

## EE-1

### Engineering in support of the WTQT modification of its application

This Document is submitted on behalf of the Louisiana Community Development Capital Fund, Inc. who owns and operates WTQT-LP, Baton Rouge, LA. This exhibit is submitted to support their application for a change in frequency from from 235L1 to 291L1 at their current tower and antenna height.

WTQT is currently short spaced to WPRF and KSMB. The station experiences constant interference and the station's signal is now considerably limited in its range. A map showing its current situation is attached as a separate attachment.

2nd Adjacency Waiver Requested: The petitioner recognizes that they can have a better signal if allowed to migrate to another frequency as permitted by the new regulations. Section 3(b)(2)(A) of the LCRA explicitly grants the Commission the authority to waive the second-adjacent channel spacing requirements set forth in Section 73.807 of the Rules. An ALS showing that, is submitted as "Attachment 2". It was derived from rfInvestigator using a Feb 2013 database. There are no radio reading services via a subcarrier channel operating on either its second or third adjacencies within a 20 km radius of their proposed coordinates, nor are there any radio reading services operating on third adjacencies of the proposed WTQT channel.

Paragraph 78 of FCC 12-144 (5<sup>th</sup> Order on Reconsideration and 6<sup>th</sup> Report & Order in MM docket 99-25) specifically permits the use of D/U analysis, of the type used in the FM translator service, to demonstrate that interference to 2<sup>nd</sup> adjacent facilities will not occur. WTQT used the desired-to-undesired ratio methodology to locate a suitable channel and site. The proposed site is 2<sup>nd</sup> adjacent short-spaced to KQXL using the spacing requirements of 73.807. A 40dBu D/U ratio, as prescribed in 47CFR74.1204(a) (3), was used to calculate the zone of interference. Calculations were made using rfInvestigator v3.50. At the proposed antenna height, there is no population within the predicted interference area of the proposed WTQT facility and any interference falls within the confines of the tower compound. The rfInvestigator study is submitted, as Appendix 1, to show that the D/U ratio between KQXL and WTQT-LP does not result in interference to KQXL. The board of WTQT realizes that should interference be discovered within a period of one year that they must take steps to promptly remedy it. WTQT-LP would also be short spaced on its third adjacency to KDDK. This is not expected to create interference because of power levels and locations.

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Generally, however, each new radio facility or each radio facility that changes its output transmission must for a year answer all complaints of interference re mediating them at its cost. The Petitioner/Applicant for this action expressly acknowledges their responsibility should the FCC grant this request. The applicant further expressly accepts any conditions imposed by the LCRA as adopted by the FCC, including on-air announcements. WTQT-LP is willing to accept any interference that it may receive as a result of the move. WTQT-LP is located in BATON ROUGE, LA and serves the population with a 24/7 operation that broadcasts, locally originated, items of interest to the community. WTQT is currently serving the public interest, convenience and necessity.

WTQT receives interference from WPRF, Reserve, LA. WPRF upgraded from a C3 to a C2 on a co-channel, thus short spacing WTQT. While it took a while to determine the source of interference, it is definitely being experienced. Further, even after discovery of the interference source, no channels were available to WTQT under the old rules, except by the so-called "Thin Air Waiver method" which no local broadcaster was willing to agree to at the time. WTQT is requesting a modification of its application to specify its current height and power. In short, WTQT seeks only to change its frequency from 235-L1 to 291-L1. This will relieve them of the severe interference that has limited their coverage since the WPRF upgrade.

## Environmental Issues

WTQT-LP proposes to operate from its current tower. It is less than 60 meters in height. There are no plans to change anything on the tower, or the surrounding land. The center of radiation will be 34 meters AGL with an ERP of 71 Watts. This will result in an extremely small rf exposure. It is much smaller than the limit for the general public listed in OET Bulletin 65 August 1997. It amounts to less than 1% of the occupational limits and less than 5% for the general public limits for rf exposure.

Respectfully submitted,

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