

Albert Broadcast Services, Inc.
PO Box 11836
Charlotte, NC 28220-1836
(704) 507-4987

October 29, 2022

WTQS
Dave Baker
51 Commerce St.
Sumter, SC 29501

Re: 2022 NRSC Emissions Reports for WTQS-AM

Dear Dave:

I am pleased to enclose your 2022 NRSC Equipment Performance Measurements for station WTQS, certifying compliance with section 73.44 of the Federal Communications Commission rules and regulations regarding emission requirements.

This document or a copy thereof should be uploaded to the station public access file for the station. If I can be of further service, please do not hesitate to contact me directly.

Cordially,

Stu Albert, President

AM Transmission System (NRSC) Emission
Measurements

WTQS

Camron, SC

September 27, 2022

AM Transmission System Emission Measurements

WTQS Camron, SC

September 27, 2022

The radiated emissions of WTQS, 1490 KHz, Camron, SC were measured on September 27, 2022. The measurements were made by Albert Broadcast Services, Inc. utilizing an RF Spectrum Analyzer, Anritsu model MS2721B, serial number 747076. The analyzer was warmed for a period of 15 minutes to its normalized temperature before measurements began. The instrument was located approximately one kilometer from the station's antenna. The receive antenna connected to the spectrum analyzer was a three-turn broadband, non pre-amplified loop antenna manufactured by Belar Corporation.

The spectrum analyzer was set to operate with maximum (no) video filter, 300 Hz resolution filter bandwidth and peak hold sampling was utilized for each measurement. Sweep resolutions of 5.0, 10.0 and 20.0 KHz per horizontal division were utilized where appropriate to allow various degrees of measurement resolution.

Emissions from 10.2 KHz to 20 KHz removed from the carrier were measured at greater than 25 dB below the un-modulated carrier level. Emissions 20 KHz to 30 KHz removed from the carrier were measured at greater than 35 dB below the un-modulated carrier. Emissions from 30 KHz to 60 KHz removed from the carrier were attenuated at least 5+1dB/KHz below the un-modulated carrier level. Emissions between 60KHz and 75KHz were measured at greater than 65 dB below the un-modulated carrier level. Emissions removed by more than 75 KHz were measured up to 5.0 MHz, using a Potomac FIM-41 field intensity meter, serial number 1542, in addition to observation on the spectrum analyzer.

The measurements contained herein certify that the station was found in compliance with Federal Communication Communications Commission rule 73.44 regarding emission limitations at the time of measurement.

Steward R. Albert, President
Albert Broadcast Services, Inc.

Harmonic Measurements

WTQS
Camron, SC
9/27/2022

The following tabulated results of Harmonic Ratio were measured by noting the dB scale reading at the carrier frequency, then tuning the field intensity meter to the desired harmonic and measuring the field strength, while noting the N number positions that the Full Scale switch of the field strength meter was moved to obtain an on scale reading. The Harmonic Ratio was then calculated using the formula:

$$\text{dB (Harmonic)} - \text{dB (Fundamental)} + (N \times 20) \text{dB}$$

Required level of attenuation: $43 + 10 \text{ Log (power in watts)}$ or 80 dB,
whichever is less.

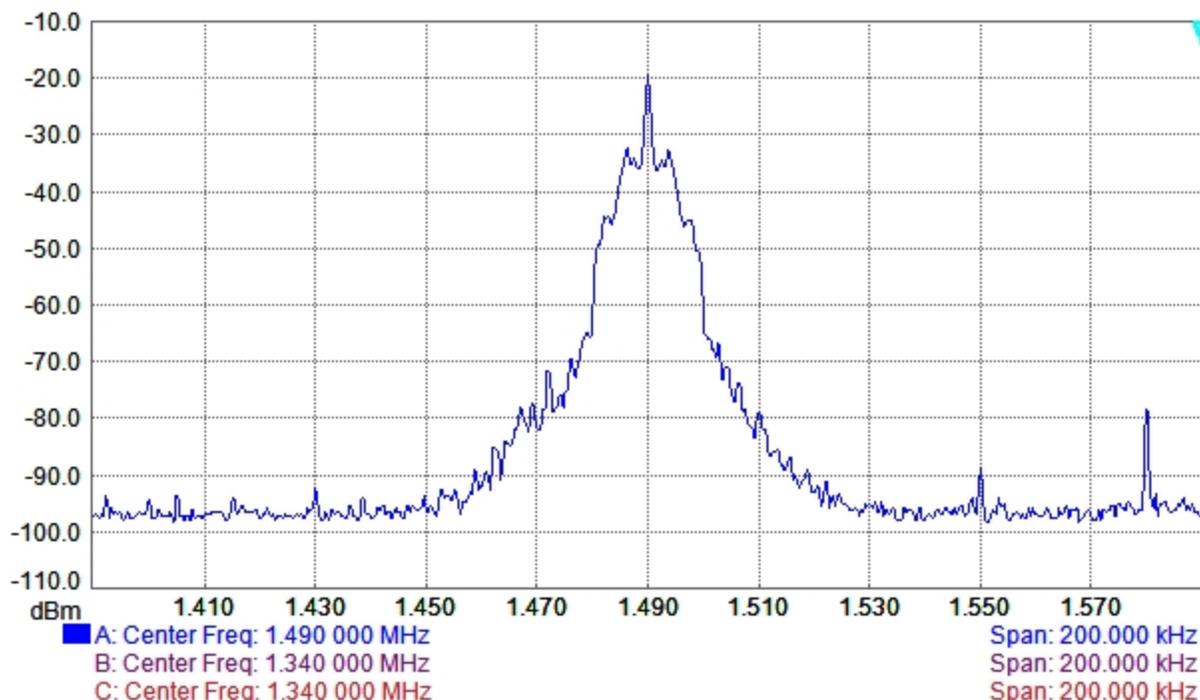
Station power: 1,000 watts
Attenuation Required: 73 dB

