

EXHIBIT 17 – ENVIRONMENTAL IMPACT

The proposed modification has been analyzed with respect to OET Bulletin 65 Edition 97-01 entitled *Evaluating Compliance With FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields*. The instant application proposes to an antenna height of 36 meters above ground level (AGL) with an effective radiated power (ERP) of 0.055 kilowatts (55 watts) in the vertical and horizontal polarization planes. Using formula (9) in the OET bulletin, the free-space (worst-case) power density is calculated as follows:

$$S = \frac{33.4 \times \text{ERP}}{R^2}$$

$$S = \frac{33.4 \times (55V + 55H)}{(36 - 2)^2}$$

$$S = 0.08 \mu\text{W}/\text{cm}^2$$

where: S = power density in $\mu\text{W}/\text{cm}^2$

ERP = power in watts (vertical and horizontal components added together)

R = distance in meters (subtract 2m to account for height of person)

This calculation does not take into account the vertical (elevation) pattern of the antenna, and therefore represents truly a worst-case power density which assumes uniform radiation characteristics at all elevation angles. In reality, FM broadcast antenna concentrate radiation toward the horizon, with less power radiated in the vicinity of the tower at steep depression angles. Nonetheless, the resulting value, $3.2 \mu\text{W}/\text{cm}^2$, represents only 1.6 percent of the $200 \mu\text{W}/\text{cm}^2$ maximum allowable exposure limit for uncontrolled access.

There also exists an outstanding construction permit for a new FM translator station, W284BF, Lancaster, PA at this antenna site. This is the only other potential broadcast tenant at the proposed site. W284BF's construction permit authorized operation with an effective radiated power of 0.25 kilowatts in the vertical and horizontal polarization planes at an antenna height of 35 meters above ground level. Using the equation above, and again assuming no

correction for elevation pattern, W284BF yields a worst-case power density at ground level of $15.3 \mu\text{W}/\text{cm}^2$, which is 7.7% of the uncontrolled access exposure limit.

Combined, the two stations' power density equals 9.3% of the uncontrolled exposure limit.

The antenna site is shared with cellular/PCS carriers and two-way radio systems. These antennas are mounted on the tower at heights in excess of the 10 meter height below which evaluation is required.

The tower site is protected by a locked chain-link fence to prevent trespassers from accessing the tower or translator equipment. The antenna tower and security fences are marked with signage warning that non-ionizing radiation in excess of the aforementioned limits may be experienced at some locations on the tower. The signage will also include contact information and instructions to workers such that power may be removed from the antenna should a worker require access to areas of power density in excess of the controlled access limits.

Based on the analyses above, it is concluded that the proposed operation is in full compliance with non-ionizing radiation exposure limits.

The proposed facility will have no other significant environmental impact. The antenna tower is existing. The proposed location is not in a sensitive environmental area. The proposed facility does not require further environmental analysis under 47 CFR §1.1307 and is therefore excluded from environmental processing under 47 CFR §1.1306.