



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 3720

January 15, 2010

Via U.S. Mail and facsimile to (413) 778-4817

Mr. Derek Dunaway
President and Chief Executive Officer
Cyalume Technologies Holdings, Inc.
96 Windsor Street
West Springfield, MA 01089

Re: Cyalume Technologies Holdings, Inc.
Form 10-K for the fiscal year ended December 31, 2008
Filed March 30, 2009
File No. 000-52247

Dear Mr. Dunaway:

We have completed our review of your Form 10-K and have no further comments at this time.

Sincerely,

/s/ Larry Spigel
Assistant Director