

Section 74.1204 Interference Analysis
W289BR, Cumberland, MD
January, 2016

The Applicant proposes a minor change for FM translator station W289BR in order to relocate W289BR to an existing tower site, approximately 14.6 km from the authorized W289BR transmitter site. The FM translator station will rebroadcast AM station WFRB(AM), Frostburg, Maryland (Facility ID 71868). As discussed below, the instant proposal remains compliant with the protection requirements set forth in Section 74.1204 of the FCC Rules.

Section 74.1204(a) Contour Overlap Protection Criteria

Attached is a map which demonstrates that proposed technical facility complies with the contour overlap provisions of Section 74.1204(a) of the FCC Rules with respect to all pertinent cochannel (See Exhibit 1) assignments, authorizations and applications. The instant proposal is well clear of all other relevant co-channel and first-adjacent channel protection considerations not represented herein.

Section 74.1204(d) Second/Third-Adjacent Channel Protection

The required protection to second-adjacent channel stations WFRB-FM, Frostburg, MD (Channel 287B) and WRQE(FM), Cumberland, MD (Channel 291B) is discussed below. The instant proposal is well clear of all other relevant second and third-adjacent channel protection considerations not represented herein.

The proposed W289BR transmitting antenna will be located within the protected contour of second-adjacent channel, full service stations listed above which results in contour overlap as defined in Section 74.1204 of the FCC Rules. However, at the translator's proposed transmitter site, WRQE(FM) is predicted to produce an F(50,50) signal strength of 138 dBu while WFRB-FM is predicted to produce an F(50,50) signal strength of only 89 dBu. Therefore, WFRB-FM provides for a worst-case interference analysis.

In the vicinity of the second-adjacent channel translator station, the translator's relevant interfering contour is the 129 dBu contour relative to WFRB-FM. According to free space calculations, the translator's predicted interfering contour will extend only 26 meters from the proposed W289BR antenna. Because the W289BR proposed antenna will be located 37 meters above ground level, the predicted interference area will neither reach ground level nor reach any people. Therefore, the proposed minor change will cause no interference to any population presently served by WFRB-FM or by WRQE(FM).

Accordingly, the proposed facility satisfies Section 74.1204(d) of the FCC Rules because it has been "demonstrated that no actual interference will occur due to lack of population or such other factors as may be applicable".

Cochannel Station Protected Contours: 60 dBu F(50,50) - Solid Contours
 Proposed Translator Interfering Contour: 40 dBu F(50,10) - Dashed Contour

