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7925 JONES BRANCH DRIVE McLEAN, VA 22102 PHONE 703.905.2800 FAX 703.905.2820

www.wileyrein.com

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2014 FEB 10 A 7:27

February 6, 2014

VIA MESSENGER

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

Mark Lipp 202.719.7503 mlipp@wileyrein.com

ORIGINAL

Accepted/Files

FER = 62014

Federal Communications Commission Office of the Secretary

Re: Application for AM Broadcast Station License Using MoM and **Request for Program Test Authority** Radio License Holding CBC, LLC Station KKOH(AM), Reno Nevada Facility Identifier Number 11236 BZ-20130603ACQ

Dear Ms. Dortch:

6019721638 Transmitted herewith on behalf of Radio License Holding CBC, LLC ("RLH-CBC"), the licensee of Station KKOH(AM), Reno, Nevada, are an original and two copies of its application for an AM broadcast station license which is submitted as a result of the change in the KKOH antenna monitor. As noted above, since this Station operates in the directional mode during nighttime hours, Program Test Authority is requested. Additionally, the Method of Moments model was used to analyze this antenna system and complete this application.

Please note that the associated filing fees were paid today using FCC Fee Filer. Copies of documents which show that the \$635.00 and \$730.00 filing fees have been paid are included with this Form 302-AM.

If there are any questions about this Application, please contact undersigned counsel for Radio License Holding CBC, LLC.

Sincerely,

Mark Lipp

ML/dmk

Enclosure

13687911.1

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FEB - 6 2014

Agency Tracking ID:PGC2460938 Authorization Number:284702 Successful Authorization -- Date Paid: 2/6/14 FILE COPY ONLY!!

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READ INSTRUCTIONS	FEDERAL COMMUNIC	ATIONS COMMISSION		APPROVED BY OMB 3060-059
PROCEEDING	REMITTANCE ADVICE			5000 055
FROCEEDING	FORM 159		SP	ECIAL USE
(1) LOCKBOX #979089	PAGE N	O I OF I	S.	20112 002
(1) 20 012 011 19 19 005			FC	C USE ONLY
	SECTIO	N A - Payer Information	F	
(2) PAYER NAME (if paying by credit	card, enter name exactly as it appears on	your card)	(3) TOT	AL AMOUNT PAID (dollars and cents)
Wiley Rein LLP	· · · · · · · · · · · · · · · · · · ·	J = == = = =)	\$1365.	00
(4) STREET ADDRESS LINE NO. 1				
1776 K Street, N.W.				
(5) STREET ADDRESS LINE NO. 2				
(6) CITX			(7) STATE	(8) ZIP CODE
Washington			DC	20006-2304
(9) DA VTIME TELEPHONE NUMBE	R (INCLUDING AREA CODE)	(10) CC	UNTRY CODE (IF NO	
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	IF MORE THAN ONE APPLICAN	T, USE CONTINUATION	SHEETS (FORM 159-	C)
(13) APPLICANT NAME	T LLC			
(14) STREET ADDRESS LINE NO. 1	2, <u>IIIC</u>			
3280 Peachtree Road, NW				
(15) STREET ADDRESS LINE NO. 2 Suite 2300				
(16) CITY			(17) STATE	(18) ZIP CODE
Atlanta			GA	30305
(19) DA YTIME TELEPHONE NUMB	ER (INCLUDING AREA CODE)	(20) CC	UNTRY CODE (IF NO	T IN U.S.A.)
404-9490700	DECISTDATION NUMBER (EDN) A	ND TAX IDENTIFICATIO	NNIMBER (TIN) RE	COURED
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COMPLETE	SECTION C FOR EACH SERVICE,	IF MORE BOXES ARE N	EEDED, USE CONTIN	UATION SHEET
(23A) FCC Call Sign/Other ID		(24A) Payment Typ	e Code(PTC)	(25A) Quantity
	ККОН		MMR	11
(26A) Fee Due for (PTC)		(27A) Total Fee	<i>Ф(25 00)</i>	FCC Use Only
	\$635.00		\$035.00	
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(23B) FCC Call Sign/Other ID		(24B) Payment Typ	e Code(PTC)	(25B) Quantity
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(26B) Fee Due for (PTC)	\$730.00	(27B) Total Fee	\$730.00	FCC Use Only
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Logged in as: Radio License Holding CBC, LLC (0019721638) [Log Out]

<u>Help</u>

Submission Confirmation

You successfully filed your application fee obligation. The Remittance ID associated with this filling is 2460938.

Filing and paying regulatory fees are two separate transactions. You have not yet paid your regulatory fee obligation. Click Continue to pay online or print Form 159-E. If you choose to mail your payment to the FCC rather than pay online, you must print and include Form 159-E with your payment. To use Fee Filer to pay at a later time, you will need to return to the Regulatory Fee Manager Filing & Payment History tab.

Total Amount: \$1,365.00



You can email us at arinquiries@fcc.gov.

Federal Communications Commission Washington, D. C. 20554

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(1)

Approved by OMB 3060-0627 Expires 01/31/98

FOR
FCC
USE
ONLY

FCC 302-AM

APPLICATION FOR AM

BROADCAST STATION LICENSE

(Please read instructions before filling out form.

FOR COMMISSION USE ONLY FILE NO. Rmm L-20140206AJY

SECTION I - APPLICANT FEE INFORMATION			
1. PAYOR NAME (Last, First, Middle Initial)			
Wiley Rein LLP			
MAILING ADDRESS (Line 1) (Maximum 35 characters) 1776 K Street, NW			
MAILING ADDRESS (Line 2) (Maximum 35 characters)			
CITY Washington	STATE OR COUNTRY (if fo DC	reign address)	ZIP CODE 20006
TELEPHONE NUMBER (include area code) 202.719.7503	CALL LETTERS KKOH(AM)	OTHER FCC IDE 11236	NTIFIER (If applicable)
2. A. Is a fee submitted with this application?			Ves No
B. If No, indicate reason for fee exemption (see 47 C.F.R. Section			
Governmental Entity Noncommercial educ	cational licensee	ther (Please explain):
C. If Yes, provide the following information:			
Enter in Column (A) the correct Fee Type Code for the service you a	are applying for. Fee Type Co	odes may be found	in the "Mass Media Services
Fee Filing Guide." Column (B) lists the Fee Multiple applicable for thi	is application. Enter lee amou		·)·
(A) (B)	(C)		
FEE TYPE FEE MULTIPLE	FEE DUE FOR FEI TYPE CODE IN	E	FOR FCC USE ONLY
	\$ 635.00		
	+ 000.00		
To be used only when you are requesting concurrent actions which res	sult in a requirement to list mo	re than one Fee Typ	be Code.
	(C)		FOR FCC USE ONLY
M O R 0 0 1	▶ 730.00	-	
ADD ALL AMOUNTS SHOWN IN COLUMN C,	TOTAL AMOUNT REMITTED WITH TH	IS	FOR FCC USE ONLY
AND ENTER THE TOTAL HERE. THIS AMOUNT SHOULD EQUAL YOUR ENCLOSED	\$ 1,365.00		
REMITTANCE.			

