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December 14, 2018

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

DEC 17 2018

US BANK/FCC

VIA FedEx Delivery to
FCC Lockbox 979089, SL-MO-C2-GL

Re: **Application for Broadcast Station License
and Request for Program Test Authority**
KMB Broadcasting, Inc.
Radio Station WDBC(AM), Escanaba, Michigan
Facility ID 35115

Dear Ms. Dortch:

0603784873

2018 DEC 20 PM 2:27

Transmitted herewith in triplicate on behalf of KMB Broadcasting, Inc. ("KMB"), licensee of radio station WDBC(AM), Escanaba, Michigan, is an application of FCC Form 302-AM seeking a new broadcast station license. This application covers Construction Permit BP-20160909ABN for the reduction of power to the daytime directional operation of WDBC.

Please note the associated filing fee for this application was online paid via the FCC Fee Filer. Accordingly, proof of payment of that filing fee has been included with this submission.

WDBC is currently operating under the provisions of Section 73.1615(b)(2) of the Commission's rules. Pursuant to Section 73.1620, KMB respectfully requests that station WDBC be granted program test authority as the authorized operation is simply a reduction in power and is wholly encompassed within the licensed coverage area.

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

Sincerely,

Michael D. Rhodes, P.E.
Consulting Engineer for WDBC

NO
PTA
CONDITIONS
CN
CP

Enclosure

Cavell, Mertz & Associates, Inc.

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.

BL-20181217ABC

SECTION I - APPLICANT FEE INFORMATION

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

James R. Cooke

MAILING ADDRESS (Line 1) (Maximum 35 characters)

2821 Beechwood Circle

MAILING ADDRESS (Line 2) (Maximum 35 characters)

CITY

Arlington

STATE OR COUNTRY (if foreign address)

VA

ZIP CODE

22207

TELEPHONE NUMBER (include area code)

(703) 841-1001

CALL LETTERS

WDBC(AM)

OTHER FCC IDENTIFIER (If applicable)

Facility ID 35115

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):

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 | | |
|------------------|---|---|
| M | M | R |

(B)

| FEE MULTIPLE | | | |
|--------------|---|---|---|
| 0 | 0 | 0 | 1 |

(C)

| FEE DUE FOR FEE TYPE CODE IN COLUMN (A) |
|---|
| \$ 725.00 |

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)

| | | |
|---|---|---|
| M | O | R |
|---|---|---|

(B)

| | | | |
|---|---|---|---|
| 0 | 0 | 0 | 1 |
|---|---|---|---|

(C)

| |
|-----------|
| \$ 835.00 |
|-----------|

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

\$ 1,560

FOR FCC USE ONLY

| | | |
|--|-------------|-------------------|
| SECTION II - APPLICANT INFORMATION | | |
| 1. NAME OF APPLICANT KMB Broadcasting, Inc. | | |
| MAILING ADDRESS 604 Ludington Street | | |
| CITY Escanaba | STATE MI | ZIP CODE 49829 |

2. This application is for:

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

| | | | | |
|----------------------|--|--|---|--|
| Call letters WDDB | Community of License Escanaba, Michigan | Construction Permit File No. BP-20160909ABN | Modification of Construction Permit File No(s). N/A | Expiration Date of Last Construction Permit 11/17/2019 |
|----------------------|--|--|---|--|

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

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.

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

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

If No, explain in an Exhibit.

☒ Does not apply

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 James R. Cooke | Signature  | |
| Title Treasurer | Date 12/13/2018 | Telephone Number (703) 841-1001 |

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

KMB 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 | |
|-----------|--|--------------------|--------------------|--------------------|-----|
| | | | | Night | Day |
| WDBC | BP-20160909ABN | 680 kHz | Unlimited | 1.0 | 6.0 |

2. Station location

| | |
|-------------------|--------------------------|
| State Michigan | City or Town Escanaba |
|-------------------|--------------------------|

3. Transmitter location

| | | | |
|-------------|-----------------|--------------------------|--|
| State MI | County Delta | City or Town Escanaba | Street address (or other identification) Ski Hill Road |
|-------------|-----------------|--------------------------|--|

4. Main studio location

| | | | |
|-------------|-----------------|--------------------------|--|
| State MI | County Delta | City or Town Escanaba | Street address (or other identification) 604 Ludington St. |
|-------------|-----------------|--------------------------|--|

