

## Engineering Statement and Interference Analysis

This technical statement supports this application to modify WCHU-LP, Chicago, IL, Facility ID 129745. WCHU-LP was granted a modification of a displacement construction permit to move from analog channel 61 to digital channel 44, see FCC File No. BMPDTL-20090514ACR for WCHU-LD. (“WCHU”)

### **Digital Displacement Relief**

WCHU is currently operating pursuant to a special temporary authority (BSTA- 20090729ADZ) and is the Azteca affiliate for Chicago, IL. However, WCHU is displaced by WLS-TV pursuant to Notice of Proposed Rule Making in the Matter of Amendment of Section 73.622(i), Final DTV Table of Allotments, Television Broadcast Stations (Chicago, Illinois), released on August 12, 2009, MM Docket 09-146, RM-11553, where WLS-TV proposed a channel substitution from digital channel 7 to digital channel 44.

As a displacement relief, on August 21, 2009, the Applicant applied to move WCHU to digital channel 26, see FCC File No. BDISDTL-2009021ADK. However, after further engineering studies, the Applicant hereby in this application, requests the Commission to dismiss its previous application on digital channel 26 and proposes to move WCHU to digital channel 7 instead.

### **Technical Analysis**

The proposed facility on channel 7 was studied using the Techware’s tv\_process\_dlptv\_pt software on a Sun Blade 1500 using the post transition data and the 2000 US Census. The facility as proposed will use a Full Service Mask instead of a Simple or Stringent mask filter.

### **Waivers Requested**

A waiver of Section 74.735(b)(1) is respectfully requested. The 4.75 kW ERP proposed herein is in excess of the power allowed in Section 74.735(b)(1), but is necessary to adequately serve the Hispanic community in Chicago, particularly those viewers in the core viewing areas where viewer reception complaints have been received by WLS-TV, which is currently operating on channel 7 digital at 4.75 kW ERP in Chicago. See Paragraph 2 of Notice of Proposed Rule Making in the Matter of Amendment of Section 73.622(i), Final DTV Table of Allotments, Television Broadcast Stations (Chicago, Illinois), released on August 12, 2009, MM Docket 09-146, RM-11553, where WLS-TV states that “in the week after the DTV transition on June 12, 2009, WLS received nearly 7,000 calls from viewers,” with nearly half of the telephone calls reporting reception problems and that “forty-seven percent of homes visited by the FCC in late June to assist WLS were determined to have inadequate indoor [WLS-TV] reception.” WLS also explains that its reception challenges on DTV channel 7 are exacerbated “by the urban canyon effect whereby tall buildings limit coverage in urban areas” and by the fact that many of “WLS’s urban over-the air-viewers often reside in high-rise buildings where indoor reception is severely impaired due to wall attenuation.”

Also see Operating Power in Exhibit 12 of BDRTCDT-20090817ACC, an application for a new DTV replacement translator station on channel 7 for WLS-TV, where WLS-TV states that “The ERP specified in the instant proposal is 4.75 KW. This power is in excess of the power that is allowed in Section 74.735(b)(1), but is necessary to provide service to the areas, particularly those from viewers in the core viewing areas, where viewer reception complaints have been received. Additionally the higher power is needed to fill-in coverage in areas where terrain shadowing is predicted to occur.”

Additionally, as stated in Exhibit 38 of BLSTA-20090630AGB, a Legal STA for WLS-TV, where WLS-TV points out the poor propagation of WLS-TV at 4.745 kW ERP on channel 7 in Chicago, there are “large number of reported cases of loss of ABC programming near the downtown Chicago area.”

To the degree it is deemed necessary, the Applicant requests a waiver of Section 74.705, 74.706, 74.707, 74.709, 74.793(e), 74.793(f), 74.793(g), 74.793(h), 74.794(b), 73.1030 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.

#### **TV Broadcast Analog System Protection**

The proposed operation causes less than 0.5% interference to surrounding analog authorized 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 analog allocation study based on use of the OET-69 procedures and all possible variance from FCC rules.

#### **Digital TV Station Protection**

The proposed operation causes less than 0.5% interference to surrounding digital authorized 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 and all possible variance from FCC rules.

#### **Class A, Low Power TV and TV Translator Station Protection**

The proposed operation causes less than 0.5% interference to surrounding low power and class A authorized 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 low power allocation study based on use of the OET-69 procedures and all possible variance from FCC rules.