

RADIO & TV BROADCAST SERVICES
WOODS COMMUNICATIONS, INC.
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**AM OCCUPIED BANDWIDTH AND SPURIOUS EMISSIONS
MEASUREMENTS**

**KFXX(AM)
Portland, OR**

02 February, 2023

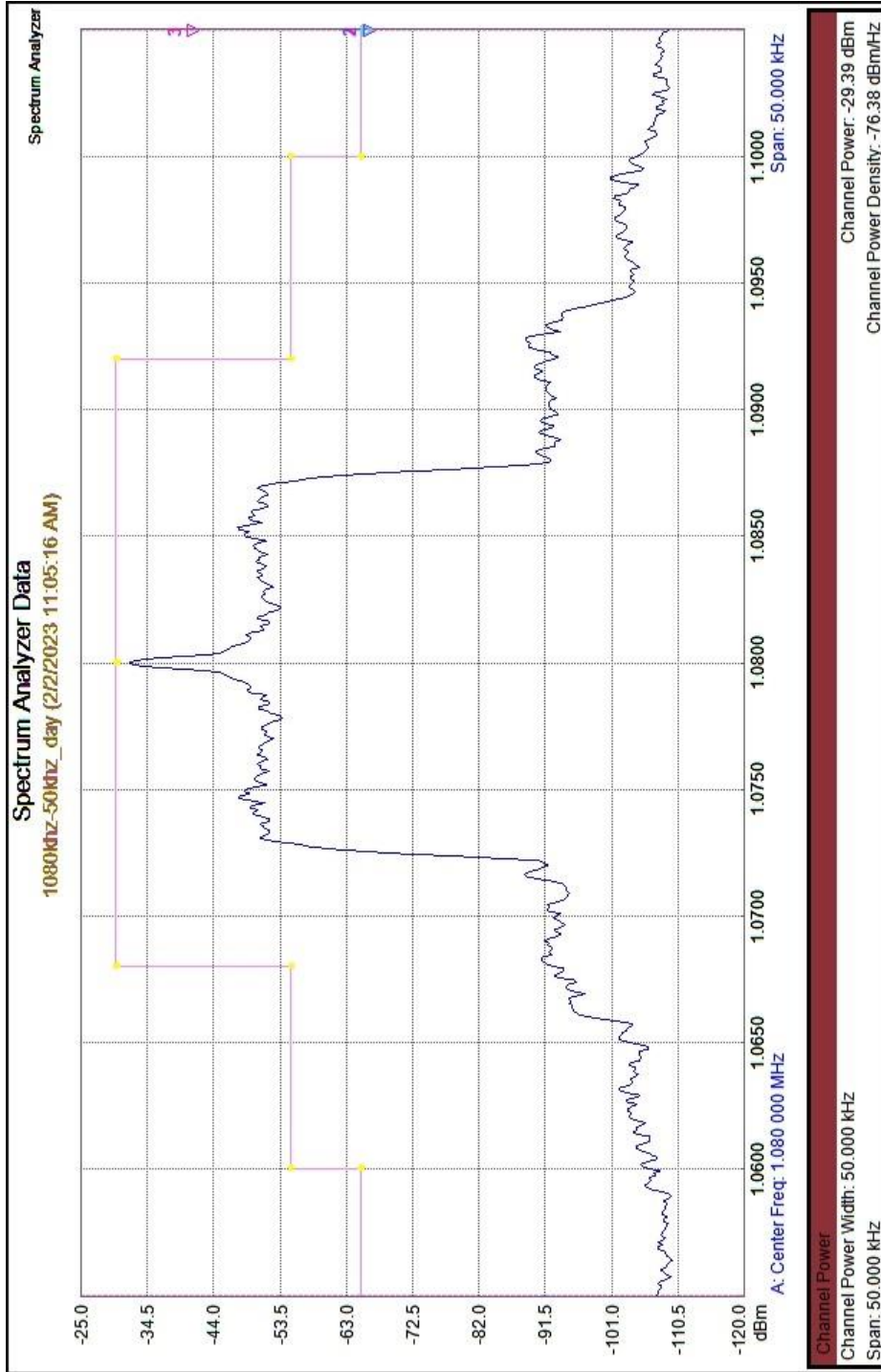
EMISSION REPORT

Measurements were made on February 2nd, 2023 to determine station compliance with 47 CFR §73.44 of the FCC rule and regulations. KFXX(AM) serves Portland, OR on 1080 KHz with a daytime transmitter power of 50 KW using a directional antenna system, and with a nighttime transmitter power of 9 KW using a directional antenna system with a different pattern. KFXX(AM) shares towers with KMTT 910 kHz, so particular attention was paid to any potential inter-modulation products between the two stations.

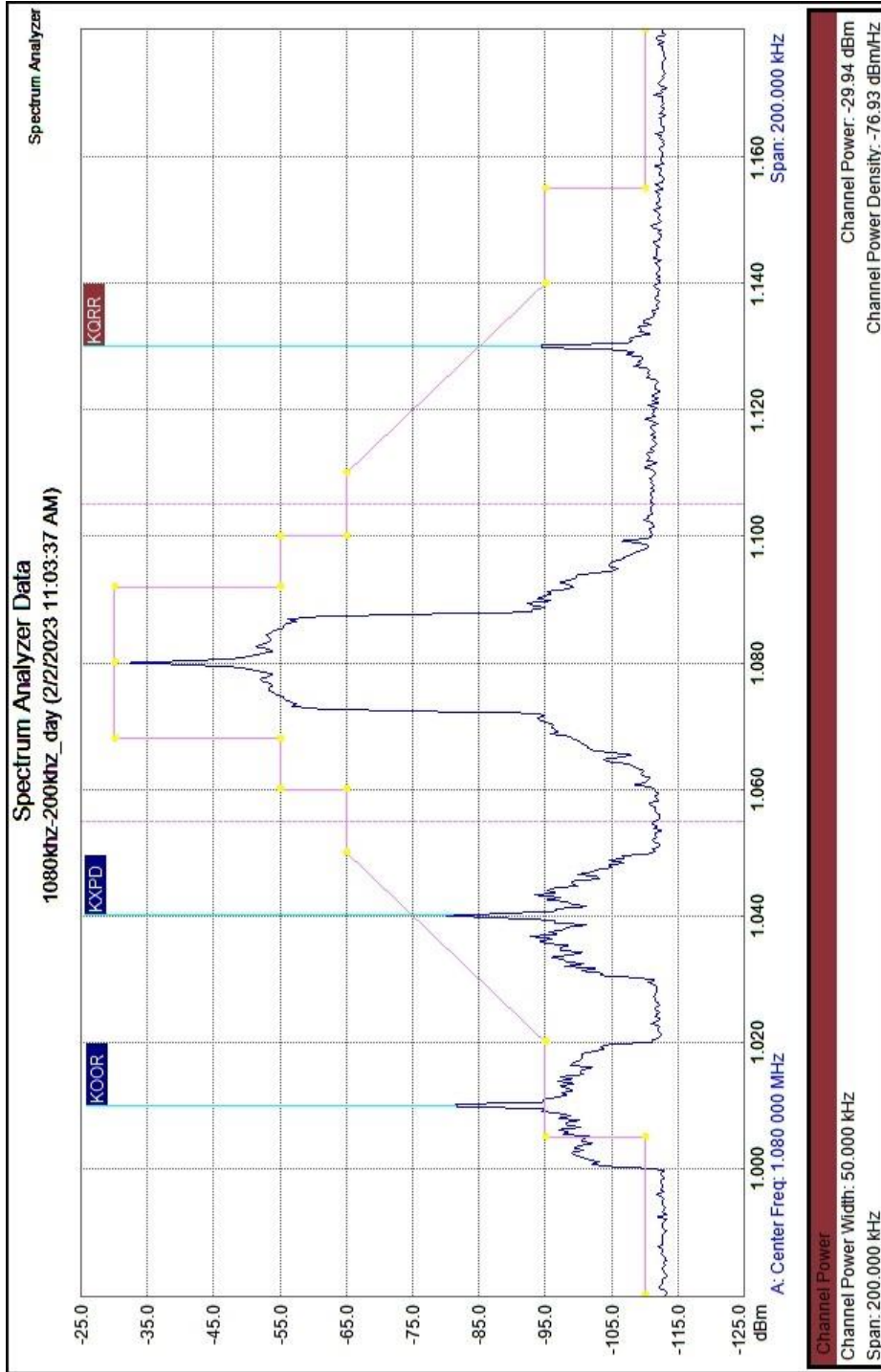
Measurements took place approximately 1 Kilometer from the antenna site in a major lobe of the directional patterns using an Anritsu spectrum analyzer model M2713E (S/N 1016084) within calibration. The analyzer was connected to a shielded closed loop antenna manufactured by Chris Scott & Associates model LP-3 to observe the radiated signal. The signal was acquired for 10 minutes in peak acquisition mode. There were two measurements recorded for each mode of operation. For the first measurement, the analyzer was set to a span of 50 kHz (5 kHz per division) and a resolution bandwidth of 300 Hertz and video filtering set to off, or at least three times that of the resolution bandwidth. For the second measurement, the analyzer was set to a span of 200 kHz (20 kHz per division) and a resolution bandwidth of 300 Hertz and video filtering set to off, or at least three times that of the resolution bandwidth.

