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2018 FEB 28 PM 12:38

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February 27, 2018

FRANK R. JAZZO
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VIA HAND DELIVERY

Ms. Marlene H. Dortch
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

ACCEPTED/FILED

FEB 27 2018

Federal Communications Commission
Office of the Secretary

Attn: Audio Division, Media Bureau

**Re: Caron Broadcasting, Inc.
KYCR, Golden Valley, MN (Facility ID No. 35504)
Form 302-AM – Direct Measurement Application**

Dear Ms. Dortch:

Transmitted herewith, in triplicate, on behalf of Caron Broadcasting, Inc., licensee of KYCR, Golden Valley, MN (Facility ID No. 35504), is an application on FCC Form 302-AM for direct measurement of power.

Should any questions arise concerning this matter, please contact the undersigned.

Regards,

Frank R. Jazzo
Mark C. DeSantis
Counsel for Caron Broadcasting, Inc.

ACCEPTED/FILED

Federal Communications Commission
Washington, D. C. 20554Approved by OMB
3060-0627
Expires 01/31/98FOR
FCC
USE
ONLY

FEB 27 2018

Federal Communications Commission
Office of the Secretary

FCC 302-AM
APPLICATION FOR AM
BROADCAST STATION LICENSE

(Please read instructions before filling out form.)

FOR COMMISSION USE ONLY

FILE NO. *BZ-20180227ABK*

SECTION I - APPLICANT FEE INFORMATION

1. PAYOR NAME (Last, First, Middle Initial)

Caron Broadcasting, Inc.

MAILING ADDRESS (Line 1) (Maximum 35 characters)

4880 Santa Rosa Road

MAILING ADDRESS (Line 2) (Maximum 35 characters)

CITY

Camarillo

STATE OR COUNTRY (If foreign address)

CA

ZIP CODE

93012

TELEPHONE NUMBER (include area code)

(805) 987-0400

CALL LETTERS

KYCR

OTHER FCC IDENTIFIER (If applicable)

35504

2. A. Is a fee submitted with this application?

☐ Yes ☒ No

B. If No, indicate reason for fee exemption (see 47 C.F.R. Section

☐

Governmental Entity

☐

Noncommercial educational licensee

☒

Other (Please explain): Direct Measurement

C. If Yes, provide the following information:

Enter in Column (A) the correct Fee Type Code for the service you are applying for. Fee Type Codes may be found in the "Mass Media Services Fee Filing Guide." Column (B) lists the Fee Multiple applicable for this application. Enter fee amount due in Column (C).

(A)		
FEE TYPE CODE		

(B)			
FEE MULTIPLE			
0	0	0	1

(C)
FEE DUE FOR FEE TYPE CODE IN COLUMN (A)
\$

FOR FCC USE ONLY

To be used only when you are requesting concurrent actions which result in a requirement to list more than one Fee Type Code.

(A)		

(B)			
FEE MULTIPLE			
0	0	0	1

(C)
FEE DUE FOR FEE TYPE CODE IN COLUMN (A)
\$

FOR FCC USE ONLY

ADD ALL AMOUNTS SHOWN IN COLUMN C,
AND ENTER THE TOTAL HERE.
THIS AMOUNT SHOULD EQUAL YOUR ENCLOSED
REMITTANCE.

TOTAL AMOUNT REMITTED WITH THIS APPLICATION
\$

FOR FCC USE ONLY

2018 FEB 28 PM 12:38

SECTION II - APPLICANT INFORMATION		
1. NAME OF APPLICANT Caron Broadcasting, Inc.		
MAILING ADDRESS 4880 Santa Rosa Rd.		
CITY Camarillo	STATE CA	ZIP CODE 93012

2. This application is for:

☒ Commercial
 ☐ Noncommercial
☒ AM Directional
 ☐ AM Non-Directional

Call letters KYCR	Community of License Golden Valley, MN	Construction Permit File No. N/A	Modification of Construction Permit File No(s). N/A	Expiration Date of Last Construction Permit N/A
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3. Is the station now operating pursuant to automatic program test authority in accordance with 47 C.F.R. Section 73.1620?

☐ Yes ☐ No

If No, explain in an Exhibit.

Exhibit No.
N/A

Not applicable - Direct Measurement Application

4. Have all the terms, conditions, and obligations set forth in the above described construction permit been fully met?

☐ Yes ☐ No

If No, state exceptions in an Exhibit. Not applicable - Direct Measurement Application

Exhibit No.
N/A

5. Apart from the changes already reported, has any cause or circumstance arisen since the grant of the underlying construction permit which would result in any statement or representation contained in the construction permit application to be now incorrect?

