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August 30, 2016

Kevin J. Kuhar  
Accounting Branch Chief  
Office of Electronics and Machinery  
Division of Corporation Finance  
Securities and Exchange Commission  
100 F Street, N.E.  
Washington, D.C. 20549  
Mail Stop 3030

VIA EDGAR AND E-MAIL

Re: Tower Semiconductor Ltd.  
Form 20-F for the Fiscal Year Ended December 31, 2015  
Filed May 11, 2016  
File No. 0-24790

Dear Mr. Kuhar:

This letter is submitted in response to the comments of the Staff of the Division of Corporation Finance of the Securities and Exchange Commission in your letter of August 22, 2016 (the "Letter") regarding the above-captioned filing (the "2015 Annual Report") of Tower Semiconductor Ltd. (the "Company"). To aid in the Staff's review, the Company has included the Staff's comments in italics and the headings and numbers correspond to the headings and numbers in the Letter.

Form 20-F for the Fiscal Year Ended December 31, 2015

Item 5. Operating and Financial Review and Prospects

Results of Operations, page 45

1. *We note from the discussion of risk factors on page 12 that utilization rates for the operation of your facilities directly impact whether or not you achieve operating and net profits and are able to fully cover your operating costs. Please refer to Item 5(A) and 5(D) of Form 20-F and to the extent that you expect utilization rates to have a material favorable or unfavorable impact on income from continuing operations or change the relationship between costs and revenues, please revise future filings to discuss and describe their impact on your results of operations.*

Response: We accept the Staff's comment and we will implement it in future filings to discuss and describe utilization rates possible impact on our financial results, to the extent that such impact will be material to our financial results in any future period.

B. Liquidity and Capital Resources, page 49

2. We note that you discuss a non-GAAP measure, namely “positive cash from operating activities (net of \$12.4 million interest payments and excluding \$24.9 million non-recurring Nishiwaki employee termination related payments in connection with its 2014 cessation of operations),” in the last paragraph on page 49. Please revise future filings to properly label this measure as non-GAAP and to provide all of the disclosures required by Item 10(e)(1)(i) of Regulation S-K.

Response: We accept the Staff’s comment and will implement it in future filings accordingly, to ensure that if any non-GAAP measures will be used, all disclosures required by Item 10(e)(1)(i) of Regulation S-K will be provided.

Our Operations in Japan, page 53

3. We note that the expanded discussion of restructuring charges provided here in response to comment 1 in our letter dated September 30, 2015 does not include all the requested revisions. Please refer to SAB Topic 5P and further revise this discussion in future filings to address the following:

· Quantify the expected effects on future operating income (i.e., the amount by which you expect expenses to decrease) and cash flows including the period the effects are expected to be realized. In this regard, please also discuss how your revenues may be adversely affected by the restructuring actions.

· Disclose whether you have realized the anticipated savings. If the anticipated savings are not achieved as expected or are achieved in periods other than as expected, please disclose these facts. Also, disclose the reasons for any such differences and discuss the likely effects on future operating results and liquidity.

Response: We accept the Staff’s comment with regards to future filings, if applicable. We understand the Staff’s intent in SAB Topic 5P is that registrants provide investors with information as to the effect of the restructuring on the business and financial results going forward (i.e., what are the effects of the downsizing on the future financial results), however it is not applicable in this case. The restructuring, which occurred in the first half of 2014, did not impact our financial results in 2015 in any material manner and there are no material future implications of the restructuring for 2016 and beyond. The restructuring was implemented contemporaneous with the acquisition of TPSCo in Japan, which enabled the company to unify its Japanese business activities, manufacturing and headcount under one Japanese entity. The acquisition of TPSCo occurred three years after the acquisition of TJP and was in many aspects a replacement of TJP. Since all of our business and other objectives were able to be fulfilled through TPSCo’s three fabs, we believe this restructuring had little effect on the future as the Company’s business objectives were not changed and the Company’s activities were not downsized (but rather the Company increased its presence and scope of business in Japan, including increased revenue in Japan, increased manufacturing and headcount) so there is no adverse future impact.