A Potomac Instruments model FIM-41 S/N 344 with a calibration date of 10 April, 1998 was used in the same location to measure any spurious emissions and inter-modulation products beyond 75 kHz from the station's frequency.

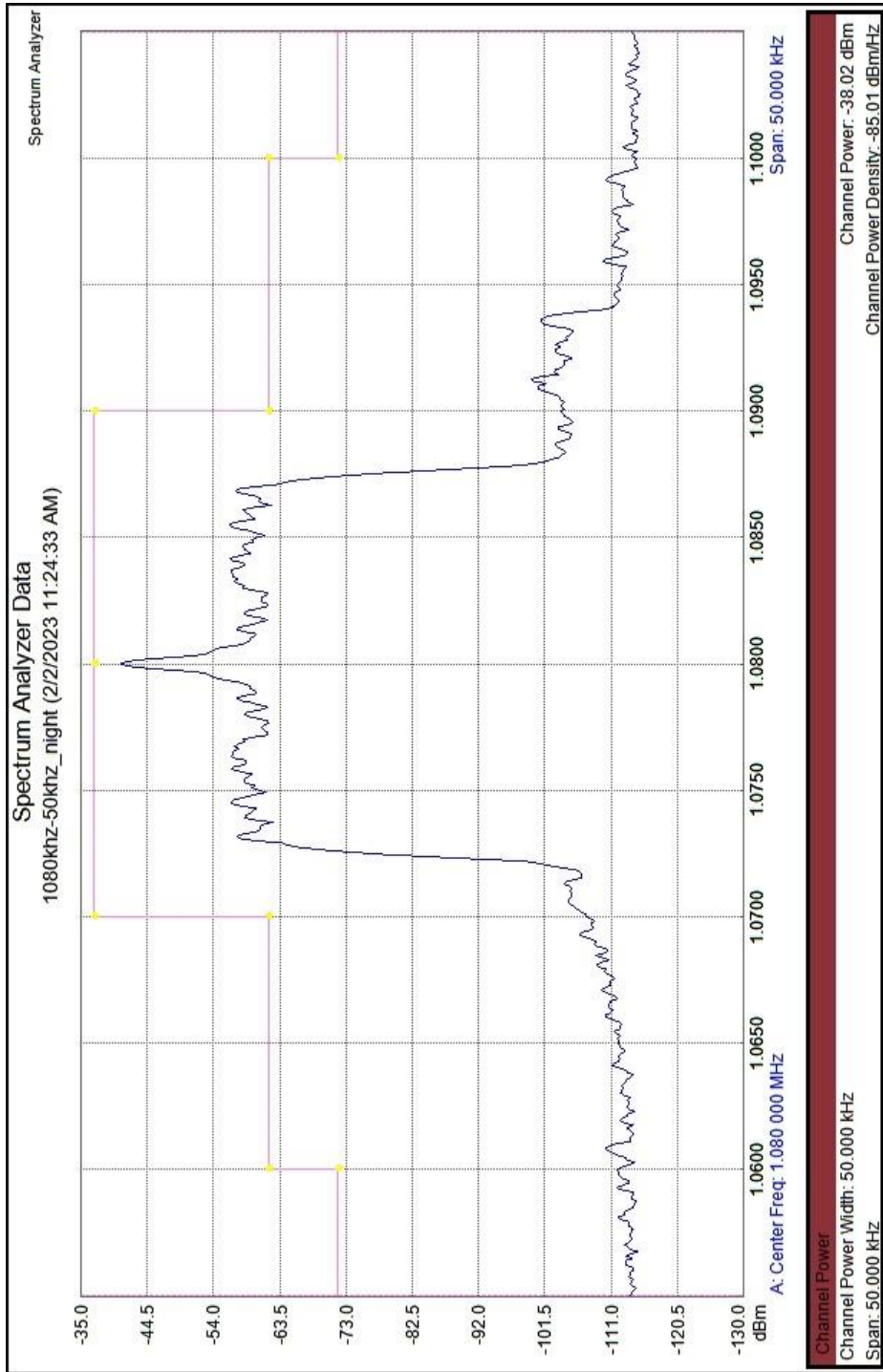
Included in this report are spectrum displays, a list of harmonic measurements, a list of inter-modulation product measurements, a map of the measurement location, located at NE Airport Way at NE 158th Avenue. GPS Coordinates (NAD83): 45° 33' 30.9" North Latitude and 122° 29' 55.8" West Longitude, and a picture of the measurement location.



