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

FORM 12B-25

NOTIFICATION OF LATE FILING

SEC FILE NUMBER: 0-24790 CUSIP NUMBER: M87915100

(Check One): [_] Form 10-K [X] Form 20-F [_] Form 11-K [_] Form 10-Q [_] Form 10-D [_] Form N-SAR [_] Form N-CSR

For Period Ended: December 31, 2005

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|---|----|------------|--------|----|------|------|
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- [_] 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

TOWER SEMICONDUCTOR LTD. Full Name of Registrant

Former Name if Applicable

RAMAT GAVRIEL INDUSTRIAL PARK, P.O. BOX 619 Address of Principal Executive Office (STREET AND NUMBER)

MIGDAL HAEMEK, ISRAEL 23105 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) [X]

(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 15th 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 the reasons why the Form 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. (Attach Extra Sheets if Needed):

The registrant was not able to file its Annual Report on Form 20-F within the prescribed time period because it is experiencing delays in the collection of certain information required to be included in the Form 20-F. The Form 20-F will be filed as soon as reasonably practicable and in no event later than the fifteenth calendar day following the prescribed due date.

PART IV -- OTHER INFORMATION

(1) Name and telephone number of person to contact in regard to this notification $% \left({\left[{{{\left[{{{\left[{{{\left[{{{c_{{\rm{m}}}}} \right]}}} \right]}_{\rm{max}}}} \right]} \right]} \right.$

| Nati Somekh Gilboa | (011) 972-4-6506611 |
|--------------------|---------------------|
| (Name) | (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).

[X] Yes [_] 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?

[X] Yes [_] 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.

Explanation:

The Registrant announced its results for the year ended December 31, 2005 on February 1, 2006. On February 2, 2006 the Registrant filed a Report on Form 6-K, attaching as exhibits thereto, (1) the press release announcing the results, (2) the Registrant's consolidated financial statements as of December 31, 2005 and 2004 and for the years ended December 31, 2005, 2004 and 2003, and the report thereon of the Registrant's independent registered public accounting firm dated February 1, 2006, and (3) management's discussion and analysis of financial condition and results of operations. Reference is made to such Form 6-K for the results of operations of the Registrant for and an analysis thereof.

TOWER SEMICONDUCTOR LTD. (Name of Registrant as Specified in Charter)

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

TOWER SEMICONDUCTOR LTD.

Date: June 30, 2006

By: /s/ Nati Somekh Gilboa

Nati Somekh Gilboa Corporate Secretary Authorized Representative