

ENVIRONMENTAL STATEMENT
K300AE BRECKENRIDGE, CO, CH. 263D
MOUNTAIN COMMUNITY TRANSLATORS, LLC
MINOR CHANGE APPLICATION
AUGUST 2023

The applicant proposes mounting a new antenna on an existing 18.0 meter non-registered tower. The proposed Center of Radiation will be 15.0 meters Above Ground Level. A single yagi with circular polarization, Nicom BKG77, non-directional antenna system with 0.020 KW ERP (20 watts) is proposed. Calculations were made using FM Model for Windows, version 2.10. The proposed antenna Center of Radiation, above ground, was reduced by 2 meters to allow for the average height of a human on the ground. FM Model predicts a peak exposure of $4.686 \mu\text{w}/\text{cm}^2$ at a distance of 3.6 meters from the base of the tower. This represents 2.3% of the allowable Maximum Permissible Exposure (“MPE”) of $200 \mu\text{w}/\text{cm}^2$ for uncontrolled environments at any point on the ground. Since the Nicom antenna is not specifically listed in the FM Model program, the worse case “Type 1” antenna was used for the study.

The proposed site is utilized by another FM translator, K201IL Breckenridge, CO, facility ID 90004. Each translator will have its own separate mounting poles with horizontal spacing of 20 feet between the poles. From Commission records, K201IL produces a worse case power density of $9.0 \mu\text{w}/\text{cm}^2$ at 16.4 meters from the base of the tower. Thus, even if both translator power density levels were directly combined, that maximum power density level would only be $13.686 \mu\text{w}/\text{cm}^2$ or well below the permitted maximum of $200 \mu\text{w}/\text{cm}^2$ in uncontrolled areas.

The applicant will ensure that the public access to the tower is restricted by fencing, anti-climb devices or other appropriate measures. The site will be posted with RF warning signs. If climbing of the tower by authorized personnel becomes necessary, transmitter power will be reduced to safe operating levels, or transmission even terminated, as necessary as not to exceed the RF exposure limits to tower workers. The licensee will cooperate with other users at the site with the scheduling of such tower or antenna maintenance.