NEW AUXILIARY FM ANTENNA
CUMULUS LICENSING LLC
WWQQ-FM RADIO STATION
CH 267C2 - 101.3 MHZ - 1.5 KW
WILMINGTON, NORTH CAROLINA
June 2018

EXHIBIT B

Radio Frequency Assessment

A study has been made to determine whether this proposal is in compliance with 47 C.F.R. §1.1307 of the Commission's rules and with OET Bulletin #65, dated August 1997 ("Bulletin"), regarding human exposure to radio frequency radiation in the vicinity of broadcast towers. This study considers all nearby contributing stations, specifically the proposed WKXS-FM, WGNI, and WMNX auxiliary antenna systems[1], and utilizes the appropriate formulas contained in the OET Bulletin.

The proposed WWQQ-FM auxiliary antenna system will be mounted with its center of radiation 35.0 meters (115 feet) above the ground at the existing tower location and will operate with an effective radiated power of 1.5 kilowatts in the horizontal and vertical planes (circularly polarized). At 2.0 meters above the ground at the base of the tower, the height of an average person, the WWQQ-FM auxiliary antenna system will contribute 0.0143 mw/cm^2.[2] Based on exposure limitations for a controlled environment, 1.4% of the allowable ANSI limit is reached at 2.0 meters above the ground at the base of the tower. For uncontrolled environments, 7.2% of the ANSI limit is reached at 2.0 meters above the ground at the base of the tower.

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1) Cumulus is also submitting applications for new auxiliary antenna systems for WKXS-FM, WGNI, and WMNX. These stations will share the WWQQ-FM antenna.

2) This level of field occurs at 15.4 meters out from the base of the tower and is considered worst case.

Since this level is well below the 100% limit defined by the Commission, the proposed WWQQ-FM auxiliary antenna is believed to be in compliance with the radio frequency radiation exposure limits as required by the Federal Communications Commission. Further, Cumulus will insure warning signs are posted in the vicinity of the tower warning of potential radio frequency radiation hazards at the site. In addition, Cumulus will reduce the power of the proposed facility or cease operation, in cooperation and coordination with other tower users, as necessary, to protect persons having access to the site, tower or antenna from radio frequency radiation in excess of FCC guidelines.

| EXHIBIT B1 |
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FM Model

The FM Model calculator determines the potential exposure from radiofrequency (RF) electromagnetic fields produced by FM broadcast station antennas at ground level. The FM Model software was originally developed by the FCC in 1997 as a standalone executable program and this improved version provides more precise predictions and runs via a JavaScript enabled web browser. The FM Model is originally based on measured data published in 1985 by the EPA (http://nepis.epa.gov/Exe/ZyNET.exe/2000ED2W.TXT?
ZyActionD=ZyDocument&Client=EPA&Index=1981+Thru+1985&Docs=&Query=&Time=&EndTime=&SearchMethod=1&TocRestrict=n&Toc=&TocEntry=&QField=&QFieldYear=&QFieldMonth=&QFieldDay=&IntQFieldOp=0&ExtQFieldOp=0&XmlQuery=&File=D%3A\zyfiles\Index%20Data\81thru85\Txt\00000003\2000ED2W.txt&User=ANONYMOUS&Password=anonymous&SortMethod=h|-&MaximumDocuments=1&FuzzyDegree=0&ImageQuality=r75g8/r75g8/x150y150g16/i425&Display=p|f&DefSeekPage=x&SearchBack=ZyActionL&Back=ZyActionS&BackDesc=Results%20page&MaximumPages=1&ZyEntry=1&SeekPage=x&ZyPURL).   ▼ Show More....
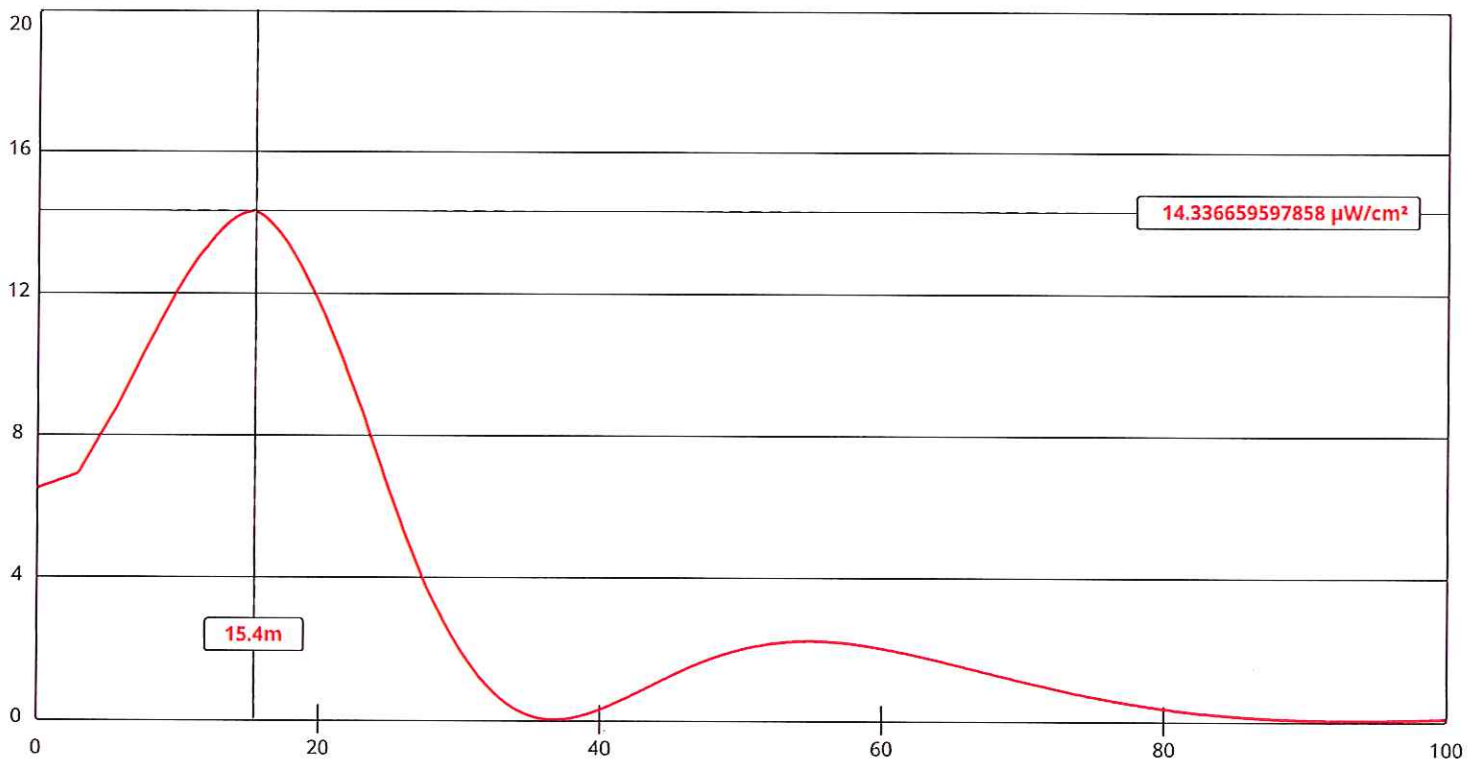
View Tabular Results +

Channel Selection	Channel 267 (101.3 MHz) ▼		
Antenna Type +	EPA Type 2: Opposed V Dipole ▼		
Height (m)	35	Distance (m)	100
ERP-H (W)	1500	ERP-V (W)	1500
Num of Elements	3	Element Spacing (λ)	1
Num of Points	500	Apply	