



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 3030

August 25, 2009

VIA U.S. MAIL and FACSIMILE

Philip Yee
Chief Financial Officer
1077 Business Center Circle
Newbury Park, CA 91320

RE: Electronic Sensor Technology, Inc.
Form 10-K for the fiscal year ended December 31, 2008
Filed April 15, 2009
File No. 000-51859

Dear Mr. Yee:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your future filings in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 10-K for the fiscal year ended December 31, 2008

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

Results of Operations, page 12

1. We see that you generate revenues from both sales of products and sales of support services. In future filings, when service revenues are significant please separately quantify the amounts of revenues and cost of sales from sales of products and from sales of services. As applicable, please discuss the trends and reasons for fluctuations for both sales of products and sales of support services.

Item 8. Financial Statements

Note 1. Nature of Business and Summary of Significant Accounting Policies

Allowance for Doubtful Accounts, page F-6

2. We reference the detailed discussion of your policy for determining the allowance for doubtful accounts. We also note that you have not recorded any allowance for doubtful accounts as of December 31, 2008 and a minimal allowance as of December 31, 2007. Please tell us and revise future filings to discuss the nature of your customers, credit collection policies and composition of your accounts receivable such that a nominal allowance for doubtful account is necessary.

Revenue Recognition, page F-10

3. You present a revenue policy with respect to sales to end users. We also see from page 5 that you sell your zNose (R) product through equipment distributors. Please tell us and revise future filings to also explain your revenue policies on transactions with distributors. If revenue is recognized upon shipment to distributors, please clarify why you believe that timing is appropriate in GAAP. To the extent relevant, please also address post shipment obligations, customer acceptance provisions, return policies, warranties, credits and discounts, rebates, price protection or similar privileges and the impact on the amounts and timing of revenues.

Note 3. Convertible debentures, page F-12

4. We see that the \$2 million debenture was issued in March 2008 to an investor. Since this appears to be a significant related party transaction, please revise future filings to disclose the convertible debenture and all transactions related to the debenture (such as interest expense and cash flows from issuance and repayment) as such on the face of the consolidated balance sheet, statement of operations and statement of cash flows.

Note 5. Stockholders' Deficit, page F-13

5. Please revise future filings to disclose as of the latest balance sheet date presented, the weighted-average period over which total compensation costs for nonvested awards not yet recognized is expected to be recognized, as required by FASB ASC 718-10-50-2(i).

Form 10-Q for the quarterly period ended June 30, 2009

Item 2. Management's Discussion and Analysis or Plan of Operation

Results of Operations, page 3

6. You indicate that shipments were down 40% during the second quarter and that you implemented a 24% across-the-board price reduction at the beginning of the year. In light of your disclosure, please clarify for us how sales decreased by less than 20% during the second quarter of 2009. In light of your disclosure, also explain how year-to-date sales are down less than 24%.

As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a cover letter with your response that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed decision. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Philip Yee
Electronic Sensor Technology, Inc.
August 25, 2009
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In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging 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.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

You may contact Kristin Lochhead at (202) 551-3664 or Gary Todd, Accounting Reviewer, at (202) 551-3605 if you have questions. In this regard, please do not hesitate to contact me at (202) 551-3676 with any other questions.

Sincerely,

Gary Todd
Accounting Reviewer