

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

November 1, 2012

Via E-Mail
Anthony R. Fabiano
President and Chief Executive Officer
American Science and Engineering, Inc.
829 Middlesex Turnpike
Billerica, Massachusetts 01821

Re: American Science and Engineering, Inc.

Form 10-K for the Year Ended March 31, 2012

Filed June 8, 2012 File No. 001-06549

Dear Mr. Fabiano:

We have completed our review of your filing. We remind you that our comments or changes to disclosure in response to our comments do not foreclose the Commission from taking any action with respect to the company or 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. 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 the information the Securities Exchange Act of 1934 and all applicable rules require.

Sincerely,

/s/ Russell Mancuso

Russell Mancuso Branch Chief

cc (via e-mail): John DeLuca, Esq.