

January 9th, 2017

W277CY and W298BR Construction Permit Special Operating Conditions

On September 28th, 2016, the Federal Communications Commission issued a construction permit for FM translator W298BR and on October 31st, 2016, to W277CY owned by permittee Positive Alternative Radio. W277CY and W298BR are now constructed and we are applying for our licenses to cover.

The translators are combined with translator W221CF. As such, we performed combiner measurements for RF emissions.

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 December 8th, 2017, we conducted measurements using a spectrum analyzer on W277CY & W298BR to W221CF, 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 W277CY was 69 dB removed from the main carrier and W298BR was 42 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 W277CY was 72 dB removed from the main carrier and W298BR was 72 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 three stations outside of 600kHz from their main carriers. We measured the harmonics at 76.7 MHz to be 85dB removed, 80.9 MHz to 86dB removed, 99.1 MHz to be 79dB removed, 111.7 MHz to be 81dB removed, 114.5 MHz to be 86dB removed and 122.9MHz to be 86dB 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 W221CF licensed at 250 Watts we calculated our the minimum requirement to be 67 dB removed from the main carrier.

These measurements conclude that Positive Alternative Radio and stations W277CY and W298BR have satisfied the special operating condition set forth in their construction permit.

Sincerely,

David Hodges
Director of Engineering,
Positive Alternative Radio