



DIVISION OF
CORPORATION FINANCE

Mail Stop 3030

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

October 12, 2010

VIA U.S. MAIL and FACSIMILE

Thomas J. Paup
Chief Financial Officer
Arotech Corporation
1229 Oak Valley Drive
Ann Arbor, MI 48108

Re: Form 10-K for the fiscal year ended December 31, 2009
Filed March 31, 2010
File No. 000-23336

Dear Mr. Paup:

We have reviewed your response dated September 27, 2010 and related filings and have the following comments. We have limited our review to only your financial statements and related disclosures and do not intend to expand our review to other portions of your documents. 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 within ten business days 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, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

Form 10-K for the fiscal year ended December 31, 2009

Consolidated Financial Statements

q. Fair value of financial instruments, page F-18

1. We note your response to prior comment 9 that the fair value of your derivative liabilities are primarily based on Level 2 inputs. Please tell us why the derivative liabilities are not classified as Level 3 in the fair value hierarchy. Please note that under FASB ASC 820-10-35-37 the level in the fair value hierarchy should be determined based upon the lowest level input that is significant to the fair value measurement in its entirety. We also refer you to FASB ASC 820-10-55-22 which states that a Level 3 input would include historical volatility.

You may contact Kristin Lochhead at (202) 551-3664 or me at (202) 551-3676 if you have questions regarding comments on the financial statements and related matters. In this regard, please do not hesitate to contact Martin James, Senior Assistant Chief Accountant, at (202) 551-3671 with any other questions.

Sincerely,

Brian Cascio
Accounting Branch Chief