

SIRIUS XM

RADIO INC.

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August 13, 2010

VIA EDGAR

Mr. Larry Spigel
Assistant Director
Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Mailstop 3720
Washington, D.C. 20549

**RE: Sirius XM Radio Inc.
Form 10-K for the year ended December 31, 2009
Filed February 25, 2010
File No. 001-34295**

Dear Mr. Spigel:

This letter is in response to the Staff's follow-up comments regarding the Annual Report on Form 10-K (the "Form 10-K") of Sirius XM Radio Inc. ("we", "our", or the "Company") for the year ended December 31, 2009. The follow-up comments were received via fax from Dean Suehiro, Staff Accountant, on Thursday, August 5, 2010 with respect to our responses to comments in our response letters dated July 15, 2010, May 21, 2010 and May 10, 2010 relating to the Staff's letter dated April 26, 2010. To assist your review, we have retyped the text of the Staff's comments in italics below.

1. Unaudited Pro Forma and Actual Information, page 26

We note your response dated May 10, May 21, and July 15, 2010 to comment two from our letter dated April 26, 2010. We understand that you will revise the presentations in future filings.

Supplemental Response:

In response to the Staff's comment, as reported in the Company's Form 10-Q for the quarter ended June 30, 2010, filed with the SEC on August 6, 2010, in order to enhance the prominence of our discussion and analysis of our financial information presented in accordance with generally accepted accounting principles in the United States of America ("GAAP"), consistent with the requirement under Item 10(e)(1)(i)(A) of Regulation S-K, we structured the MD&A section in the following order: (i) discussion and analysis of our results of operations prepared in accordance with GAAP for the periods presented; (ii) actual subscriber data for the periods presented; (iii) discussion and analysis of financial measures that are not calculated and prepared in accordance with GAAP ("non-GAAP financial measures") for the periods presented, including adjusted total revenue and adjusted EBITDA; and (iv) footnotes to financial metrics and non-GAAP financial measures, which include definitions and reconciliations to the most directly comparable GAAP measures. In addition, we have enhanced our discussion of the reasons why management believes the presentation of the non-GAAP financial measures provides useful information to our investors regarding our financial condition and results of operations. We confirm that we will follow a similar presentation format in our future filings.

2. Long-Lived Assets, page 48

We note your response dated May 10, 2010 to comment six from our letter dated April 26, 2010. Please revise your proposed disclosures to state that your "single reporting unit is not a risk of failing step one."

Supplemental Response:

In response to the Staff's request, we confirm that in future filings, we will state that our single reporting unit is not a risk of failing step one, if applicable.

3. Long-Lived Assets, page 48

We note your response dated May 10, 2010 to comment seven from our letter dated April 26, 2010. As previously requested, please revise your proposed disclosures to state that you have one unit of accounting.

Supplemental Response:

In response to the Staff's request, we confirm that in future filings, we will state that we have one unit of accounting.

* * * *

As requested by the Staff, we acknowledge that, with respect to filings made by us:

- We are responsible for the adequacy and accuracy of the disclosure in our filings;
- Staff comments or changes to disclosure in response to Staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- We 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.

Any questions concerning the above supplemental response to the Staff's comment may be directed to me by telephone at (212)-584-5170 or by fax at (212)-584-5252.

Sincerely,

/s/ David J. Frear

David J. Frear

Executive Vice President and
Chief Financial Officer

cc: Securities and Exchange Commission
Dean Suehiro, Staff Accountant

Page 3