FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of February 2011 No. 2

TOWER SEMICONDUCTOR LTD.

(Translation of registrant's name into English)

Ramat Gavriel Industrial Park
P.O. Box 619, Migdal Haemek, Israel 23105
(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or Form 40-F.

Form 20-F S

Form 40-F £

Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.

Yes £ No S

Edgar Filing: TOWER SEMICONDUCTOR LTD - Form 6-K

On February 14, 2011, the Registrant announced its financial results for the fourth quarter and fiscal year ended December 31, 2010. Attached hereto are the following exhibits

Exhibit 99.1Press release dated February 14, 2011

Edgar Filing: TOWER SEMICONDUCTOR LTD - Form 6-K

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

TOWER SEMICONDUCTOR LTD.

Date: February 14, 2011 By: /s/ Nati Somekh Gilboa

Name: Nati Somekh Gilboa Title: Corporate Secretary