

WOMBLE
CARLYLE
SANDRIDGE
& RICE
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LIABILITY COMPANY



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May 9, 2012

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
455 12th Street, S.W.
Washington, D.C. 20554

**Re: Amendment to FCC 302-AM Application
for Moment Method Broadcast License
WAUB(AM), Auburn, NY
FCC File No. BMML-20120206ADW
FCC Facility ID No. 43791**

RECEIVED

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AUDIO SERVICES DIVISION

Dear Ms. Dortch:

Submitted herewith in triplicate on behalf of Auburn Broadcasting, Inc., is an amendment to its pending FCC Form 302-AM application requesting a license to utilize the moment method.

This amendment is being filed in response to the March 15, 2012 letter from Ann Gallagher, Audio Division, Media Bureau, requesting additional information. A copy of this is attached. An informal request seeking additional time to file this amendment was granted by the Audio Division.

Please contact this office, or engineer Richard Pogson, CFBE at (814) 474-5129, if further information is needed.

Sincerely,

John F. Garziglia

Enclosures

cc: Ann Gallagher (FCC – Audio Division) ✓

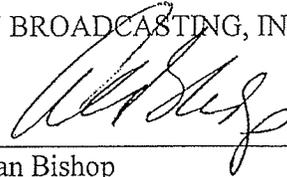
AMENDMENT

Auburn Broadcasting, Inc., the licensee of WAUB(AM), Auburn, NY, hereby amends its pending FCC Form 302-AM application for license (FCC File No. BMML-20120206ADW) in accord with the attached engineering materials prepared by Richard C. Pogson, CPBE, Diversified Communications Systems, 7961 West Lake Road, Fairview, PA 16415, 814-474-5129 in response to the March 15, 2012 letter from Ann Gallagher, Audio Division, Media Bureau, Federal Communications Commission.

Respectfully submitted,

AUBURN BROADCASTING, INC.

By



Alan Bishop
Vice-President

Method of Modeling Details

In modeling the individual towers in the WAUB-AM array the below-described method was utilized.

As detailed on the following page an example is given for determining the tower impedance value for Tower #2 in the array. Tower #1 and Tower #3 are open-circuited by placing a very high capacitive reactance at the base of each tower. In this case the value used was -10000. Tower #2 is then driven by a voltage source. The model is then run producing the impedance value for Tower #2. The same procedure is then utilized for Tower #1 and Tower #3. The impedance values obtained for each of the towers in the array are attached.

LIMITED LOADS

Load 2 of 2

Node	Resistance	Reactance	Inductance	Capacitance	Passive circuit #
1	0	10.000	0	0	0
21	0	-10.000	0	0	0

Load current node	Resistance (ohms)	Reactance (ohms)	Add
1	0	10.000	Modify
Inductance (mH)	Capacitance (uF)	Passive circuit #	Delete
0	0	0	Add All

OK Apply Reset Cancel

VOLTAGE/CURRENT SOURCES

List of Current Nodes

Source 1 of 1

Node	Sector	Magnitude	Phase	Type
21	1	1	0	voltage

Source current node	Sector	Source type	Add
21	1	voltage	Modify
Magnitude (volts)	Phase (deg)		Delete
1	0		

OK Apply Reset Cancel

TOWER #1

C:\Documents and Settings\Owner\Desktop\WAUB NIGHT SYN 04-16-2012
12:42:27

IMPEDANCE

normalization = 50.
freq resist react imped phase VSWR S11 S12
(KHz) (ohms) (ohms) (ohms) (deg) dB dB
source = 1; node 1, sector 1
1,590. 62.552 76.33 98.687 50.7 3.6384 -4.9006 -1.6977

TOWER #2

C:\Documents and Settings\Owner\Desktop\WAUB NIGHT SYN 04-16-2012
12:50:47

IMPEDANCE

normalization = 50.
freq resist react imped phase VSWR S11 S12
(KHz) (ohms) (ohms) (ohms) (deg) dB dB
source = 1; node 21, sector 1
1,590. 47.509 49.216 68.406 46. 2.6441 -6.9132 -.98844

TOWER #3

C:\Documents and Settings\Owner\Desktop\WAUB NIGHT SYN 04-16-2012
12:54:54

IMPEDANCE

normalization = 50.

freq (KHz)	resist (ohms)	react (ohms)	imped (ohms)	phase (deg)	VSWR	S11 dB	S12 dB
source = 1; node 41, sector 1 1,590.	55.895	60.397	82.293	47.2	2.9823	-6.0592	-1.2366

WAUB-AM
AUBURN, NEW YORK

Tower#	Existing Height	Modeled Height	Deviation	Percentage
1	47.2 M	52.5 M	+5.3 M	111.2%
2	47.2 M	50.0 M	+2.8 M	105.9%
3	47.2 M	51.0 M	+3.8 M	108.0%

Tower#	Existing Radius	Modeled Radius	Deviation	Percentage
1	.2183 M	.2188 M	+.0005M	100.2%
2	.2183 M	.2188 M	+.0005M	100.2%
3	.2183 M	.2188 M	+.0005M	100.2%

Tower#	Measured Resistance	Modeled Resistance	Deviation	Percentage
1	61.0 Ω	62.55 Ω	+ 1.55 Ω	+2.54%
2	48.5 Ω	47.51 Ω	- 0.99 Ω	-2.04%
3	55.0 Ω	55.89 Ω	+ 0.89 Ω	+ 1.62%

