

January 22, 2010

Office of Chief Counsel
Division of Corporation Finance
Securities and Exchange Commission
100 F Street, NE
Washington, DC 20549

1934 Act/Rule 12h-3

Via Electronic Mail (cfletters@sec.gov)

Re: Semitool, Inc. (File No. 000-25424)

Dear Ladies and Gentlemen:

On behalf of our client, Semitool, Inc., a Montana corporation ("Semitool"), that became a wholly owned subsidiary of Applied Materials, Inc, a Delaware corporation ("Applied"), pursuant to the transactions described in this letter, we hereby request that a no-action letter be issued advising us that the Staff concurs in our view that under the circumstances described in this letter, the updating pursuant to Section 10(a)(3) of the Securities Act of 1933, as amended (the "Securities Act") of Semitool's registration statements on Form S-8 described herein for the fiscal year ending September 30, 2010 will not preclude Semitool from using Rule 12h-3 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), to suspend its obligations to file current and periodic reports under Section 13(a) and Section 15(d) of the Exchange Act and the rules and regulations promulgated thereunder. Alternatively, we request an exemption, pursuant to Section 12(h), from any obligation of Semitool to file further reports under the Exchange Act under the circumstances described herein.

Subject to the Staff's concurrence with the request set forth in this letter, Semitool will file a certification on Form 15 to terminate the registration of its common stock, no par value (the "Common Stock"), under Section 12(g) of the Exchange Act and to suspend its reporting obligations under Section 13(a) and 15(d) of the Exchange Act with regard to the Common Stock pursuant to Rule 12h-3 under the Exchange Act on or before February 9, 2010, the date on which the filing of Semitool's quarterly report on Form 10-Q for the quarter ended December 31, 2009 (the "2010 First Quarter 10-Q") would be due.

Unless otherwise indicated, each reference herein to a "Section" or "Rule" is to the corresponding Exchange Act section or rule promulgated thereunder, respectively.

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Applied and Semitool have authorized us to make the statements set forth in this letter on their behalf.

I. Background

Semitool was incorporated in Montana in 1979 to design, manufacture, install and service highly engineered equipment for use in fabrication of semiconductor devices. Semitool completed its initial public offering in February 1995.

On November 16, 2009, Applied, its wholly owned subsidiary Jupiter Acquisition Sub, Inc., a Montana corporation ("Acquisition Sub"), and Semitool entered into an Agreement and Plan of Merger (the "Merger Agreement"), pursuant to which Applied, through Acquisition Sub, commenced a tender offer (the "Tender Offer") for all of the outstanding shares of Common Stock of Semitool (the "Shares") at a purchase price of \$11.00 per Share, net to the seller in cash, without interest thereon and less any required withholding tax (the "Offer Price").¹ The Merger Agreement further provided that, upon satisfaction of certain conditions, including the tender and acceptance of more than 66 2/3% of the then outstanding Shares on a fully diluted basis, Semitool and Acquisition Sub would merge following completion of the Tender Offer (the "Merger").

The offering period of the Tender Offer expired at midnight, Eastern Standard Time, on Thursday, December 17, 2009. On Friday, December 18, 2009, Acquisition Sub accepted for payment the Shares tendered during the offering period. Based on the information provided by the depositary for the Tender Offer, an aggregate of 29,759,970 shares were validly tendered and not withdrawn pursuant to the Tender Offer, representing approximately 90% of the outstanding stock of Semitool as of December 17, 2009, and an additional 1,623,114 Shares were tendered for acceptance pursuant to a notice of guaranteed delivery, making the total number of Shares to be accepted in the Offer 31,383,084, which is in excess of 95% of the outstanding Shares as of December 17, 2009.

As a result of the Tender Offer, the vesting of all shares of restricted Common Stock and all options to purchase shares of Common Stock under Semitool's outstanding Equity Plans (as defined below) was accelerated.

The Merger was effected as a short-form merger under Montana law on December 21, 2009, upon the filing and effectiveness of Articles of Merger with the Secretary of State of the State of Montana (the time at which such Articles of Merger became effective is referred to herein as, the "Effective Time"). At the Effective Time, all Shares outstanding after the Tender

¹ The terms and conditions of the Tender Offer are set forth in the Tender Offer Statement on Schedule TO filed by Applied and Acquisition Sub with the Commission on November 19, 2009.

Offer (except for Shares held by Applied or its subsidiaries or by persons who properly assert dissenters' rights under Montana law) were converted into the right to receive \$11.00 per share in cash, without interest thereon and less any required withholding taxes (the "Merger Consideration"), which is equal to the Offer Price.

Under the applicable provisions of Montana law, in connection with the Merger, Semitool's former shareholders may be eligible to exercise dissenters' rights and seek payment of the fair value of their Shares. We are not aware of any shareholders who are seeking to exercise their dissenters' rights.

