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February 23, 2023

To: Audiofilings@fcc.gov

Re: Broadcast Station KING-FM (NCE), Seattle, WA
Facility ID No. 11755
FRN # 0020868501
Request for Extension of Experimental Authority to Operate with
Asymmetrical Hybrid Digital Sideband Power
FCC File No. 20220215AAI

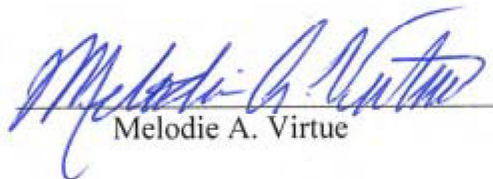
Dear Audio Division Staff:

On behalf of Classic Radio ("Classic"), licensee of non-commercial educational FM radio station KING-FM, Seattle, Washington, pursuant to FCC Rule 5.203, this letter is written to request an extension of its experimental authority for one year to operate KING-FM full-time with asymmetrical hybrid digital sideband power. The initial authorization was granted by letter dated March 25, 2020, from Rodolfo F. Bonacci in the Audio Division of the Media Bureau. A copy of that letter is attached along with the report from KING-FM's Engineer, Michael A. Brooks, detailing the methodology employed and the results obtained.

Enclosed is the Anti-Drug Abuse Certification of the licensee. No filing fee is required for this type of request.

Please direct any questions regarding this matter to the undersigned.

Respectfully submitted,



Melodie A. Virtue

MAV:cll

Enclosures

cc: Priscilla Lee (Priscilla.Lee@fcc.gov)

FEDERAL COMMUNICATIONS COMMISSION
445 12th STREET, SW
WASHINGTON, DC 20554

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

PROCESSING ENGINEER: Priscilla M. Lee
TELEPHONE: (202) 418-2957
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March 25, 2020

Melodie A. Virtue, Esq.
Garvey Schubert Barer
1000 Potomac Street, NW
Suite 200
Washington, DC 20007-3501

Re: KING-FM, Seattle, Washington
Classic Radio
Facility ID No.: 11755
File No. 20200309AAR

Request for Experimental Authority

Dear Counsel:

The staff has under consideration the above-referenced March 9, 2020 request for experimental authority submitted on behalf of Classic Radio, licensee of noncommercial educational FM station KING-FM, Seattle, Washington,¹ to permit KING-FM to continue to conduct testing of hybrid digital FM in-band on-channel (IBOC) operation with asymmetric power levels in the digital sidebands.² The experimental authority is requested pursuant to Section 5.203 of the Commission's Rules.³

The request states that Classic Radio is seeking experimental authority to operate KING-FM with lower sideband (LSB) digital effective radiated power (ERP) of -10 dBc⁴ and upper sideband (USB) digital ERP of -14 dBc. In support of its request, Classic Radio submitted an engineering study showing that the proposed operation complies fully with the contour nonoverlap requirements of the Media Bureau's *Order* adopted January 27, 2010, in MM Docket No. 99-325⁵ for operation with -10 dBc LSB digital ERP.

¹ File Number BMLED-20110502AEJ

² Classic Radio is requesting a new experimental authority to continue with the asymmetric power digital sideband operation. KING-FM's current experimental authority expires on 4/6/2020.

³ 47 CFR § 5.203 (Section 5.203).

⁴ Decibels relative to analog carrier.

⁵ See *Digital Audio Broadcasting Systems And Their Impact on the Terrestrial Radio Broadcast Service*, Order, 25 FCC Rcd 1182 (2010) ("*Order*").

Our review indicates that the proposed Station KING-FM operation complies with the contour nonoverlap and other technical requirements of the *Order*⁶ and the request for experimental authority meets the requirements for experimental operations set forth in Section 5.203. Accordingly, the request is **HEREBY GRANTED**. Station KING-FM may operate with increased digital ERP as follows:

Analog ERP:	68 kilowatts (kW) Max-DA, H&V ⁷
Digital LSB ERP: ⁸	3.4 kW
Digital USB ERP:	1.35 kW

This experimental authority expires on **March 25, 2021**. This authority is specifically conditioned on the lack of objectionable interference. A report detailing the methodology employed and the results obtained must be submitted within 90 days following the conclusion of the experimental operation. Any request for extension of this experimental authority should be filed at least 30 days prior to the expiration date of the authority. Additionally, an extension request must include an interim version of the aforementioned report that details the progress of the experimental operation as of the filing date of the request.

Sincerely,

Rodolfo F. Bonacci
Assistant Division Chief
Audio Division
Media Bureau

cc: Classic Radio via email
Erik Swanson via email

⁶ *Id.*

⁷ All ERP values rounded in accordance with 47 CFR § 73.212(a).

⁸ Digital ERP values shown are for MP1 service mode. The licensee must adjust the station's asymmetric total digital sideband ERP values in accordance with NRSC guideline "NRSC-G202-A, FM IBOC Total Digital Sideband Power for Various Configurations" (April 2016) if operating using a service mode other than MP1.

KING (FM) Fac ID 11755
363 Mercer Street, Suite 200
Seattle, WA 98109
RE: Request for extension of IBOC experimental authority, File no. 20210217AAG

February 22, 2023

In the matter of KING FM's Experimental Authorization granted by the FCC March 5, 2020, KING FM submits the following request and report pursuant to the conditions of the Experimental Authority.

KING FM has operated fulltime with asymmetrical IBOC sidebands since authority was granted.

The asymmetrical sidebands are being generated by a Nautel GV 30 transmitter operating with 68 Kilowatts ERP of analog FM, a digital LSB at -10dBc and an upper sideband at -14dBC .

KING FM transmits two IBOC channels operating at bit rates of 96 kb/s and 24 kb/s.

Observations:

The ability to transmit in asymmetrical mode has clearly enhanced the reception of our HD IBOC signal. Building and tunnel penetration remain improved since the asymmetrical broadcasts began.

Public awareness of the HD signal has also increased with this improved reception. This is borne out by the number of HD program comments the station receives. Evidence of this improved reception is further confirmed by the fact that KING FM's HD2 signal has recently and regularly been reported in the Nielsen Ratings for the Seattle/Tacoma market.

KING FM closely monitors its HD IBOC signals using our Nautel transmitter's AUI interface showing the analog and digital sidebands remain within the prescribed bandwidth envelope. Additional quality checks are provided by an Inovonics 551 HD modulation monitor and an Inovonics HD receiver.

KING FM has received no reports of signal degradation or interference complaints during the entirety of our Experimental Asymmetrical HD IBOC transmissions.

The grant of an extension to this Experimental Authorization will allow KING FM to continue to better serve our audience and provide feedback on the efficacy of these transmissions to other FM licensees as well as to broadcast equipment manufacturers.

In light of the above, KING FM respectfully proposes to The Commission that we be granted an extension to our Experimental Asymmetrical HD IBOC License with an ERP as outlined in the original Experimental License grant. KING FM will continue to closely monitor these Experimental operations ensuring that transmissions remain within our licensed parameters.

Respectfully submitted,

Michael A Brooks

Michael A. Brooks
Engineer - SBE CRBE

ANTI DRUG ABUSE CERTIFICATION

The applicant certifies that, in the case of an individual applicant, he or she is not subject to a denial of federal benefits pursuant to Section 5301 of the Anti-Drug Abuse act of 1988, 21 U.S.C. §862a, 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 pursuant to that section. For the definition of a "party" for these purposes, see 47 C.F.R. § 1.2002 (b)

☒ YES

☐ NO

Name of Applicant: KING FM

Signature:



Title: CEO

Date: 2/22/23