

APPLICATION FOR LICENSE

NON-COMMERCIAL EDUCATIONAL FM STATION
KSIV-FM - ST. LOUIS, MISSOURI
FACILITY ID: 4276

COMMUNITY BROADCASTING, INC.

JUNE, 2012

APPLICATION FOR LICENSE

The following engineering statement and attached exhibits have been prepared for **Community Broadcasting, Inc.** ("CBI"), licensee of NCE FM station KSIV-FM at St. Louis, Missouri, and are in support of their application for license to cover authorized changes.¹ This application seeks to cover the changes authorized under FCC File No. BPED-20120309AAS.

Under that application, CBI sought authorization to modify the geographic coordinates associated with KSIV-FM. In addition to the change in the geographic coordinates, modification of the elevation data associated with the facility was also requested. The request to modify the license was filed with the Commission on FCC Form 340 since the variance in location was 3.7 seconds of latitude and 1.5 seconds of longitude.²

The currently licensed center of radiation above ground level is 325 meters, which remained unchanged. The center of radiation relative to mean sea level changed to 462.2 meters due to the surveyed site elevation of 137.2 meters AMSL. These values derive a center of radiation above average terrain of 309.0 meters through the use of a 30-second linearly interpolated terrain database. No change in the antenna type or effective radiated power was proposed. It should therefore be noted that no actual physical changes in the facility were requested or made. Rather, all changes were simply corrections to data to bring values into agreement with each other.

¹ The Facility ID for KSIV-FM at St. Louis, Missouri is 4276.

² Geographic coordinates specified in the 340 were determined from a conversion of the ASR data using *Corpscon*. The ASR coordinates in NAD83 datum are 38-34-27.9 North and 90-19-31.9 West. Conversion and rounding brings them to 38-34-28 North and 90-19-32 West.

JEREMY RUCK & ASSOCIATES, INC.

P.O. Box 415
221 S. 1st Avenue
Canton, IL 61520

Tel: 309.647.1200
Fax: 855.332.9537
jeremyruck.com

The main studio for the facility continues to comply with the provisions of Section 73.1125 of the Commission's Rules. The main studio is physically located at 1750 S. Brentwood Boulevard. This location is within the corporate limits of St. Louis. It is also physically located within the principal community coverage contour of the facility.

The specified transmitter power output of 28.8 kW continues to achieve the authorized effective radiated power of 85 kW. The antenna system is a "master" antenna system used by several stations within the St. Louis market. A combiner system is utilized to allow all stations to use the antenna system simultaneously.

The transmitter power output is 28.77 kW as measured at KSIV-FM input port to the combiner system. At the KSIV-FM frequency of operation, the insertion loss of the combiner is 0.2779 dB, or is 93.80 percent efficient. Therefore the resulting power at the output of the combiner is 26.99 kW. The manager of the site and manufacturer of the antenna system have provided CBI with data stating that the loss of the transmission line at their frequency is 0.58 dB. This corresponds to a transmission line efficiency of 87.50 percent. Therefore the antenna input power is 23.61 kW. The gain of the antenna at the KSIV-FM frequency of operation is 3.60, which results in an ERP of 85.0 kW. Thus it is demonstrated that the authorized ERP is achieved by the specified transmitter power output.

The facility was constructed in accordance with the terms of the construction, although no actual physical changes to the facility or plant were made. Rather as previously discussed, the authorized changes were simply "on paper" to bring associated values into agreement with each

JEREMY RUCK & ASSOCIATES, INC.

P.O. Box 415
221 S. 1st Avenue
Canton, IL 61520

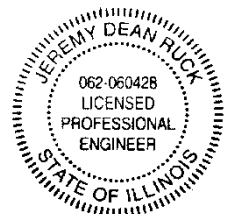
Tel: 309.647.1200
Fax: 855.332.9537
jeremyruck.com

other. The underlying construction permit specified two special conditions. CBI is in compliance with both, which will be individually discussed.

The first special condition or restriction pertains to the particular antenna type utilized by the facility. This special condition is a notice to CBI that the provisions of automatic program test authority will not apply should the antenna type be changed due to non-ionizing radiation concerns. As previously stated, no change was made to the antenna system, thus CBI complies with this special condition.

The second special condition or restriction pertains to coordination with other site users. CBI certifies that it complies with the established RF safety plan for the facility, which includes coordination requirements whenever work on the structure is performed. Coordination activities include, but are not necessarily limited to, reductions in effective radiated power or cessation of operation as necessary to protect workers and other persons.

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, 2013

Jeremy D. Ruck, PE
June 25, 2012

JEREMY RUCK & ASSOCIATES, INC.

P.O. Box 415
221 S. 1st Avenue
Canton, IL 61520

Tel: 309.647.1200
Fax: 855.332.9537
jeremyruck.com

6.25.2012