



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

Mail Stop 3030

March 22, 2010

VIA U.S. MAIL and FACSIMILE (832) 442-3027

Mr. Gary E. Ball
Chief Executive Officer, President
Infrared Systems International
15 North Longspur Drive
The Woodlands, Texas 77380

**RE: Infrared Systems International
Form 10-K for the fiscal year ended September 30, 2009
Filed December 18, 2009
File No. 333-147367**

Dear Mr. Ball:

We have reviewed your filing and have the following comments. We have limited our review to only financial statements and related disclosures and do not intend to expand our review to other portions of your document. Where indicated, we think you should revise your document in response to these comments and comply with the remaining comments in all future filings. If you disagree, we will consider your explanation as to why our comments are 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 on 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 year ended September 30, 2009

Financial Statements, page

Note 5. Definite Lived Intangible Assets, page 23

1. We note your disclosure that your definite lived intangible assets consist only of a pending patent application. Please respond to the following:
 - a. Please revise future filings to clearly explain the nature of the asset and related patent pending,
 - b. Please tell us and explain the nature of the additional costs incurred during the year that resulted in the significant increase in the asset during the year,
 - c. Please tell us if the underlying technology of the pending patent is the same technology that is generating the royalty revenue as discussed on page 12 and reported on page 18, and
 - d. Please explain your disclosure in your Form 10-Q for the period ended December 31, 2009 where you state your “understanding of the potential value of ISS remains unresolved.”
2. Also, it appears from your disclosures on page 14 and 23, that the cost incurred during the year associated with the pending patent was either expensed as other general and administrative expense or capitalized as a definite-life intangible asset. Please fully provide us with your rationale that supports capitalizing rather than expensing the cost capitalized as a definite-life intangible asset as presented in your balance sheet for each year presented, supported with the applicable accounting literature used by you that supports this treatment.
3. Additionally we note from your filing the following:
 - a. At September 30, 2009, the Company had a retained deficit of \$1,015,851
 - b. Current liabilities are in excess of current assets by \$52,004,
 - c. During the year ended September 30, 2009, the Company incurred a net loss of \$23,278 and negative cash flows from operations of \$71,198,
 - d. This negative trend continues through your interim period ended December 31, 2009, and
 - e. You have experienced significant delays in obtaining your patent and it appears that you have received eight rejections from the patent office, as further discussed in your Form 10-Q for December 31, 2009.

In this regard, please tell us how you considered these impairment indicators in assessing the recoverability of your definite-life intangible asset. Please tell us the dates you performed your long-lived asset impairment tests for the fiscal year

ended September 30, 2009 and the interim period ended December 31, 2009. If no impairment test was completed during the interim period ended December 31, 2009, please explain why this was not required pursuant to FASB ASC 360-10-35-21. Furthermore, provide us with a summary of material relevant facts, assumptions, and estimates you considered in the impairment analysis for your definite-life intangible asset, for which no impairment charge was taken. Finally, explain to us why you concluded that no impairment charge of your definite-life intangible long-lived asset was necessary as of September 30, 2009 and December 31, 2009.

Item 9A. Controls and Procedures, page 25

4. We note the discussion you included in the Management's Report on Internal Control over Financial Reporting section of your Form 10-K. However, we note that the disclosure does not fully comply with Item 308T of Regulation S-K. For example, you do not disclose whether you performed the required assessment of your internal control over financial reporting as of September 30, 2009 and, if so, the framework you used to perform that assessment and your management's conclusion as to whether your internal control over financial reporting was effective or was not effective at that date. Further, your disclosure that "management has determined that material weaknesses exist due to a lack of segregation of duties, resulting from the Company's limited resources" makes it unclear whether you even undertook the required assessment. Since you were required to file or filed an annual report for the prior fiscal year, it appears you are required to report on your management's assessment of internal control over financial reporting by including management's annual report on internal control over financial reporting in accordance with Item 308T of Regulation S-K.

If your management has not yet undertaken or not yet completed its assessment, we ask that you complete your evaluation and amend your filing within 30 calendar days to provide the required management's report on internal control over financial reporting. In performing your evaluation, you may find the following documents helpful:

- the Commission's release *Amendments to Rules Regarding Management's Report on Internal Control Over Financial Reporting* (Securities Act Release 8809/Financial Reporting Release 76). You can find this release at: <http://www.sec.gov/rules/final/2007/33-8809.pdf>;
- the Commission's release *Commission Guidance Regarding Management's Report on Internal Control Over Financial Reporting Under Section 13(a) or 15(d) of the Securities Exchange Act of 1934* (Securities Act Release 8010/Financial Reporting Release 77). You can find this release at <http://sec.gov/rules/interp/2007/33-8810.pdf>; and

- the “Sarbanes-Oxley Section 404 – A Guide for Small Business” brochure at: (<http://www.sec.gov/info/smallbus/404guide.shtml>).

In addition, we see that you concluded that your disclosure controls and procedures were effective as of September 30, 2009. Please consider whether management’s failure to perform or complete its report on internal control over financial reporting impacts its conclusions regarding the effectiveness of your disclosure controls and procedures *as of the end of the fiscal year* covered by the report and revise your conclusion as appropriate. In particular, consider the definition of disclosure controls and procedures provided in Rule 13a-15(e), which indicates that effective controls and procedures would ensure that information required to be disclosed by the issuer is recorded, processed, summarized and **reported** within the time periods specified in the Commission’s rules and forms, as well as the staff’s views expressed in Compliance and Disclosure Interpretation 115.02, which you can find at <http://www.sec.gov/divisions/corpfin/guidance/regs-kinterp.htm>, stating that failure to provide management’s report on internal controls over financial reporting renders the annual report materially deficient.

As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. You may wish to provide us with marked copies of the amendments to expedite our review. 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 submit your cover letter on EDGAR. 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 investment 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.

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 filings;

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- 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 Julie Sherman at (202) 551-3640 or me at (202) 551-3212 with any questions regarding these comments. In this regard, do not hesitate to contact Martin James, Senior Assistant Chief Accountant, at (202) 551-3671.

Sincerely,

Jeff Jaramillo
Accounting Branch Chief