

RF HAZARD STATEMENT

TELEVISION STATION WPIX  
NEW YORK, NEW YORK  
CHANNEL 11 26 KW 405 M HAAT

This statement was prepared for television station WPIX, New York, New York (Channel 11) concerning an evaluation of compliance with Section 1.1307(b) of the FCC Rules\* regarding human exposure to radio frequency (RF) energy.†

The proposed WPIX facility will employ an existing shared master antenna mounted atop of the Empire State Building in New York. (See FCC Antenna Structure Registration No. 1007048). The Empire State Building supports the transmitting antennas of numerous broadcast and non-broadcast facilities.

The following table summarizes the technical details for the proposed WPIX facility considered in this analysis:

Call Sign	Channel / Frequency	Average Effective Radiated Power (kW)	Antenna Radiation Center Height Above Ground (meters) / (feet)	Transmitting Antenna Make and Model / Polarization
WPIX	11 / 198-204 MHz	26.0	403 / 1,322	Dielectric, THA-O4-2H/2UD2SP-2-HM / horizontal

The elevation pattern employed for the above listed antenna is included with the instant application for construction permit.

\* See Rules of the United States Federal Communications Commission (FCC), generally at Title 47 of the Code of Federal Regulations (Telecommunication).

† See FCC Office of Engineering and Technology Bulletin No. 56 for background information on non-ionizing RF energy of the type discussed here. Internet web reference:  
[http://www.fcc.gov/Bureaus/Engineering\\_Technology/Documents/bulletins/oet56/oet56e4.pdf](http://www.fcc.gov/Bureaus/Engineering_Technology/Documents/bulletins/oet56/oet56e4.pdf)

Based on Section 73.1310 of the FCC Rules, the pertinent maximum permissible exposure (MPE) limits for the subject station are as follows:

Call Sign	Frequency (MHz)	MPE for General Population/Uncontrolled (GP/U) Exposure (uW/cm <sup>2</sup> )	MPE for <u>5% Exclusion Level</u> for GP/U Exposure (uW/cm <sup>2</sup> )
WPIX	201	200	10.0

Also indicated in the table above are the 5% MPE levels below which the RF energy level contributions are considered to be negligible. Those licensees whose transmitters produce RF energy levels in excess of 5.0% of the applicable exposure limit at an accessible location are considered to be significant contributors and would share in the responsibility to bring the RF exposure levels into compliance in a multiple user environment.

The subject facilities were evaluated for RF exposure at 2-m above ground level (AGL) using the procedures outlined in OET Bulletin No. 65, *Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields*<sup>‡</sup>, with the following results:

Call Sign	Distance (m)	Assumed Antenna Downward Relative Field Factor <sup>§</sup>	Calculated Power Density (uW/cm <sup>2</sup> )	Percent of GP/U MPE (%)
WPIX	401	0.25	0.34	<b>0.17</b>

As indicated above, the exposure to RF radiation at 2-m above ground level will not exceed 0.17% of the FCC limit for general population / uncontrolled exposure.

With respect to the building itself, the nearest uncontrolled area which is unshielded by the building structure is the 86<sup>th</sup> Floor. The radial distance from the

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<sup>‡</sup> Federal Communications Commission, Office of Engineering and Technology, OET Bulletin No. 65, Edition 97-01, August, 1997.

<sup>§</sup> This is a conservative estimate of relative field factor at steep depression angles.

antenna radiation center to the closest point on this floor is 86.4 m. The depression angle to the 86<sup>th</sup> Floor is approximately 78° or greater. Power density calculations were conducted at 2-m above floor level based on the following conservative assumptions, with the following results:

Call Sign	Distance (m)	Assumed Antenna Downward Relative Field Factor**	Calculated Power Density (uW/cm <sup>2</sup> )	Percent of GP/U MPE (%)
WPIX	84.4	0.12	1.76	<b>0.88</b>

As indicated above, the exposure to RF radiation at 2-m above the 86<sup>th</sup> Floor level will not exceed 0.88% of the FCC limit for general population / uncontrolled exposure.

The management of the Empire State Building has established policies and procedures that strictly control access to certain areas of the building where there may be RF exposure levels in excess of FCC limits. When RF levels exceed the FCC limits at certain locations, access to these locations is restricted. The strict work rules in place concerning access to certain areas of the Empire State Building shall continue; and the applicant shall cooperate in implementation of the work rules. Therefore, the proposed WPIX facility complies with the FCC limits for human exposure to RF radiation and it is categorically excluded from environmental processing.

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\*\* This is a conservative estimate of the relative field factor for angles from 90° to 63° degrees below the horizontal.