

APPLICATION FOR LICENSE

FM BROADCAST STATION
KYTC(FM) - NORTHWOOD, IOWA
FACILITY ID: 49798

THREE EAGLES OF MASON CITY, INC.

AUGUST, 2014

APPLICATION FOR LICENSE

The following engineering statement has been prepared for **Three Eagles of Mason City, Inc.** ("Three Eagles"), licensee of FM broadcast station KYTC(FM) at Northwood, Iowa, and are in support of their application for license.¹ This application is being filed to cover the construction permit issued by the Commission under FCC File No. BPH-20140611ABL.

The specified construction permit was requested in order to make administrative changes to the license. As indicated in the text of the engineering statement attached to that application, three changes to the licensed parameters were requested. No actual physical changes were proposed to be made to the KYTC(FM) facility.

The three changes proposed in the construction permit application were a correction of one second to the geographic coordinates to agree with the ASR data, an adjustment in the center of radiation above mean sea level and average terrain to agree with ASR data, and a deletion of the contour protection status pursuant to Section 73.215 of the Commission's Rules. Pursuant to Section 73.1690, the combination of the center of radiation change and geographic coordinate change necessitated the issuance of a construction permit.

The main studio remains in compliance with the provisions of Section 73.1125 of the Commission's Rules. The main studio is located within the corporate limits of Mason City, Iowa. The entire community of Mason City, Iowa is located within twenty-five miles of the reference coordinates of Northwood, Iowa, the community of license.

¹ The Facility ID for KYTC(FM) at Northwood, Iowa is 49798.

JEREMY RUCK & ASSOCIATES, INC.

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Canton, IL 61520

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The specified transmitter power output achieves the authorized effective radiated power. The authorized effective radiated power is 25 kW. The antenna in use by the facility is an ERI LPX-5E, which utilizes five elements spaced one-wavelength apart. The numeric gain for this antenna is 2.7154, thus, the input power to the antenna to achieve the authorized effective radiated power is 9.21 kW.

Ahead of the antenna is the run of transmission line, which consists of 284 feet of Andrew HJ7-50A semi-flexible air-dielectric coaxial cable. This run of transmission line has an efficiency of 86.56 percent based on manufacturer data, which is equivalent to an insertion loss of 0.63 dB. The input power to the transmission line to achieve the authorized effective radiated power is 10.6 kW.

The input to the transmission line is at the output of the transmitter. Per the requirements of Section 73.212 of the Commission's Rules, the value of 10.6 kW should be rounded to 10.5 kW. The specified transmitter power output therefore achieves the authorized effective radiated power.

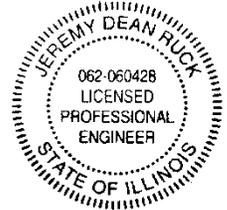
The construction permit, as issued, listed one special condition or restriction. This restriction requires that Three Eagles coordinate with other users of the site to ensure that workers and other personnel are not exposed to levels of radiofrequency radiation in excess of the applicable safety standards. Three Eagles certifies that it will coordinate with all other users of the site. Such coordination may include, but is not necessarily limited to, a reduction in transmitter power output, 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, 2015

Jeremy D. Ruck, PE
August 13, 2014

JEREMY RUCK & ASSOCIATES, INC.

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