As a result of the Tender Offer and the Merger, all securities or rights to acquire securities of Semitool issued and outstanding immediately prior to the Effective Time ceased to be issued and outstanding, and Semitool was merged with and into the Acquisition Sub, which changed its name to Semitool, Inc. and became the surviving entity of the Merger. As of the date of this letter, there are no outstanding shares of the original Semitool entity, and the surviving entity has 100 shares of common stock outstanding, all of which are held by Applied.

II. Semitool Registration Statements

At the Effective Time, Semitool has on file with the Commission the following three registration statements under which securities remained available for issuance (collectively, the "Registration Statements"):

(a) A registration statement on Form S-8 that was filed on May 10, 2007 and was immediately effective (File No. 333-142815) to register up to 1,000,000 Shares issuable under Semitool's 2007 Stock Incentive Plan (the "2007 Form S-8"). The 2007 Form S-8 also covers any Shares that were issued under Semitool's 2004 Stock Option Plan originally registered on a registration statement on Form S-8 that was filed on April 7, 2004, to the extent issued under such 2004 Stock Option Plan on or after the date of the 2007 Form S-8. A post-effective amendment deregistering all securities that remained unsold under the 2007 Form S-8 was filed on December 21, 2009 and was immediately effective;

(b) A registration statement on Form S-8 that was filed on April 7, 2004 and was immediately effective (File No. 333-114284) to register up to 3,300,000 Shares issuable under Semitool's 2004 Stock Option Plan (the "2004 Form S-8"). A post-effective amendment deregistering all securities that remained unsold under the 2004 Form S-8 was filed on December 21, 2009 and was immediately effective; and

(c) A registration statement on Form S-8 that was filed on June 7, 2001 and was immediately effective (File No. 333-62474) to register up to 1,500,000 Shares issuable under Semitool's 1994 Amended and Restated Stock Option Plan (the "2001 Form S-8"). A post-

effective amendment deregistering all securities that remained unsold under the 2001 Form S-8 was filed on December 21, 2009 and was immediately effective.

In addition, a registration statement on Form S-3 was filed on June 16, 2000 and became effective on or about October 3, 2000 (File No. 333-39492) to register securities of Semitool having an aggregate offering price of \$75,000,000. That Form S-3 expired by operation of Rule 415(a)(5). Nevertheless, a post-effective amendment deregistering all securities that remained unsold under that Form S-3 was filed on December 21, 2009 and was declared effective on December 23, 2009. No securities other than shares of Common Stock of Semitool were sold under that Form S-3.

Semitool's 2007 Stock Incentive Plan, 2004 Stock Option Plan and 1994 Amended and Restated Stock Option Plan are referred to herein as the "Equity Plans."

Prior to the Effective Time, Semitool had no classes of equity or debt securities that have been or were required to be registered under the Exchange Act, other than the shares of its Common Stock, and did not have a Section 15(d) reporting obligation with respect to any securities.

III. Exchange Act Reporting Obligations

Semitool's Common Stock is registered under Section 12(b) of the Exchange Act and, prior to the Effective Time, was listed on the NASDAQ Global Select Market ("Nasdaq"). Prior to Nasdaq's conversion to a national securities exchange in 2006, Semitool's Common Stock had been registered under Section 12(g) of the Exchange Act. Semitool is current in all of its periodic and current reports through the date of this letter. Semitool's fiscal year ends on September 30 of each year. At the end of its most recently completed fiscal year, Semitool had a total of 113 shareholders of record computed pursuant to Rule 12g5-1.

Following the market close on December 21, 2009, in connection with the consummation of the Merger, pursuant to Rule 12d2-2(a) under the Exchange Act and upon Semitool's request, Nasdaq ceased trading in the Shares and filed an application on Form 25 (the "Form 25") with the Commission to remove the Common Stock from listing on Nasdaq and registration under Section 12(b) of the Exchange Act. The delisting became effective on December 31, 2009, the tenth day after the Form 25 was filed, and at such time Semitool's duty to file any reports under Section 13(a) of the Exchange Act as a result of the registration of the Common Stock under Section 12(b) of the Exchange Act was suspended pursuant to Rule 12d2-2(d)(5). Upon the effectiveness of the delisting, however, Semitool's duty to file reports under Section 13(a) of the Exchange Act as a result of the registration of the Common Stock under Section 12(g) of the Exchange Act may be deemed to have been revived pursuant to Rule 12d2-2(d)(6). Moreover, following delisting and deregistration under Section 12 of the Exchange Act, Semitool's duty to

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file reports under Section 13(a) of the Exchange Act as a result of Section 15(d) of the Exchange Act may be deemed to have been revived pursuant to Rule 12d-2(d)(7).