☐ Yes ☐ No

If Yes, explain in an Exhibit.

Exhibit No.
N/A

Not applicable - Direct Measurement Application

6. Has the permittee filed its Ownership Report (FCC Form 323) or ownership certification in accordance with 47 C.F.R. Section 73.3615(b)?

☐ Yes ☐ No

☒ Does not apply

If No, explain in an Exhibit.

Exhibit No.
N/A

7. Has an adverse finding been made or an adverse final action been taken by any court or administrative body with respect to the applicant or parties to the application in a civil or criminal proceeding, brought under the provisions of any law relating to the following: any felony; mass media related antitrust or unfair competition; fraudulent statements to another governmental unit; or discrimination?

☐ Yes ☐ No

If the answer is Yes, attach as an Exhibit a full disclosure of the persons and matters involved, including an identification of the court or administrative body and the proceeding (by dates and file numbers), and the disposition of the litigation. Where the requisite information has been earlier disclosed in connection with another application or as required by 47 U.S.C. Section 1.65(c), the applicant need only provide: (i) an identification of that previous submission by reference to the file number in the case of an application, the call letters of the station regarding which the application or Section 1.65 information was filed, and the date of filing; and (ii) the disposition of the previously reported matter.

Exhibit No.
N/A

8. Does the applicant, or any party to the application, have a petition on file to migrate to the expanded band (1605-1705 kHz) or a permit or license either in the existing band or expanded band that is held in combination (pursuant to the 5 year holding period allowed) with the AM facility proposed to be modified herein?

☐ Yes ☒ No

If Yes, provide particulars as an Exhibit.

Exhibit No.
N/A

The APPLICANT hereby waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because use of the same, whether by license or otherwise, and requests and authorization in accordance with this application. (See Section 304 of the Communications Act of 1934, as amended).

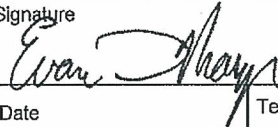
The APPLICANT acknowledges that all the statements made in this application and attached exhibits are considered material representations and that all the exhibits are a material part hereof and are incorporated herein as set out in full in

CERTIFICATION

1. By checking Yes, the applicant certifies, that, in the case of an individual applicant, he or she is not subject to a denial of federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. Section 862, or, in the case of a non-individual applicant (e.g., corporation, partnership or other unincorporated association), no party to the application is subject to a denial of federal benefits that includes FCC benefits pursuant to that section. For the definition of a "party" for these purposes, see 47 C.F.R. Section 1.2002(b).

☒ Yes ☐ No

2. I certify that the statements in this application are true, complete, and correct to the best of my knowledge and belief, and are made in good faith.

Name Evan D. Masyr	Signature 
Title Executive Vice President and CFO	Date 2/27/2018
	Telephone Number (805) 987-0400

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION

FCC NOTICE TO INDIVIDUALS REQUIRED BY THE PRIVACY ACT AND THE PAPERWORK REDUCTION ACT

The solicitation of personal information requested in this application is authorized by the Communications Act of 1934, as amended. The Commission will use the information provided in this form to determine whether grant of the application is in the public interest. In reaching that determination, or for law enforcement purposes, it may become necessary to refer personal information contained in this form to another government agency. In addition, all information provided in this form will be available for public inspection. If information requested on the form is not provided, the application may be returned without action having been taken upon it or its processing may be delayed while a request is made to provide the missing information. Your response is required to obtain the requested authorization.

Public reporting burden for this collection of information is estimated to average 639 hours and 53 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, can be sent to the Federal Communications Commission, Records Management Branch, Paperwork Reduction Project (3060-0627), Washington, D. C. 20554. Do NOT send completed forms to this address.

THE FOREGOING NOTICE IS REQUIRED BY THE PRIVACY ACT OF 1974, P.L. 93-579, DECEMBER 31, 1974, 5 U.S.C. 552a(e)(3), AND THE PAPERWORK REDUCTION ACT OF 1980, P.L. 96-511, DECEMBER 11, 1980, 44 U.S.C. 3507.

SECTION III - LICENSE APPLICATION ENGINEERING DATA

Name of Applicant

Caron Broadcasting, Inc.

