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March 18, 2010

FILED/ACCEPTED

Ms. Marlene Dortch
Secretary
Federal Communications Commission
445 12th St., SW
Washington, DC 20554

MAR 18 2010

Federal Communications Commission
Office of the Secretary

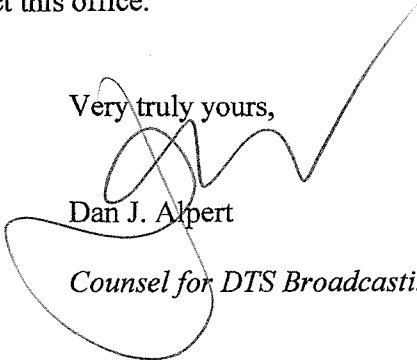
Re: Station WAZX(AM)
File No. BMML -20100210ABW
Smyrna, GA
Facility No. 22983

Dear Ms. Dortch:

Transmitted herewith, on behalf of DTS Broadcasting, Inc., is an amendment to the above-referenced application

If there are any questions, please contact this office.

Very truly yours,


Dan J. Alpert

Counsel for DTS Broadcasting, Inc.

AMENDMENT

Please amend the pending application of DTS Broadcasting, Inc. (File No. BMML -20100210ABW for Station WAZX(AM) to include the attached information.

DTS Broadcasting, Inc.

By: 

David Stewart
Secretary

March 27, 2010

SECTION III - LICENSE APPLICATION ENGINEERING DATA

Name of Applicant

DTS Broadcasting, Inc.

PURPOSE OF AUTHORIZATION APPLIED FOR: (check one)

☒ Station License

☐ Direct Measurement of Power

1. Facilities authorized in construction permit					
Call Sign	File No. of Construction Permit (if applicable)	Frequency (kHz)	Hours of Operation	Power in kilowatts	
WAZX	BP-20080616ADH	1550	U	Night 0.16	Day 50.0
2. Station location					
State			City or Town		
Georgia			Smyrna		
3. Transmitter location					
State	County	City or Town	Street address (or other identification)		
GA	Cobb	Powder Springs	Flint Hill Road		
4. Main studio location					
State	County	City or Town	Street address (or other identification)		
GA	Cobb	Powder Springs	Flint Hill Road		
5. Remote control point location (specify only if authorized directional antenna)					
State	County	City or Town	Street address (or other identification)		

6. Has type-approved stereo generating equipment been installed?

☐ Yes ☒ No

7. Does the sampling system meet the requirements of 47 C.F.R. Section 73.68?

☒ Yes ☐ No

☐ Not Applicable

Attach as an Exhibit a detailed description of the sampling system as installed.

Exhibit No.
Tech Stmt

8. Operating constants:						
RF common point or antenna current (in amperes) without modulation for night system				RF common point or antenna current (in amperes) without modulation for day system		
0.77				32.5		
Measured antenna or common point resistance (in ohms) at operating frequency				Measured antenna or common point reactance (in ohms) at operating frequency		
Night		Day		Night		Day
27.2		49.7		-J34.1		-J7.4
Antenna indications for directional operation						
Towers	Antenna monitor Phase reading(s) in degrees		Antenna monitor sample current ratio(s)		Antenna base currents	
	Night	Day	Night	Day	Night	Day
1	---	136.9	---	1.088		
2	---	0	---	1.000		
3	0	131.6	1.0	0.970		
4	---	-11.9	---	0.681		
Manufacturer and type of antenna monitor: Potomac Instruments AM - 1901						

SECTION III - Page 2

9. Description of antenna system (If directional antenna is used, the information requested below should be given for each element of the array. Use separate sheets if necessary.)

