

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

June 16, 2011

Via e-mail
Raymond A. Link
Chief Financial Officer
FEI Company
5350 NE Dawson Creek Drive
Hillsboro, Oregon 97124-5793

Re: FEI Company

Form 10-K for the fiscal year ended December 31, 2010

Filed February 18, 2011 File No. 000-22780

Dear Mr. Link:

We have completed our review of your filings. 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 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 urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings to be certain that the filings includes the information the Securities Exchange Act of 1934 and all applicable rules require.

Sincerely,

/s/ Brian Cascio

Brian Cascio Accounting Branch Chief