

CATHOLIC COMMUNITY RADIO, INC.

WQNO, NEW ORLEANS, LOUISIANA

TABLE OF ENGINEERING ATTACHMENTS (NIGHT, MAY 2014)

SECTION IIIA, EXHIBIT 13

TABLE OF ENGINEERING ATTACHMENTS

ENGINEERING NARRATIVE

WAIVER REQUEST AND JUSTIFICATION FOR §73.182(q) and §73.24(g)

SECTION IIIA, EXHIBIT 18

POLAR PLOT OF THE DIRECTIONAL ANTENNA PATTERN

TABULATION OF DIRECTIONAL ANTENNA STANDARD PATTERN

TREATMENT OF FOREIGN STATIONS

RSS FILES

MAP OF THE CONTOURS OF WQNO AND CINF, MONTREAL (FIGURE 1)

MAP OF THE CONTOURS OF WQNO AND XETRA, ROSARITO (FIG. 1A)

MAP OF THE CONTOURS OF WQNO AND XETRA, TIJUANA
(2156 mV/m RMS) (FIG. 1B)

MAP OF THE CONTOURS OF WQNO AND XETRA, TIJUANA
(2552 mV/m RMS) (FIGURE 1C)

MAP OF CONTOURS OF WQNO AND CMEC, SANTA CLARA (FIG. 1D)

DERIVATION OF INCOMING INTERFERENCE

MAP OF THE PROPOSED NIGHTTIME INTERFERENCE-FREE CONTOUR

TOPOGRAPHIC SITE MAP

TOPOGRAPHIC MAP WITH 1 VOLT CONTOUR

AERIAL PHOTOGRAPH

TOWER ELEVATIONS

GROUND SYSTEM SKETCH

SECTION III-A, EXHIBIT 20

TEXT BOX AND ATTACHMENTS REGARDING EA, RFR AND
PROTECTIVE FENCE

WQNO, NEW ORLEANS, LOUISIANA

MODIFICATION APPLICATION FOR NIGHTTIME OPERATION (MAY 2014)

ENGINEERING NARRATIVE

GENERAL

The purpose of this application is to modify the pending Nighttime application for 0.106 kilowatt ND to 2.1 kilowatts with a two tower directional antenna. One of the two towers proposed in this application is authorized for the present Daytime CP for 9.1 kilowatts non-D. This is a change in the nighttime operation from the licensed 5 kilowatts DA (four tower) to 2.1 kilowatts (two tower).

This change in antenna system and class is necessitated by the severe damage to the towers by Hurricane Katrina. Replacement of the four towers is financially unreasonable as the cost cannot be amortized from projected station income. It appears that 73.24(i), the so called "ratchet" rule is not applicable in this case because the change is involuntary, however, if it is applicable, a waiver is requested. A waiver justification is attached following this narrative.

While the authorized parameters for the Daytime CP are included in Form 301, this application is ONLY for the nighttime operation, and it does not affect the parameters of the daytime CP except for one minor change. That change is to designate the non-directional daytime tower Tower Number 2 in Section 4c to conform to the same tower number system used for nighttime.

INTERFERENCE

If the licensed or proposed radiation value enters the limit of any class B station, the RSS file for that station is shown in an attachment in Exhibit 18. In all instances where the proposed facility enters another stations limit, the proposed contribution is less than the contribution of the licensed facility. There are no domestic class A stations on 690 kilohertz.

There are five foreign class A stations on 690 kilohertz. They are CINF, Montreal, CMEC, Santa Clara, XETRA, Tijuana, XETRA Rosarito and XETRA1, Tijuana. Contour maps are attached for each. The XETRA facilities are further identified on the contour maps by including their RMS value from the data base.

In the case of CINF, the proposed 0.025 mV/m contour does not overlap the CINF 0.5 mV/m contour on Canadian soil.

In the case of all three Mexican class A stations, the proposed 0.025 mV/m contour does not exceed the licensed 0.025 mV/m in the azimuth span affecting land area inside Mexico.

For CMEC, in the azimuth span affecting Cuba, the proposed 0.025 mV/m is inside the 0.025 mV/m contour approved by the ITU for BP-20070925AGL under authorization BRIFIC 2668.

NIGHTTIME COVERAGE

The Nighttime Interference-Free contour is 7.46 mV/m. The proposed facility will place a NIF signal over 77.5 percent of the area inside the New Orleans boundary. If the uninhabited Bayou Sauvage National Wildlife Preserve is omitted from the calculation, then the proposed NIF covers more than 80 percent of the area of the city. A detailed Waiver Request for the deficient nighttime coverage is in an attachment following this narrative.

