



**ENGINEERING STATEMENT**  
**IN SUPPORT OF AN**  
**APPLICATION FOR MINOR CHANGE**  
**OF A**  
**LICENSED FACILITY**  
**MILWAUKEE AREA TECHNICAL COLLEGE**  
**WMVS-DT**  
**MILWAUKEE, WI**

**Background**

The Milwaukee Area Technical College (MATC) is the licensee of WMVS-DT (BLEDT-20000315ABP Facility ID# 42663) and licensee of WMVS-TV. These stations are collocated with WMVT-TV and WMVT-DT which are also assigned to MATC. MATC now requests a new construction permit to amend the coordinates and radiation center height to reflect the changes made to the Antenna Structure Registration as a result of a recent survey and to utilize a different directional antenna pattern.

**Antenna and Site**

A survey was completed and it was determined that the correct coordinates should be listed as 43-05-46 N. Lat., 87-54-15 W. Long. The FAA was notified and it issued a determination of "No Hazard" (2002-AGL-3013-OE) at the revised coordinates. The Antenna Structure Registration (1057482) has been modified to reflect the new coordinates and the overall height of the structure. As a result of the survey, the height of the Radiation Center Above Ground Level has changed from 363m to 362.1m, the height of the Radiation Center Above Mean Sea Level has changed from 555m to 553.5m and the HAAT has changed to 353.8m. MATC proposes a minor change of licensed facility to reflect the new height and coordinate data.



The antenna that is proposed (Dielectric THV-6A8-R) has a different directional pattern than the pattern utilized in the original license. The antenna's azimuth and elevation patterns and tables are included as Exhibit 1a-d. The relative power/dBk table is included as table 1.

### **Power**

The proposed maximum ERP of 25 kW is the same as the licensed power.

### **Interference**

Interference studies were performed with software that emulates that used by the Commission. The proposed parameters as outlined above were used. The interference analysis reported that a Class A station, WMKE CH7 Milwaukee, WI is inside the contour of the proposed WMVS-DT facility. WMKE is also inside the contour of the licensed facility and in both cases the interfering contours completely overlap the WMKE 68 dBu contour. The licensed facility overlaps the contour of Class A station WQFL CH8 Rockford, IL. The proposed facility also overlaps WQFL but the Longley-Rice interference analysis shows 0.0 percent interference. No DTV station or NTSC station was predicted to receive more than 2.0% or an aggregate of over 10% interference. The proposed facility meets the interference standards of Part 73.

### **RFR/Environmental**

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

The ground level RFR contribution from this facility is calculated to be  $0.0000637 \text{ mW/cm}^2$ , which is much less than 1% of the MPE for public exposure at this frequency and, therefore, further evaluation is not required.

Workers on the tower in the proximity of the antenna could be exposed to fields which could exceed the MPE for occupational exposure. To ensure a compliant environment, MATC



will reduce power or cease operation as necessary when workers are in the vicinity of the antenna. Workers on the tower will be encouraged to wear personal RFR monitors while working on the tower. Signage will be posted warning of the potential RFR hazard on the tower. The tower will be enclosed by a locked security fence to limit access to authorized persons only.

The licensee will also cooperate with other tenants of this tower and with owners/users of nearby towers to reduce power as necessary when workers on those antennas/structures may be exposed to high levels of RFR from the WMVS-DT antenna.

### **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.

A handwritten signature in black ink, appearing to read 'John F.X. Browne', written over a horizontal line.

John F.X. Browne, P.E.

July 7, 2004