



UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549-7010

Mail Stop 7010

December 10, 2008

Via U.S. mail and facsimile

Mr. Robert Rubin
Chief Financial Officer
Solar Thin Films, Inc.
25 Highland Blvd.
Dix Hills, NY 11746

RE: Form 10-KSB for the fiscal year ended December 31, 2007
Form 10-Q for the quarter ended September 30, 2008
File No. 001-13549

Dear Mr. Rubin:

We have reviewed your filings and have the following comments. If you disagree with a comment, 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 or may not 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-KSB FOR THE YEAR ENDED DECEMBER 31, 2007

General

1. Where a comment below requests additional disclosures or other revisions to be made, please show us in your supplemental response what the revisions will look like. These revisions should be included in your future filings, including your interim filings.

Management's Discussion and Analysis of Financial Condition and Results of Operations

General

2. Please revise to more fully explain fluctuations in your balance sheet. For example, it is unclear from your discussion why inventory decreased from \$1.5 million at December 31, 2006 to \$192,000 at December 31, 2007 or why prepaid expenses decreased from \$655,717 at December 31, 2006 to \$0 at December 31, 2007. Please refer to Item 303(a) of Regulation S-K. Discuss these decreases as they relate to your discussion within Liquidity and Capital Resources as well.

Results of Operations, page 26

3. You indicate that the 138% increase in revenues was "due to the completion of a large related party and other contracts in 2007." Please clarify what you mean. Provide insight into why revenues increased so dramatically and whether you believe such trends will continue.
4. Expand your discussion to distinguish between product sales and contract sales. Quantify for readers the amount of revenues derived from manufacturing versus long-term contracts to design, develop and construct manufacturing plants that produce photovoltaic thin film modules.
5. Please revise your discussion of the results of operations throughout to quantify the impact of each factor when multiple factors contribute to material fluctuations. For example, you disclose that the decrease in gross margin from 2006 to 2007 was attributable to the weakening of the U.S. dollar, higher cost of raw materials, and related manufacturing cost but it is unclear the extent to which each factor individually impacted your gross margin. Note that this is not meant to represent an all-inclusive list of where your MD&A should be improved. We encourage you to provide quantification of amounts and further clarification throughout your discussion.
6. You indicate that interest expense, net increased mainly due to the issuance of 4,029,000 shares of common stock in exchange for convertible notes payable. Please provide a more comprehensive discussion of this recognized expense. In this regard, we note elsewhere that your increase in interest expense is due to the accelerated recognition of debt discount as a result of the conversion.

Commitments and contingencies, page 25

7. Please revise your table of contractual cash obligations on page 26 to include estimated principal and interest payments on your debt. Because the table is aimed at increasing transparency of cash flow, we believe these payments should be included in the table. Please also disclose any assumptions you made to derive these amounts.

Controls and Procedures

Changes in Disclosure Controls and Procedures, page 34

8. Please revise the title of this section to make reference to changes in internal control over reporting since that was the nature of the disclosure required by Item 308T(b) of Regulation S-B. Additionally, it is not appropriate to include any “except for” language in your discussion of changes in internal control over financial reporting. Please revise this disclosure to include a discussion of all changes in internal control over financial reporting during the fourth fiscal quarter ended December 31, 2007.

Consolidated Financial Statements

Consolidated Statements of Operations and Comprehensive Income (Loss), page F-3

9. Please revise to separately disclose the amount of revenue and cost of sales generated from related party transactions.

Note 1 – Summary of Significant Accounting Policies, page F-7

10. Please disclose the types of expenses that you include in the cost of sales line item and the types of expenses that you include in the general, selling, and administrative expenses line item. Please also disclose whether you include inbound freight charges, purchasing and receiving costs, inspection costs, warehousing costs, internal transfer costs, and the other costs of your distribution network in the cost of sales line item. With the exception of warehousing costs, if you currently exclude a portion of these costs from cost of sales, please disclose:
 - in a footnote the line items that these excluded costs are included in and the amounts included in each line item for each period presented, and
 - in MD&A that your gross profit may not be comparable to those of other entities, since some entities include all of the costs related to their distribution network in cost of sales and others like you exclude a portion of them from gross profit, including them instead in another line item, such as general, selling, and administrative expenses.

11. Please revise your accounting policy footnotes to clarify that you do not include any depreciation or amortization in your cost of sales and also revise your description of cost of sales on the face of your statement of operations and elsewhere throughout the filing to read somewhat as follows: "Cost of sales (exclusive of items shown separately below)". See SAB Topic 11:B.
12. Your disclosures on page F-9 regarding the adoption of FSP EITF 00-19-2 indicate that you retrospectively applied this standard to your financial statements for the period ended December 31, 2006. Please tell us, in detail, how you considered the provisions of paragraphs 16-22 of FSP EITF 00-19-2 in determining the accounting for your June 2006 Registration Payment Arrangement as of both December 31, 2006 and December 31, 2007. Specifically address how you determined the appropriateness of your recognition of the \$10.8 million increase to APIC and \$9.4 million increase to accumulated deficit for the adoption of FSP EITF 00-19-2 as reflected in your statement of stockholders deficit.
13. Please revise your revenue recognition accounting policy footnote on pages F-10 and F-11 to include the disclosures required by Financial Reporting Release Section 206.02.
14. Your disclosures indicate that you may depreciate land. If so, please provide your basis for this accounting. Otherwise revise your tabular presentation to clarify that land is not depreciated. In addition, the range of useful lives for land and buildings is very broad. Please breakout this line item into smaller and more meaningful components and separately disclose the range of useful lives for each new category presented.
15. Please provide the enterprise-wide disclosures required by paragraphs 37 and 38 of SFAS 131. Please also disclose the factors used to identify the your reportable segments, including the basis of organization (for example, whether management has chosen to organize the enterprise around differences in products and services, geographic areas, regulatory environments, or a combination of factors and whether operating segments have been aggregated). Please refer to paragraph 26 of SFAS 131.
16. Please revise your EPS accounting policy disclosure on page F-14 to disclose, by type of potentially dilutive security, the number of additional shares that were not included in the computation of diluted EPS for the year ended December 31, 2007, because to do so would have been antidilutive. See paragraph 40(c) of SFAS 128. Please also tell us how you included the conversion of your convertible preferred shares in your diluted EPS calculation for the year ended December 31, 2006.