Semitool requires relief in connection with the suspension of its reporting obligations under Section 15(d) because of Rule 12h-3(c) under the Exchange Act. In general, Rule 12h-3 permits an issuer to suspend its reporting obligations under Section 15(d) immediately upon filing a Form 15. Rule 12h-3(c) states, however, that a suspension provided under Rule 12h-3 is unavailable for any class of securities for a fiscal year in which a registration statement relating to that class becomes effective under the Securities Act or is required to be updated for purposes of Section 10(a)(3) of the Securities Act through an issuer's Exchange Act filings. Semitool's Registration Statements were updated with respect to the current fiscal year for purposes of Section 10(a)(3) of the Securities Act upon Semitool's filing of its Annual Report on Form 10-K for the fiscal year ended September 30, 2009, which took place on December 14, 2009. As a result, despite otherwise satisfying the requirements of Rule 12h-3, Rule 12h-3(c) prevents the suspension of Semitool's duty to file reports under Section 15(d) with respect to the remainder of the 2010 fiscal year in the absence of the relief sought by this letter.

IV. Discussion

We respectfully submit that, notwithstanding the provisions of Rule 12h-3(c), Semitool should be able to rely on Rule 12h-3 to suspend its duty to file reports under Section 15(d) of the Exchange Act, for the following reasons:

(a) Semitool Satisfies the Requirements of Rule 12h-3(a) and (b)

Semitool satisfies all requirements of Rule 12h-3(a) and (b) for the suspension of its duty under Section 15(d) to file reports required by Section 13(a) of the Exchange Act. Semitool filed all required reports for its 2007, 2008 and 2009 fiscal years and the interim period of its 2010 fiscal year preceding the date hereof, including a Form 10-K for the fiscal year ended September 30, 2009 and a Current Report on Form 8-K reporting the change in control pursuant to the Tender Offer and the Merger, and will continue to make such filings until it files the Form 15, with respect to which no-action relief is being sought hereunder. In addition, as noted above, as of the Effective Time, all then outstanding Shares were either cancelled or converted into the right to receive cash (or to receive payment of fair value therefor upon the valid exercise of dissenters' rights) and all shares of the surviving entity are and continue to be held by one person, Applied. In addition, as of the Effective Time and through the date hereof, Semitool had no other outstanding securities. As a result, we believe that, except for the application of Rule 12h-3(c), Semitool satisfies the criteria for suspension of reporting obligations under Section 15(d) of the Exchange Act.

(b) Purpose of Section 15(d) Will Not Be Undermined by Granting Semitool Relief

The Staff has repeatedly indicated that a literal reading of Rule 12h-3(c) is not always justified by public policy reasons. In the proposing release to revise Rule 12h-3, the Commission stated that the purpose of periodic reporting under Section 15(d) is "...to assure a stream of current information about an issuer for the benefit of purchasers in the registered offering, and for the public, in situations where Section 13 of the Exchange Act would not otherwise apply" and that "this Rule 12h-3(c) limitation is in keeping with the philosophy reflected in Section 15(d) of the Exchange Act that generally the investing public should have available complete information about the issuer's activities at least through the end of the year in which it makes a registered offering." SEC Proposed Suspension of Periodic Reporting Obligations, Exchange Act Release No. 34-20263 (October 5, 1983) (the "1983 Release"). These policy concerns are not at issue in Semitool's situation for several reasons.

First, as described in more detail in Part I above, (i) immediately prior to the completion of the Tender Offer or the Effective Time, as applicable, there were no outstanding securities of Semitool or outstanding options, warrants or other rights of any kind to acquire securities of Semitool other than shares of Common Stock and options, restricted stock awards and restricted stock units issuable under the Equity Plans, and (ii) as a result of the Tender Offer and the Merger, as applicable, all shares of Common Stock outstanding immediately prior to the Effective Time were canceled or converted into the right to receive cash, and all outstanding options, restricted Common Stock and restricted stock units issuable under the Equity Plans were canceled or converted into the right to receive cash. In other words, all securities or rights to acquire securities of Semitool issued and outstanding immediately prior to the completion of the Tender Offer or the Effective Time, as applicable, were no longer outstanding immediately following the Tender Offer and Effective Time, as applicable.

In such cases, and when, pursuant to a merger transaction, the issuer becomes a wholly owned subsidiary of another company, the concern about providing ongoing current information is not the same concern contemplated by the 1983 Release. As noted above, on December 21, 2009, Semitool filed with the Commission post-effective amendments to each of the Registration Statements, in each case, deregistering any securities of Semitool that remained covered thereby. Accordingly, Semitool would have no basis to issue, and no investors could purchase, securities of Semitool pursuant to these Registration Statements, thus rendering unnecessary the protections otherwise afforded by Section 15(d).

