

August 29, 2014

Via EDGAR

Brian Cascio, Branch Chief  
Division of Corporation Finance  
United States Securities and Exchange Commission  
100 F Street, N.E.  
Washington, D.C. 20549

**Re: Amtech Systems, Inc.**  
**Form 10-K for the fiscal year ended September 30, 2013**  
**Filed December 11, 2013**  
**Form 10-Q for the quarterly period ended June 30, 2014**  
**Filed August 7, 2014**  
**File No. 000-11412**

Dear Mr. Cascio:

This letter sets forth the responses of Amtech Systems, Inc. (the "Company") to your comment letter dated August 18, 2014, relating to the Form 10-K filed with the Commission on December 11, 2013 and the Form 10-Q filed with the Commission on August 7, 2014.

The Company is filing, via EDGAR, this letter setting forth the Company's responses to comments of the Staff of the Commission (the "Staff"). To facilitate the Staff's review, this letter includes each of the Staff's comments in italics followed by a response to the Staff's comments. All references to "we," "our," or similar terms refer to the Company.

Form 10-K for the fiscal year ended September 30, 2013

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

Liquidity and Capital Resources, page 33

1. *We see that you generated 80% of net revenue outside of North America. Please revise future filings to disclose the amount of cash and cash equivalents as well as liquid investments held by your foreign subsidiaries at September 30, 2013 and quantify the amount that would not be available for use in the U.S. without incurring U.S. taxes.*

**Response:** In future filings, we will disclose, in the Liquidity and Capital Resources section of Management's Discussion and Analysis of Financial Condition and Results of Operations, the amount of cash and cash equivalents as well as liquid investments held by our foreign subsidiaries and we will quantify the amount that would not be available for use in the U.S. without incurring U.S. taxes.

Consolidated Financial Statements

Note 1. Revenue Recognition, page 46

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2. *We see from your disclosure that you allocate revenue to multiple deliverables equal to the total sales price less the greater of the (1) relative fair value of the undelivered items and (2) all contingent portions of the sales agreement. Please explain to us how you apply FASB ASC 605-25-30, which requires arrangement consideration to be allocated based on the relative selling price to all deliverables in your multiple element arrangements. Please identify each unit of accounting and discuss how you determine the selling price for each deliverable under FASB ASC 605-25-30-2. Please also include clarifying disclosure in future filings.*

**Response:** In the disclosures related to our revenue recognition policy, we referred to “relative fair value”. However, when applying our accounting policy we actually are using the “relative selling price”. We will clarify this reference in all future filings. The first paragraph of our revenue recognition policy, therefore, will read as follows:

**Revenue Recognition** - We review product and service sales contracts with multiple deliverables to determine if separate units of accounting are present. Where separate units of accounting exist, revenue allocated to delivered items is the lower of the relative selling price of delivered items in the sales arrangement or the portion of the selling price that is not contingent upon performance of the service.

Our selling prices include both equipment and services, i.e., installation and start-up services performed by our service technicians. The equipment and services are the multiple deliverables.

In applying FASB ASC 605-25-30, we determine the standalone selling price for each deliverable using vendor-specific objective evidence (VSOE), third party evidence (TPE), or our best estimate of the standalone selling price.

- **Equipment** - In our industry, equipment is not normally sold without installation services, therefore, we do not have reliable VSOE or TPE for our equipment on a standalone basis. Our best estimate for the selling price of our equipment is the selling price of the equipment and installation minus the selling price of the installation services.
- **Services** - We do sell post-warranty services, which are generally billed at standard rates for the service technicians’ time and the cost of travel. These post-warranty services do not materially differ from the services sold with the equipment in arrangements with multiple deliverables. Therefore, the selling price for this deliverable is determined by multiplying standard rates for service by the estimated number of hours required and the cost of travel for the particular sales arrangement.

Another key consideration in our recognition of revenue is the portion of the selling price that is contingent upon performance of the services. According to ASC 605-25-30-2 “Arrangement consideration shall be allocated at the inception of the arrangement to all deliverables on the basis of their relative selling price (the relative selling price method), except as specified in paragraphs 605-25-30-4 through 30-5”.

According to ASC 605-25-30-5 “The amount allocable to the delivered unit or units of accounting is limited to the amount that is not contingent upon the delivery of additional items or meeting other specified performance conditions (the noncontingent amount). That is, the amount allocable to the delivered unit or units of accounting is the lesser of the amount otherwise allocable in accordance with paragraphs 605-25-30-2 and 605-25-30-4, or the noncontingent amount”.

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In applying ASC 605-25-30-5, our recognition of revenue upon delivery of equipment is limited to the lesser of i) the total selling price minus the relative selling price of the undelivered services or ii) the non-contingent amount.

Note 10. Income Taxes, page 60

3. *In future filings please provide the disclosures related to undistributed earnings of foreign subsidiaries as required FASB ASC 740-30-50-2.*

**Response:** In future filings, we will provide the disclosures related to undistributed earnings of foreign subsidiaries as required by FASB ASC 740-30-50-2.

Form 10-Q for the quarterly period ended June 30, 2014

Condensed Consolidated Financial Statements

Note 1. Basis of Presentation, Warranty, page 11

1. *We see that your warranty accrual significantly declined from \$1.7 million at June 30, 2013 to \$766,000 at June 30, 2014. Please revise future filings to provide a discussion of the reasons for changes in judgments or estimates that resulted in a significant decrease in your warranty accrual.*

**Response:** The recent decline in our warranty accrual resulted from fulfillment of warranty obligations in excess of new warranties. Our judgments and estimates have not changed during the reporting periods. In the event our judgments or estimates change, and they have a material impact on our warranty accrual, we will disclose the reasons for such changes in future filings.

The Company acknowledges that it is responsible for the adequacy and accuracy of the disclosure in the filings, that staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filings; 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.

We appreciate the efforts of the Staff and look forward to resolving the above comments as soon as possible. Please do not hesitate to contact Mr. Christopher D. Johnson or Ms. Jaime R. Daddona, counsel to the Company, at (602) 528-4000, or myself at (480) 967-5146 should you have any questions regarding the responses set forth above.

Best regards,  
Amtech Systems, Inc.

/s/ Bradley C. Anderson

Bradley C. Anderson  
Chief Financial Officer

cc: Michael Garnreiter, Chairman of the Audit Committee of the Board of  
Directors  
Christopher Johnson, Squire Patton Boggs (US) LLP