

June 7, 2012

W294AJ Construction Permit Special Operating Conditions

On December 23, 2011, the Federal Communications Commission issued a construction permit for FM translator W294AJ owned by permittee Positive Alternative Radio. W294AJ is now constructed and we are applying for our license to cover.

On the construction permit, special operating condition #1 stipulated:

1 BEFORE PROGRAM TESTS COMMENCE, sufficient measurements shall be made to establish that the operation authorized in this construction permit is in compliance with the spurious emissions requirements of 47 C.F.R. Sections 73.317(b) through 73.317(d). All measurements must be made with all stations simultaneously utilizing the shared antenna. These measurements shall be submitted to the Commission along with the FCC Form 350-FM application for license.

On Tuesday, June 5th, we conducted measurements using a spectrum analyzer on W294AJ and W244BP, the station of which with we are sharing an antenna. We concluded that we are in compliance with the spurious emissions requirements set forth in 73.317(b) through 73.317(d).

With respect to 73.317(b), we found that W244BP was 69 dB removed from the main carrier and W294AJ was 55 dB removed from the main carrier. The minimum requirement set forth to be in compliance is 25 dB.

With respect to 73.317(c), we found W244BP was 70 dB removed from the main carrier and W294AJ was 57 dB removed from the main carrier. The minimum requirement set forth to be in compliance is 35 dB.

With respect to 73.317(d), we measured the combined harmonics of the two stations outside of 600kHz from their main carriers. We measured the harmonic at 86.7 MHz to be 59 dB removed and the harmonic at 116.7 MHz to be 58 dB removed. The requirement states that these emissions must be removed at least $43 + 10 * \text{Log}_{10}(\text{Power, in Watts})$, or 80 dB, whichever is lesser. For W294AJ licensed at 21 Watts, we calculated our the minimum requirement to be 56 dB removed from the main carrier.

These measurements conclude that Positive Alternative Radio and station W294AJ have satisfied the special operating condition set forth in their construction permit.

Sincerely,

David Hodges
Engineer, Positive Alternative Radio
Commonwealth of Virginia, Professional Engineer #0402047289