



DIVISION OF  
CORPORATION FINANCE

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

Mail Stop 3030

September 2, 2009

Via U.S. Mail

Mr. Roger Moody  
Chief Financial Officer  
Nanosphere, Inc.  
4088 Commercial Avenue  
Northbrook, Illinois 60062

**Re:   Nanosphere, Inc.**  
**Form 10-K for the Fiscal Year Ended December 31, 2008**  
**Filed February 26, 2009**  
**Forms 10-Q for the Quarterly Periods Ended March 31, and**  
**June 30, 2009**  
**File No. 001-33775**

Dear Mr. Moody:

We have completed our review of your Form 10-K and related filings and do not, at this time, have any further comments.

Sincerely,

Jeff Jaramillo  
Accounting Branch Chief