(c) Benefits of Periodic Reporting Do Not Outweigh the Filing Burdens

A further reason that we believe no-action relief should be granted to Semitool is that the purpose of Rule 12h-3(c) is to permit companies to suspend their reporting obligations when the securities of these companies are held by a small number of persons (less than 300 record holders). In the 1983 Release, the Commission noted that the rule suspended the duty to file

reports because “Congress recognized, with respect to Section 15(d), that the benefits of periodic reporting by an issuer might not always be commensurate with the burdens imposed.” As of and since the Effective Time, all securities of the surviving entity of the merger of Semitool with Acquisition Sub have been held solely by Applied. Should Semitool not be granted relief to suspend its reporting obligations under Section 15(d), Semitool and Applied will be required to undergo the expensive and time-consuming process of preparing and filing its Quarterly Report on Form 10-Q for the period ending December 31, 2009, solely for the benefit of Applied, which will already have access to the information required to be presented in that report, as well as any other additional information that Applied desires to obtain, as the sole corporate parent of the surviving entity of the merger between Semitool and Acquisition Sub.

(d) Prior No-Action Relief Granted With Respect to Rule 12h-3(c)

In several analogous cases, the Staff has recognized that a literal reading of Rule 12h-3 can have unintended consequences and accordingly has taken a no-action position similar to that requested herein.² In these cases, notwithstanding that a registration statement under the Securities Act was declared effective or updated or required to be updated during the fiscal year in question, the Staff agreed with the position that Rule 12h-3(c) did not require an issuer to remain subject to the reporting requirements of Section 15(d) following a merger in which it became a wholly owned subsidiary of another company.

Therefore, we believe that, based on the foregoing arguments, it is contrary to the policy underlying Rule 12h-3(c) to deny Semitool suspension of its reporting obligations under Section 15(d) merely because of the automatic update of Semitool’s Registration Statements pursuant to Section 10(a)(3) of the Securities Act required to occur with respect to the 2010 fiscal year.

V. Conclusion

For the reasons discussed above, we respectfully request that the Staff confirms that it concurs in Semitool’s view that the effect of Section 10(a)(3) of the Securities Act on Semitool’s Registration Statements would not preclude Semitool from using Rule 12h-3 to suspend Semitool’s reporting obligations under Sections 13(a) and 15(d) of the Exchange Act and the rules and regulations promulgated thereunder, with respect to the fiscal year in which the

² See, e.g., Charlotte Russe Holdings, Inc. (available December 10, 2009), Anheuser-Busch Companies, Inc. (available February 18, 2009), UST Inc. (available February 18, 2009); Energy East Corporation (available October 31, 2008); ACE*COMM Corporation (available September 26, 2008); Darden Restaurants, Inc. (available January 22, 2008); International Securities Exchange Holdings, Inc. (available January 3, 2008); Bausch & Lomb Incorporated (available November 6, 2007); FoxHollow Technologies, Inc. (available November 2, 2007); DSL.net, Inc. (available March 30, 2007); Summit Bank Corporation (available March 14, 2007); Loudeye Corp. (available November 7, 2006); Waverider Communications (available March 31, 2006); PacifiCare Health Systems, Inc. (available March 16, 2006); and VAX Corporation (available March 10, 2006).

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Registration Statements are required to be updated pursuant to Section 10(a)(3) of the Securities Act.

Alternatively, we request an exemption, pursuant to Section 12(h) of the Exchange Act, from any obligation of Semitool to file reports under the Exchange Act under the circumstances described herein.

Subject to the Staff's concurrence that it will not recommend enforcement action under the conditions stated in this letter, Semitool will file a Form 15 certification requesting simultaneously (a) the terminations of the registration of Semitool's Common Stock registered under Section 12(g) of the Exchange Act and (b) the suspension of its obligations to file periodic and current reports under Section 13(a) or 15(d) of the Exchange Act.

Due to the expense, time and effort involved in the preparation of and filing of periodic reports under the Exchange Act, and the imminence of the due date for the Form 10-Q for the period ending December 31, 2009, request is hereby made that this matter be given expedited consideration. If the Staff disagrees with any of the views expressed herein, we respectfully request an opportunity to discuss the matter with the Staff prior to any written response to this letter. In accordance with footnote 68 of SEC Release No. 33-7427 (July 1, 1997), we are transmitting a copy of this letter by electronic mail. If the Staff has any questions concerning this request or requires additional information, please contact the undersigned at (206) 757-8170 or via email at marcwilliams@dwt.com. Thank you in advance for your consideration of this matter.

Very truly yours,

Davis Wright Tremaine LLP

A handwritten signature in black ink, appearing to read "Marcus J. Williams", with a stylized flourish at the end.

Marcus Williams

cc: Lorenzo Borgogni, Dewey & LeBoeuf, LLP
Richard Hegger, Semitool, Inc.