

# T Z SAWYER TECHNICAL CONSULTANTS

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WJLP

## PROPOSED MODIFICATION OF CONSTRUCTION PERMIT

FACILITY ID: 86537

MIDDLETOWN TOWNSHIP, NJ

SEPTEMBER 2021

### ENVIRONMENTAL EVALUATION STATEMENT

A grant of this proposal would NOT be an action which would have a significant environmental effect as demonstrated in this environmental evaluation statement. Any changes in equipment, or construction, if necessary will not trigger any event with regards to Section 106 of the National Historical Preservation Act (NHPA). No new construction will occur, this proposal is for an increase in radiated power of the licensed facility only.

The proposal does not meet any of the criteria specified in Section 1.1307 of the FCC Rules. More specifically, the proposed facilities are not known to fall within any of the categories enumerated in Sections 1.1307(a)(1)-(7) and will not involve the use of high intensity white lights. Furthermore, operation of the proposed facility will not involve the exposure of workers or the general public to levels of radio frequency electromagnetic fields exceeding guidelines adopted by the Federal Communications Commission. (The current FCC guidelines are based upon criteria contained in the National Council of Radiation Protection and Measurements (NCRP) Report No.86 (1986) and ANSI/IEEE C95.1-1992.)

Power density contribution from the proposed operation were computed using the appropriate equations of the OET Bulletin 65. The maximum radiated power is 26.5 kilowatts in each polarization (53.0 kilowatts H & V combined).

Using a "worst-case" relative field pattern of 0.25 for all values 30 degrees and greater below the horizon, the power density was computed at a level of 2 meters above the building's rooftop to be 0.008883 mW/cm<sup>2</sup> or 0.89% of the recommended limit of 1.0 mW/cm<sup>2</sup> for a controlled area, and 4.44% of the recommended limit of 0.20 mW/cm<sup>2</sup> for an uncontrolled area as noted in the table below.

CALCULATED POWER DENSITY AT 2 METERS ABOVE ROOF (0.25 ANTENNA RELATIVE FIELD VALUE)

CR ABOVE ROOF 113.6 M	MPE (MW/CM <sup>2</sup> )	CALCULATED VALUE (MW/CM <sup>2</sup> )	% OF MPE	PASS/FAIL
CONTROLLED AREA	1.000	0.008883	0.89%	PASS
PUBLIC AREA	0.200		4.44%	PASS

Therefore, at the building rooftop level (and 2 meters above), at the base of the supporting structure the potential for radiofrequency radiation exposure will be well within the FCC guidelines.

The antenna is 113.6 meters above the building rooftop (a highly controlled access area). The "worst-case" minimum distance from the antenna using a relative field value of 1.0 was computed to be 44.2 meters for a controlled area and 94.5 meters for an uncontrolled area. A safe-buffer zone distance exists of at least 69.4 meters for this highly controlled rooftop area. No exposure in excess of the guidelines to workers is predicted to occur from this proposal on the building rooftop. There are no public access points within the area of concern.

Suitable warning signs are posted, If work is required on the supporting pole, the power to the antenna will be terminated or reduced as required. The applicant will fully comply with the provisions contained within the OET bulletin.

The general public or workers will not be exposed to RF levels attributable to the proposal in excess of the FCC's guidelines. RF exposure warning signs are posted at the site, access to the rooftop is under lock and key.

The applicant will coordinate exposure procedures with any co-located facilities and will reduce power or cease operation as necessary to protect persons having access to the site, tower, or antenna from RF electromagnetic field exposure in excess of FCC guidelines.

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