5. Remote control point location (specify only if authorized directional antenna)

| | | | |
|-------------|-----------------|--------------------------|--|
| State MI | County Delta | City or Town Escanaba | Street address (or other identification) 604 Ludington St. |
|-------------|-----------------|--------------------------|--|

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 Changes

8. Operating constants:

| | | | |
|--|------------------|---|------------|
| RF common point or antenna current (in amperes) without modulation for night system 4.6 Amps | | RF common point or antenna current (in amperes) without modulation for day system 10.85 Amps | |
| Measured antenna or common point resistance (in ohms) at operating frequency Night 51.0 ohms | Day 53.6 ohms | Measured antenna or common point reactance (in ohms) at operating frequency Night N/A | Day N/A |

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 (SW) - ASR 1234375 | 110° | — | 0.96 | — | — | — |
| 2 (SE) - ASR 1234374 | 110° | 70° | 1.50 | 1.00 | — | — |
| 3 (NE) - ASR 1234380 | 0° | 0° | 1.00 | 0.50 | — | — |
| 4 (NW) - ASR 1234379 | -10° | — | 0.64 | — | — | — |
| | | | | | | |
| | | | | | | |

Manufacturer and type of antenna monitor:

Potomac Instruments Model AM-19 (204)

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 Uniform cross section, guyed | Overall height in meters of radiator above base insulator, or above base, if grounded. 86.0 m | Overall height in meters above ground (without obstruction lighting) 88.4 m | Overall height in meters above ground (include obstruction lighting) 89.3 m | If antenna is either top loaded or sectionalized, describe fully in an Exhibit. 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 | 45 ° | 45 ' | 47 " | West Longitude | 87 ° | 05 ' | 41 " |
|----------------|------|------|------|----------------|------|------|------|

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?

No physical changes to the antenna system from license (BL-821206AB).

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

None.

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) Michael D. Rhodes, P.E. | Signature (check appropriate box below)  |
| Address (include ZIP Code) Cavell, Mertz & Associates, Inc. 7724 Donegan Dr Manassas, VA 20109 | Date 12/12/2018 Telephone No. (Include Area Code) (703) 392-9090 |

☐ Technical Director

☒ Registered Professional Engineer

☐ Chief Operator

☐ Technical Consultant

☐ Other (specify)

Statement A
Engineering Statement
Application for Station License
prepared for
KMB Broadcasting, Inc.
WDBC Escanaba, Michigan
Facility ID 35115
680 kHz 6 kW-D 1.0 kW-N DA-2 U

Introduction

This Statement has been prepared in support of an application for license on behalf of *KMB Broadcasting, Inc.* (“KMB”), licensee of AM radio station WDBC, Escanaba, Michigan. *KMB* holds a Construction Permit (“CP”), BP-20160909ABN to decrease the power of its daytime antenna system operating from 10 kW to 6 kW. The existing two-tower antenna array was employed for this purpose *with no changes* in the daytime antenna phasing and coupling system or operational parameters. No modifications were made to the antenna array above the base insulators. No changes were made to the existing ground system or sampling system. No changes were proposed or made for the companion nighttime operation.

Operation at the new daytime directional operating power can be accomplished upon a grant of Program Test Authority (or a grant of Station License) by simply reducing the operating power of the type approved transmitter system (using the existing licensed 10 kW antenna operating parameters). Operation at the 6 kW level was conducted for testing and field data gathering purposes as permitted under §73.1615(a)(5) of the Commission’s Rules.

With this submittal, *KMB* respectfully requests a station license, authority for direct measurement of power for the facility described in the outstanding construction permit, and Program Test Authority.

Compliance with Construction Permit Conditions

There is only one operating condition or restrictions noted on the WDBC daytime construction permit which necessitates a formal response. All other special operating conditions and restrictions will be satisfied by the applicant. “Condition 5” requires the submission of new daytime (1) Common point resistance and reactance measurements; (2) Common point current measurement.; (3) monitor point readings at the locations specified in the former license (4) antenna monitor operating parameter indications; and (5) the adjusted monitor point limits based upon the new power. The day and night antenna monitor operating parameters on the FCC Form 302 must be the same as in the last license unless a partial proof is submitted.