SECTION II - APPLICAN	T INFORMATION				
1. NAME OF APPLICANT Radio License Holding CBC,	LLC				
MAILING ADDRESS 3280 Peachtree Road, NW,	Suite 2300				
CITY Atlanta			STATE Georgi	ia	ZIP CODE 30305
2. This application is for:		tional		nercial	
					
Call letters	Community of License	Construct	tion Permit File No.	Modification of Construction Permit File No(s).	Expiration Date of Last Construction Permit
ККОН	Reno, Nevada	N/A	****	N/A	N/A
3. Is the station no	ow operating pursuant	to auto	matic program	test authority in	Yes 🗸 No
accordance with 47 C.F	.R. Section 73.1620?				Exhibit No.
If No, explain in an Exhi	bit.				
4. Have all the terms construction permit been	s, conditions, and oblig n fully met?	ations s	et forth in the	above described	Yes No
If No. state exceptions in	n an Exhibit.				Exhibit No. N/A
5. Apart from the chan the grant of the under	 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 				
If Yos, overlain in an Ex	a in the construction per	nit applic	ation to be now	Inconect?	Exhibit No. N/A
in res, explain in an Ex	mon.				
6. Has the permittee fil	ed its Ownership Report	(FCC Fc	orm 323) or owne	ership	Yes No
certification in accordan	ce with 47 C.F.R. Section	n 73.361	5(b)?		✓ Does not apply
If No, explain in an Exhi	bit.				Exhibit No.
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?					
If the answer is Yes, a involved, including an ic (by dates and file num information has been required by 47 U.S.C. S of that previous submis the call letters of the st was filed, and the date of	attach as an Exhibit a function of the court of bers), and the disposition earlier disclosed in con- rection 1.65(c), the applic sion by reference to the reation regarding which the of filing; and (ii) the dispo	Ill disclosor admin on of the nection ant need file num ne applic sition of	sure of the pers istrative body ar e litigation. Wh with another a d only provide: (ber in the case ation or Section the previously re	sons and matters ad the proceeding here the requisite application or as i) an identification of an application, 1.65 information eported matter.	Exhibit No.

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?

If Yes, provide particulars as an Exhibit.

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).

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 Richard S. Denning	Signature	ennen
Title	Date	Telephone Number
Sr. Vice President, Secretary & General Counsel	02/06/2014	404.949.0700

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(0)(3), AND THE PAPERWORK REDUCTION ACT OF 1980, P.L. 96-511, DECEMBER 11, 1980, 44 U.S.C. 3507.

FCC 302-AM (Page 3) August 1995



V Yes No

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Exhibit No.

SECTION III - LICENSE	APPLICATION	ENGINEERING	DATA
		=	

Name of Applicant

Radio License Holding CBC, LLC

Ň	Station	License
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Direct Measurement of Power

Call Sign						
	File No. of Construction Permit	Hours of Opera	tion	Power in kilowatts		
ККОН	(if applicable) N/A	(kHz) 780	U		Night 50.0	Day 50.0
2. Station location	on				••••••••••••••••••••••••••••••••••••••	
State		City or Town				
Nevada			Reno			
3. Transmitter lo	pcation					
State	County	City or Town	City or Town Street address			
NV	Washoe		Reno		or other identified 7800 Chic	cation) kadee Drive
4. Main studio lo	cation				•	
State	County		City or Town		Street address	
NV	Washoe		Reno		or other identifie (or other identifie (or other identified	cation) Iumb Lane
5. Remote contr	ol point location (specify only if a	uthorized direction	nal antenna)		1	······································
State	County		City or Town		Street address	
NV	Washoe		Reno		(or other identific 595 East P	ation) lumb Lane
	ping system meet the requirement	nts of 47 C.F.R.	Section 73.68?		X Yes	No No
Attach as an E	Exhibit a detailed description of th	e sampling syste	Section 73.68? em as installed.		X Yes No Exhi Tech	s No t Applicable bit No. Stmt
Attach as an E	Exhibit a detailed description of th	e sampling syste	Section 73.68? em as installed.		X Yes No Exhi Tech	t Applicable bit No. Stmt
Attach as an E 8. Operating con RF common point modulation for nic 33.3	Exhibit a detailed description of th stants: t or antenna current (in amperes)	e sampling syste	RF common point modulation for d 33,2	nt or antenna ay system	X Yes No Exhi Tech current (in amper	Applicable
Attach as an E Attach as an E 8. Operating con RF common point modulation for nic 33.3 Measured antenna operating frequent Night	Exhibit a detailed description of th estants: t or antenna current (in amperes) th system 55 a or common point resistance (in cy Day	e sampling syste without	RF common poi modulation for d 33,2 Measured anten operating freque Night	nt or antenna ay system na or commo ncy	X Yes No Exhi Tech current (in amper n point reactance Day	s No t Applicable bit No. Stmt res) without (in ohms) at
Attach as an E Attach as an E <u>3. Operating con</u> RF common point modulation for nic 33.3 Measured antenna operating frequent Night 47.35	Exhibit a detailed description of th Istants: t or antenna current (in amperes) ht system 55 a or common point resistance (in cy Day 6 46.1	e sampling syste without ohms) at	RF common poin modulation for d 33,2 Measured anten operating freque Night + 1.59	nt or antenna lay system na or commo ncy	X Yes No Exhi Tech current (in amper n point reactance Day 56.9	s No t Applicable bit No. Stmt res) without (in ohms) at
Attach as an E Attach as an E Operating con RF common point nodulation for nic 33.3 Measured antenna operating frequen- Night 47.35 Antenna indicatior	Exhibit a detailed description of th istants: t or antenna current (in amperes) pht system 15 a or common point resistance (in cy Day 46.1 ns for directional operation	e sampling syste without ohms) at	Section 73.68? em as installed. RF common point modulation for d 33.2 Measured antent operating freque Night + 1.59	nt or antenna ay system na or commo ncy	X Yes No Exhi Tech current (in amper n point reactance Day 56.9	k Applicable bit No. Stmt es) without (in ohms) at
Attach as an E Attach as an E Operating con RF common point modulation for nic 33.3 Measured antenna operating frequency Night 47.35 Antenna indication Towe	Exhibit a detailed description of th istants: t or antenna current (in amperes) pht system 5 a or common point resistance (in cy Day 46.1 ns for directional operation Antenna Phase reading	e sampling syste without ohms) at monitor (s) in degrees	Section 73.68? em as installed. RF common point modulation for d 33,2 Measured antent operating freque Night + 1.59 Antenna monit current ra	nt or antenna ay system na or commo ncy or sample tio(s)	X Yes No Exhi Tech current (in amper n point reactance Day 56.9 Antenna	k Applicable bit No. Stmt res) without (in ohms) at base currents
Attach as an E Attach as an E Coperating con RF common point nodulation for nic 33.3 Measured antenna operating frequen- Night 47.35 Antenna indication Towe	Exhibit a detailed description of th Istants: t or antenna current (in amperes) ht system 5 a or common point resistance (in cy Day 46.1 ns for directional operation Antenna Phase reading Night -50 90	e sampling syste without ohms) at monitor (s) in degrees Day	RF common poin modulation for d 33,2 Measured anteni operating freque Night + 1.59 Antenna monit current ra Night 0 475	nt or antenna lay system na or commo ncy or sample tio(s) Day	X Yes No Exhi Tech current (in amper point reactance Day 56.9 Antenna Night	k Applicable bit No. Stmt es) without (in ohms) at base currents
Attach as an E Attach as an E <u>Attach as an E</u> <u>Attach as an E</u>	Exhibit a detailed description of th Istants: t or antenna current (in amperes) ght system 55 a or common point resistance (in cy Day 46.1 ns for directional operation Antenna Phase readinge Night -59.90	e sampling syste without ohms) at monitor (s) in degrees Day	Section 73.68? em as installed. RF common point modulation for d 33.2 Measured antent operating freque Night + 1.59 Antenna monit current ra Night 0.475	nt or antenna lay system na or commo ncy or sample tio(s) Day	X Yes No Exhi Tech current (in amper n point reactance Day 56.9 Antenna Night	i Day
Attach as an E 3. Operating con RF common point modulation for nic 33.3 Veasured antenna operating frequency light 47.35 Antenna indication Towe [ower #1	Exhibit a detailed description of th Istants: t or antenna current (in amperes) ht system 15 a or common point resistance (in cy Day 46.1 ns for directional operation Antenna Phase reading Night -59.90 0.0	e sampling syste without ohms) at monitor (s) in degrees Day 0.0	RF common poin modulation for d 33,2 Measured anteni operating freque Night + 1.59 Antenna monit current ra Night 0.475 1.000	nt or antenna lay system na or commo ncy or sample tio(s) Day 1.000	X Yes No Exhi Tech current (in amper n point reactance Day 56.9 Antenna Night	is Day

