



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

January 5, 2011

Via Facsimile ((410) 580-3170) and U.S. Mail

Jason C. Harmon, Esq.
DLA Piper LLP (US)
6225 Smith Avenue
Baltimore, MD 21209

**Re: Applied Signal Technology, Inc.
Schedule 14D-9 filed December 30, 2010
SEC File No. 005-52819**

Dear Mr. Harmon:

We have limited our review of the filing to those issues we have addressed in our comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your filing, by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filing and the information you provide in response to these comments, we may have additional comments.

Schedule 14D-9

Additional Information – Financial Projections, page 31

1. Please revise your disclosure to include the full financial forecasts instead of a summary of them.
2. We note that the financial forecasts included in this section have not been prepared in accordance with GAAP. As a result, advise us what consideration you have given as to whether the projected financial information would require additional disclosure pursuant to Rule 100(a) of Regulation G. We may have additional comments after we review your response.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings to be certain that the filing includes the information the Securities

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Exchange Act of 1934 and all applicable Exchange Act rules require. Since the company is in possession of all facts relating to the disclosure, it is responsible for the accuracy and adequacy of the disclosures it has made.

In responding to our comments, please provide a written 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.

Please direct any questions to me at (202) 551-3619. You may also contact me via facsimile at (202) 772-9203. Please send all correspondence to us at the following ZIP code: 20549-3628.

Sincerely,

Daniel F. Duchovny
Special Counsel
Office of Mergers and Acquisitions