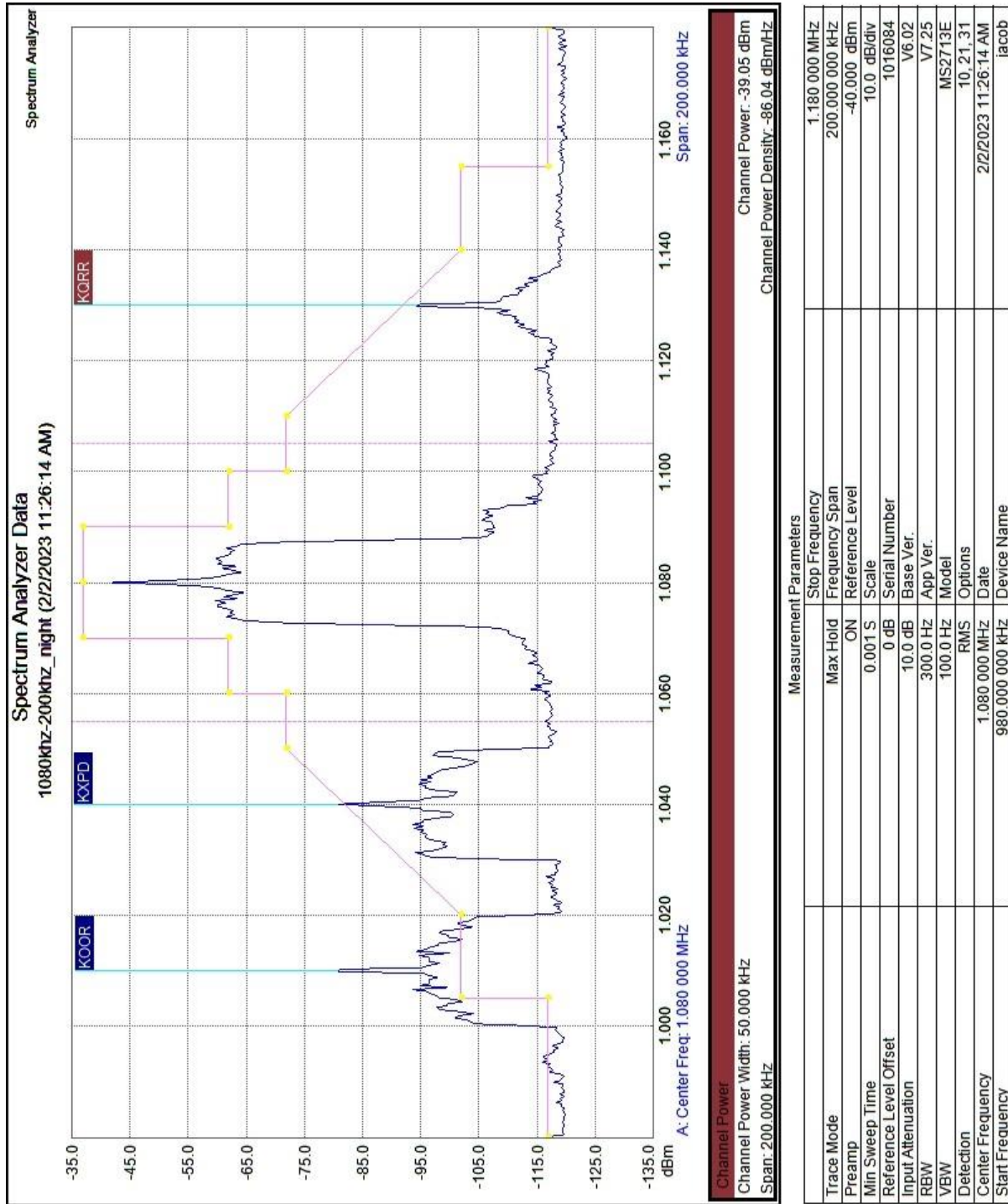
Measurement Parameters	
Trace Mode	Stop Frequency
Preamp	Max Hold
Min Sweep Time	Frequency Span
Reference Level Offset	Reference Level
Input Attenuation	Scale
RBW	Serial Number
VBW	Base Ver.
Detection	App Ver.
Center Frequency	Model
Start Frequency	RMS Options
	1.080 000 MHz
	1.055 000 MHz
	Date
	2/2/2023 11:05:16 AM
	Device Name
	jacob