PURPOSE OF AUTHORIZATION APPLIED FOR: (check one)

☐

Station License

☒

Direct Measurement of Power

1. Facilities authorized in construction permit					
Call Sign KYCR	File No. of Construction Permit (if applicable) N/A	Frequency (kHz) 1440	Hours of Operation Unlimited	Power in kilowatts	
				Night 0.5	Day 5.0
2. Station location					
State Minnesota			City or Town Golden Valley		
3. Transmitter location					
State MN	County Hennepin	City or Town Golden Valley	Street address (or other identification) 935 North Lilac Drive		
4. Main studio location					
State MN	County Dakota	City or Town Eagan	Street address (or other identification) 2110 Cliff Road		
5. Remote control point location (specify only if authorized directional antenna)					
State MN	County Dakota	City or Town Eagan	Street address (or other identification) 2110 Cliff Road		

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. On File - no change

8. Operating constants:						
RF common point or antenna current (in amperes) without modulation for night system 3.29			RF common point or antenna current (in amperes) without modulation for day system 3.12			
Measured antenna or common point resistance (in ohms) at operating frequency Night 50 Day 515			Measured antenna or common point reactance (in ohms) at operating frequency Night j0 Day -j238			
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(C)	0.0		1.000			3.12
2(NE)	-168.9		1.280			
3(SW)	+165.0		1.000			
Manufacturer and type of antenna monitor: Potomac Instruments Model 1901-3, s/n 315						

SECTION III - Page 2

9. Description of antenna system ((f 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 1 79 Towers 2&3 61	Tower 1 80 Towers 2&3 62	Tower 1 81 Towers 2&3 62	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	44 °	59 '	20 "	West Longitude	93 °	21 '	06 "
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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.
Eng Stmt

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

Exhibit No.
On File - no
change

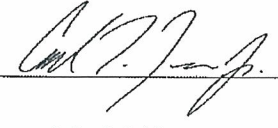
10. In what respect, if any, does the apparatus constructed differ from that described in the application for construction permit or in the permit?

N/A

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

Installation of FM translator antenna and associated transmission lines and isocoupler on Tower #1 (center).

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) Carl T. Jones, Jr., P.E.	Signature 
Address (include ZIP Code) Carl T. Jones Corporation 7901 Yarnwood Court Springfield, VA 22153	Date February 26, 2018
	Telephone No. (Include Area Code) (703) 569-7704

☐ Technical Director

☒ Registered Professional Engineer

☐ Chief Operator

☐ Technical Consultant

☐ Other (specify)



**ENGINEERING EXHIBIT
IN SUPPORT OF AN APPLICATION
FOR DIRECT MEASUREMENT OF POWER
STATION KYCR – GOLDEN VALLEY, MINNESOTA
1440 kHz – 5 kW-D, 0.5 kW-N, U, DA-N
FACILITY ID: 35504**

Applicant: Caron Broadcasting, Inc.

February, 2018

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ENGINEERING STATEMENT OF CARL T. JONES, JR., P.E.

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**STATEMENT OF CARL T. JONES, JR., P.E.
IN SUPPORT OF AN APPLICATION
FOR DIRECT MEASUREMENT OF POWER
STATION KYCR – GOLDEN VALLEY, MINNESOTA
1440 kHz – 5 kW-D, 0.5 kW-N, U, DA-N
FACILITY ID: 35504**

Applicant: Caron Broadcasting, Inc.

I am a Consulting Engineer, president in the firm of Carl T. Jones Corporation, with offices located in Springfield, Virginia. My education and experience are a matter of record with the Federal Communications Commission. I am a Registered Professional Engineer in the Commonwealth of Virginia, Registration No. 013391.

1.0 GENERAL

Radio Station KYCR(AM) is licensed to operate on a frequency of 1440 kHz, on an unlimited time basis, with a daytime power of 5 kW and a nighttime power of 0.5 kW. The station operates non-directionally during daytime hours from the center tower (Tower #1) of the KYCR three-tower inline array and directionally at night using all three towers (DA-N).

FCC Construction Permit (File No. BMFT-20180117AAR) authorizes Salem Media of Massachusetts, LLC ("Salem Media") to install an FM antenna on the center tower of the KYCR three-tower array for FM Translator Station K298C0. One of the

Special Conditions on the Construction Permit requires, in part, that *“The permittee must conduct a partial proof of performance as defined in Section 73.154 of the Commission’s Rules both before and after construction to show that the AM station has not been adversely affected. If the operating parameters of the AM station differ from licensed values following the antenna installation, the results of the partial proof of performance shall be filed with the Commission by the AM station licensee using form FCC 302-AM. (See Section 1.30003 of the Commission’s Rules.) The permittee must submit confirmation of completion of the requirements of this condition in the application for license to cover this construction permit.”* This office was authorized by Salem Media to provide technical assistance with: the required partial proof of performance and impedance measurements; the restoration of licensed operation; and the preparation of this engineering statement, FCC Form 302-AM, and the associated figures in support of a Direct Measurement of Power Application.