Note 5 – Notes Payable Other, page F-18

17. Please disclose the specific terms of the most stringent and/or material debt covenants in all of your debt agreements, including both your notes payable discussed in note 5 and your convertible notes payable discussed in note 7. Please include a tabular presentation of any significant required ratios as well as your actual ratios as of each reporting date. Please show the specific computations used to arrive at the actual ratios with corresponding reconciliations to US GAAP amounts, if necessary.
18. As a related matter, please revise both your financial statements and the liquidity section of your MD&A to disclose why you are in default of your \$1.5 million note payable and how you would be impacted if the debt were called by your creditor.

Note 10 – Minority Interest and Put Liability, page F-26

19. Please disclose how you accounted for the put liability as of December 31, 2007, including the accounting literature you relied upon to support your accounting treatment.
20. Provide a roll forward of your Minority Interest so that readers can better understand transactions that occurred during the periods presented.

Note 14 – Commitments and Contingencies, page F-30

21. For each of the matters noted in the litigation section of this footnote, please revise to indicate if it is reasonably possible that a loss may have been incurred. To the extent that it is reasonably possible that a loss was incurred, please disclose the estimated possible loss or range of loss or state that such an estimate cannot be made. Refer to paragraph 10 of SFAS 5.

FORM 10-Q FOR THE PERIOD ENDED SEPTEMBER 30, 2008

General

22. Please address the above comments in your interim filings as well.

Unaudited Condensed Consolidated Financial Statements

Note 1 – Summary of Significant Accounting Policies, page 8

23. Please revise to provide the disclosures required by paragraphs 32 and 33 of SFAS 157.
24. Please revise your discussion of the \$1.5 million investment in CG Solar to explain the primary reasons for your investment and how you determined the value of your interest. It is unclear how you expect this investment to benefit your business going forward.

Note 5 – Deposit, page 15

25. Please revise your financial statement footnotes and your MD&A discussion of liquidity and capital resources to explain the purpose of \$4.1 million purchase of property and equipment. Please also explain how you intend to secure financing for this purchase in light of your working capital deficiencies, operating losses, net cash outflows from operating activities and your defaulted status on the \$1.5 million note payable.

Note 11 – Related Party Transactions, page 21

26. You disclose that there is a risk of non-payment for \$1,197,548 of related party trade receivables until the manufacturing facility passes an acceptance test. Please tell us how you considered SAB Topics 13B-C in determining that it was appropriate to recognize revenue for this transaction if payment is contingent upon customer acceptance.
27. Notwithstanding our above concerns about the revenue recognition associated with related party trade receivables contingent upon customer acceptance, please tell us how you determined that it was appropriate to classify the \$1.3 million of related party accounts receivable as current as of September 30, 2008 and how you determined that these amounts were recoverable. We note your disclosure on page 26 that Mr. Kiss has agreed to apply a portion of the proceeds from the sale of his shares to pay a portion of the \$1.3 million owed by RESI to you. Please tell us how you determined that RESI had the ability to pay all amounts owed to you at September 30, 2008.

Management's Discussion and Analysis of Financial Condition and Results of Operations

Results of Operations, page 30

28. We note that your revenues for the three months ended September 30, 2008 increased by \$1 million over the comparable prior year period but revenues for the nine months ended September 30, 2008 decreased \$1.5 million compared to the same prior year period. Please revise your MD&A to more fully explain the reasons for your fluctuations in revenues between periods. Please also explain how your inventory balance reflects the trends in your revenues. We note that your inventory amounted to \$402,791 as of September 30, 2008 compared to \$191,715 as of December 31, 2007. Please describe the reasons for this increase in inventory and how you evaluated the need for any impairment on slow moving or obsolete inventory as of September 30, 2008 and on a recurring basis.

Liquidity and Capital Resources, page 33

29. Please revise your discussion of liquidity and capital resources to more fully explain how you intend to address your working capital deficiencies so that you are able to have sufficient capital on hand to pay your bills as they come due and to fund your operations. Please refer to Section IV of SEC Release 33-8350 which is available on our website at <http://www.sec.gov/rules/interp/33-8350.htm>.

* * * *

Please respond to these comments within 10 business days, or tell us when you will provide us with a response. Please provide us with a response letter that keys your responses to our comments and provides any requested information. Detailed letters greatly facilitate our review. Please furnish your response on EDGAR as a correspondence file. 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 filings reviewed by the staff to be certain that they have provided all information investors require for an informed 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.

Mr. Robert Rubin
Solar Thin Films, Inc.
December 10, 2008
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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 their 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.

If you have any questions regarding these comments, please direct them to Lisa Haynes, Staff Accountant, at (202) 551-3424 or, in her absence, to Jeanne Baker, Assistant Chief Accountant, at (202) 551-3691.

Sincerely,

Rufus Decker
Accounting Branch Chief