Measurement Parameters	
Trace Mode	Stop Frequency
Preamp	Max Hold
Min Sweep Time	OFF
Reference Level Offset	Reference Level
Input Attenuation	Scale
RBW	0.001 S
VBW	0 dB
Detection	Serial Number
Center Frequency	Base Ver.
Start Frequency	App Ver.
	Model
	RMS Options
	1.080 000 MHz
	Date
	980.000 000 kHz
	Device Name
	2/2/2023 11:03:37 AM
	jacob



Measurement Parameters	
Trace Mode	Stop Frequency
Preamp	Max Hold
Min Sweep Time	ON
Reference Level Offset	0.001 S
Input Attenuation	10.0 dB
RBW	300.0 Hz
VBW	100.0 Hz
Detection	RMS
Center Frequency	1.080 000 MHz
Start Frequency	1.055 000 MHz
	Date
	2/2/2023 11:24:33 AM
	Device Name
	Jacob



HARMONIC & INTER-MODULATION PRODUCTS

Daytime Pattern:

910 kHz KFXX (F1) 612 mV/m Fundamental

1080 kHz KMTT (F2) 2400 mV/m

570 kHz (3F1-F2) No interference detected to on-channel KVI, Seattle

740 kHz (2F1-F2) Not detectable due to sidebands of KXTG 750 kHz

1250 kHz (2F2-F1) 90 μ V/m (-87 dBc)

1420 kHz (3F2-2F1) Not detectable due to sidebands of KBNP 1410 kHz

1990 kHz (F1+F2) 23 μ V/m (-88.5 dBc KMTT/ -100 dBc KFXX)

2560 kHz (4F1-F2) Audible, not measurable (<10 uV/m)

2900 kHz (2F1+F2) 12 μ V/m (-95 dBc)

3070 kHz (F1+2F2) 32 μ V/m (-97.5 dBc KFXX)

3410 kHz (4F2-F1) Audible, not measurable (<10 uV/m)