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 Uniform cross section guyed steel tower	Overall height in meters of radiator above base insulator, or above base, if grounded. Tower #1 96.0 Tower #2 96.0	Overall height in meters above ground (without obstruction lighting) Tower #1 97.2 Tower #2 97.2	Overall height in meters above ground (include obstruction lighting) Tower #1 97.2 Tower #2 97.2	If antenna is either top loaded or sectionalized, describe fully in an Exhibit. Exhibit No.
Excitation	Tower #3 96.0	Tower #3 97.2 \Box Shunt	Tower #3 97.2	

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

North Latitude	39	40	41	West Longitude	119	48	06
		10		•	117	40	00

Exhibit No.

Exhibit No.

If not fully described above, attach as an Exhibit further details and dimensions including any other antenna mounted on tower and associated isolation circuits.

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

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.

Computer Assisted Proof §73.151(c)

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 (chefk appropriate box below)
R. Stuart Graham	$ / (k) \rangle$
Address (include ZIP Code)	Date
Graham Brock. Inc.	January 27, 2014
P. O. Box 24466	Telephone No. (Include Area Code)
St. Simons Island, GA 31522-7466	912-638-8028

Technical Director		Registered Professional Engineer
Chief Operator	Ď	Technical Consultant

FCC 302-AM (Page 5) August 1995

Other (specify)

GRAHAM BROCK, INC.

BROADCAST TECHNICAL CONSULTANTS

APPLICATION FOR STATION LICENSE RADIO LICENSE HOLDING CBC, LLC KKOH AM RADIO STATION 780 kHz - 50.0 kW DAN RENO, NEVADA January 2014

TECHNICAL EXHIBIT

Copyright 2014

5971 В New Jesup Highway • Brunswick, GA 31523 • P.O. Box 24466 • St. Simons Island, GA 31522-7466 912-638-8028 • Fax 912-275-8869 www.grahambrock.com

Table of Contents

<u>Exhibit</u>

Description

Technical Statement

- 1) Analysis of Tower Impedance Measurements to Verify Method of Moments Model
- 2) Derivation of Operating Parameters for Directional Antenna
- 3) Method of Moments Model Details for Towers Driven Individually
- 4) Method of Moments Model Details for Directional Antenna Patterns
- 5) Direct Measurement of Power
- 6) Sampling System and Measurements
- 7) Reference Field Strength Measurements
- 8) Antenna Monitor Calibration
- 9) Polar Graphs KKOH Polar Pattern Plots

Affidavit of Richard Graham

This Technical Statement was prepared on behalf of Radio License Holding CBC, LLC ("RLH"), licensee of radio station KKOH, 780 kHz, Reno, Nevada. KKOH operates nondirectionally during daytime hours and directionally with three towers during nighttime hours. This application seeks program test authority and a station license with computer analyzed directional operation under the provisions of Section 73.151(c). The calculations shown herein are for the daytime power of 50.0 kilowatts non-directional ("ND") and the nighttime power of 50.0 kilowatts directional ("DA").

The towers are identified using the following numbering sequence: Tower #1 (west), Tower #2 (center), and Tower #3 (east). The towers and ground system were constructed in accordance with the terms of the KKOH construction permit and the specifications that were provided in the current KKOH station license.

Information is provided herein to demonstrate the directional antenna parameters for the authorized daytime and nighttime patterns are in accordance with the requirements of Section 73.151(c) of the Commission's rules. The system has been adjusted to produce antenna monitor parameters within +/- 5 percent in ratio and +/- 3 degrees in phase of the modeled values, as required by the rules.

We have tried to be as accurate as possible in the preparation of this application. All information contained in this application was extracted from the CDBS database. We assume no liability for omissions or errors in this source. Should there be any questions concerning the information contained herein, we welcome the opportunity to discuss the matter by phone at 912-638-8028 or by email at <u>rsg@grahambrock.com</u>.

EXHIBIT #1

Analysis of Tower Impedance Measurements to Verify Method of Moments Model

Tower base impedance measurements were made at the final J-plugs within the Antenna Tuning Units ("ATU's") using an Agilent 8753ES Vector Network Analyzer with an ENI 411 LA RF Power Amplifier and Tunwall Directional Couplers, utilized as a calibrated measurement system. The other towers were open circuited at the same points where impedance measurements were made ("reference points"), in compliance with Section 73.151(c)(1).

The reference point in each ATU is followed by the feed-line that exits the ATU enclosure and is connected to the tower above the base insulator. Circuit calculations were performed to relate the Method of Moments modeled impedances of the tower feed points to the ATU output measurement (reference) points, as shown on the following pages. The XL shown for each tower, which was calculated for the assumed stray inductance, was less than 10 uH, in compliance with Section 73.151(c)(1)(vii).

The modeled and measured base impedances at the ATU output jacks, with the other towers short circuited at their ATU output jacks agree within +/- 2 ohms and +/- 4 percent for resistance, as required by Section 73.151(c)(2) of the FCC Rules.

