TECHNICAL STATEMENT
CONCERNING HUMAN EXPOSURE TO RF ELECTROMAGNETIC ENERGY
PREPARED FOR
WPIX, INC.
WPIX-DT, NEW YORK, NEW YORK
CHANNELS 11

This Technical Statement was prepared on behalf of WPIX, Inc. concerning an evaluation of compliance with Section 1.1307(b) of the FCC Rules[*] regarding human exposure to radio frequency (RF) energy[†] for its post-transition digital television facility WPIX-DT, New York, New York (Channel 11).

The proposed WPIX-DT main 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. It is not necessary to tabulate all possible contributors to RF energy in accessible areas, however, because recent measurements have determined that existing the WPIX(TV) facility is a negligible contributor to RF energy in all accessible areas and the proposed WPIX-DT facility will result in lesser radiated RF energy than that of the WPIX(TV) facility.

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

[*] 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

Call Sign / Mode	Channel / Frequency	Average Effective Radiated Power (kW)	Antenna Radiation Center Height Above Ground (meters) / (feet)	Transmitting Antenna Make and Model / Polarization
WPIX-DT / digital	11 / 198-204 MHz	7.5	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 (FCC Form 301).

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^2)	MPE for 5% Exclusion Level for GP/U Exposure (uW/cm^2)
WPIX-DT	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[‡], with the following results:

Call Sign	Distance (m)	Assumed Antenna Downward Relative Field Factor[§]	Calculated Power Density (uW/cm^2)	Percent of GP/U MPE (%)
WPIX-DT	401	0.25	0.10	**0.05**

As indicated above, the exposure to RF radiation at 2-m above ground level will not exceed 0.05% 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 86th Floor. The radial distance from the antenna radiation center to the closest point on this floor is 86.4 m. The depression angle to the 86th 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^2)	Percent of GP/U MPE (%)
WPIX-DT	84	0.14	0.73	**0.37**

As indicated above, the exposure to RF radiation at 2-m above the 86th Floor level will not exceed 0.37% of the FCC limit for general population / uncontrolled exposure.

On October 29, 2006 Richard Tell Associates, Inc. conducted RF exposure measurements on the 86th Floor Observation Deck of the Empire State Building. These

[‡] Federal Communications Commission, Office of Engineering and Technology, OET Bulletin No. 65, Edition 97-01, August, 1997.
[§] This is a conservative estimate of downward relative field factor.
** This is a conservative estimate of the relative field factor for angles from 90° to 63° degrees below the horizontal.

measurements demonstrated compliance with the FCC public exposure standard on the 86th Floor Observation Deck. Since the proposed WPIX-DT facility will replace the analog WPIX(TV) operation on Channel 11 after the DTV transition with lesser average effective radiated power, the resulting RF exposure level from operation of the proposed WPIX-DT facility is expected to improve the RF environment on the Empire State Building. It is estimated that the average RF energy level as a result of the WPIX-DT facility will be approximately 9 dB less than that of the existing WPIX(TV) analog facility.

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 will continue; and the applicant shall cooperate in implementation of the work rules. Therefore, the proposed WPIX-DT main facility complies with the FCC limits for human exposure to RF radiation and it is categorically excluded from environmental processing.

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