



DIVISION OF
CORPORATION FINANCE
Mail Stop 3030

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

November 27, 2009

VIA U.S. MAIL and FACSIMILE

Lawrence D. Firestone
Chief Financial Officer
Advanced Energy Industries, Inc.
1625 Sharp Point Drive
Fort Collins, CO 80525

**RE: Advanced Energy Industries, Inc.
Form 10-K for the fiscal year ended December 31, 2008
Filed February 27, 2009
File No. 000-26966**

Dear Mr. Firestone:

We have reviewed your letter dated November 9, 2009 and have the following comment. Where indicated, we think you should revise your future filings in response to this comment. 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.

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.

Item 13. Certain Relationships and Related Transactions, page 53

1. Please confirm that you will include the information in your supplemental response to comment 10 in your next filing.

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As appropriate, please respond to this comment 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 response to our comment.

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.

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 at (202) 551-3605 if you have questions on the financial statements and related matters. Please contact Gabriel Eckstein at (202) 551-3286 or me at (202) 551-3314 with any other questions.

Sincerely,

Daniel Morris
Special Counsel