We have tried to be as accurate as possible in the preparation of this application. All information contained in this application was extracted from the CDBS database. We assume no liability for omissions or errors in this source. Should there be any questions concerning the information contained herein, we welcome the opportunity to discuss the matter by phone at 912-638-8028 or by email at <u>rsg@grahambrock.com</u>.

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EXHIBIT #1A

ККОН	Reno	NV
780		50 kW

Daytime

TOWER	Z(ATU-measured)					
1 (west)						
2 (center)	45.4	+j	47.05			
3 (east)						

Nighttime

TOWER	L(uH) - series	X(L)		Z(tower-	modele	:d)	Z(ATU-1	neasu	red)	Z(tower-	-meas	ured)
l (west)	0.94	÷ј	4.6	45.8	+j	41.19	45.8	+j	45.78	45.8	+j	41.19
2 (center)	0.25	+j	1,2	45.4	+j	45.80	45.4	łj	47.05	45.4	+j	45.80
3 (east)	0.35	+j	1.7	47.2	-j	45.95	47.2	+j	47.67	47.2	+j	45.95

.

From Moment Method Calculated Values

Tower Impedance	Tolerance	Resistance & Reactance	+/- 2 Ohms	+/- 2 Ohms and +/- 4%		
Tower	Resistance	(+/- ohms)	High	Low		
1 (west)	45.78	3.83	49.6	41.9		
2 (center)	45.37	3.81	49.2	41.6		
3 (east)	47.17	3.89	51.1	43.3		
	Reactance	(+/- ohms)	High	Low		
1 (west)	41.19	3.65	44.8	37.5		
2 (center)	45.80	3.83	49.6	42.0		
3 (east-center)	45.95	3.84	49.8	42.1		

EXHIBIT #1B

Tower #1 Impedance Measurements



EXHIBIT #1C

Tower #2 Impedance Measurements



EXHIBIT #1D

Tower #3 Impedance Measurements



EXHIBIT #2

Derivation of Operating Parameters for Directional Antenna

The Method of Moments model of the array, following verification with the measured individual open circuited base impedances, was utilized for directional antenna calculations. Calculations were made to determine the complex voltage values for sources located at ground level under each tower of the array to produce current moment sums for the towers that, when normalized, equated to the theoretical field parameters of the authorized directional antenna pattern. With these voltage sources, the tower currents were calculated. Nine segments were used for each tower so that the modeled current pulse at the base of the tower would correspond to the toroid pick-up at the output of the ATU. As the tower structures, sampling pickups, and sampling lines are identical, the antenna monitor ratios and phases corresponding to the theoretical parameters were calculated directly from the modeled tower currents.

During daytime operation, Tower #2 operates non-directionally with Towers #1 and #3 floating at their base.

EXHIBIT #2A

Daytime Directional Operating Parameters

KKOH 780	Reno	NV kW				
DAYTIME - Non-Di	irectional Tower 2					
	Тожег	Tower	1			
	Impedance	Impedance				
Tower	Resistance	Reactance				
] (center)	45.4	47.05				
Day Antenna Imped	ance		Antenna Current		Transmitter Power O	utput
Resistance	45.40	Ohms	33.19		50,000	Watts
Reactance	47.05	+J Ohms				
Daytime Antenna C	urrent Tolerances					
	Current -					
Tower	(+) 5%	(-) 10%				
2 (center)	34.01	30.93				
KKOH 780 NIGHTTIME - REF	Reno 50 ERENCE TOWER #	NV kW 2				
	Current	Current	Moment Method Cal	culations	Antenna Monitor	As Adjusted
	Magnitude	Phase	of Antenna Monitor	Values	Antenna Monitor	Values
Tower	(amperes)	(degrees	Ratio	Phase	Ratio	Phase
1 (west)	11.48	-59.91	0.475	-59.9	0.475	-59.90
2 (center)	24.15	0.00	1.000	0.0	1.000	0.00
3 (east)	11.92	63.22	0.494	63.2	0.494	63.20
Night Common Poin Resistance	nt Impedance 47.35	Ohnis +L Ohnis	Common Point Curr 33.35	ent	Transmitter Power C 52650	hutput
Keaclance	1,57	TJ Officials				
Nighttime Operatin	g Parameter Toleranc	ees		and the second		
	Ratio (5%)		Phase (3°)	()		
Tower	(+)	(-)	(+)	(-)		
1 (west)	0.499	0.452	-56.9	-62.9		
2 (center)	1.000	1.000	0.0	0.0		

66.2

60.2

3 (east)

0.518

0.469

EXHIBIT #3

Method of Moments Model Details for Towers Driven Individually

The array of towers was modeled using Westberg Engineering PhasorPro 2.1.1.12. One wire was used to represent each tower. The electrical height of each tower was specified using degrees at the operating frequency of 780 kHz (1.12 MHz), as taken from the theoretical directional antenna specifications. Each tower was modeled using nine segments. As the towers are 90.0° in electrical height, the segment length is 10.0 electrical degrees, in compliance with Section 73.151(c)(1)(iii).

The individual tower characteristics were adjusted to provide a match of its modeled impedances, when presented to a circuit model, that included branches representing the stray feed-line hookup inductances at the tower bases, with the base impedances that were measured at the output jacks of the ATU's, while the other towers of the array were open circuited. The Method of Moments model assumed loads at ground level having the reactance that was calculated for them using the base circuit models for the open circuited towers of the array.

Each tower's modeled height, relative to its physical height, falls within the required range of 75% to 125%, in compliance with Section 73.151(c)(1)(v). Each tower's modeled radius falls within the range of 80% to 150% of the radius of a circle having a circumference

equal to the sum of the widths of the tower sides, which is in compliance with Section 73.151(c)(1)(i). The array consists of identical, uniform cross section towers having a face of 18 inches.

EXHIBIT #3A

	Physical	Velocity	Modeled	Modeled	Physical	Modeled	Percent of
Tower	Height	Factor	Height	Percent of	Equivalent	Radius	Equivalent
	(degrees)	Adjustment	(degrees)	Height	Radius (inches)	(inches)	Radius
1 (west)	90	0.96245	93.51	103.9%	8.594	8.314	96.7%
2 (center)	90	0.95615	94,13	104.6%	8.594	8.314	96.7%
3 (east)	90	0.95444	94.30	104.8%	8.594	8.314	96.7%

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	Tower Height 7	Folerance		Tower Radius Tolerance			
	>75% <125%			>80% <150%			
Tower	Height	Minimum	Maximum	Actual	Minimum	Maximum	
1 (west)	90	67.5	112.5	8.594	6.875	12.892	
2 (center)	90	67.5	112.5	8.594	6.875	12.892	
3 (east)	90	67.5	112.5	8.594	6.875	12.892	

	Face	Equivalent		
Tower	Size (inches)	Radius (inches)		
I (west)	18	8.5944		
2 (center)	18	8.5944		
3 (east)	18	8.5944		

EXHIBIT #4

Method of Moments Model Details for Directional Antenna Pattern(s)

The array of towers was modeled using Westberg Engineering PhasorPro 2.1.1.12 with the individual tower characteristics that were verified by the individual tower impedance measurements. Calculations were made to determine the complex voltage values for sources located at ground level under each tower of the array to produce current moment sums for the tower that, when normalized, equated to the theoretical field parameters of the authorized directional antenna pattern. The following pages contain details of the method of moments model of the directional antenna patterns.

