

Request for Waiver of Maximum Permissible Power, Section 73.622(f)

Pursuant to the instant minor change “maximization” application, WGEM License, LLC (“WGEM”), licensee of WGEM-TV, Quincy, Illinois, proposes to increase WGEM-TV’s maximum effective radiated power (“ERP”) from 26 kW to 39.1 kW. In connection therewith, WGEM respectfully requests waiver of Section 73.622(f) to permit an ERP in excess of the power limit for WGEM-TV’s height above average terrain (“HAAT”) of 238 meters. (As discussed in the accompanying Technical Statement by WGEM’s Technical Consultant D. Scott Turpie, WGEM-TV’s ERP would, absent a waiver of Section 73.622(f), be limited to 30 kW at an HAAT of 238 meters.)

WGEM-TV’s Operational History and DTV Signal Reception Challenges

WGEM-TV is currently authorized on Channel 10 to operate with 26 kW ERP pursuant to its license in File Number BMLCDT-20130328AMI. WGEM desires to increase WGEM-TV’s ERP to 39.1 kW because of post-transition viewer reception problems experienced immediately after the June 12, 2009, digital transition, which continue to persist.

In connection with the 2009 DTV transition, WGEM-TV was originally assigned an ERP of 12.3 kW for “replication” of its analog facility’s Grade B contour. *See* File No. BPCDT-20080317ACL. WGEM-TV obtained authority to operate with 26 kW ERP in the special filing window for stations to maximize their initial construction permits granted for post-DTV-transition operation.¹ *See* [File No. BMPCDT-20080619ADS](#). Following commencement of operation of WGEM-TV’s post-transition 26 kW ERP DTV facility, WGEM received numerous complaints of poor or no reception from viewers. As a result, as the Media Bureau is aware, WGEM took a series of technical steps over a 3+ year period to improve performance, including the use of a dual antenna system to achieve elliptical polarization and the installation of a higher-power transmitter. *See* STA File Nos. BDSTA-20100107AED, BEDSTA-20101102ACB, BEDSTA-20120221AAN, BEDSTA-20120919ACE, and License File No. BMLCDT-20130328AMI (license modification to account for installation of WGEM-TV higher-power transmitter and permanent use of vertical polarization). Indeed, but for the WWTO-TV interference limitation (referenced below in footnote 1) and the Commission’s freeze on minor

¹ At the time, WGEM was unable to further increase WGEM-TV’s power due to an interference protection limitation to co-channel station WWTO-TV, La Salle, Illinois. Indeed, WGEM-TV’s 26 kW ERP was made possible only as a result of an interference agreement entered into between WGEM and WWTO-TV’s licensee. *See* [File No. BMPCDT-20080619ADS](#), [Attachment 48 \(Engineering Statement and Interference Agreement\)](#). The interference constraint with respect to WWTO-TV is no longer an issue because WWTO-TV, Naperville, Illinois, has become the channel sharee on UHF channel 35 in the post-Incentive Auction environment. *See* LMS File Nos. [0000028048](#) (sharee construction permit application, granted July 18, 2017) and [0000034033](#) (sharee license application, granted Nov. 7, 2017).

modification filings that was imposed only one week² after WGEM filed the above-referenced license modification application, WGEM would likely have continued to seek ways—including increases in power—to try to mitigate the signal reception issues. Since that time, the filing freeze has caused WGEM-TV viewers to contend with the status quo ante, and it is in the public interest to now allow WGEM to take the further step of applying for a significant increase in power. In fact, the power increase proposed by WGEM is not intended to broaden the outer reaches of WGEM-TV's signal contour; instead, the intent is to strengthen the station's signal in its core areas in order to improve over-the-air reception to WGEM-TV's historical viewers.

As the Commission is aware, high-band VHF digital reception issues like those WGEM-TV's viewers have been facing have been experienced by many stations across the country, and power increases have been helpful in mitigating such problems. As has been noted in other Commission filings,³ the Commission's digital power levels are too low for adequate replication of former analog facilities. This is primarily because of the ineffectiveness of many indoor antennas and "noise" from consumer electronics devices. *See generally Innovation in the Broadcast Television Bands: Allocations, Channel Sharing and Improvements to VHF*, Notice of Proposed Rule Making, 25 FCC Rcd 16498 (2010), ¶¶ 42-57 (discussing the various sources of interference, causes of poor reception, and suggesting potential strategies to mitigate the issues).