4720 kHz (4F1+F2) Audible, not measurable (<10 uV/m)

4890 kHz (3F1+2F2) Audible, not measurable (<10 uV/m)

2160 kHz (2F2) 28 μ V/m (-98.5 dBc KFXX)

3240 kHz (3F2) 52 μ V/m (-92 dBc KFXX)

4320 kHz (4F2) 12 μ V/m (-105.5 dBc KFXX)

5400 kHz (5F2) 23 μ V/m (-100 dBc KFXX)

HARMONIC & INTER-MODULATION PRODUCTS

Nighttime Pattern:

910 kHz KMTT (F1) 1210 mV/m Fundamental

1080 kHz KFXX (F2) 1750 mV/m Fundamental

570 kHz (3F1-F2) Not detectable due to on-channel KVI, Seattle

740 kHz (2F1-F2) Not detectable due to sidebands of KXTG 750 kHz

1250 kHz (2F2-F1) 97 μ V/m (-85.1 dBc KFXX)

1420 kHz (3F2-2F1) Not detectable due to sidebands KBNP 1410 kHz

1990 kHz (F1+F2) 10.5 μ V/m (-101.5 dBc KMTT/-104.5 dBc KFXX)

2560 kHz (4F1-F2) 23 μ V/m (-94.5 dBc KMTT)

2900 kHz (2F1+F2) 100 μ V/m (-82 dBc KMTT)

3070 kHz (F1+2F2) 51 μ V/m (-90.5 dBc KFXX)

3410 kHz (4F2-F1) 44 μ V/m (-92 dBc KFXX)

4720 kHz (4F1+F2) 35 μ V/m (-91 dBc KMTT)

4890 kHz (3F1+2F2) 60 μ V/m (-86 dBc KMTT/-89 dBc KFXX)

1820 kHz (2F1) 28 μ V/m (-92.5 dBc KMTT)

2730 kHz (3F1) 29.5 μ V/m (-92 dBc KMTT)

3640 kHz (4F1) 10 μ V/m (-102 dBc KMTT)

4550 kHz (5F1) 100 μ V/m (-81.5 dBc KMTT)

2160 kHz (2F2) 15 μ V/m (-100 dBc KFXX)