EXHIBIT #4A

STATION INFORMATION						
Call Letters	No. Towers	Frequency				
ккон	3	0.7800				

	TOWER INFORMATION								
	Tower Height (°)	Spacing (°)	Orientation	Face Width (in.)	Radius (in.)	Velocity Factor			
Tower 1	90.0000	0.0000	0.0000	18.0000 / 18.0000	8.3138 / 8.3138	0.962450			
Tower 2	90.0000	110.0000	75.0000	18.0000 / 18.0000	8.3138 / 8.3138	0.956150			
Tower 3	90.0000	220.0000	75.0000	18.0000 / 18.0000	8.3138 / 8.3138	0.954440			

MATRIX INFORMATION						
	Impedance (other towers open)	Impedance (other towers shorted)				
Tower 1	45.80 + j41.19	57.02 + j45.24				
Tower 2	45.37 + j45.80	79.10 + j52.68				
Tower 3	47.17 + j45.95	58.73 + j50.04				

DETUNED TOWER CURRENTS
Tower 1
0.000000 > 0.000000 - 90.00° above ground
0.257206 > -144.772640 - 80.00° above ground
0.396161 > -144.823956 - 70.00° above ground
0.445230 > -144.910605 - 60.00° above ground
0.402148 > -145.040336 - 50.00° above ground
0.264096 > -145.281544 - 40.00° above ground
0.028549 > -148.767288 - 30.00° above ground
0.308421 > 35.290284 - 20.00° above ground
0.756001 > 34.996561 - 10.00° above ground
1.457813 > 34.839541 - 0.00° above ground
Tower 2
0.000000 > 0.000000 - 90.00° above ground
0.259865 > -144.595099 - 80.00° above ground
0.400466 > -144.658311 - 70.00° above ground
0.450231 > -144.762152 - 60.00° above ground
0.406776 > -144.917296 - 50.00° above ground
0.267196 > -145.206999 - 40.00° above ground
0.028954 > -149.398591 - 30.00° above ground
0.311952 > 35.482162 - 20.00° above ground
0.764615 > 35.126904 - 10.00° above ground
1.473660 > 34.935937 - 0.00° above ground
Tower 3
0.000000 > 0.000000 - 90.00° above ground
0.174744 > 112.218027 - 80.00° above ground
0.266007 > 112.940527 - 70.00° above ground
0.295167 > 113.681317 - 60.00° above ground
0.262492 > 114.555521 - 50.00° above ground
0.167864 > 116.051576 - 40.00° above ground
0.013149 > 147.867846 - 30.00° above ground
0.209074 > -67.447127 - 20.00° above ground
0.496819 > -65.861111 - 10.00° above ground
0.942360 > -65.031564 - 0.00° above ground

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ZMatrix					
45.80 + j41.19	15.03 - j23.95	-17.85 - j6.10			
15.03 - j23.95	45.37 + j45.80	15.19 - j24.34			
-17.85 - j6.10	15.19 - j24.34	47.17 + j45.95			

YMatrix					
0.010762 - j0.008539	0.005194 + j0.003890	0.000563 - j0.000958			
0.005194 + j0.003890	0.008757 - j0.005833	0.005117 + j0.003556			
0.000563 - j0.000958	0.005117 + j0.003556	0.009866 - j0.008406			

HMatrix - [I] = [H] X [F]					
0.014332 + j0.001071	0.000495 + j0.000404	0.000199 - j0.000355			
0.000501 + j0.000409	0.014154 + j0.001083	0.000500 + j0.000408			
0.000202 - j0.000361	0.000502 + j0.000410	0.014106 + j0.001085			

HMatrix-inverse - [F] = [H] ⁻¹ X [I]					
69.395175 - j5.097780	-2.620059 - j1.655415	-0.651718 + j2.004965			
-2.649487 - j1.673697	70.351373 - j5.110384	-2.694342 - j1.690683			
-0.661065 + j2.035262	-2.702485 - j1.697041	70.488082 - j5.328715			

TOWER CURRENTS
Tower 1
0.000000 > 0.000000 - 90.00° above ground
2.697606 > -79.368309 - 80.00° above ground
4.890657 > -78.060827 - 70.00° above ground
6.820110 > -76.645797 - 60.00° above ground
8.465044 > -75.064921 - 50.00° above ground
9.795009 > -73.257163 - 40.00° above ground
10.781569 > -71.136276 - 30.00° above ground
11.403937 > -68.563972 - 20.00° above ground
11.652085 > -65.294636 - 10.00° above ground
11.481404 > -59.905285 - 0.00° above ground
Tower 2
0.000000 > 0.000000 - 90.00° above ground
5.480471 > -8.922306 - 80.00° above ground
9.988878 > -8.278896 - 70.00° above ground
14.002643 > -7.593365 - 60.00° above ground
17.471282 > -6.840119 - 50.00° above ground
20.322363 > -5.993317 - 40.00° above ground
22.483943 > -5.016382 - 30.00° above ground
23.894349 > -3.850094 - 20.00° above ground
24.503829 > -2.387783 - 10.00° above ground
24.153280 > 0.000000 - 0.00° above ground
Tower 3
0.000000 > 0.000000 - 90.00° above ground
2.516999 > 59.004107 - 80.00° above ground
4.613353 > 59.379872 - 70.00° above ground
6.505699 > 59.762759 - 60.00° above ground
8.170197 > 60.163659 - 50.00° above ground
9.572475 > 60.592179 - 40.00° above ground
10.677920 > 61.061938 - 30.00° above ground
11.456554 > 61.595187 - 20.00° above ground
11.884659 > 62.231958 - 10.00° above ground
11.921638 > 63.219587 - 0.00° above ground

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EXHIBIT #5A

Daytime Tower Base Impedance Measurement



CH1 Markers

1:41.0200 32.2700 760.000 kHz

2:43.0840 39.5450 770.000 kHz

4:47.5900 54.5660

790.000 kHz

5:50.1230 62.0550 800.000 kHz

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EXHIBIT #5B

Nighttime Common Point Measurements



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EXHIBIT #6

Sampling System And Measurements

The sample system for KKOH consists of electrical equal lengths of Andrew LDF4-50A coaxial transmission lines terminated into Delta Electronics TCT-1, 0.5 V/A toroid sample transformers. A tabulation of the sample line lengths and characteristic impedances are included in Exhibit #6A. Calculations are included in Exhibits #6B1 and #6B2.

Impedance measurements of the antenna monitor sampling lines with the toroid sample transformers attached were made using an Agilent 8753ES Vector Network Analyzer with an ENI 411 LA RF Power Amplifier and Tunwall Directional Couplers, utilized as a calibrated measurement system. The impedance at the input to the sample lines, terminated by the toroid sample transformers, was measured and tabulated in Exhibits #6C1, #6C2 and #6C3.

