

ENGINEERING STATEMENT IN SUPPORT OF  
REQUEST FOR SPECIAL TEMPORARY AUTHORITY

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Clear Water Brands, Inc.  
Eau Claire, WI

This engineering statement is prepared on behalf of Clear Water Brands, Inc., licensee of FM translator W286CK, which serves as a fill in translator for WAYY(AM) - Eau Claire, Wisconsin. It supports a request for W286CK to operate from a different site using a different antenna to continue service pending the repair or replacement of its presently licensed antenna following its apparent failure.

W286CK is presently licensed to operate nondirectionally with an effective radiated power of 185 watts with an antenna height of 446 meters above sea level. On October 24, the W286CK antenna and/or transmission line was apparently damaged by stormy weather. In order to continue service until the problems can be isolated and repaired, which could take several weeks, W286CK requests special temporary authority to operate nondirectionally with an effective radiated power of 250 watts using the broadband antenna which is licensed for auxiliary use by commonly owned stations WIAL, WECL, WAXX, and WISM-FM.<sup>1</sup> Because this antenna is located only 3.6 kilometers north-northeast of the licensed W286CK site and is installed 340 feet lower (MSL) than the presently licensed W286CK antenna, the predicted 60 dBu contour for 250 watt nondirectional operation using this broadband auxiliary antenna will easily be totally encompassed within the predicted 60 dBu contour for the presently licensed W286CK 185 watt nondirectional operation. Furthermore, these proposed operating facilities will continue to provide the required contour protection to all other stations requiring protection consideration, including third adjacent channel stations WCFW and WAXX, which

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<sup>1</sup>While all four of these commonly owned stations are licensed to use this antenna as an auxiliary antenna, only one station can use it at any time. As a result, no filtering will be required for W286CK to use this antenna.

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are protected pursuant to Section 74.1204(d) of the FCC Rules based on a lack of population because the area of predicted interference is located totally above ground.

The proposed STA facilities will fully comply with the current FCC Standard with regard to human exposure to nonionizing radiation. These facilities will employ a nondirectional antenna mounted at the 72 meter level on an existing 138.8 meter tower which will operate with a circularly polarized effective radiated power of 250 watts. The power density levels at two meters above ground level for these facilities were calculated using Equation (9), found on page 22 of FCC OET Bulletin 65. Based on a total effective radiated power of 500 watts and assuming, as a worst case, 100% downward radiation, it was determined that the maximum predicted power density at two meters above ground level for these facilities will be  $3.41 \mu\text{W}/\text{cm}^2$ . Since the permitted power density in the FM band is  $200 \mu\text{W}/\text{cm}^2$ , this amounts to only 1.7% of the permitted level for uncontrolled exposure. Since this is less than 5% of the permitted level, these facilities are excluded from environmental processing under this standard and need not be considered in conjunction with other co-located or nearby facilities in evaluating uncontrolled exposure compliance with this standard.

The applicant will take appropriate steps to insure that workers that must be on this tower will not be exposed to levels of nonionizing radiation that are in excess of the permitted level for controlled exposure. These steps will include the cessation of operation or a reduction in power, as appropriate, when work becomes necessary in areas on this tower where the power density levels are in excess of the permitted level for controlled exposure.