

Engineering Statement and Interference Analysis

This technical statement supports this application to make changes in WLFM-LP on channel 55 in Rochelle, IL. FCC File No. BMPTTL-20040304AFI, Facility ID 128239.

In this application, the Applicant is proposing to modify from channel 55 to channel 6. The Commission has authorized Qualcomm to build MediaFLO, their CDMA network nationwide. Qualcomm has completed constructing their facility to serve the Chicago, Illinois market and has begun testing from the Sears Tower. As a result, WLFM-LP is displaced and has ceased its operations on channel 55.

The WLFM-LP application was granted because it did not predict to cause any interference to WYIN as analyzed by the Commission's tv_process_dlptv software. However, it does predict to cause interference to WYIN as analyzed by the Commission's newer tv_process_dlptv software. Pursuant to a settlement agreement with Northwest Indiana Public Broadcasting, licensee of WYIN, filed with the Commission on May 30, 2006, the Applicant agreed to apply for a displacement to another channel. This application is filed pursuant to that Settlement Agreement.

Because the large number of television and LPTV stations in the northwest Illinois area, there are practically no available vacant channels in the northeastern Illinois area. Channel 6 is the best available channel to use.

In the spirit of the Commission rules, the Applicant has attempted to minimize the change in the service area from the existing operating facility of WLFM-LP to the proposed facility. Both the existing and proposed facility will generate narrow cardioid patterns, albeit the patterns are not identical because low band VHF patterns are different from UHF patterns. The current facility of WLFM-LP, which is licensed at channel 55 with a directional antenna oriented toward 225 from the top of the John Hancock Building in Chicago, Illinois, broadcasts a maximum of 50 kW maximum ERP to the radio horizon and 150 kW maximum ERP below the horizontal plane.

There is no change proposed in the transmitting antenna location. The center of the beam has been changed from 225 degrees true to 233 degrees true in order to minimize interference to other facilities. The proposed facility will operate on channel 6 at 3.0 kW maximum ERP to the radio horizon and 3.0 kW maximum ERP below the horizontal plane. Like the current WLFM-LP facility, the signal is highly directional to protect other facilities. The predicted contour is slightly “fatter” on the sides and back, which is over Lake Michigan, and slightly “thinner” in the front of the signal. See Attachment A.

The proposed channel 6 facilities were studied using the Techware’s tv_process_dlptv software on a Sun Blade 1500. The study performed a Longley-Rice study in accordance with FCC rules 74.705, 74.706 and 74.707.

TV Broadcast Analog System Protection

The proposed operation causes less than 0.5% interference to surrounding analog assignments and allotments (i.e., “*de minimis*”). It is believed that the proposed operation is in compliance with the spirit and intent of the FCC’s interference standards. If necessary, a waiver of the FCC rules is respectfully requested for this analog allocation study based on use of the OET-69 procedures.

Digital TV Station Protection

The proposed operation causes less than 0.5% interference to surrounding digital assignments and allotments and facilities (i.e., “*de minimis*”). It is believed that the proposed operation is in compliance with the spirit and intent of the FCC’s interference standards. If necessary, a waiver of the FCC rules is respectfully requested for this digital allocation study based on use of the OET-69 procedures.

Class A, Low Power TV and TV Translator Station Protection

The proposed operation causes less than 0.5% interference to surrounding low power assignments and allotments (i.e., “*de minimis*”). It is believed that the proposed operation is in compliance with the spirit and intent of the FCC’s interference standards. If necessary, a waiver of the FCC rules is respectfully requested for this low power allocation study based on use of the OET-69 procedures.

This application does not cause any predicted interference to any of the other proposals. To the degree it is deemed necessary, the applicant requests a waiver of Section 74.705, 74.706, and 74.707 and other applicable parts of the Rules and Regulations of the Federal Communications Commission in order to allow for the grant of this instant application.