4.1.11 Signal Booster and Bi-Directional Amplifier (BDA) Installation and Use

I. Subject and Purpose

It is the MPSCS policy to review and approve the design and implementation of any signal boosters, also referred to as bi-directional amplifiers (BDA), used to retransmit MPSCS licensed frequencies. As an FCC licensee, the MPSCS is subject to Federal regulations. Specifically, and for purposes of this policy, MPSCS and its members are responsible to comply with regulation 47CFR90.219 “Use of Signal Boosters.” According to FCC regulation 47CFR90.219, anyone operating a signal booster to retransmit MPSCS licensed frequencies must have the consent of the MPSCS. In addition, Part 90 Class B signal boosters (non-channelized BDAs) must be registered through the FCC Signal Booster Registration & Discovery website.

The MPSCS reserves the right to verify signal boosters have been properly engineered and do not create interference by performing site surveys, inspections, and testing of signal booster installations.

II. Procedures and Guidelines

The FCC recognizes two basic classes of signal boosters. The FCC defines Class A signal boosters as a signal booster designed to retransmit signals on one or more specific channels (channelized BDA). Class A signal boosters can be used indoors, outdoors and in mobile settings.

The FCC defines Class B signal boosters as a signal booster designed to retransmit any signals within a wide frequency band (wideband BDA). Class B signal boosters may only be installed in a fixed location. Mobile use of Class B signal boosters is prohibited by the aforementioned FCC regulation. As of November 1, 2014, all existing and new Class B signal boosters must be registered with the FCC. The website for registering Class B signal boosters is:


The FCC requires signal boosters to be used on a non-interference basis. As such, if a signal booster is suspected of causing harmful interference, the operator must turn off or adjust the settings of the device at the request of the MPSCS, the FCC, or any impacted licensee to eliminate the harmful interference. Any signal booster operator who does not comply with such as request, may be subjected to FCC fines as determined by FCC investigation.
Installation of a signal booster must conform to local zoning ordinances; local, State and Federal building codes; local, State and Federal fire codes; and any other applicable laws.

The following steps are required to properly obtain MPSCS consent and meet FCC regulations for use of signal booster amplifying MPSCS licensed frequencies.

1) Submit the MPSCS Signal Booster Consent Request Form to request MPSCS consent to use the proposed signal booster.

2) MPSCS will review the submitted MPSCS Signal Booster Consent Request Form and reserve the right to request additional information regarding the proposed signal booster.

3) Upon approval of the proposed signal booster, MPSCS shall supply a Letter of Consent allowing the use of the signal booster to amplify and retransmit frequencies licensed on the applicable MPSCS provided call signs. This shall be maintained by the signal booster operator to be presented to an FCC representative or a relevant licensee investigating interference, per aforementioned FCC regulation. A copy of the letter and any data collected during the signal booster review will also be retained by MPSCS.

4) For Class B signal boosters, the requestor is required to comply with FCC regulation 47CFR90.219 by registering the approved device through the previously mentioned FCC signal booster registration website.

5) Upon successful registration, the requestor must provide the FCC Booster ID of this device to the MPSCS as proof of registration. MPSCS will then document the FCC Booster ID with the previously obtained documentation.

III. Responsible Party
Engineer Manager, NCC Manager
A. Contact for Questions
B. Phone, Fax and Email Addresses
   MPSCS-BDA@michigan.gov

IV. Applicable Forms
Bi-Directional Amplifier Online Form

VI. Termination or Review
Responsibility MPSCS Director

VII. Linkages to Other Relevant Data