Impedance measurements of the antenna monitor sampling lines were made using an Agilent 8753ES Vector Network Analyzer with an ENI 411 LA RF Power Amplifier and Tunwall Directional Couplers, utilized as a calibrated measurement system. 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. Exhibits #6D1, #6D2 and #6D3 detail the sample transmission line measurements with frequencies above and below carrier frequency where resonance (zero reactance corresponding with low resistance) was found. As the length of a distortionless transmission line is either 90 or 180 electrical degrees at the difference frequency between adjacent frequencies of resonance and frequencies of resonance occurring at odd multiples of 90 degrees electrical length, the sampling line length calculated from the resonant frequency closest to the carrier frequency was found to be between 191.6 and 192.3 electrical degrees, within the 1.0 degree variance, as specified by Section 73.151(c)(2)(i).

In order to determine the characteristic impedance values of the sampling lines, opencircuit 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:

$$Z0 = ((R_1^2 + X_1^2)^{\frac{1}{2}} * (R_2^2 + X_2^2)^{\frac{1}{2}})^{\frac{1}{2}}$$

The sampling line characteristic impedance was found to be 51.2 ohms, within the 2.0 ohm variance, as specified by Section 73.151(c)(2)(i).

Toroid current transformer calibration was checked by connection at the antenna monitor with short, equal length jumpers and fed an 780 kHz RF signal into a known load and found to exhibit identical phase and ratio indications on the monitor.

EXHIBIT #6A

ККОН	Reno	NV
780		50 kW

Andrew LDF4-50A

Sample Line and Sample Transformer Combined Impedance at 780 kHz

Tower		Resistance	Reactance	
Sample	Sample Transformer	(ohms)	(ohms)	
System	Make / Type			
1 (west)	Delta TCT-1, sn 15089	51.79	0.04	
2 (center)	Delta TCT-1, sn 15020	51.82	0.22	
3 (cast) Delta TCT-1, sn 15041		51.51	0.44	

Sample Line Length and Impedance Calculations

Tower	Tower Open Circuit Resonance Ca		Measured
Sample		Length at 960 kHz	Characteristic
Line	(kHz)	(degrees)	Impedance
1 (west)	1.095165	192.3	51.2
2 (center)	1.094895	192.3	51.2
3 (east)	1.098945	191.6	51.2
		0.7	

Sample Line Lengths : +/-

0.35 Degrees : Limit +/- 0.5°

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Characteristic Impedance : +/-

0.0 Ohms : Limit +/- 1.0 Ohms

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EXHIBIT #6B1

Sample Line Length / Impedance Calculations / Towers #1 and #2

TOWER 1 SAMPLE LINE			
Station Freq (MHz) 0.78	Resonant Freq (MHz) 1.095165		·
Closest To Station Freq 1.095165	Pa	Line Velocity Factor From M 88 Calculated Physical Length	fg. (%)
192.3		593.0	feet
		Impedance at Offset Freq	
-45° Offset (MHz) 0.9126	Resistance 4.221	Reactancc -49.826	Line Characteristic Impedance (Ohms)
+45° Offset (MHz) 1.2777	7.238	51.910	51.2
TOWER 2 SAMPLE LINE			
Station Freq (MHz) 0.78	Resonant Freq (MHz) 1.094895		
Closest To Station Freq 1.094895		Line Velocity Factor From M 88	fg. (%)
Length of Linc ° @ Station Fr 192.3	eq	Calculated Physical Length 593.2	feet
		Impedance at Offset Freq	ti o Ohana ta iti Tara dan sa (Ohana)
-45° Offset (MHz) 0 9124	A.275	-49.826	Line Unaracteristic impedance (Unitis)
+45° Offset (MHz)	7.418	51.920	51.2
1.277			

EXHIBIT #6B2

Sample Line Length / Impedance Calculations Tower #3

TOWER 3 SAMPLE LINE					
Station Freq (MHz) 0.78	Resonant Freq (MHz) 1.098945				
Closest To Station Freq		Line Velocity Factor From	1 Mfg. (%)		
1.098945		88			
Length of Line ° @ Station F	req	Calculated Physical Length			
191.6		591.0	fcet		
		Impedance at Offset Freq			
-45° Offset (MHz)	Resistance	Reactance	Line Characteristic Impedance (Ohms)		
0.9158	4.244	-49.910			
+45° Offset (MHz)			51.2		
1,2821	7.217	51.813			

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EXHIBIT #6C1

Tower #1 Sample and Toroid



EXHIBIT #6C2

Tower #2 Sample Line and Toroid



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CH1 Markers

1:51.4610 0.22850 760.000 kHz

2:51.6500 0.21680 770.000 kHz

4: 52.0060 0.16800 790.000 kHz

5:52.1910 0.12300 800.000 kHz

EXHIBIT #6C3

Tower #3 Sample Line and Toroid



EXHIBIT #6D1

KKOH Sample Line - Tower #1



EXHIBIT #6D2

KKOH Sample Line - Tower #2



EXHIBIT #6D3

KKOH Sample Line - Tower #3



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APPLICATION FOR STATION LICENSE <u>RADIO LICENSE HOLDING CBC, LLC</u> <u>KKOH AM RADIO STATION</u> <u>780 kHz - 50.0 kW DAN</u> <u>RENO, NEVADA</u> January 2014

EXHIBIT #7

Reference Field Strength Measurements

Nighttime reference field strength measurements were made at three locations along radials on the station's monitor point azimuths (60.0°, 75.0°, and 90.0°), as specified in the station's license for the directional array. In addition, three locations were measured in the station's nighttime major lobes of 202.0° and 307.0° and the station's minor null radial of 255°. The tabulated measured field strengths, descriptions, and GPS coordinates for the reference measurement points during directional operation are attached as Exhibits #7A, #7B, #7C and #7D. The GPS unit used was a Garmin Oregon 400T with WAAS activated, Datum NAD '27, and coordinate format DD-MM-SS.s. Due to the remote location of the transmitter with little or no road names or other descriptions available, detailed routes to the measurement locations are included with the tabulation of the field strengths. In addition, where no street reference at all was available photographs if the measurement locations are included for reference.