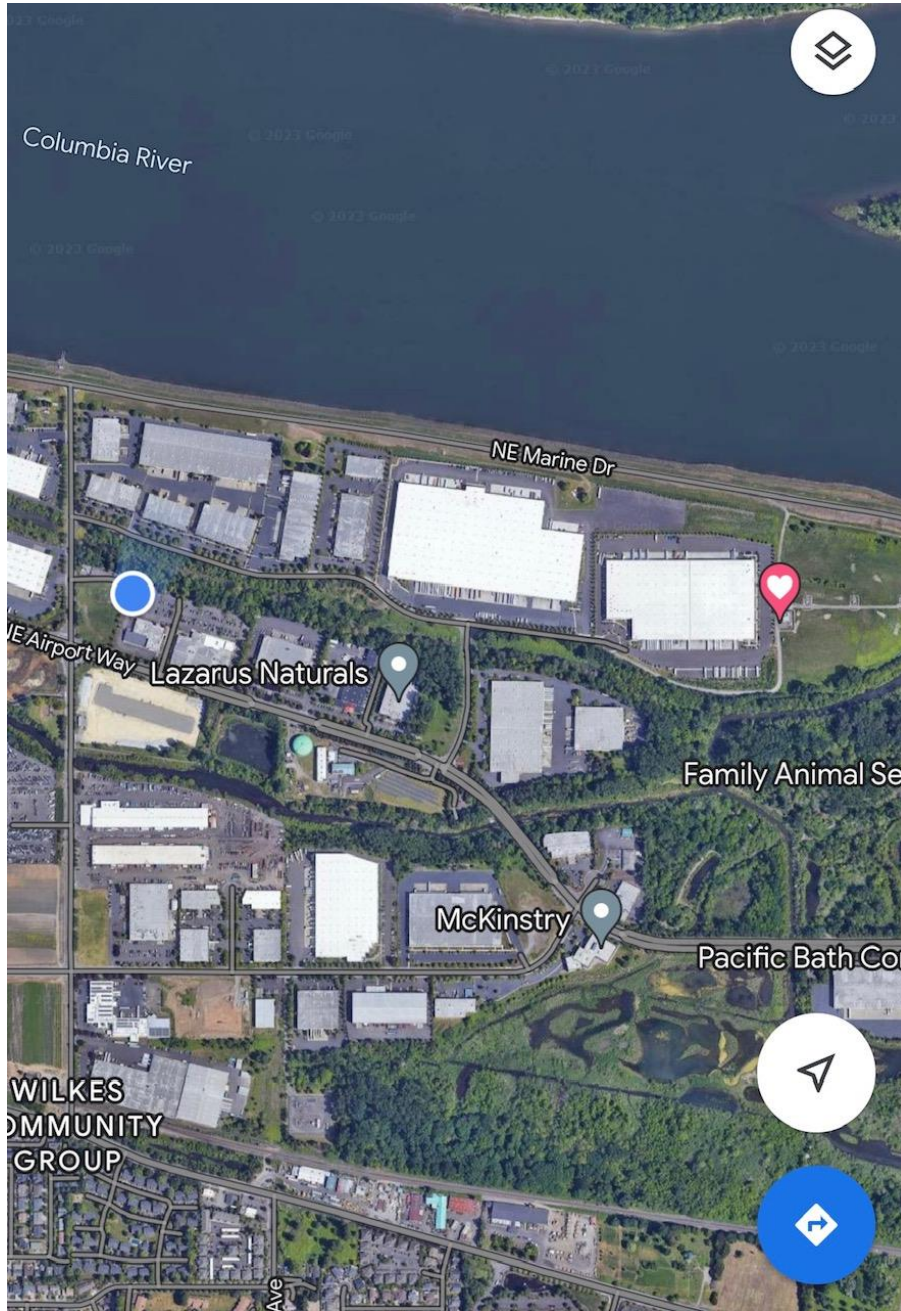
3240 kHz (3F2) 20 μ V/m (-98 dBc KFXX)

4320 kHz (4F2) 15 μ V/m (-100 dBc KFXX)

5400 kHz (5F2) 44 μ V/m (-92 dBc KFXX)

EMISSION REQUIREMENTS
PART 73.44, CFR 47

(b) Emissions 10.2 kHz to 20 kHz removed from the carrier must be attenuated at least 25 dB below the unmodulated carrier level, emissions 20 kHz to 30 kHz removed from the carrier must be attenuated at least 35 dB below the unmodulated carrier level, emissions 30 kHz to 60 kHz removed from the carrier must be attenuated at least $[5 + 1 \text{ dB/kHz}]$ below the unmodulated carrier level, and emissions between 60 kHz and 75 kHz of the carrier frequency must be attenuated at least 65 dB below the unmodulated carrier level. Emissions removed by more than 75 kHz must be attenuated at least $43 + 10 \text{ Log (Power in watts)}$ or 80 dB below the unmodulated carrier level, whichever is the lesser attenuation, except for transmitters having power less than 158 watts, where the attenuation must be at least 65 dB below carrier level.



MEASUREMENT EQUIPMENT & LOCATION PICTURE



TECHNICIAN'S STATEMENT

I hereby affirm that:

I have been retained by Audacy License, LLC, licensee of KFXX(AM), to ascertain its station's compliance with 47 CFR §73.44 (a), (b) & (d) and to prepare this report;

This report and associated exhibits were prepared by me, and are based on measurements made under my direct supervision;

To the best of my knowledge all statements made herein are true and reflect the actual facts of the matter;

I am a Broadcast Engineer of 31 years experience and certified with the Society of Broadcast Engineers as a Certified Professional Broadcast Engineer (CPBE) member No. 16407 and;

My credentials are contained in other filings and are a matter of public record with the Federal Communications Commission.

Respectfully submitted this 13th day of February, 2023.



ELECTRONIC SIGNATURE

Thomas A. Woods Jr.