

TECHNICAL EXHIBIT
APPLICATION FOR LICENSE

Digital Companion Channel Facility W21EF-D
7.86 kW ERP DA / Channel 21
Waupaca, Wisconsin

Digital Networks-Midwest, LLC

September 2020

APPLICATION FOR LICENSE

The following engineering statement has been prepared for **Digital Networks-Midwest, LLC** (“Midwest”), licensee of low power television station W36DH at Waupaca, Wisconsin, and permittee of digital companion channel facility W21EF-D at Waupaca, Wisconsin, and is in support of their application for license to cover the construction of the companion channel facility. This application seeks to cover the construction authorized under LMS File No. 0000099309.

Under the referenced construction permit, the digital companion channel facility is authorized to operate on television channel 21 with a maximum effective radiated power of 7.86 kW at a center of radiation of 268.9 meters above mean sea level, 30.5 meters above ground level, utilizing a composite directional array. The authorized, and constructed, array consists of three (3) Kathrein-Scala PR-TV antennas. One of these antennas is oriented at 160 degrees true with the other two oriented at 320 degrees true. Equal power division between the three elements is employed. Midwest has completed construction of the facility utilizing the authorized parameters. The installed equipment achieves the authorized effective radiated power.

The construction permit, as issued by the Commission, lists two special conditions or restrictions. The first condition pertains to the operations of WCWF at Suring, Wisconsin, and its channel change under the “repack”.¹ This condition advises Midwest that operation for W21EF-D may not commence until WCWF changes to channel 15. WCWF is currently licensed on channel 15, and has thus completed its channel change. The second condition advises Midwest that the authorization is a low power television authorization, and as such, is secondary. Midwest is

¹ The Facility ID for WCWF(TV) at Suring, Wisconsin is 73042.

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cognizant of the interference requirements imposed on it by the authorization, and will comply with its requirements.

Midwest certifies that it will protect workers and other personnel from being exposed to levels of radiofrequency radiation in excess of the applicable safety standards, and will coordinate with all other users of the site. Coordination efforts will include, but are not necessarily limited to a reduction in transmitter power or cessation of operation.

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, 2021

Jeremy D. Ruck, PE
September 9, 2020

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