Internal Control over Financial Reporting, page 102

4. We note that management's annual report on internal control over financial reporting does not include the statement identifying the framework used to evaluate the effectiveness of your internal control over financial reporting as required by paragraph (c) of Exchange Act Rule 13a-15 and Item 15(b) of Form 20-F. Please amend your filing to provide a revised management's annual report on internal control over financial reporting that includes the required information and complies fully with Item 15(b) of Form 20-F.

Response: We accept the Staff's comment and are filing today an amendment on Form 20-F/A to include the following sentence in the management's report under Item 15: "Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework)."

Consolidated Statements of Operations, page F-5

5. We note that you also generate revenues from sales of engineering and design support and other technical and support services. Tell us the amount of revenue recognized from the sale of these services in each of the reported periods. If material, revise future filings to present revenues from services and costs of services separately on your statements of operations. Refer to Rule 5-03(b)(1) and Rule 5-03(b)(2) of Regulation S-X.

Response: We note the Staff's comment and are aware of the guidance in Rule 5-03(b)(1) and Rule 5-03(b)(2) of Regulation S-X. Our services from engineering and design support reflect less than 3% of our revenues and are incidental to our products manufacturing sales. Hence, based on the guidance of these rules, such revenues were combined with our sales of products. We are monitoring our revenues from such services to ensure compliance with these rules and had such revenues exceed the 10% threshold, it would have been presented separately as well as the related cost and expenses.

6. We note the discussion on pages 28 through 31 of the products and services you offer. In future filings please disclose revenues from external customers for each product or service or each group of similar products and services. If providing the information is impracticable, disclose that fact. Refer to ASC 280-10-50-40.

Response: The Staff is respectfully advised that our discussion in the pages noted in the comment related not to products sold to customers but rather on technologies that assist us in manufacturing the wafers that our customers buy from us. As described in the Industry Overview section, our customers engage us as an integrated circuit (IC) manufacturer. We sell one product -- silicon wafer containing ICs manufactured using our customers' designs. As such, we do not believe we have separate products that warrant the enterprise-wide disclosures. In addition, as discussed in our response to comment No. 5, our services are incidental to our wafer production and are immaterial as compared to our total revenues.

7. We note that you present the caption *Investments in property and equipment, net*. Please revise future filings to separately present the cash inflows and cash outflows for property and equipment on a gross basis as discussed in ASC 230-10-45-26.

Response: We accept the Staff's comment and will implement it in future filings.

Note 2 – Summary of Significant Accounting Policies

D. Allowance for Doubtful Accounts, page F-11

8. Please revise future filings to disclose the amount of your allowance for doubtful accounts as required by ASC 310-10-50-4. In addition, in future filings include the information required by Rule 12.09 of Regulation S-X relating to this account.

Response: We accept the Staff's comment and will implement it in future filings to the extent it may be material. However please note that historically, we experienced very immaterial amounts of doubtful accounts and as a result have omitted the disclosures due to immateriality. We believe that such information would have very little value to our investors when it is clear that it is not a significant issue having any material effect on our financial position. However, we will continue to monitor the need for additional disclosures for any emerging issues and future filings will disclose allowance for doubtful accounts should it become more significant in nature.

Note 8 – Property and Equipment, Net,

A. Composition, page F-21

9. We note that you extended the estimated useful lives of machinery and equipment to 15 years from 7 years and the useful lives of facility infrastructure to 25 years from 14 years. Please revise future filings to disclose the effect of this change in estimate on basic and diluted earnings per share as required by ASC 250-10-50-4.

Response: We accept the Staff's comment and will implement it in future filings.

The Company hereby acknowledges that:

- the Company is responsible for the adequacy and accuracy of the disclosure in the filing;
- 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.

We appreciate your time and attention to the Company's response. Should you have any additional questions or concerns, please contact the undersigned at 972-4-6506109 or our U.S. counsel, Sheldon Krause at (212) 986-9700 (ext. 307).

Sincerely,

Nati Somekh

Senior Vice President, Chief Legal  
Officer and Corporate Secretary