Tower#	Measured Reactance	Xs	Modeled Reactance	Deviation	Percentage
1	+93.8 Ω	+18.0 Ω	94.33 Ω	+ 0.53 Ω	+0.56%
2	+87.4 Ω	+38.0 Ω	87.22 Ω	- 0.18 Ω	-0.21%
3	+90.6 Ω	+29.0 Ω	89.40 Ω	- 1.20 Ω	- 1.34%

WAUB-AM

AUBURN, NY

MODIFICATIONS TO MODELED PARAMETERS

Tower#	Measured Series Inductance	Measured Parallel Capacitance	Loss	Phase Shift
1	1.80uH	6.7pF	.040%	-.2°
2	3.80uH	7.3pF	.080%	-.2°
3	2.90uH	8.0pF	.060%	-.3°

MODELED PARAMETERS

Tower#	Day Sample Current Ratio	Night Sample Current Ratio	Day Phase	Night Phase
1	.500	.502	+120.5°	+139.6°
2	1.000	1.000	0°	0°
3	.410	.436	-121.7°	-144.8°

MODIFIED PARAMETERS

Tower#	Day Sample Current Ratio	Night Sample Current Ratio	Day Phase	Night Phase
1	.500	.502	+120.5°	+139.6°
2	1.000	1.000	0°	0°
3	.410	.436	-121.6°	-144.7°

WAUB-AM

AUBURN, NEW YORK

SAMPLING SYSTEM MEASUREMENTS

Sampling Line#	Resonant Frequency	Calculated Electrical Length
1	1.7450 Mhz	410.03°
2	1.7464 Mhz	409.68°
3	1.7463 Mhz	409.72°

Sampling Line #1

Measurement Frequency	Resistance	Reactance	Impedance
1.5705 Mhz	8.45 Ω	-51.02	51.71 Ω
1.9195 Mhz	10.59 Ω	51.21	52.29 Ω

Sampling Line #2

1.5718 Mhz	8.20 Ω	-51.68	52.33 Ω
1.9210 Mhz	9.82 Ω	50.06	51.01 Ω

Sampling Line #3

1.5717 Mhz	8.25 Ω	-51.88	52.53 Ω
1.9209 Mhz	9.78 Ω	50.21	51.15 Ω

Sampling Line#	Nominal Impedance	Calculated Impedance
1	50.0 Ω	52.0 Ω
2	50.0 Ω	51.7 Ω
3	50.0 Ω	51.8 Ω

Measurements with Sample Device Connected

Sampling Line #	Measurement Frequency	Resistance	Reactance
1	1.590 Mhz	54.71 Ω	2.09
2	1.590 Mhz	54.22 Ω	2.33
3	1.590 Mhz	53.96 Ω	2.55

FEDERAL COMMUNICATIONS COMMISSION
445 TWELFTH STREET SW
WASHINGTON DC 20554

MEDIA BUREAU
AUDIO DIVISION
APPLICATION STATUS: (202) 418-2730
HOME PAGE: www.fcc.gov/mb/audio/

ENGINEER: Ann Gallagher
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E-MAIL: Ann.Gallagher@fcc.gov

March 15, 2012

John F. Garziglia
Womble Carlyle Sandridge & Rice
1200 19th Street NW Suite 500
Washington, DC 20036

Re: WAUB(AM), Auburn, NY
Auburn Broadcasting, Inc.
Facility Identification Number: 43791
License application: BMML-20120206ADW

Dear Counsel:

This is in reference to the license application to cover the above-captioned construction permit for WAUB. Our review shows that some additional information is required, as explained below.

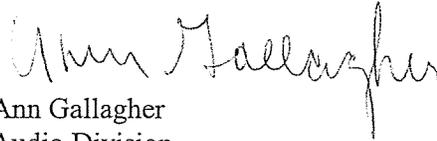
The engineering exhibit refers to the modeled impedances of the individual towers in the antenna array, but does not include supporting detail from the moment method software. The application must be amended to show the modeling details used to determine the individual tower impedance values, including whether the other towers were short- or open-circuited.

On the page titled "Modifications to Modeled Parameters," the engineering exhibit shows a single-digit loss term for each tower. As AM licenses specify current (or voltage) ratios to three significant figures, the same precision should be used to calculate the operating parameters.

The exhibit concerning the sampling system measurements is insufficiently detailed. The sampling system measurements are the basis for the periodic recertification required by Section 73.155 of the rules, and they must therefore be documented thoroughly enough to allow duplication of the measurements. The applicant must amend the application to show the specific frequencies at which measurements were taken to calculate the characteristic impedance of the sampling lines, and the measured resistance and reactance at each frequency. In addition, the engineering exhibit states that measurements were made to determine the sampling line impedance with the sampling device connected, as the rules require. The results of these measurements are not included in the exhibit, however.

Further action on the subject license application will be withheld until the applicant submits an amendment addressing the issues described above. Failure to respond within 30 days from the date of this letter may result in dismissal of the application pursuant to 47 CFR Section 73.3568(a)(1).

Sincerely,

A handwritten signature in cursive script that reads "Ann Gallagher". The signature is written in black ink and is positioned above the printed name.

Ann Gallagher
Audio Division
Media Bureau