

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

**FM Translator Station K272FI
0.008 kW ERP / 102.3 MHz
Lancaster, California**

High Desert Broadcasting LLC

January, 2017

APPLICATION FOR LICENSE

The following engineering statement has been prepared for **High Desert Broadcasting LLC** ("High Desert"), permittee of FM translator station K272FI at Lancaster, California, 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 most recent construction permit under FCC File No. BMPFT-20170103AAX.

K272FI is authorized to operate with a maximum effective radiated power of 8 Watts at a center of radiation of 721 meters above mean sea level, 15 meters above ground, utilizing a non-directional antenna. The construction of the facility pursuant to the terms of the construction permit has been completed.

The construction permit as issued by the Commission lists two special conditions or restrictions. High Desert 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, High Desert 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. High Desert 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 K272FI at Lancaster, California is 156050.

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The second special condition requires this application for license to be on file prior to the commencement of program tests. High Desert will commence operation following the submission of this license application. In advance of the submission of this application, High Desert has performed limited equipment tests.

The specified transmitter power output achieves the authorized effective radiated power. The authorized and utilized antenna for the facility is a Shively Labs model 6812B-1, which has a specified power gain of 0.46. The input power to the antenna to achieve the authorized effective radiated power is 17.4 Watts.

Preceding the antenna is the main run of transmission line, which consists of 65 feet of Andrew/Commscope LDF4-50A line. This transmission line is a semi-flexible foam-dielectric coaxial cable with a nominal diameter of one-half inch. The insertion loss of this run of line, based on manufacturer data, is 0.47 dB. This corresponds to an efficiency of 89.74 percent. The input power to the line to achieve the authorized effective radiated power is 19.4 Watts.

Preceding the main run of transmission line is a Shively Labs bandpass filter. This filter has a measured insertion loss of 0.9866 dB, which corresponds to an efficiency of 79.68 percent. The input power to the filter to achieve the authorized effective radiated power is 24.3 Watts.

Between the filter and the transmitter is a super-flexible jumper, two feet in length. The efficiency of this cable, which consists of two feet of coax, is 98.79 percent. The input power to the jumper to achieve the authorized effective radiated power is 24.6 Watts, which rounds to 25 Watts.

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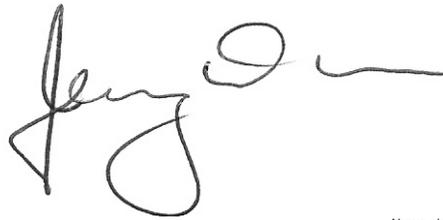
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The input to this jumper is the output of the transmitter, thus the specified transmitter power output achieves the authorized effective radiated power.

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
January 6, 2017

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