

ENVIRONMENTAL PROTECTION ACT

Mercer County Community College

Special Temporary
Authority WWPJ Pen Argyl,
Pennsylvania July 2012

CH 208B1 0.030 kW Vert

Mercer County Community College ("the applicant") proposes the use of a 120' temporary tower to be placed immediately adjacent to an existing registered tower (ASR #1027724). This tower was constructed in 2009. On the application for antenna structure registration, the tower owner, Transcontinental Gas Pipe Line Corporation, indicated that the necessary environmental evaluation of the site had been completed. It is assumed that this information is complete and accurate. The proposed 100' temporary tower will not extend beyond the footprint of the existing tower. Further environmental evaluation is therefore unnecessary.

The proposed antenna will be energized so that it radiates 0.030 kW in the horizontal and vertical planes, from a height above ground of 36 meters. Based on the formulas expressed in the OET Bulletin, No. 65, August 1997, "Evaluating Compliance with F.C.C. Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields", published by the Federal Communication Commission's Office of Science and Engineering, the existing facility produces a worst-case maximum R.F. non-ionization radiation level at a position six feet above the tower base (head level -based on the C.O.R. of 36 meters above ground minus 2 meters) of 0.7734 microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). This figure is without regard for the antenna's vertical elevation field value toward the nadir, which will cause a reduction in the predicted "worst case" calculations. 0.7734 $\mu\text{W}/\text{cm}^2$ is 0.0773 percent of the maximum for a controlled area and 0.3866 percent for an uncontrolled area.

Since "worst case" calculations were used, and since it is well known that the actual RF power density level is considerably reduced at vertical angles toward the nadir the applicant is confident that actual RF contribution of this antenna will be less than is predicted here.

After researching the Mass Media and ULS databases, it was determined that are no other sources of RF emissions on the tower.

The proposed FM station will not contribute RF emissions over that which is permissible by Section 1.1307 of the FCC's Rules.

The applicant will protect workers on the tower by either reducing ERP or terminating transmission.

Consequently, it appears that the proposed FM station will be in full compliance with the Commission's human exposure to radiofrequency electromagnetic field rules and regulations.