

August 2, 2007

Via EDGAR and Overnight Courier

Ms. Cecilia D. Blye
Office of Global Security Risk
Division of Corporation Finance
United States Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 20549

Re: Iridex Corporation
Form 10-K for the Fiscal Year Ended December 31, 2005
Filed April 3, 2006
Form 10-Q for the Quarterly Period Ended July 1, 2006
Filed December 22, 2006
Form 10-K for the Fiscal Year Ended December 30, 2006
Filed March 30, 2007
File No. 0-27598

Dear Ms. Blye:

On behalf of IRIDEX Corporation (“we,” the “Company,” or “IRIDEX”), we submit this letter in response to comments from the staff of the Securities and Exchange Commission (the “Staff”) received by letter dated June 27, 2007, relating to the Company’s Form 10-K for the fiscal year ended December 30, 2006 (the “Form 10-K”).

In this letter, we have recited the comments from the Staff in italicized type and have followed each comment with the Company’s response. Capitalized terms used but not defined herein shall have the meanings ascribed thereto in the Form 10-K.

General

- 1. We note your response to comment 1 in our letter dated March 30, 2007. You state in your letters dated February 28, 2007 and April 30, 2007 that you have sold the OcuLight SL/SLx Infrared (810 nm) solid-state laser into Iran, Sudan and Syria. Certain solid-state lasers are on the Commerce Control List (“CCL”) maintained by the Commerce Department’s Bureau of Industry and Security, and thus are controlled items to which the Export Administration Regulations apply. Please clarify for us whether your OcuLight SL/SLx laser falls within the scope of the CCL and , if so, discuss for us your compliance with U.S. export laws.*

The product mentioned above has been classified by the U.S. Government as EAR99 and therefore not subject to the CCL due to application of NLR standing. The Government CCATS referencing this classification is G033985 to Iridex Corporation dated January 23, 3004.

2. *You state on page 34 of your Form 10-K for the fiscal year ended December 30, 2006 that certain of your products were distributed in Iran without U.S. governmental authorization. Please describe for us the products so distributed; the circumstances of the unauthorized distribution(s); how you became aware of the unauthorized distribution(s); any steps you have taken or will take to address this matter with appropriate government authorities; potential fines and penalties resulting from the unauthorized distribution(s); and the potential impact of the matter, including fines and penalties, upon your reputation and financial condition.*

Please be advised that Iridex Corporation is in the process of preparing and submitting a Voluntary Self Disclosure consistent with and authorized by, 15 CFR 764.5 to the United States Office of Export Enforcement and concurrently to the United States Office of Foreign Asset Control. In compliance with the regulations cited herein, this Voluntary Self Disclosure document will include a full narrative of the exports relating to your inquiry.

The Company's sales into Iran have not been material to our business or results of operations on either a quantitative or qualitative basis and we do not believe that these sales constitute a material investment risk for our investors. The sale into Iran was through a third party distributor. IRIDEX does not have any assets located in Iran. To our knowledge, the Iranian government has not received cash or acted as intermediaries in connection with our sale there. We do not believe that this minimal involvement with Iran is material to our business or that it constitutes a material investment risk for our investors. Due to the immateriality of our activities in Iran from a financial standpoint and the fact that the products that we marketed and sold in this country are medical products and that the ultimate end-users of such products are healthcare providers, we do not believe that our activity in Iran should be deemed material to a reasonable investor or result in a negative impact to our reputation or financial condition.

As requested by the Staff, the Company acknowledges that:

- the Company is responsible for the adequacy and accuracy of the disclosure in the filings;
- Staff comments or changes to disclosure in response to Staff comments do not foreclose the Securities and Exchange Commission from taking any action with respect to the filings; and
- the Company may not assert Staff comments as a defense in any proceeding initiated by the Securities and Exchange Commission or any person under the federal securities laws of the United States.

We would like to discuss these comments and responses at your earliest convenience. David J. Segre, Esq. and Todd C. Carpenter, Esq. of Wilson Sonsini Goodrich & Rosati,

Professional Corporation can be reached at (650) 493-9300 and I may be reached at (650) 940-4700.

Sincerely,

/s/ Barry G. Caldwell

Barry G. Caldwell

IRIDEX Corporation

President and Chief Executive Officer

cc: David J. Segre