2.0 NON-DIRECTIONAL BASE IMPEDANCE AND CURRENT MEASUREMENT

After completion of the installation of the FM translator equipment, an impedance measurement was performed at the base of Tower #1 (center tower) by Steve Smit, Chief Engineer of KYCR, under the direction of the undersigned. The impedance measurement was performed with the station in the daytime non-directional operating mode so that the end two towers in the array were detuned. The measurement was performed with a Delta Electronics, Model OIB-3, operating impedance bridge at the J-plug located in the output branch of the Tower #1 daytime ATU network. The measured

base impedance was determined to be $Z = 515 -j238$ Ohms. The daytime tower #1 ATU network was adjusted to restore the 50 Ohm impedance match at the input to the network and the transmitter was adjusted to produce a base current of 3.12 Amperes as read on the Delta Electronics Model TCA-5-EXR base current ammeter. This antenna base current corresponds to the licensed non-directional antenna input power of 5,000 Watts.

3.0 NON-DIRECTIONAL AND NIGHTTIME DIRECTIONAL PARTIAL PROOF FIELD STRENGTH MEASUREMENTS

Prior to the installation of the FM translator equipment, partial proof of performance field strength measurements were performed on the two KYCR monitored radials (113 degree and 323 degree radials). The installation of the new FM translator transmission equipment on KYCR Tower #1 caused a shift in the nighttime directional operating parameters. The licensed nighttime operating parameters were restored by Steve Smit through adjustment of the KYCR phasor and the nighttime directional partial proof of performance field strength measurements were repeated on the two monitored radials. For both sets of nighttime directional partial proof measurements, the common point was adjusted for an impedance of $Z = 50 +j0$ Ohms and the transmitter was adjusted for a common point current of 3.29 Amperes.

Comparison of the post-construction field strength measurements with the pre-construction field strength measurements showed a modest increase in the inverse distance field strength on both radials. Because of this, it was decided to perform non-directional partial proof field strength measurements on both radials to allow

determination of the post-construction directional nighttime inverse distance fields. The non-directional field strength measurements were performed at the licensed daytime power level of 5,000 watts. Tabulated in Figure 1 are: the daytime non-directional base impedance and base current; the nighttime common point impedance and current; and the nighttime operating parameters.

The post-construction nighttime directional field strength measurements were performed on February 24, 2018, and the non-directional field strength measurements were performed on February 25, 2018. Eight field strength measurements were performed on each radial bearing at the same locations that were measured in the 1991 nighttime full proof of performance, including the monitor point locations. All measurements were performed during the period between two hours following local sunrise and two hours prior to local sunset to minimize the potential for skywave interference.

The nighttime directional pattern measured inverse distance fields were determined in the following manner. The logarithm of the ratio of the 2018 nighttime directional field strength to the 2018 non-directional field strength was calculated for each measurement location, and an average logarithmic ratio determined for each radial bearing. The antilogarithm of the average was multiplied by the 1991 measured non-directional inverse distance field to determine the 2018 nighttime directional inverse distance field. Figure 2 provides a summary of the 2018 nighttime measured inverse distance fields. In no case does the value of the measured 2018 nighttime inverse distance field exceed the authorized standard pattern value. A tabulation of the

measured nighttime directional and non-directional field strength data for each measured radial is contained in Figure 3, Sheets 1 and 2. The post-construction non-directional and nighttime directional measurement data verifies that the KYCR nighttime directional pattern is in adjustment with the licensed operating parameters and therefore no changes are requested herein with respect to the KYCR nighttime directional operation.

All of the field strength measurements were performed by Steve Smit, Chief Engineer of KYCR. Mr. Smit is experienced in performing field strength measurements on AM directional patterns. Potomac Instruments Model FIM-21 field intensity meter, Serial Number 1235, was used for all of the measurements. The meter was last calibrated by the manufacturer in May, 2017.

3.1 MONITOR POINT VALUES AND LOCATIONS

The measured field strength at each monitoring point location was well below the corresponding FCC maximum authorized value. Analysis of the nighttime partial proof field strength measurements indicates that no change in the maximum authorized field strength is warranted at either monitoring point location. Further, no change in the monitoring point locations or descriptions is requested.