Type Radiator	Overall height in meters of radiator above base insulator, or above base, if grounded.	Overall height in meters above ground (without obstruction lighting)	Overall height in meters above ground (include obstruction lighting)	If antenna is either top loaded or sectionalized, describe fully in an Exhibit.
Uniform cross-section guyed steel tower	Twrs 1-4 36.9	Twrs 1-4 38.1	Twrs 1-4 38.1	Exhibit No. N/A

Excitation ☒ Series ☐ Shunt

Geographic coordinates to nearest second. For directional antenna give coordinates of center of array. For single vertical radiator give tower location.

North Latitude	33 °	51 '	28 "	West Longitude	84 °	38 '	39 "
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If not fully described above, attach as an Exhibit further details and dimensions including any other antenna mounted on tower and associated isolation circuits.

Exhibit No.
N/A

Also, if necessary for a complete description, attach as an Exhibit a sketch of the details and dimensions of ground system.

Exhibit No.
N/A

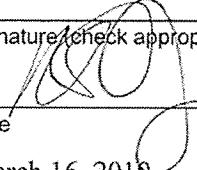
10. In what respect, if any, does the apparatus constructed differ from that described in the application for construction permit or in the permit?

None

11. Give reasons for the change in antenna or common point resistance.

N/A

I certify that I represent the applicant in the capacity indicated below and that I have examined the foregoing statement of technical information and that it is true to the best of my knowledge and belief.

Name (Please Print or Type)	Signature (check appropriate box below)
R. Stuart Graham	
Address (include ZIP Code)	Date
Graham Brock, Inc. P. O. Box 24466 St. Simons Island, GA 31522-7466	March 16, 2010
	Telephone No. (Include Area Code)
	912-638-8028

☐ Technical Director

☐ Registered Professional Engineer

☐ Chief Operator

☒ Technical Consultant

☐ Other (specify)

AMENDMENT TO BMML-20100210ABW
APPLICATION FOR STATION LICENSE
DTS BROADCASTING, INC.
WAZX AM RADIO STATION
1550 kHz - 0.016/50.0 KW DAD
SMYRNA, GEORGIA
March 2010

TECHNICAL STATEMENT

This Technical Statement was prepared on behalf of DTS Broadcasting, Inc. ("DTS"), licensee of radio station WAZX, 1550 kHz, Smyrna, Georgia. This amendment is in response to the FCC letter dated March 9, 2010 which points out discrepancies in the original DTS application for station license. There are four items which require attention in this amendment:

1. *The operating parameters on FCC Form 302, page 4, item 8, must be same as those derived from the moment method calculations shown in Exhibit #2A.*

A revised Page 4 is submitted, as directed.

2. *The sampling system measurements showing the impedance of the sampling system at or near the carrier frequency with the sampling device connected as required by Section 73.151(c)(2)(i) must be provided.*

Revised Exhibits #7 and #7A are submitted, as directed, to more clearly show the measurements.

3. *The make and model of the sample toroid transformers must be provided.*

Revised Exhibits #7 and #7A are submitted to include the make and model of the sample toroid transformers used in the system.

4. *The antenna monitor in item #8 of the FCC Form 302 must be amended to specify the antenna monitor as the Potomac Instruments AM 1901.*

A revised Page 4 is submitted, as directed, to correct the typographic error.

We have tried to be as accurate as possible in the preparation of this report. Should there be any questions concerning the information contained herein, we welcome the opportunity to discuss the matter by phone (912) 638-8028.

APPLICATION FOR STATION LICENSE
DTS BROADCASTING, INC.
WAZX AM RADIO STATION
1550 kHz - 0.016/50.0 KW DAD
SMYRNA, GEORGIA
January 2010

EXHIBIT #7

Sampling System Measurements

Impedance measurements of the antenna monitor sampling system were made using an Array Solutions, POWER AIM 120, Vector Impedance Analyzer in a calibrated measurement system. The sample system consists of equal electrical lengths of Andrew Phase Stabilized ½" LDF4-50A coaxial transmission line terminated with Delta TCT-2 toroid sample transformers. The measurements were made looking into the antenna monitor ends of the sampling lines without the sampling lines connected to the toroid samples under open-circuited conditions.