KKOH	Reno	NV	Nighttime Array Field Measurements						
780		50 KW							
Radial (°T)	Point #	N. Latitude	W. Longitude	Dist (mi)	Dist (km)	mv/m	Time (24 hr)	Date	Description
Monitor Point	Monitor Point Radial Specified on Station License								
60.0	1	39-41-37.7	119-46-00.4	2.25	3.62	162.00	1529	7/11/2013	Array side of dirt road
		Beginning at th	e North gate of the	KKOH transmi	tter facility, pr	oceed North to the	e site's electrical se	ervice disconne	pot.
		Turn right and	proceed East along	an unnamed di	rt road parallel	to the overhead p	ower line for appro	oximately 1.1 r	niles. Turn left and proceed North along an
		unnamed dirt r	oad, parallel to the	overhead power	line for approx	ximately I.0 mile.	Turn right and pr	roceed East alo	ng an unnamed dirt road, parallel to the overhead
		power line for	approximately 0.5 n	nile to power po	ole # 222207.	The measurement	point is approxim	ately 35 paces	in the direction of Peavine Peak (SW from this location.
		It is markec wi	th a painted stone a	nd with a painte	ed rebar stake.				
60.0	n	20 42 14 7	110 44 27 0	2 (7	6.01	17.00		7111 (0010	
00.0	2		119-44-37.0	3.07 Company Dation	5.91	17.00	1547	7/11/2013	Array side of Eagle Canyon
		The point is m	west side of Eagle	Canyon Drive,	approximately	0.05 miles north	of the southerly in	tersection with	Fancy Dance Drive.
		The point is in	arkeu with a painter	i ille at the edg	e of the roadw	ay.			
60.0	3	39-42-20.1	119-44-20.3	3.95	6.36	14.00	1605	7/11/2013	At fork just below water tank
		Beginning at th	e North gate of the	KKOH transmi	itter facility, pr	occed North to the	e site's electrical se	ervice disconne	pot.
		Turn right and	proceed East along	an unnamed di	rt road parallel	to the overhead p	ower line for appre	oximately 1.1 r	niles. Turn left and proceed North along an
		unnamed dirt road, parallel to the overhead power line for approximately 1.0 mile. Turn right and proceed East along an unnamed dirt road, parallel to the overhead power line for approximately 0.2 miles. Turn left and proceed Northeast along an unnamed dirt road for approximately 1.4 miles to a cattle guard. Cross the cattle guard and proceed an additional 0.2 miles to Eagle Canyon Drive, a paved road. Exit Eagle Canyon Drive to the left at the intersection					ng an unnamed dirt road, parallel to the overhead		
							ately 1.4 miles to a cattle guard.		
							n Drive to the left at the intersection		
		with Fancy Da	nce Drive / Loop Ro	and proceed	l uphill along a	i well-defined Jeer	Trail for approxi	mately 0.2 mie	ls toward a water storage tank.
		The measurme	nt location is at the	fork in the Jeep	Trail just belo	w the water tank,	it is marked with a	a painted stone	and a painted rebar stake.

Geographic Coordinates Datum: NAD '27 Latitude and Longitude Format: DD-MM-SS.s FIM: Potomac : FIM-4100 : SN 0185 : Calibrated December 22, 2009

GPS: Garmin Oregon 400T : WAAS Enabled

Field Measurements: Martin Stabbert

EXHIBIT #7A1 APPLICATION FOR STATION LICENSE RADIO LICENSE HOLDING CBC, LLC KKOH AM RADIO STATION 780 kHz - 50.0 kW DAN RENO, NEVADA January 2014

EXHIBIT #7A2



Reference Field Strength Measurement Location 60.0° Azimuth Point #1

EXHIBIT #7A3



Reference Field Strength Measurement Location 60.0° Azimuth Point #2

APPLICATION FOR STATION LICENSE <u>RADIO LICENSE HOLDING CBC, LLC</u> <u>KKOH AM RADIO STATION</u> <u>780 kHz - 50.0 kW DAN</u> <u>RENO, NEVADA</u> <u>January 2014</u>

EXHIBIT #7A4



Reference Field Strength Measurement Location 60.0° Azimuth Point #3

ККОН 780	Reno	NV 50 kW	Nighttime Array F	ield Measurem	ents					
Radial (°T)	Point #	N. Latitude	W. Longitude	Dist (mi)	Dist (km)	mv/m	Time (24 hr)	Date	Description	
Monitor Point	Radial Specifi	ed on Station Licen	se							
75.0	1	39-41-00.5 Beginning at th Turn right and Jeep Trail towa 0.2 miles to a f rebar stake.	119-46-28.6 the North gate of the b proceed East along a and the northeast for bork in the trail. The	1.58 KKOH transmi an unnamed di approximately measurement	2.54 itter facility, pr rt road parallel 0.6 miles. Tur point is located	20.30 occeed North to th to the overhead p n left and travel o I 5 paces toward t	1321 e site's electrical so power line for appr downhill toward the he array from this	7/11/2013 ervice disconne oximately 1.1 n e northwest alc location. It is :	Array side, fork in road ect. niles. Then proceed further along a well doing a Jeep Trail for approximately marked with a painted stone and a painted	əfined
75.0	2	39-41-16.3 Located along The point is ma	119-45-12.0 a fence approximate arked with a painted	2.75 ly 200 feet sou T-bar stake.	4.43 theast of the ca	34.30 attle guard at the s	1622 southern Eagle Car	7/11/2013 nyon Drive enti	Original Monitor Point rance to the Reno Sparks Indian Colony.	
75.0	3	39-41-57.1 Located on the The point is ma	119-41-55.1 west side of Pyrami arked with a painted	5.76 d Highway, ap line at the edg	9.27 proximately 0. e of the roadwa	15.70 15 miles north of ay.	1448 the intersection wi	7/11/2013 ith Landmark I	Array side of highway Drive.	
Geographic Co Latitude and L FIM: Potomac	oordinates Data ongitude Form : FIM-4100 : S	ım: NAD '27 hat: DD-MM-SS.s SN 0185 : Calibrate	d December 22, 200	9	GPS: Garmin	Oregon 400T : W ments: Martin St	AAS Enabled abbert			
									EXHIBIT #781 APPLICATION FOR STATIO RADIO LICENSE HOLDING KKOH AM RADIO ST. 780 kHz - 50.0 kW D <u>RENO, NEVADA</u> January 2014	ON LICENSE G CBC, LLC ATION OAN

EXHIBIT #7B2



Reference Field Strength Measurement Location 75.0° Azimuth Point #1

EXHIBIT #7B3



Reference Field Strength Measurement Location 75.0° Azimuth Point #3

ККОН	Reno	NV	Nighttime Array	Field Measurem	ients							
780	:	50 kW										
Radial (°T)	Point #	N. Latitude	W. Longitude	Dist (mi)	Dist (km)	mv/m	Time (24 hr)	Date	Description			
Monitor Point	Radial Specifie	d on Station Licen	ise									
90.0	1	39-40-39.1	119-46-17.4	1.70	2.74	34.60	1336	7/11/2013	Original Monitor Point			
		Beginning at th	Beginning at the North gate of the KKOH transmitter facility, proceed North to the site's electrical service disconnect.									
		Turn right and	Turn right and proceed East along an unnamed dirt road parallel to the overhead power line for approximately 1.1 miles.									
		Then proceed f	further along a well	defined Jeep Tr	rail toward the l	Northeast for ap	proximately 0.5 mil	es. Turn right	and travel			
		uphill to the so	uphill to the south along a rugged Jeep Trail for approximately 0.2 miles to the measurement point.									
		the measureme	nt point is located	on the east side	of the trail at a	n obvious turn-a	around. It is marked	with a painted	l stone and painted rebar stake.			
90.0	2	39-40-39.2	119-45-53.0	2.06	3.32	64.00	1630	7/11/2013	Array side of highway			
		Located on the	Located on the West side of Eagle Canyon Drive approximately 1.1 miles south of the cattle guard at the entrance to the Reno Sparks Indian Colony.									
		The point is ma	arked with a painte	d line at the edg	ge of the roadwa	ay.						
90.0	3	39-40-39.3	119-41-41.2	5.77	9.29	12.40	1434	7/11/2013	South side of Sha Neva Road			
		Located acros	Located acros the street from 11745 Terra Linda. The point is marked with a painted line at the edge of the roadway.									
Geographic Co	ordinates Datu	m: NAD '27			GPS: Garmin	Oregon 400T : V	WAAS Enabled					
Latitude and L	ongitude Forma	at: DD-MM-SS.s										
FIM: Potomac	: FIM-4100 : SI	N 0185 : Calibrate	d December 22, 20)09	Field Measure	ments: Martin S	Stabbert					

