FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of November 2009 (No. 4)

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 x Form 40-F o

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 O No X

On November 13, 2009, the Registrant issued unaudited condensed interim consolidated financial statements as of September 30, 2009 and for the nine and three months periods then ended. Attached hereto are the following exhibits:

Exhibit 99.1 Registrant s unaudited condensed interim consolidated financial statements as of September 30, 2009 and for the nine and three months periods then ended.

Exhibit 99.2 Management s Discussion and Analysis of Financial Condition and Results of Operations

This Form 6-K, including all exhibits hereto, is hereby incorporated by reference into all effective registration statements filed by us under the Securities Act of 1933.

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: November 13, 2009

By: /s/ Nati Somekh Gilboa

SIGNATURES

Nati Somekh Gilboa Corporate Secretary