CATHOLIC COMMUNITY RADIO, INC.

WQNO, NEW ORLEANS, LOUISANA

ENGINEERING NARRATIVE

In 2012, Catholic Community Radio, Inc. ("CCR"), the applicant herein, purchased Station WIST (now WQNO). In addition to the station's license, CCR was assigned the outstanding construction permit (BMP-20120125AEN) covering modified day and night facilities. The construction permit was a consolidation of separate permits for day and night operation. They were applied for in an attempt to restore the Hurricane Katrina damaged transmitter plant while maintaining the financial viability of the station.

The purpose of this application is to seek reauthorization to construct the modified facilities specified in BMP-20120125AEN, which expired on September 29, 2013. As a matter of clarification, this CP authorized a change in the nighttime operation from directional to non-directional and a reduction in nighttime power from 2.1 kilowatts DA to 106 watts non-D. All of the Day and Night parameters in this application are the same as those in BMP-20120125AEN. It consolidated the parameters of the daytime authorization BP-20100609AGJ into BMP-20120125AEN.

A brief history of recent Construction Permits follows:

1. BP-20070925AGL Day unchanged at 10 kW Day, 4 towers (licensed parameters); Reduced Night to 2.1 kW, 2 towers (Dismissed at request of applicant when BP-20100609AGJ filed)

2. BP-20100609AGJ Day Only; Changed day to 9.1 kW ND, Night remained 2.1 kW, 2 towers

3. BP-20120125AEN Changed Night to 106 watts, ND. Brought in the Day parameters authorized in BP-20100609AGJ with no change to consolidate Day and Night authorizations into one permit

This application is for the same parameters in the just expired BP-20120125AEN, and the engineering exhibits (attachments) are the same. Due to a call sign change, WQNO should be substituted for WIST wherever it might appear in any attachment.

Some of the contour maps that are attached show the daytime non-directional power as 8 kilowatts. The distance to contours is correct for the proposed 9.1 kilowatts as the proposed tower is shorter and the 9.1 kilowatts has the same radiated field (284.84 mV/m/kW) as the more efficient previous tower height.

GENERAL

This change in antenna system and class is necessitated by the severe damage to the towers caused by Hurricane Katrina. Replacement of the four towers is financially not feasible. It appears that 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 based on the aforementioned circumstance.

The topographic site map shows the location of the single tower that will be used for Day and Night. Also shown is the daytime 1 volt contour. The night 1 volt contour will extend approximately 100 meters and it is well within the daytime contour, and it is not shown on the map. It appears that the number of persons residing inside the nighttime one volt contour is zero. The population inside the daytime 1 volt contour as related to §73.37 is shown on the topographic map. The new self-supporting tower will be constructed over the existing foundation of the southern most tower, and the remaining three towers of the old antenna system were either destroyed by Hurricane Katrina, or will be dismantled. Although the three towers will no longer exist, the ground systems will remain in place as shown on the ground system sketch.

Figure 10 in Exhibit 16 is a sketch of the ground system. The radial length is 0.248 wavelength plus additional where truncated in the ground system of the adjacent tower. Although the adjacent tower will be removed, the ground system will remain.

The environmental matter as related to the tower is discussed in Exhibit 20. The placement of the tower fence has been addressed in Exhibit 19 for the 9.1 kilowatt daytime facility.

DOMESTIC AND INTERNATIONAL INTERFERENCE

Contributions from the licensed WQNO (WIST) nighttime facility are used in determining whether or not the proposed facility enters the limit of a protected station (WQNO is licensed as a class B station). This is based on consultation with a member of the Audio Services Division staff.

Attachments include a list of all protected stations that limit the radiation of this proposal to less than 2000 mV/m, and RSS files of relevant stations that require protection. Contributions of the licensed facility are shown as WQNOlic, and contributions of the proposal are shown as WQNOprop. In no case does the contribution of the proposal exceed the contribution of the present facility.

Foreign stations that might require protection and that might enter the limit of protected stations have been discussed with the International Division. The results of these discussions are shown in the attached Status of Foreign Stations in Exhibit 18. Selecting foreign contributors in accordance with that list shows that the proposal does not enter the limit of any station, even when the licensed facility is not used as a contributor.

There are five class A stations on 690 kilohertz. They are CINF, Montreal, CMEC, Santa Clara, XETRA, Tijuana, XETRA Rosarito and XETRA1, Tijuana. Contour maps showing the 0.5 mV/m protected and the 0.025 interfering contours are attached for each.

In the case of CINF, the proposed 0.025 mV/m contour does not exceed the licensed 0.025 mV/m, nor does it fall on Canadian soil.

For CMEC, 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. It is also inside the licensed 0.025 mV/m.

In the case of all three Mexican class A station, there is no overlap between the proposed 0.025 mV/m contour and the protected 0.5 mV/m contours.

On all nighttime maps, the protected contour is the 0.5 mV/m 50 percent skywave, and all interfering contours are 0.025 mV/m 10 percent skywave.

The RFR graph in Exhibit 20 is drawn for 1 kilowatt. It has been adjusted for 9.1 kilowatts by dividing the ANSI recommended maximum values (614 v/m and 1.63 a/m) by the square root of 9.1. As shown, the minimum distances for electric and magnetic fields are 5.7 and 4.0 meters respectively. The applicant will provide a protective fence extending 5.7 meters from the center of the tower or to the water line.