

# *APPLICATION FOR MODIFICATION OF LICENSE*

---

FM STATION KWIE  
BARSTOW, CALIFORNIA  
FACILITY ID: 191522

POINT FIVE, LLC

MAY 2018

## **APPLICATION FOR MODIFICATION OF LICENSE**

The following engineering statement has been prepared for **Point Five, LLC** ("Point Five"), licensee of FM broadcast station KWIE at Barstow, California, and are in support of their application for modification of license. This application seeks to modify the current license under FCC File No. BLH-20160613AAS. The modification of the current license is necessary due to a replacement of the antenna, and installation of a combiner system for future use.

KWIE is authorized to operate with an effective radiated power of 2.25 kW at a center of radiation of 939 meters above mean sea level. This elevation corresponds to a center of radiation of 49 meters above ground, or 165 meters above average terrain. The antenna currently utilized by the facility is a non-directional Bext TFC2K-7-16, which consists of two bays spaced 0.85 wavelength apart.

The replacement antenna is a Shively Labs model 6842-2, which also consists of two bays. The elements on this antenna are spaced at the slightly shorter distance of 0.84 wavelength. The spacing difference is sufficiently small so as not to affect the center of radiation elevation.

The main studio is in compliance with the provisions of Section 73.1125 of the Commission's Rules. A toll-free telephone number has been established for the community of Barstow.

The specified transmitter power output achieves the authorized effective radiated power. The authorized ERP for KWIE is 2.25 kW. As previously mentioned, the antenna utilized by the

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

facility is a Shively Labs 6842-2. The power gain of this antenna, as specified by the manufacturer is 0.994. The input power to the antenna to achieve the authorized effective radiated power is 2.26 kW.

Preceding the antenna is the main run of transmission line, which consists of 55 meters of Andrew/Commscope AVA5-50X coaxial cable. This cable has a nominal diameter of 7/8 inch, and is constructed with a foam dielectric. The insertion loss of the line, including connectors, is 0.6835 dB. This corresponds to an efficiency of 85.43 percent. The input power to the transmission line to achieve the authorized effective radiated power is 2.65 kW.

Ahead of the main run of transmission line is the Shively combiner system. The measured insertion loss of the combiner at a frequency of 101.3 MHz is 0.4192 dB. This value corresponds to an efficiency of 90.80 percent. The input to the combiner to achieve the authorized effective radiated power is 2.92 kW.

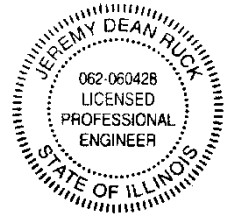
Ahead of the combiner is a short jumper section that connects the transmitter to the combiner. This jumper section has an efficiency of 98.86 percent for its length. The input power to the jumper to achieve the authorized effective radiated power is 2.95 kW. The input power to the transmission line is the output power of the transmitter. Thus, the specified transmitter power output achieves the authorized effective radiated power.

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 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, 2019

Jeremy D. Ruck, PE  
May 16, 2018

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

5.16.2018