



ENGINEERING STATEMENT

IN SUPPORT OF A REQUEST FOR SPECIAL TEMPORARY AUTHORITY WNMU-DT Marquette, MI

Background

The Board of Control, Northern Michigan University (NMU) holds a license for WNMU-TV, CH 13 at Marquette, MI (BLET-328, Facility ID# 4318) and also has a construction permit for WNMU-DT, CH33 at Marquette, MI (BPEDT-20000501AGD, Facility ID# 4318). In addition, it has Special Temporary Authority (BDSTA-20040430AGY, Facility ID# 4318) to operate WNMU-DT with lesser facilities than authorized in the CP. NMU is requesting a new STA with changes in the previously approved parameters. The proposed changes will result in a lower ERP (46.7 kW instead of the 50 kW authorized in the existing STA) and the use of a directional antenna instead of the authorized omni-directional antenna. These changes are being made because NMU's financial situation has prevented it from purchasing the high power transmitter necessary to develop the 50 kW omni ERP. The directional antenna's higher gain will allow an ERP (46.7 kW) that approaches that of the current STA using a smaller transmitter.

Antenna and Tower

The proposed ERI ALP-P directional radiator will be mounted on an existing registered tower (ASRN 1000705). The antenna will be side mounted so as not to increase the overall height of the tower; therefore, neither notification to the FAA nor modification of the Antenna Structure Registration is required.



ERP

The proposed ERP of 46.7 kW is 3.3 kW less than the 50 kW of the current STA. This is due to transmission line losses and the available 1.5 kW transmitter power output. Severe financial constraints reportedly prevent the purchase of a larger transmission line and/or a higher power transmitter. The 48 dBu F(50,90) contour of the proposed facility will completely, none the less, encompass the principal city of Marquette, MI.

Interference and Canadian Coordination

There would be no new interference to any other stations as the proposed facility's interference contours do not exceed those created by the parameters of the presently authorized construction permit in any azimuth. Coordination with the Canadian Administration should not be required for the same reason.

RFR/Environmental

The proposed construction does not involve any elements which would trigger the requirement for preparation of an Environmental Assessment.

The ground level radiation is calculated to be 0.00227 mW/cm^2 , which is much less than 5% of the MPE for public exposure at this frequency.

Workers on the tower in the proximity of the antenna could be exposed to fields which exceed the MPE for occupational exposure. To ensure a compliant environment, NMU will reduce power or cease operation as necessary when workers are in the vicinity of the antenna. Workers will be encouraged to wear personal RFR monitors while working on the tower. Signage is in place warning of the potential RFR hazard on the tower. The tower is enclosed by a locked security fence to limit access to authorized persons only.

**Certification**

I hereby certify that the foregoing report or statement was prepared by me but may include work performed by others under my supervision or direction. The statements of fact contained therein are believed to be true and correct based on personal knowledge, information and belief unless otherwise stated; with respect to facts not known of my own personal knowledge, I believe them to be true and correct based on their origin from sources known to me to be generally reliable and accurate. I have prepared this document with due care and in accordance with applicable standards of professional practice.

John F.X. Browne

June 27, 2006