The following table shows the frequencies above and below the carrier frequency where resonance (zero reactance corresponding with low resistance) was found. As the length of a distortionless transmission line is 180 electrical degrees at the difference frequency between adjacent frequencies of resonance and frequencies of resonance occur at odd multiples of 90 degrees electrical length, the sampling line length at the resonant frequency below carrier frequency, which is the closest one to the carrier frequency, was found to be between 264.1 and 264.5 electrical degrees, within the 1.0 degree variance as specified by Section 73.151(c)(2)(i). The electrical length at carrier frequency appearing in the table below was calculated by ratio of the frequencies.

In order to determine the characteristic impedance values of the sampling lines, open-circuit measurements were made with frequencies offset to produce +/- 45 degrees of electrical length from resonance. The characteristic impedance was calculated using the following formula where $R_1 + jX_1$ and $R_2 + jX_2$ are the measured impedances at the +45 and -45 degree offset frequencies, respectively:

$$Z_0 = ((R_1^2 + X_1^2)^{1/2} * (R_2^2 + X_2^2)^{1/2})^{1/2} - \text{See Exhibit \#7A}$$

Toroid Current Transformer calibration was checked by placing all transformers in line with the output of the 1550 kHz transmitter into a dummy load. The transformers were connected to the station antenna monitor with short equal length transmission line jumpers. The relative ratio and phase of all transformers was found to be identical. The current transformers were returned to their respective towers. The antenna monitor was calibrated by the factory before installation and installed according to the manufacturer's instructions and specifications.

WAZX Smyrna
1550

GA

Tower Sample Line	Open Circuit Resonance	Calculated Electrical Length at 910 kHz (degrees)	Measured Operating Impedance
	(kHz)		
1	1584.7	264.1	50.0
2	1584.7	264.1	50.1
3	1584.7	264.1	50.0
4	1582.5	264.5	50.0

Sample Line and Sample Transformer Combined Impedance

Tower Sample System	Sample Transformer Make / Type / Serial #	Resistance (ohms)	Reactance (ohms)	
			OIB	Freq Corrected
1	Delta / TCT-2 / 11927	51.0	-2.0	-3.1
2	Delta / TCT-2 / 11925	50.8	-2.0	-3.1
3	Delta / TCT-2 / 11926	50.9	-2.0	-3.1
4	Delta / TCT-2 / 11928	51.0	-2.0	-3.1

Sample Line Measurements with:

Delta Operating Impedance Bridge - OIB-1 / SN 1777
Potomac Synthesizer/Detector - SD-31 / SN 798

EXHIBIT #7A
AMENDMENT TO BMML-20100210ABW
APPLICATION FOR STATION LICENSE
DTS BROADCASTING, INC.
WAZX AM RADIO STATION
1550 kHz - 0.016/50.0 KW DAD
SMYRNA, GEORGIA
March 2010

AFFIDAVIT AND QUALIFICATIONS OF CONSULTANT

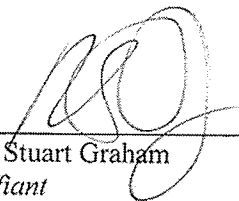
State of Georgia)
St. Simons Island) ss:
County of Glynn)

R. Stuart Graham, being duly sworn, deposes and says that he is an officer of Graham Brock, Inc. Graham Brock has been engaged by DTS Broadcasting, Inc., to prepare the attached Technical Exhibit.

His qualifications are a matter of record before the Federal Communications Commission. He has been active in Broadcast Engineering since 1979.

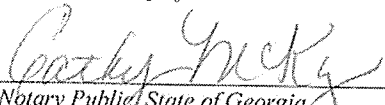
The attached report was either prepared by him or under his direction and all material and exhibits attached hereto are believed to be true and correct.

This the 16th day of March 2010.



R. Stuart Graham
Affiant

*Sworn to and subscribed before me
this the 16th day of March 2010*



Notary Public, State of Georgia
My Commission Expires: March 18, 2011