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WTSM(FM) – SWANZEY, NH  
Application for Modification of Construction Permit

Exhibit 31

RF EXPOSURE STUDY

The proposed facility was examined for its compliance with F.C.C. Guidelines regarding human exposure to radiofrequency electromagnetic fields. The WTSM(FM) facility will utilize a Shively 6813-2R-SS antenna consisting of two bays spaced 0.5 wavelength apart. The antenna will be mounted 22 meters AGL with a circularly polarized ERP of 2.0 kW.

The above parameters were entered into the F.C.C. OET FMMODEL computer program. The predicted maximum RF field density, at two meters above ground, is 28.2  $\mu\text{W}/\text{cm}^2$  at a horizontal distance of 36.4 meters from the base of the tower and then decreases as the distance from the tower increases. This level is 14.1% of the allowed uncontrolled maximum exposure.

The WTSM(FM) proposed antenna site is atop a hill, inaccessible to the general public, supporting a large concentration of communication facilities. Accurate prediction of combined RF field density in multi-user environments is very difficult. The applicant, following construction, will make measurements of the RF field levels in the area surrounding the WTSM(FM) antenna to assure the site is within the RF Exposure Guidelines. The results of these measurements will be submitted with the application for license.

The applicant understands that fields in excess of the Guidelines exist on the tower in the vicinity of the antennas. The applicant will, in cooperation with other users

of the site, limit exposure to workers on the tower through reduction in power or cessation of operation.