

ENGINEERING EXHIBIT

Request for Special Temporary Authorization prepared for

Gray Television Licensee, LLC
WFXU(DT) Live Oak FL
Facility ID 22245

Gray Television Licensee, LLC (“Gray”), licensee of WFXU(DT) (Ch. 48, Facility ID 22245, Live Oak FL) requests Special Temporary Authority (“STA”) to operate with parameters at variance. WFXU is licensed to operate with 22 kW effective radiated power (“ERP”) and an antenna height above average terrain (“HAAT”) of 134 meters (BLCDDT-20071113ACD).

Reassignment of WFXU from Channel 48 to Channel 17 was specified in the *Incentive Auction Closing and Channel Reassignment Public Notice* (“CCRPN”, DA 17-317, released April 13, 2017). WFXU is authorized by Construction Permit to operate on Channel 17 (LMS file# 0000026640) and has been assigned to transition at phase 8 (testing begins January 18, 2020 and completion is due by March 13, 2020).

The WFXU license has recently been assigned to *Gray* (BALCDDT-20170707AAI). It has been determined that actual height of the antenna’s center of radiation is 106.7 meters above ground level (“AGL”), which is 40.2 meters below the licensed height of 146.9 meters. *Gray* herein seeks an STA to operate WFXU on pre-auction Channel 48 with the antenna at the reduced height, pending construction of the reassignment Channel 17 facility at phase 8.

The resulting antenna HAAT is 93 meters. In order to maintain the noise limited service contour (“NLSC”) location as closely as possible without extending it, the ERP can be increased to 38 kW. The proposed STA facility provides 48 dBμ principal community contour coverage

over Live Oak and the 41 dB μ NLSC does not extend beyond that of the licensed WFXU parameters, as depicted in Figure 1.

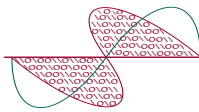
Regarding RF exposure, calculations per FCC OET Bulletin Number 65 (considering 20 percent antenna relative field in downward elevations) show that the signal density near the tower at two meters above ground level attributable to the proposed facility is 4.6 μ W/cm², which is 1.0 percent of the general population/uncontrolled maximum permitted exposure limit. This is well below the five percent threshold limit described in §1.1307(b) regarding sites with multiple emitters, categorically excluding the applicant from responsibility for taking any corrective action in the areas where the proposal's contribution is less than five percent. The applicant will coordinate exposure procedures with all pertinent stations and will reduce power or cease operation as necessary to protect persons having access to the site, tower, or antenna from RF electromagnetic field exposure in excess of FCC guidelines.

List of Attachments

Figure 1 Proposed STA Coverage Contours

Chesapeake RF Consultants, LLC

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Chesapeake RF Consultants, LLC
Radiofrequency Consulting Engineers
Digital Television and Radio

Figure 1
Proposed STA Coverage Contours
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Facility ID 22245

prepared for
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August, 2019

