

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

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FORM 12b-25

NOTIFICATION OF LATE FILING

SEC FILE NUMBER
001-34166

CUSIP NUMBER
867652109

(Check one): Form 10-K Form 20-F Form 11-K Form 10-Q Form 10-D Form N-SAR
 Form N-CSR
For Period Ended: January 3, 2010
 Transition Report on Form 10-K
 Transition Report on Form 20-F
 Transition Report on Form 11-K
 Transition Report on Form 10-Q
 Transition Report on Form N-SAR
For the Transition Period Ended: _____

Read Instruction (on back page) Before Preparing Form. Please Print or Type
Nothing in this form shall be construed to imply that the Commission has verified any information contained herein.

If the notification relates to a portion of the filing checked above, identify the Item(s) to which the notification relates:

PART I
REGISTRANT INFORMATION

SunPower Corporation
Full Name of Registrant

N/A
Former Name if Applicable

3939 North First Street
Address of Principal Executive Office (Street and Number)

San Jose, California 95134
City, State and Zip Code

PART II
RULES 12b-25(b) AND (c)

If the subject report could not be filed without unreasonable effort or expense and the registrant seeks relief pursuant to Rule 12b-25(b), the following should be completed. (Check box if appropriate.)

- T
- (a) The reason described in reasonable detail in Part III of this form could not be eliminated without unreasonable effort or expense;
 - (b) The subject annual report, semi-annual report, transition report on Form 10-K, Form 20-F, Form 11-K, Form N-SAR or Form N-CSR, or portion thereof, will be filed on or before the fifteenth calendar day following the prescribed due date; or the subject quarterly report or transition report on Form 10-Q or subject distribution report on Form 10-D, or portion thereof, will be filed on or before the fifth calendar day following the prescribed due date; and
 - (c) The accountant's statement or other exhibit required by Rule 12b-25(c) has been attached if applicable.

**PART III
NARRATIVE**

State below in reasonable detail why Forms 10-K, 20-F, 11-K, 10-Q, 10-D, N-SAR, N-CSR, or the transition report or portion thereof, could not be filed within the prescribed time period.

On November 16, 2009, SunPower Corporation (the "Company") announced that its Audit Committee had commenced an investigation of certain unsubstantiated accounting entries on the books of the Company's Philippines operations. In conjunction with this announcement, the Company also indicated that certain previously issued financial statements should not be relied upon. Management is reviewing the results of the investigation and the impact of certain matters identified during the investigation on the Company's historical financial statements and in connection with the Company's evaluation of its internal control over financial reporting and disclosure controls and procedures. The Company is delaying the filing of its Annual Report on Form 10-K for the fiscal year ended January 3, 2010 (the "2009 Form 10-K") until all procedures and evaluations relating to the investigation and other procedures necessary to prepare the 2009 Form 10-K are complete. The Company currently expects to file the 2009 Form 10-K on or before March 19, 2010.

**PART IV
OTHER INFORMATION**

(1) Name and telephone number of person to contact in regard to this notification

Bruce R. Ledesma

(Name)

(408)

(Area Code)

240-5500

(Telephone Number)

(2) Have all other periodic reports required under Section 13 or 15(d) of the Securities Exchange Act of 1934 or Section 30 of the Investment Company Act of 1940 during the preceding 12 months or for such shorter period that the registrant was required to file such report(s) been filed? If answer is no, identify report(s).

Yes T No

(3) Is it anticipated that any significant change in results of operations from the corresponding period for the last fiscal year will be reflected by the earnings statements to be included in the subject report or portion thereof?

Yes T No

If so, attach an explanation of the anticipated change, both narratively and quantitatively, and, if appropriate, state the reasons why a reasonable estimate of the results cannot be made.

The Company is in the final stages of completing the review of the investigation and the evaluation of the related findings. The Company is presently unable to provide additional information regarding its results of operations until all procedures and evaluations relating to the investigation and other procedures necessary to prepare the 2009 Form 10-K are complete.

This Notification of Late Filing on Form 12b-25 contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. The information presented in this notification related to the Company's expectation as to the date by which it will file the 2009 Form 10-K is a forward-looking statement. These forward-looking statements involve risks and uncertainties and the Company cautions you not to place undue reliance on these forward-looking statements.

A number of important factors could cause actual results to differ materially from those expressed or implied in the forward-looking statements contained in this notification, including the completion of the audit of the Company's financial statements and the factors set forth in public reports that the Company files with the Securities and Exchange Commission, including the information under Item 1A, "Risk Factors" in the Company's Annual Report on Form 10-K for the fiscal year ended December 28, 2008 and the Company's Quarterly Reports on Form 10-Q for the fiscal quarters ended March 29, 2009, June 28, 2009 and September 27, 2009. The Company undertakes no obligation to revise any forward-looking statements or to update these statements to reflect events or circumstances occurring after the date of this notification, or to reflect the occurrence of unanticipated events.

SunPower Corporation

(Name of Registrant as Specified in Charter)

has caused this notification to be signed on its behalf by the undersigned thereunto duly authorized.

Date: March 4, 2010

By: /s/ Dennis V. Arriola

Dennis V. Arriola
Sr. Vice President and Chief Financial Officer