

June 19, 2020

WVIT Application for new auxiliary broadcast facility

Engineering Exhibit

The purpose of this application is to request authority to construct an auxiliary broadcast facility for WVIT, New Britain, Connecticut, Facility ID 74170, licensed to NBC Telemundo License LLC for operation on its currently licensed post-auction channel 31.

Environmental Statement

The facilities requested in this application are located on an existing tower in an existing antenna farm. No new construction is required for the proposed facility. Antenna information required by 47CFR73.625(c) is included as a separate exhibit. The question "Does the proposed antenna propose elevation radiation patterns that vary with azimuth for reasons other than the use of mechanical beam tilt?" was checked yes solely to allow uploading the antenna elevation pattern and not because there is any variation in elevation pattern with azimuth. The antenna does not use vertical polarization.

RF power density from the facility at the proposed 125 kW ERP was calculated using the procedures described in FCC Office of Engineering and Technology Bulletin 65. The maximum RF power density anywhere on the ground including extra height allowance of 31 meters for buildings and terrain variation combined and 2 meters for a person is calculated to be 0.002787 mW/cm² or 0.727% of the maximum permissible exposure (MPE) level of 0.383 mW/cm² at 575 MHz for an uncontrolled environment. At full power in the main beam of the antenna, RF power density is calculated to drop below the maximum public exposure level at distances greater than 104.53 meters and below the maximum permissible occupational (controlled environment) exposure level of 1.917 mW/cm² at distances greater than 46.75 meters from the tower. The only tower within this distance is a 37 meter high communications tower adjacent to this tower. Calculated RF power density anywhere on that tower, including the top of the tower, from the proposed facility is calculated to be less than 1.0% of the maximum permissible exposure level for an uncontrolled environment. Access to the tower site is restricted with a locked gate. WVIT will reduce power or shut down as required to protect workers on the tower from RF exposure above the limits specified in FCC rule §1.1310.

This facility will be used only when the current licensed main facility has to be shut down to allow workers to safely work on top of the tower or if the main antenna becomes unusable. Power will be reduced or shut off as required to protect workers on the tower from RF exposure above the limits specified in FCC rule §1.1310.

Broadcast Facility

Compliance with Section 73.616: The contour of the proposed facility is entirely contained within the current licensed contour. A TVStudy 2.2.5 interference check using the 06/19/2020 database showed no new interference is predicted. Received interference is predicted to be above the 0.5% de minimis level and to the extent required, WVIT agrees to accept that interference to the proposed facility.

Compliance with Section 73.622(c): The facility will use WVIT's allotted channel.

Compliance with Sections 73.623(e), 73.1030, 73.1125: Not applicable for an auxiliary facility in this location.

Compliance with Section 73.625: The proposed contour does not exceed that of the WVIT licensed contour. The community contour of the auxiliary covers the community of license (see attached map).

Doug Lung
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