<u>Frequency</u>	<u>Measured Field Strength (dB)</u>	<u>Harmonic Ratio</u>
1490 KHz (Carrier)	2.1 V/m (13.5 dB)	Reference
2980 KHz		- 99.5 dB
4470 KHz		- 87.5 dB

Spectrum Analyzer Data

WTQS-AM2022NRSC1 (9/27/2022 1:32:41 PM)

Spectrum Analyzer



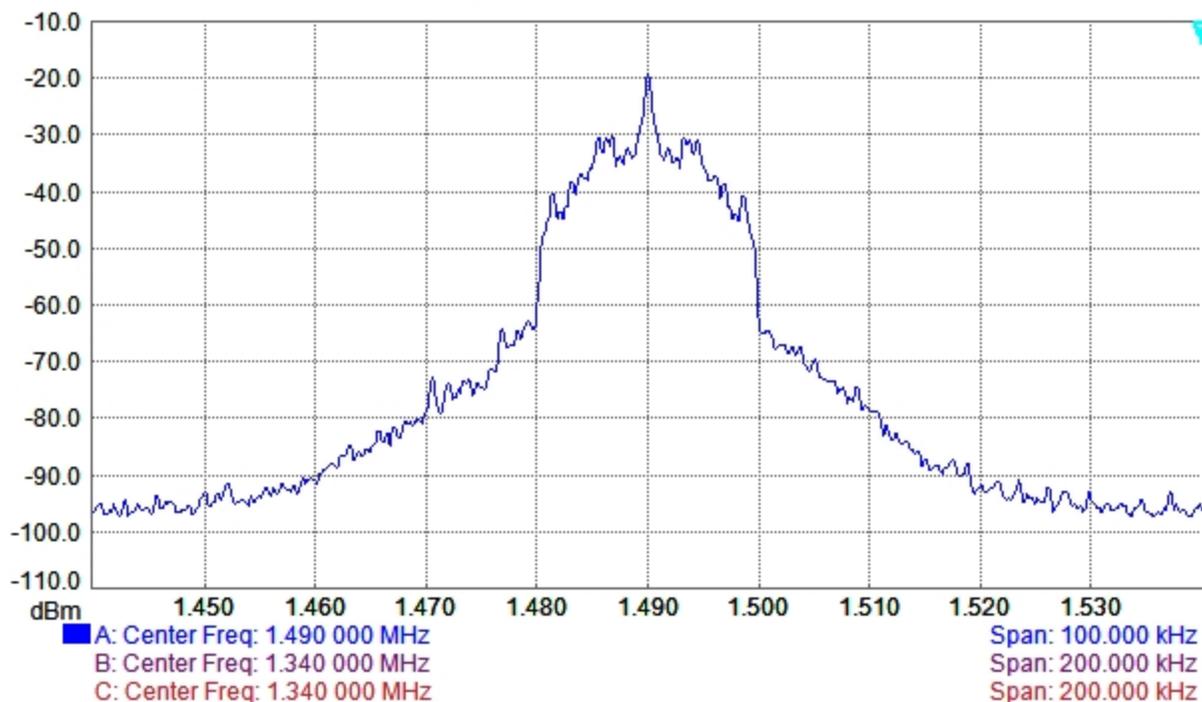
Measurement Parameters

		Stop Frequency	1.590 000 MHz
Trace Mode	Max Hold	Frequency Span	200.000 000 kHz
Preamp	OFF	Reference Level	-10.000 dBm
Min Sweep Time	0.001 S	Scale	10.0 dB/div
Reference Level Offset	0 dB	Serial Number	747076
Input Attenuation	10.0 dB	Base Ver.	V5.71
RBW	300.0 Hz	App Ver.	V5.73
VBW	3.0 MHz	Model	MS2721B
Detection	Peak	Options	25, 27
Center Frequency	1.490 000 MHz	Date	9/27/2022 1:32:41 PM
Start Frequency	1.390 000 MHz	Device Name	

Spectrum Analyzer Data

WTQS-AM2022NRSC2 (9/27/2022 1:35:39 PM)

Spectrum Analyzer



Measurement Parameters

		Stop Frequency	1.540 000 MHz
Trace Mode	Max Hold	Frequency Span	100.000 000 kHz
Preamp	OFF	Reference Level	-10.000 dBm
Min Sweep Time	0.001 S	Scale	10.0 dB/div
Reference Level Offset	0 dB	Serial Number	747076
Input Attenuation	10.0 dB	Base Ver.	V5.71
RBW	300.0 Hz	App Ver.	V5.73
VBW	3.0 MHz	Model	MS2721B
Detection	Peak	Options	25, 27
Center Frequency	1.490 000 MHz	Date	9/27/2022 1:35:39 PM
Start Frequency	1.440 000 MHz	Device Name	

Spectrum Analyzer Data

WTQS-AM2022NRSC3 (9/27/2022 1:38:55 PM)

Spectrum Analyzer



Measurement Parameters

		Stop Frequency	1.515 000 MHz
Trace Mode	Max Hold	Frequency Span	50.000 000 kHz
Preamp	OFF	Reference Level	-10.000 dBm
Min Sweep Time	0.001 S	Scale	10.0 dB/div
Reference Level Offset	0 dB	Serial Number	747076
Input Attenuation	10.0 dB	Base Ver.	V5.71
RBW	300.0 Hz	App Ver.	V5.73
VBW	3.0 MHz	Model	MS2721B
Detection	Peak	Options	25, 27
Center Frequency	1.490 000 MHz	Date	9/27/2022 1:38:55 PM
Start Frequency	1.465 000 MHz	Device Name	