

October 28, 2005

Mail Stop 6010

Thomas H. Werner  
Chief Executive Officer  
SunPower Corporation  
430 Indio Way  
Sunnyvale, California 94085

**Re: SunPower Corporation  
Amendment No. 2 to Registration Statement on Form S-1  
Filed October 11, 2005  
File No. 333-127845**

Dear Mr. Werner:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your document 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 any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Summary, page 1

1. We note your response to prior comment 6 and the materials you provided in response to that comment. It is unclear whether the materials support your statement that you are able to “generate 50% more power per unit area.” Please provide us with more detailed support for your statements, including to which conventional solar cells Navigant compared your product. In this regard, also tell us whether Navigant conducted the testing or whether they collected this information from manufacturers. Also, it appears that Navigant has also analyzed the efficiency of your products; please describe to us their analysis of your efficiency.
2. We note your response to our comment 9 regarding your efficiency statistics. Please disclose that you have calculated your product’s rate of consumption for purposes of this statistic.

Risk Factors, page 10

We are currently experiencing an industry-wide shortage, page 10

3. We note your new disclosure about the nature of your supply agreements, including that you are relying on purchase orders for some of your silicon ingot supply through 2006. Please describe any material risks associated with reliance on purchase orders rather than supply agreements, including whether the purchase orders are non binding in nature.

Our agreements with Cypress require us to indemnify Cypress, page 29

4. We note your response to prior comment 14 concerning your inability to quantify the limitations on the amount of shares you can sell. To provide a context in which investors may be able to evaluate the risk on your ability to issue stock in the future, please quantify the potential tax liabilities under a range of circumstances, assuming no change to current Treasury Regulations.

Business, page 63

Our Manufacturing, page 73

5. We note your response to prior comment 21. We reissue the comment with respect to the polysilicon supply agreement that has not yet been filed. File the agreement or tell us why it is not required to be filed as an exhibit to this registration statement.

Director Compensation, page 81

6. Please disclose the amount of salary paid to Mr. Mika and explain what it means to be "allocated a portion of the salary expense incurred by Cypress." Also, here or on page 97, explain what consulting services he provided to you and to Cypress and describe the material terms of the agreement.

Compensation Committee Interlocks, page 82

7. As it does not appear that your board of directors had a compensation committee at the time the compensation for your executive officers was set, please revise your disclosure in the first sentence to conform with Regulation S-K Item 402(j)(2).

Other Employee Benefit Plans, page 85

8. Please expand your disclosure to describe the nature of your cash payments plan, including the terms and how payment amounts are determined. Explain whether you have issued any rights to employees under this plan. Further, we note that this plan is "primarily intended" for your non-U.S. employees. Please indicate whether you are restricted under the terms of the plan from granting rights to U.S. employees, and if not, whether you will offer rights to U.S. employees. Finally, please file this plan as an exhibit. We may have further comment.

Financial Statements, page F-1

Consolidated Statements of Operations, page F-5

9. Please refer to our prior comment 32. While we note that you do not separately disclose gross profit within your primary financial statements, we also note that within your Management's Discussion and Analysis you analyze and discuss your gross margin within your discussion of cost of revenue. Since these expenses are not included within your cost of revenue, your gross margin discussion may be confusing to investors. Please reclassify. Also please note the guidance set forth at SAB Topic 14(F).

10. Please refer to our prior comment 33. Please note that SAB Topic 11(B) applies to all registrants that present cost of sales. Please revise your financial statements to comply with the guidance in the SAB as requested in our prior comment 33.

Closing Comments

As appropriate, please amend your registration statement in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and 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 Act of 1933 and that they have provided all information 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.

Notwithstanding our comments, in the event the company requests acceleration of the effective date of the pending registration statement, it should furnish a letter, at the time of such request, acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;

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- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness 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 connection with our review of your filing or in response to our comments on your filing.

We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

We direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date

You may contact Eric Atallah at (202) 551-3663 or in his absence, Jay Webb at (202) 551-3603 if you have questions regarding comments on the financial statements and related matters. Please contact Jay Mumford at (202) 551-3637 or me at (202) 551-3625 with any other questions.

Sincerely,

Mary Beth Breslin  
Attorney-Advisor

cc: Jorge del Calvo, Esq.  
Davina K. Kaile, Esq.  
Stephen M. Wurtzburg, Esq.

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