APPLICATION FOR LICENSE

FM STATION AUXILIARY FACILITY
WHPK(FM) - CHICAGO, ILLINOIS
FACILITY ID: 69000

UNIVERSITY OF CHICAGO

FEBRUARY, 2016

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The following engineering statement has been prepared for **University of Chicago** ("UC"), licensee of non-commercial educational FM station WHPK(FM) at Chicago, Illinois, and is in support of their application for license to cover construction of an auxiliary facility.[1] This application seeks to cover the construction authorized under FCC File No. BXPED-20160219ABS.

The auxiliary facility as authorized and constructed would operate with a maximum effective radiated power of 0.052 kilowatts using a non-directional antenna. The antenna center of radiation is 217 meters above mean sea level. This elevation corresponds to a center of radiation of 36 meters above ground, or 37 meters above average terrain.

The main studio for WHPK is in compliance with the provisions of Section73.1125 of the Commission's Rules. The main studio is located within the corporate limits of Chicago, Illinois, the community of license. Additionally, the studio is located within the predicted 70 dBu service contour of the main facility, and within the principal community coverage contour of numerous other facilities licensed to Chicago.

The specified transmitter power output achieves the authorized effective radiated power. As indicated on the form pages, a Phelps-Dodge ECFM-1 antenna is utilized by the auxiliary facility. This antenna has a power gain of -3.66 dB, which is equivalent to 0.4305 numeric gain. The input power to the antenna to achieve the authorized effective radiated power is 120.8 Watts.

[1] The Facility ID for WHPK(FM) is 69000.

Ahead of the antenna is the longer of the two runs of transmission line. This run consists of 104 feet of Times Microwave LMR-400 coaxial cable. Data from the manufacturer indicates that this run of transmission line has an efficiency of 72.44 percent. Input to this run of transmission line to achieve the authorized effective radiated power is 166.7 Watts.

Preceding the longer run of transmission line in the system is a Polyphaser lightning protection device. This device has an insertion loss of 0.1 dB, which corresponds to an efficiency of 97.72 percent. The input to the Polyphaser to achieve the authorized effective radiated power is 170.6 Watts.

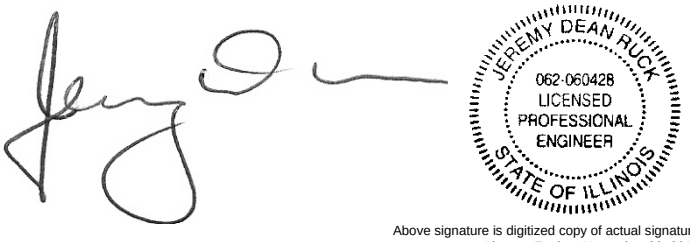
Between the transmitter and the Polyphaser is a 4-foot section of LMR-400. Data from the manufacturer indicates an insertion loss of this section of 0.1 dB. This insertion loss corresponds to an efficiency of 97.72 percent. The input power to this section of transmission line is 174.6 Watts, which rounds to 175 Watts. The input to this section of transmission line is the output of the transmitter, thus the specified transmitter power output achieves the authorized effective radiated power.[2]

The facility was constructed in accordance with the terms of the construction permit. The permit as issued by the Commission listed one special condition or restriction. UC is in compliance with this special condition, which pertains to RF safety at the site. Specifically, this special condition requires UC to coordinate with all other users of the site to ensure that workers and other personnel are not exposed to levels of radiofrequency radiation in excess of applicable safety

[2] The specified transmitter power output complies with the requirements of Section 73.212 of the Commission's Rules.

standards. Such coordination activities will include, but are not necessarily limited to, a reduction in transmitter power or cessation of operation.

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.



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License Expires November 30, 2017

Jeremy D. Ruck, PE
March 3, 2016

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