4.0 OTHER ANTENNAS MOUNTED ON THE KYCR TOWERS

As described herein, an FM translator antenna and the associated transmission line for FM Translator Station K298CO is mounted on Tower #1 (Center Tower). An

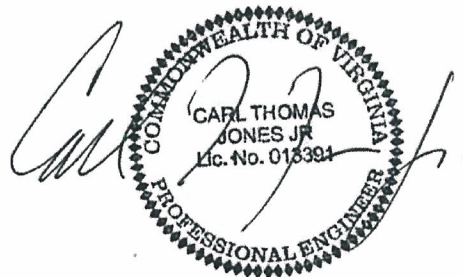
isocoupler is used to cross the base insulator. An STL antenna and associated transmission line and isocoupler are mounted on Tower #2 (North Tower).

5.0 SUMMARY

It is submitted that the installation of the FM translator equipment on KYCR Tower #1 has had no material adverse impact on the KYCR nighttime directional pattern as verified by the partial proof of performance measurement data contained herein. The addition of the equipment on the tower and across the base insulator did however impact the non-directional base impedance and base current of KYCR Tower #1. It is therefore requested that a superseding license be issued that reflects the changes to the KYCR non-directional base impedance and base current as described herein and on the attached FCC Form 302-AM, Section III.

This engineering statement, FCC Form 302-AM, Section III, and the associated figures were prepared by me or under my direct supervision and the information therein is believed to be true and correct.

Dated: February 26, 2018



**TABULATION OF OPERATING PARAMETERS
STATION KYCR - GOLDEN VALLEY, MINNESOTA
1440 kHz - 5 kW-D, 0.5 kW-N, U, DA-N**

Daytime Non-Directional Operation (Tower #1-C)

Base Impedance (Ohms)	515 -j 238
Base Current (amperes)	3.12
Antenna Input Power (Watts)	5,000

Nighttime Directional Operation

	<u>Tower 1 (C)</u>	<u>Tower 2 (NE)</u>	<u>Tower 3 (SW)</u>
Theoretical Field Ratio	1.000	0.474	0.752
Theoretical Phase (deg.)	0.0	-150.9	172.7
Antenna Monitor Ratio	1.000	1.280	1.000
Antenna Monitor Phase (deg.)	0.0	-168.9	165.0
Common Point Resistance (Ohms)	50.0		
Common Point Current (amperes)	3.29		
Antenna Input Power (Watts)	540		

SUMMARY OF FIELD STRENGTH MEASUREMENT DATA
STATION KYCR, GOLDEN VALLEY, MINNESOTA
1440 kHz, 5 kW-D, 0.5 kW-N, U, DA-N

Monitored Radial (deg. T.)	1991 ND Inverse Distance Field Strength (mV/m at 1 km)	2018 DA-N/ 2018 ND Antilog of Average Ratio	2018 DA-N Measured Inverse Distance Field Strength (mV/m at 1 km)	Nighttime Standard Pattern Radiation (mV/m at 1 km)
113	750.0	0.0231	17.3	19.1
323	760.0	0.0225	17.1	19.1

Proof Point Number	Distance (kilometers)	2018 5 kW, ND			2018 0.5 kW, DA-N				
		Date	Time (local)	Field Strength (mV/m)	Date	Time (local)	Field Strength (mV/m)	Ratio (DA-N/ND)	Log Ratio (DA-N/ND)
9 MP	2.53	2/25/2018	1102	310	2/24/2018	1059	3.6	0.0116	-1.9351
10	2.85	2/25/2018	1106	292	2/24/2018	1118	8.8	0.0301	-1.5209
13	3.82	2/25/2018	1113	168	2/24/2018	1125	4.5	0.0268	-1.5721
14	4.28	2/25/2018	1116	133	2/24/2018	1129	2.5	0.0188	-1.7259
17	7.42	2/25/2018	1132	42	2/24/2018	1145	1.52	0.0362	-1.4414
22	10.46	2/25/2018	1151	13.25	2/24/2018	1208	0.39	0.0294	-1.5312
24	11.50	2/25/2018	1156	18.25	2/24/2018	1214	0.52	0.0285	-1.5453
27	14.49	2/25/2018	1206	11.5	2/24/2018	1225	0.175	0.0152	-1.8177
Average Ratio								0.0246	-1.6362
Antilog of Average									0.0231

**TABULATION OF FIELD STRENGTH MEASUREMENT DATA
STATION KYCR, GOLDEN VALLEY, MINNESOTA
1440 kHz, 5 kW-D, 0.5 kW-N, U, DA-N**