

***COMPREHENSIVE TECHNICAL EXHIBIT
APPLICATION FOR LICENSE***

FM Translator Station K260CV
0.250 KW ERP / 99.9 MHz
Stillwater, Oklahoma

Community Broadcasting, Inc.

October, 2016

APPLICATION FOR LICENSE

The following engineering statement has been prepared for **Community Broadcasting, Inc.** ("CBI"), permittee of FM translator station K260CV at Stillwater, Oklahoma, and is in support of their application for license to cover initial construction of that facility.¹ This application is being filed to cover the construction authorized under FCC File No. BMPFT-20160622ADO.

K260CV is authorized to operate with a maximum effective radiated power of 250 Watts at a center of radiation of 361 meters above man sea level, 83 meters above ground, utilizing a non-directional antenna. Construction of the facility pursuant to the terms of the underlying construction permit has been completed.

The construction permit as issued by the Commission lists two special conditions or restrictions. CBI is in compliance with both of these conditions. Each condition will be specifically discussed in this engineering statement.

The first of the special conditions pertains to radiofrequency radiation safety at the site. Under this condition, CBI is required to coordinate with 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 undertake necessary coordination activities under this condition, which may include, but are not necessarily limited to, a reduction in transmitter power or cessation of operation.

¹ The Facility ID for K260CV at Stillwater, Oklahoma is 141939.

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The second special condition requires this application for license to be on file prior to the commencement of program tests. Upon submission of this application for license, CBI will commence operation of the translator at the specified technical parameters. This operation will be in accordance with the provisions of automatic program test authority.

The specified transmitter power output achieves the authorized effective radiated power. The power gain of the specified antenna, a Systems With Reliability (SWR) model FM1/1 has a manufacturer specified power gain of 0.441. The input power to the antenna to achieve an effective radiated power of 250 Watts is 566.9 Watts.

Preceding the antenna is a superflexible jumper, which consists of three feet of Andrew/Commscope FSJ4-50B coaxial cable. The efficiency of this jumper is 98.57 percent. The input power to this jumper to achieve the authorized effective radiated power is 575.1 Watts.

Ahead of this jumper is the main run of transmission line, which consists of 272 feet of Andrew/Commscope LDF5-50A. Based on data from the manufacturer, the insertion loss of this run of line is 1.01 dB. This corresponds to an efficiency of 79.25 percent. The input power to the main run of transmission line to achieve the authorized effective radiated power is 725.7 Watts.

Preceding the main run of transmission line is a second jumper that connects the main run to a Polyphaser lightning protection device. This second jumper is identical to the first, and similarly has an efficiency of 98.57 percent. The input power to this jumper to achieve the authorized effective radiated power is 736.2 Watts.

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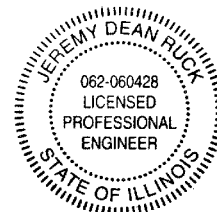
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The Polyphaser lightning protection device has an insertion loss of 0.1 dB. This corresponds to an efficiency of 97.72 percent. The input power to the Polyphaser to achieve the authorized effective radiated power is 764.3 Watts.

Between the Polyphaser and the transmitter is a third jumper identical to the other two. This jumper also has an efficiency of 98.57 percent. The input power to this jumper to achieve the authorized effective radiated power is 764.3 Watts. This value rounds to 764 Watts, and since the output of the transmitter is the input to this jumper, the specified transmitter power output achieves the authorized effective radiated power.

The facility utilizes a non-directional antenna. This antenna has been installed in accordance with the instructions of the manufacturer.

The preceding statement has been prepared by me, or under my direction, and is 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
October 19, 2016

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