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EXHIBIT #7C2



Reference Field Strength Measurement Location 90.0° Azimuth Point #2

KKOH	Reno NV Nighttime Array Field Measurements											
780		50 kW	N									
Radial (°T)	Point #	N. Latitude	W. Longitude	Dist (mi)	Dist (km)	mv/m	Time (24 hr)	Date	Description			
Major Lobe Ra	ndial											
202.0	1	39-38-42.3	119-49-13.7	2.42	3.89	911.00	1229	8/23/2013	Painted fence post on west side of road			
	From Lemmon Drive, turn northeast on Deodar Way and proceed 0.2 miles ot an unnamed dirt road. Turn right and proceed southeast and uphill approximately 0.4 miles of power pole #223503. The point is on the west side of the dirt road, approximatley 23 paces northwest of power pole #23503. the point is marked with a painted fence post and a painted rebar stake.								nd proceed southeast and ay 23 paces northwest			
202.0	2	39-37-21.2 The point is m	119-49-56.1 arked with a painte	4.10 d line at the ed	6.60 ge of the roadw	335.00 ay.	1254	8/23/2013	NE corner of Tamra Dr & Jays Place			
202.0	3	39-36-00.5 119-50-38.5 5.76 9.27 181.00 1316 8/23/2013 NE corner of W entrance to Skyline Mobile Home Pa Northeast side of the west entrance to Sklyline Mobile Home Park on North Virginia Street. The point is marked with a painted line at the edge of the roadway.										
Geographic Co Latitude and L	oordinates Data .ongitude Form	ım: NAD '27 at: DD-MM-SS.s			GPS: Garmin	Oregon 400T : W	AAS Enabled					
FIM: Potomac	: FIM-4100 : S	SN 0185 : Calibrat	ed December 22, 20	009	Field Measurements: Martin Stabbert							

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ККОН 780	Reno	NV 50 kW	Nighttime Array	Field Measurer	nents						
Radial (°T)	Point #	N. Latitude	W. Longitude	Dist (mi)	Dist (km)	mv/m	Time (24 hr)	Date	Description		
Minor Null Ra	dial										
255.0	1	39-40-16.6	119-50-01.4	1.67	2.69	842.00	1754	7/11/2013	On walking path		
		Located along a paved walking path, 9 paces northwest of the intersection of Chickadee Drive and Tupelo Street									
		The point is m	arked by a painted	line of the edge	of the roadway			•			
255.0	2	39-40-01.5	119-51-14.1	2.78	4.47	620.00	1807	7/11/2013	Array side of road		
		Located on the east side of the roadway, across from the driveway entrance to the residence at 365 Ramsey Way.									
		The point is m	arked with a painte	d line on the ed	lge of the roadw	ay.					
255.0	3	39-39-23.5	119-54-18.0	5.59	9.00	304.00	1841	7/11/2013	Rock on array side of road		
	Located 3 paces east of the roadway and 30 paces north of the northern drive entrance to the residence at 10f								sage Way.		
		The point is marked with a Painted stone and a painted rebar stake.									
Geographic Co	ordinates Dat	um: NAD '27			GPS: Garmin (Dregon 400T : W	AAS Enabled				
Latitude and L	ongitude Form	nat: DD-MM-SS.s									
FIM: Potomac	: FIM-4100 :	SN 0185 : Calibrate	d December 22, 20	009	Field Measure	nents: Martin St	abbert				



EXHIBIT #7E2



Reference Field Strength Measurement Location 255.0° Azimuth Point #1

EXHIBIT #7E3



Reference Field Strength Measurement Location 255.0° Azimuth Point #2

EXHIBIT #7E4



Reference Field Strength Measurement Location 255.0° Azimuth Point #3

ККОН	Reno	NV	Nighttime Array	Field Measurer	nents						
780	50 kW										
Radial (°T)	Point#.	N. Latitude	W. Longitude	Dist (mi)	Dist (km)	mv/m	Time (24 hr)	Date	Description		
Major Lobe Ra	adial										
307.0	1	39-41-34.6	119-49-47.9	1.77	2.85	1150.00	1431	8/23/2013	Middle of street 11520 Oregon Street		
		Middle of the	Middle of the roadway across from the front door of the residence at 11520 Oregon Street.								
		The point is m									
307.0	2	39-42-52.7	119-52-02.6	4.26	6.86	320.00	1406	8/23/2013	East side of American Flat Road		
	Located 8 paces east of American Flat road, approximately 1.8 miles south of Antelope V										
		The point is m	arked with a painte	d stone and a p	ainted rebar sta	ke.					
307.0	3	39-43-21.8	119-52-52.8	5.18	8.34	308.00	1348	8/23/2013	W side of Red Rock Road		
		Located on the	e west side of the in	& Antelope Valley Road near 2 telco risers							
	5 paces south of two telephone company risers.										
		The point is m									
Geographic Co	oordinates Datur	n: NAD '27			GPS: Garmin	Oregon 400T : W	AAS Enabled				
Latitude and L	ongitude Forma	t: DD-MM-SS.s									
FIM: Potomac	: FIM-4100 : SI	N 0185 : Calibrat	ed December 22, 2	009	Field Measure	ments: Martin St	abbert				

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EXHIBIT #8

Antenna Monitor Calibration

The antenna monitor at the site is a Potomac Instruments AM-1901, SN 889. The Antenna Monitor and was calibrated on site according to the manufacturer's specifications. In addition to the manufacturer's calibration, a check of each antenna input using equal length jumpers referencing the reference tower (Tower #2) was made. All inputs were found to indicate within the manufacturer's specifications.





AFFIDAVIT AND QUALIFICATIONS OF CONSULTANT

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

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R. STUART GRAHAM, being duly sworn, deposes and says that he is an officer of Graham Brock, Inc. Graham Brock has been engaged by Radio License Holding CBC, LLC 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 27th day of January 2014.

R. Stuart Graham Affiant

Sworn to and subscribed before me this the 27th day of January 2014

Notary Public, State of Georgia My Commission Expires: March 14, 2015