WGEM projects that a power increase to 39.1 kW ERP will significantly help improve reception for WGEM-TV's viewers. And, significantly, as explained in the Technical Statement accompanying the instant application, WGEM-TV's proposed operation is predicted to cause no interference in excess of the 0.5 percent limit in Section 73.616(e) of the Commission's Rules to any other primary licensee.

Thus, to the extent necessary, waiver Section 73.622(f) is hereby requested.

Request for Waiver

In accordance with Section 1.3 of the Commission's Rules, "[a] waiver is appropriate when special circumstances warrant a deviation from the general rule and such deviation will serve the public interest." *Northwest Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990). WGEM submits that such special circumstances are present here.

First, WGEM's proposal is predicted to cause no prohibited interference to any primary facility. This fact is particularly significant because co-channel WWTO-TV (see footnote 1 above)

² See *Media Bureau Announces Limitations on the Filing and Processing of Full Power and Class A Television Station Modification Applications, Effective Immediately, and Reminds Stations of Spectrum Act Preservation Mandate*, Public Notice, 28 FCC Rcd 4364 (MB April 5, 2013) ("April 2013 Freeze Public Notice").

³ See, e.g., BPCDT - 20100429AAF, Exh. 48 (Channel 12 facility; construction permit granted June 29, 2011).

functioned as a substantial practical limitation (both as a regulatory matter and as a technical matter) on WGEM-TV's ability to further increase power in order to attempt to address the reception issues.

Second, while WGEM-TV's proposed power increase would exceed the maximum power permitted under Section 73.622(f), the power increase is not intended to expand WGEM-TV's coverage area. Rather, the purpose of WGEM's proposed operation is to continue the process—started in 2009—to restore service losses to WGEM-TV's viewers who previously were able to receive WGEM-TV's higher power Channel 10 analog signal but cannot receive WGEM-TV's DTV signal despite being located in WGEM-TV's digital service area.

Furthermore, as discussed earlier and in the Technical Statement, WGEM's service losses are principally due to WGEM-TV's low power high-band VHF Channel 10 authorization (compared to its prior Channel 10 analog power of 316 kW), the widespread use by viewers of poor indoor antennas, and high levels of consumer electronic "noise." Due to such factors, application of Section 73.622(f) to WGEM-TV's proposed operation would actually contravene the public interest by precluding WGEM from improving service to WGEM-TV's former analog viewers at the time that is essentially WGEM's first opportunity to do so since the licensing of its elliptically polarized facility in early 2013. Moreover, the Commission's proposal to permit Zone I VHF-band TV stations (such as WGEM-TV) to increase their power by 6 dB, *see Innovation in the Broadcast Television Bands: Allocations, Channel Sharing and Improvements to VHF*, Notice of Proposed Rule Making, 25 FCC Rcd 16498 (2010), ¶¶ 42-49, makes clear that the Commission understands the hardship to viewers caused by high-band VHF signal issues. *See also* FEDERAL COMMUNICATIONS COMMISSION, OMNIBUS BROADBAND INITIATIVE, Spectrum Analysis: Options for Broadcast Spectrum, [OBI Technical Paper No. 3](#) (June 2010) at pp.6-7 ("Currently, broadcast TV stations in the VHF bands are experiencing reception issues after the Digital Television (DTV) transition due to low antenna gain, fading, weak signal levels and environmental noise from other electronic devices in homes. To ensure the most efficient use of the VHF bands, the FCC should first work to address these reception issues so that TV stations can continue broadcasting in the lower and upper VHF bands."). Granting the instant waiver to allow WGEM-TV to operate with 39.1 kW would further the goal espoused in both the 2010 NPRM and the OBI Technical Paper No. 3, as quoted above.

WGEM respectfully submits that the instant request satisfies the Commission's waiver standard. WGEM-TV's high-band VHF digital reception issues, the need to restore service to WGEM-TV's former analog viewers who cannot receive WGEM-TV's post-2009 digital service, and the lack of any interference implications by WGEM's proposed operation are special circumstances that warrant deviation from Section 73.622(f), and such deviation will serve the public interest by improved television service to the public.

For the foregoing reasons, WGEM respectfully requests that the Media Bureau waive Section 73.622(f) and grant the instant application.

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