's Discussion and Analysis. Refer to Item 303(a)(3)(ii) of Regulation S-K. In your future filings, as applicable, please expand the "Overview of Our Business and Industry" section of Management's Discussion and Analysis to provide a more detailed discussion of current material business challenges, opportunities and risks, such as those presented by known material trends and uncertainties, on which management is most focused, and the actions they are taking in response to them. For example, identify and describe the

factors that have created the “ongoing weakness in the semiconductor industry” referenced in your disclosure, whether management expects those conditions to persist, and discuss how those factors have had or may have an impact on your customers’ expenditures for your products and your operating results and financial condition. Also describe your plan to reduce operational expenses, what has been accomplished to date, what remains to be achieved, including any obstacles that you expect to encounter, the expected date by which the plan will be complete and the overall effect of the plan on your business and results of operations. Please see Interpretative Release No. 33-8350, available on our Web site at <http://www.sec.gov/rules/interp/33-8350.htm>, for guidance on the content and purpose of an executive summary.

Item 4. Controls and Procedures, page 23

7. You indicate that your disclosure controls and procedures are “designed with the objective of ensuring that information required to be disclosed in our reports filed under the Exchange Act such as this Quarterly Report on Form 10-Q, is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms”, and that your “[d]isclosure controls are also designed with the objective of ensuring that such information is accumulated and communicated to our management, including the Chief Executive Officer and Principal Financial Officer, as appropriate to allow timely decisions regarding required disclosure.” We note, however, that your disclosure under “Conclusions,” only provides the conclusion that your chief executive officer and principal financial officer made with respect to the delivery to them of material information relating to the company during the period when your periodic reports were being prepared. Please revise your future filings to clarify, if true, that your officers also concluded that your disclosure controls and procedures were also effective to ensure that the information required to be disclosed in your reports filed under the Exchange Act is recorded, processed and summarized within the time periods specified in the SEC’s rules and forms. Refer to Exchange Act Rule 13a-15(e).

As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a cover letter with your response that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please submit your cover letter on EDGAR. Please understand that we may have additional comments after reviewing your responses to our comments.

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 all information required under the Securities Exchange Act of 1934 and that they have provided all information

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investors require for an informed investment decision. 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.

In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filings;
- 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.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

You may contact Geoffrey Kruczek, Legal Examiner, at (202) 551-3641 or Tim Buchmiller, Legal Reviewer, at (202) 551-3635 if you have questions regarding legal comments. You may contact Dennis Hult, Staff Accountant, at (202) 551-3618 or me at (202) 551-3554 if you have questions regarding comments on the financial statements and related matters. In this regard, do not hesitate to contact Martin James, Senior Assistant Chief Accountant, at (202) 551-3671.

Sincerely,

Angela J. Crane
Accounting Branch Chief