RF Exposure Statement

Applicant: Local Community Broadcasting, Inc. (FRN 0023094246) New FM translator, Channel 216 (91.1 MHz), McHenry, IL

Method: FCC OET Bulletin 65, S = 33.4 x F^2 x ERP / R^2 (uW/cm^2, ERP in watts, R in meters), with relative field F = 1.0 toward every point (no vertical pattern credit), 150 W ERP (vertical only), and a 2 m person height. General population limit at 91.1 MHz: 200 uW/cm^2.

The antenna's radiation center is 10.7 m (35 ft) above ground on a 30 ft tower with a 10 ft mast, behind the one-story building at 2904 IL-120. At ground level, the calculated power density is no more than 62 uW/cm^2 (31 percent of the general population limit), even directly below the antenna. At 10 m horizontal distance it is about 27 uW/cm^2 (14 percent).

The general population limit is met at 5.0 m (16 ft) or more from the antenna. The building's roof is 3.7 m (12 ft) above ground, so a 2 m person standing anywhere on it is at least 5.0 m below the antenna, and farther away because the tower stands behind the building. Levels on the roof and inside the building are therefore at or below the limit.

The only place a person could be closer than 5.0 m is on the tower itself. Before anyone climbs the tower, the translator is turned off, or reduced to a power at which the limit is met, and is not restored until the work is finished. The transmitter can be turned off remotely at any time, as described in the unattended operation showing.

With these measures, the translator complies with the FCC's RF exposure guidelines.