It should be noted that the original CP included a condition that a partial proof-of-performance be conducted for the 6 kW daytime and a reference non-directional operation. Inasmuch as implementation of the CP only required decreasing transmitter power with no change in operating parameters or changes in existing RF phasing and coupling equipment, an informal request was made to Commission Staff requesting that the proof condition be deleted. A new CP was issued thereafter which removed the daytime partial proof and replaced it with the above stated condition.

In particular, the common point resistance was confirmed to be 53.6 ohms for the daytime operation. Operating common point current for the new 6 kW daytime mode is 10.85 Amps, after adjustment of applicable nominal power per Section 73.51(b). These values are reported in Section III of FCC Form 302, to which this statement is attached as “**Statement A**”. Nighttime operating current indication requirements were taken from the station’s license and are entered in the appropriate places in Section III for completeness.

Daytime Directional Antenna Performance Monitoring

Daytime antenna system indicated operating parameters, are presented in Section III of the included FCC Form 302. Although there is no change in the associated nighttime directional antenna system, a tabulation of the parameters from the current license are also included on the form.

The existing licensed 10 kW monitoring points were employed as the monitoring point locations for the new 6 kW daytime operation. (No changes are necessary for the on-file monitor point descriptions.) A summary of the observed monitor point values, along with suggested monitor point limits, is provided below.

| Monitor Point Azimuth (Degrees True) | 6 kW DA-D CP Limit (mV/m/km) | Licensed 10 kW DA-D Monitor Point Limit (mV/m) | Proposed 6 kW Monitor Point Limit (mV/m) | Monitor Point Reading at 6 kW (mV/m) |
|---|---|---|---|---|
| 20° | 956.1 | 260 | 201.40 | 197 |
| 190° | 360.1 | 181.5 | 140.59 | 124 |
| 201° | 380.6 | 162 | 125.48 | 117 |

The above reference “Licensed 10 kW DA-D Monitor Point Limit” values were taken from the station’s current license (File Number BL-821206AB). The “Proposed 6 kW Monitor Point Limit” values were scaled by taking the square root of the power ratio ($\sqrt{6/10}$) and multiplying it by the Licensed 10 kW Monitor Point Limits. As shown, all readings at the established monitor points are well below the proposed maximums with the station operating at the nominal 6 kW power level.

Considerations Related to RF Energy Exposure

The proposed operation was evaluated for human exposure to radiofrequency energy using the procedures outlined in the Commission’s OET Bulletin No. 65 (“OET 65”). OET 65 describes a means of determining whether a proposed facility exceeds the radiofrequency exposure guidelines adopted in §1.1310. Under present Commission policy, a facility may be presumed to comply with the limits specified in §1.1310 if it satisfies the exposure criteria set forth in OET 65. Based upon that methodology, as demonstrated previously, the WDBC transmitting system would comply with the cited adopted guidelines provided that no changes were made from the original proposal in operating power or base fence distances. Since no changes have occurred, it is believed that excessive levels of RF energy will not be caused at accessible areas near any of the towers, thus satisfying safety concerns for the “general public”.

Regarding worker safety, the antenna tuning units for each tower are located within a locked and posted fence for each tower, the transmitter building is normally kept locked, the phasor is constructed in a metal cabinet, and all exterior exposed RF conductors are of coaxial cable with the outer jacket bonded to station ground. Additionally, a site exposure procedure is employed protecting maintenance workers from excessive exposure when work must be performed in the vicinity of or on a tower (or on adjacent tower structures). Such protective measures include, but are not limited to, restriction of access to areas where levels in excess of the guidelines may be expected, power reduction, or the complete shutdown of facilities when work or inspections must be performed in areas where the exposure guidelines will be exceeded. No worker is permitted to climb an energized tower.

Conclusion

It is believed that the WDBC array is operating in accordance with the relevant provisions of the FCC Rules, and within the limits specified in the proposed modified standard pattern authorized by the Construction Permit as amended.

The undersigned hereby certifies that the foregoing statement was prepared by him or under his direction, and that it is true and correct to the best of his knowledge and belief.

Michael D. Rhodes, P.E.

Cavell, Mertz & Associates, Inc.

7724 Donegan Dr.

Manassas, VA 20109

(703) 392-9090

Mike.Rhodes@CavellMertz.com