

DELAWDER COMMUNICATIONS, INC.

P.O. Box 1095
Ashburn, Virginia 20146-1095
(703) 299-9222

ENGINEERING REPORT

WMQF, Marquette, MI, Digital TV Modification for Channel 19D

ENVIRONMENTAL STATEMENT

This proposal does not involve a site location specified under Section 1.1307(a) through (a)(8) of the FCC Rules.

All of the Applicant's analog and digital TV facilities at this location combine to produce an ERP that is less than 5 kilowatts. Assuming: (a) a maximum ERP of 5 kilowatts; (b) a relative field of less than 0.2 in the critical downward angles; and (c) a distance of at least 100 meters from the lowest antenna element to 2 meters above ground level, the maximum power density is calculated as follows:

$$S = 33.4 (F)(F)(ERP) / [(R)(R)]$$

Where, S equals power density in uW/cm²
 F equals the relative field factor
 ERP equals the effective radiate power in watts
 R equals the distance in meters

$$= 33.4 (0.2)(0.2)(5,000) / [(100)(100)]$$

$$= 0.67 \text{ uW/cm}^2 \text{ (combined worst-case for all Applicant's TVs at this site)}$$

0.67 uW/cm² less than 10% of the uncontrolled power density limit (315.3 uW/cm² for channel 14, the lowest UHF channel). The electromagnetic radiation from this proposed operation will not produce a value in excess of the radiation standard at two meters above ground level outside of the building that supports the transmit antenna. The electromagnetic radiation from the proposed operation will not combine with other facilities on or near the structure to produce a significant change in value.

If this is a structure that may support various other operations, the applicant will cooperate with the other operators in establishing a plan for work done on the structure in close proximity to the existing antenna.