REQUEST FOR WAIVER OF FOOTNOTE 1 OF SECTION 73.182(Q)
AND
DEMONSTRATION OF COMPLIANCE WITH SECTION 73.24(I)

SECTION 73.182(Q)

In connection with the subject application to modify the nighttime facilities of Station WQNO, New Orleans, Louisiana, Catholic Community Radio, Inc. (CCR, Inc.) respectfully requests waiver of Footnote 1 of 47 C.F.R. Section 73.182(q), the so-called “ratchet rule,” with respect to Station WJOX, Facility Id. No. 16897, Birmingham, Alabama.¹

For forty years, WQNO operated with a four-tower array that stretched into a bayou to the northeast of New Orleans. Then on August 29, 2005, Hurricane Katrina ripped through New Orleans and the surrounding area. Two of WQNO’s towers were completely destroyed. A third was cut to half its former height. Only one remained standing at its full height and even that tower was damaged.

Since shortly after the hurricane, WQNO has operated pursuant to STAs, using that sole tower, while the station’s licensee made efforts to arrange for the construction of replacement facilities. Replacement of all four towers at their present licensed location and heights was not economically feasible. Because the towers would be located in a bayou, the estimated reconstruction costs ran into the millions of dollars. Eventually, the licensee developed the present plan, which entails building two shorter towers very near where the previous four towers stood.² The station’s nighttime power will drop from 5 kilowatts to 2.1 kilowatts.

The licensed WQNO nighttime facilities, before they were destroyed some nine years ago, produced a skywave interference limit that entered into the 50% exclusion RSS value of another domestic station, WJOX, Birmingham, Alabama.

¹ CCR, Inc. notes that this application complies with the “ratchet rule” with respect to the two other domestic stations into which WIST enters into their respective 50% exclusion RSS values – WOKV, Facility Id. No. 53601, Jacksonville, Florida, and KTSM, Facility Id. No. 69561, El Paso, Texas. With respect to WOKV, this application specifies a 42% reduction; with respect to KTSM, a 19.6% reduction.

² The center of the previous four-tower array (29-57-50 N, 89-57-31 W NAD 83) is just 31 meters from the center of the proposed two-tower array (29-57-49 N, 89-57-31 W NAD 83).

Under Footnote 1 of Section 73.182(q) of the Commission’s Rules, an AM station that chooses to modify its facilities must reduce the radiation toward other stations whose 50% exclusion RSS values the station being modified enters into. The reduction must be either 10% or to a value that drops the station being modified below the 50% exclusion threshold.

The purpose of the “ratchet rule” is to provide some degree of interference reduction when an AM station chooses to modify its facilities. But of course, WQNO did not “choose” to modify its facilities. The destruction of the station’s previous array and the exorbitant cost to rebuild the towers of that array exactly as they stood before has compelled WQNO to modify its nighttime facilities.

To apply this requirement to WQNO would mean a significant reduction in the proposed nighttime interference free contour and thus a significant reduction in service to the residents of New Orleans.

The proposed nighttime WQNO facilities were designed to (a) avoid any increase in nighttime interference to WJOX and (b) provide as nearly as possible the same level of nighttime coverage of New Orleans as WQNO’s destroyed licensed facilities.

The proposed facilities substantially meet those objectives. Significantly, the WQNO nighttime facilities proposed do not increase the RSS contribution to WJOX or any other station above the level of the WQNO licensed facilities.

Under the circumstances, CCR, Inc. respectfully requests a waiver of the requirements of Footnote 1 of Section 73.182(q). Such a waiver would be consistent with others that the Commission has granted when AM stations have had to modify their facilities due to circumstances beyond the control of the respective licensees.

SECTION 73.24(I)

The nighttime interference-free contour of the proposed facilities would cover 473,129 of the total 484,674 (2000 Census) population of the city of New Orleans – 97.5% of the population of the principal community. The Commission has stated that the nighttime coverage requirement may be calculated on the basis of area *or* population. *See Pamplin Broadcasting, Inc.*, 23 FCC Rcd 649, 651-53 (2008). Thus, in providing nighttime service to more than 80% of the residents of New Orleans, the proposed WQNO facilities will comply with Section 73.24(i) of the Rules.³

³ The proposed WQNO nighttime interference-free contour would cover 77.5% of the area encompassed within New Orleans’ official city limits. However, this calculation includes the 24,293-acre uninhabited Bayou Sauvage National Wildlife Preserve, located entirely within the official boundaries of New Orleans. Given that “the Commission has focused historically on *residential* area, not unpopulated land...,” *Pamplin Broadcasting, Inc.*, 23 FCC Rcd 649, 653 (2008) (emphasis in original), if Bayou Sauvage National Wildlife Preserve is excluded when calculating the area comprising the city of New Orleans, WIST’s proposed nighttime interference-free contour would cover more than 80% of city’s area.