

APPLICATION FOR LICENSE

NCE FM STATION KCVG
HASTINGS, NEBRASKA
FACILITY ID: 78448 / BPED-20160824ABO

COMMUNITY BROADCASTING, INC.

JANUARY, 2017

APPLICATION FOR LICENSE

The following engineering statement and attached exhibits have been prepared for **Community Broadcasting, Inc.** ("CBI"), licensee of NCE FM station KCVG at Hastings, Nebraska, and are in support of their application for license.¹ This application seeks to cover the modification to the licensed facility authorized under FCC File No. BPED-20160824ABO.

The facility as authorized, and constructed, operates on FM channel 210 as a class C3 facility with a maximum effective radiated power of 16.0 kW at a center of radiation of 99 meters above average terrain. This elevation corresponds to a center of radiation of 681 meters above mean sea level, or 95 meters above ground. The facility utilizes an Electronics Research, Inc. ("ERI") model LPX-5E antenna. This is a non-directional antenna comprised of five sections spaced one wavelength apart. No beamtilt is employed by KCVG. The facility has been constructed fully in accordance with the terms of the construction permit.

The main studio for the facility does not comply with the provisions of Section 73.1125 of the Commission's Rules. A waiver of that section of the Commission's Rules has previously been granted to allow operation of KCVG as a satellite of NCE station KSIV-FM at St. Louis, Missouri. CBI is continuing operation of KCVG pursuant to the terms of this waiver.

The specified transmitter power output achieves the authorized effective radiated power. The maximum effective radiated power authorized for the facility is 16.0 kW. The antenna utilized by the facility is an ERI model LPX-5E. This antenna has a power gain of 2.1754, as specified by

¹ The Facility ID for KCVG at Hastings, Nebraska is 78448. KCVG was formerly assigned the callsign of KFKX.

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the manufacturer. The input power to the antenna to achieve the authorized effective radiated power is 5.89 kW.

Preceding the antenna is the main run of transmission line. This run consists of 292 feet of Andrew/Commscope HJ7-50A coaxial cable, which is a semi-flexible air-dielectric design, with a nominal diameter of 1 5/8 inches. The efficiency of this line run is 87.09 percent based on data from the manufacturer. The input power to the transmission line to achieve the authorized effective radiated power is 6.77 kW.

Preceding the main run of transmission line is a Shively 2-pole bandpass filter, model 2516-2A. The insertion loss of this filter, measured on-site, is 0.159 dB. This corresponds to an efficiency of 96.41 percent. The input power to the bandpass filter to achieve the authorized effective radiated power is 7.02 kW.

Between the input to the filter and the output of the transmitter is a section of rigid transmission line twenty feet in length, including two elbows. The insertion loss of this length of line is 0.0362 dB, which corresponds to an efficiency of 99.17 percent. The input power to the rigid transmission line to achieve the authorized effective radiated power is 7.08 kW, which rounds to 7.1 kW. The input to the rigid transmission line is the output of the transmitter, thus the specified transmitter power output achieves the authorized effective radiated power.

The facility was constructed in accordance with the terms of the underlying construction permit. The construction permit, as issued by the Commission, lists five (t) special conditions or restrictions. Each of this special conditions or restrictions will be described in this technical exhibit.

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The first of the special conditions pertains to the silence authority requested by CBI. This special temporary authority was originally requested by the previous licensee of KCVG, and was assigned FCC File No. BLSTA-20160620AAM. The silence authority was subsequently extended under BLESTA-20161209AAN, as requested by CBI. The request for silence was to accommodate to change in licensees, and the upgrade of the facility proposed by CBI under BPED-20160824ABO, for which this license application is being submitted.

As indicated under this condition, the license will automatically expire on July 1, 2017 if operation has not commenced by that time. CBI has completed construction of the facility, and operation commenced under the provisions of automatic program test authority on the evening January 10, 2017. The required resumption of operations notice will be filed with the Commission concurrently with this application for license.

The second special condition pertains to the waiver of Section 73.509 requested by CBI in its application for construction permit. This waiver, colloquially known as a *Raleigh Waiver*, allowed for the received overlap of the 100 dBu F(50,10) contour of third adjacent station KQQA at Shelton, Nebraska with the 60 dBu F(50,50) service contour of KCVG.² CBI is cognizant of the conditions of the waiver, and the potential impacts of any future modifications of the KQQA authorization.

² The Facility ID for KQQA at Shelton, Nebraska is 176696.

The third special condition pertains to the waiver of the main studio rule granted to CBI. This waiver was previously discussed in this exhibit, and as was stated there, CBI will continue to abide by the representations proffered in that waiver request.

The fourth special condition pertains to the antenna type at this facility. In its application for construction permit, CBI specified the use of an ERI LPX-5E model antenna. As has been previously stated, this antenna was actually installed at the facility. Since no change in the antenna type was made, CBI is in compliance with this condition, and the provisions of automatic program test authority continue to be applicable.

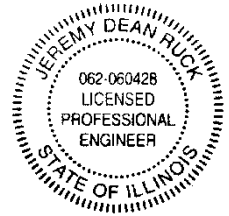
The fifth and final special condition pertains to radiofrequency radiation safety at the site. Under this condition, CBI is required to coordinate with all other users of the site to ensure that workers and other personnel are not exposed to levels of radiofrequency radiation in excess of the applicable safety standards. CBI certifies that it will coordinate as necessary with all other site users. Coordination measures will include, but are not necessarily limited to, a reduction in transmitter power, or cessation of operation.

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The preceding statement and attached exhibits have been prepared by me, or under my direction, and are true and accurate to the best of my belief and knowledge.



Above signature is digitized copy of actual signature
License Expires November 30, 2017

Jeremy D. Ruck, PE
January 12, 2017

JEREMY RUCK & ASSOCIATES, INC.

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