

**Engineering Statement and STA Justification**  
**WNYW Channel 44 New York, NY**  
**Revised STA Application**  
**Relocation from Empire State Building to One World Trade**  
**and**  
**Antenna Change**  
**April 25, 2018**

This application for Special Temporary Authority (STA) concerns the relocation of the current WNYW facility (channel 44) from the Empire State Building to the One World Trade Building (OWT) and a modification to the previously granted STA. In order to accommodate T-Mobile's early operation in spectrum they purchased in the recently concluded Incentive Auction, Fox Television Stations, LLC sister station WWOR agreed to transition early to its Post-Transition channel and relocate its facility to One World Trade.

However, that relocation requires that WNYW and WWOR-TV move to One World Trade together. Both stations will be combined into the existing master antenna system at One World Trade. WNYW will not transition to its post-transition channel until its assigned Phase 4 thus the need for the STA to operate on channel 44 until Phase 4.

Previously WNYW was granted an STA for the purposed discussed above at a power level of 151 kW. The master antenna system at OWT is comprised of two separate antennas an RFS PEP40 that was listed in the previous STA application and a RFS PEP96L that is specified in this application. After the previous STA was requested and granted, it was determined that the PEP40 antenna would not be able to accommodate WNYW in that the additional power into the shared antenna would exceed the total antenna power limit. Therefore, WNYW will be required to use the PEP96L antenna instead of the PEP40 antenna. Since the center of radiation of the PEP96L antenna is 24.4 meters lower than the PEP40 and has a different antenna pattern it is necessary to increase the power to maintain coverage.

The facility proposed in the STA request will operate from the new location with an effective radiated power (ERP) of 426 kW. At that power level WNYW will continue to provide service to its viewers and not cause more than de minimis new interference to other existing stations. A copy of the results from a TVStudy interference analysis is attached. It is noted, in order to perform a valid study, the original DTV allotment plan record for WNYW must also be included in the analysis since that is the basis for determining the level of any pre-repack new interference.