

ENGINEERING STATEMENT
CONCERNING HUMAN EXPOSURE
TO RF ELECTROMAGNETIC FIELDS
WBLI(FM) AUXILIARY ANTENNA
PATCHOGUE, NEW YORK
CHANNEL 291B 11.6 KW 100 M HAAT

This Engineering Statement was prepared on behalf of CXR Holdings, Inc. concerning the potential for human exposure to radio frequency (RF) energy in the vicinity of the WBLI(FM), Patchogue, New York, auxiliary transmitting facility. The WBLI(FM) auxiliary facility will operate with the following specifications:

| Frequency (MHz) | Effective Radiated Power (kW) | Radiation Center Height Above Ground (m) | Transmitting Antenna |
|-----------------|-------------------------------|--|---|
| 106.1 | 11.6 kW(H) & 11.6 kW(V) | 44 | ERI, model FMH-3AE-HW (3-bay, $\lambda/2$ -spaced) (EPA Type 3) |

The only other known broadcast source of RF energy in the vicinity of this site is WUSB(FM), Stony Brook, New York (Channel 211B1, 90.1 MHz), which is co-located with the WBLI(FM) auxiliary facility.*

The Rules of the Federal Communications Commission outline the maximum permissible exposure (MPE) limits applicable to the above facilities. Specifically, according to Section 73.1310 of the FCC Rules, the MPE limits for 90.1 MHz and 106.1 MHz are as follows:

* The WUSB(FM) antenna center of radiation is located 102 m above ground level with a licensed ERP of 3.6 kW(H&V).

| Frequency (MHz) | MPE for Occupational/Controlled (O/C) Exposure (mW/cm ²) | MPE for General Population/Uncontrolled (GP/U) Exposure (mW/cm ²) |
|-----------------|--|---|
| 90.1 | 1.000 | 0.200 |
| 106.1 | 1.000 | 0.200 |

The subject facility was evaluated for RF exposure at 2-m above ground level using the procedures outlined in the FCC OET Bulletin No. 65, Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields[†], with the following results:

| Call Sign | Total Aural ERP (kW) | Relative Field Factor [‡] | FCC Limit for GP/U Exposure (mW/cm ²) | Calculated RF Field at 2-m Above Ground Level (mW/cm ²) | Percentage of Limit |
|-------------------------------|----------------------|------------------------------------|---|---|---------------------|
| WUSB(FM) Main | 7.2 | 1.00 | 0.200 | 0.024 | 12.0% |
| WBLI(FM) Auxiliary | 23.2 | 0.30 | 0.200 | 0.040 | 20.0% |
| Total Percentage of MPE Limit | | | | | 32.0% |

As indicated, the total RF exposure at 2-m above ground level will not exceed 32.0% of the FCC limit for uncontrolled environments. Therefore, the proposal complies with the FCC limits for human exposure to RF radiation and it is categorically excluded from

[†] OET Bulletin No. 65, Edition 97-01, August, 1997.

[‡] This is a conservative estimate of the relative field factor in the downward direction. For WBLI(FM), the radiation does not exceed 0.30 relative field at depression angles greater than 30° relative to the horizontal. See Appendix.

environmental processing. The applicant shall reduce power or cease operation as necessary to protect persons having access to the tower from RF energy in excess of the FCC guidelines.

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Antenna Manufacturer's Radiation Pattern

(One page follows.)

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108 MARKET STREET
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FIGURE #3

-----THEORETICAL-----
VERTICAL PLANE RELATIVE FIELD

MAY 24, 1993
ELEMENT SPACING:
0.5 WAVELENGTH

3 ERI TYPE SHP, SHPX, LP, OR LPX ELEMENTS
0 DEGREE(S) BEAM TILT
0 PERCENT FIRST NULL FILL

POWER GAIN IS 1.012 IN THE HORIZONTAL PLANE(1.012 IN THE MAX.)

