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Before the
Federal Communications Commission
Washington, DC 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of Proceeding to Address Satellite Network Unwanted Emissions	Docket No. RM-9740

Reply Comments of Sirius Satellite Radio Inc.

These Reply Comments are submitted on behalf of Sirius Satellite Radio Inc. ("Sirius"; formerly CD Radio Inc.), by its attorneys, in the above-captioned proceeding, which announces the Federal Communications Commission's ("FCC" or "Commission") intention to treat the joint letter received from Motorola, Satcom, Teledesic and Hughes Space and Communications Corporations as a petition for rule making, and describes how the agency might proceed as well as the scope of the issues to be addressed in considering unwanted emissions from satellite networks.[1] Sirius holds a license to construct, launch, and operate a satellite system providing digital audio radio service ("satellite DARS") in the 2.3 GHz downlink frequency band,[2] and therefore has a substantial interest in the development and outcome of this proceeding.

As the joint letter correctly points out, Section 25.202(f) of the Commission's Rules has existed in its present form for more than 25 years, and its characteristics were based on

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[1] *Proceeding to Address Satellite Network Unwanted Emissions*, DA-99-2601, RM-9740 (Nov. 19, 1999) (Public Notice).

[2] *Satellite CD Radio, Inc., Authority to Construct, Launch and Operate Two Satellites in the Satellite Digital Audio Radio Service*, 13 F.C.C. Rcd 7971 (1997) (Order and Authorization).

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geostationary satellite technologies typical of that time-frame. On this basis, it is not unreasonable to conclude that a detailed review is warranted. Efficient use of shared radio frequency spectrum for both domestic and international operations requires all services to have available technical criteria consistent with the capabilities of today's technology. A review of Section 25.202(f) Rules would be beneficial both to ensure that the present criteria are consistent with today's satellite technology, and at the same time prepare the U.S. position for the up-coming ITU-R Meeting on this subject.

Sirius notes, however, that the Commission addressed the subject of unwanted emissions specifically in relation to the satellite DARS service less than two years ago, and concluded that the present Rules provide adequate protection.[3] Sirius believes that interference protection for existing systems should be a major consideration in the Commission's review of Section 25. 202(f). This includes protection for all equipment built to meet the existing criteria, but not yet necessarily launched.

Sirius believes that the five technically related questions put forward by the petitioners constitute a good starting point for initiating an in-depth consideration on the subject of unwanted satellite out-of-band emissions. Based on the comments filed by other interested parties, these questions appear to be generally acceptable as the basis for studies. Nevertheless, there appears to be considerable divergence in the views relating to the anticipated final results and, to some extent, the timing and procedures to be followed. This divergence is not unexpected given the resultant impacts the various services would experience from any final agreement.

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[3] *Rules and Policies for the Digital Audio Radio Satellite Service in the 2310-2360 MHz Frequency Band*, 12 F.C.C. Rcd 5754, 5801-03 (1997) ("We therefore will only require satellite DARS licensees to meet out-of-band and spurious emission limits which are contained in Section 25.202(f) of our Rules.").

One issue not previously addressed by other commenters is the relationship of the amount of satellite produced interference to an out-of-band service compared with the total level of spectrum interference to this service from all other interferers. In the interest of equitable burden sharing, Sirius believes that the allowable out-of-band interference level assigned to satellite systems should be comparable to those assigned to systems operating in other than the satellite frequency bands. In other words, the amount of (and measurement techniques for) out-of-band emissions in any given spectrum might depend on the use to which that band is put, with different measurement techniques (and perhaps different absolute levels of emissions) applicable to particular bands.

Since many satellites built today provide both domestic and international service, and this is likely to be the most prevalent mode of operation in the future, the Commission's Rules should correspond as closely as possible to those of the appropriate International Organizations. To facilitate harmonized rules, the Commission should establish a Working Group comprised of members from all interested satellite services, as well as associated industries. The output of the Working Group should be a U.S. contribution to the ITU-R. Any ITU-R Recommendation ultimately adopted should then be carefully reviewed by the FCC before incorporation in Section 25.202(f).

Respectfully submitted,

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