

# **Engineering Statement**

W237ER Huntington, West Virginia (Facility ID # 200426)

*Licensee - Bristol Broadcasting Company, Inc.*

## **Application - Minor Modification to Licensed Facilities**

By this Application, the Licensee (Bristol Broadcasting Company, Inc. "Bristol") seeks authority to modify the authorized facilities of FM Translator Station W237ER including changing the antenna/transmitter location and the antenna height above average terrain.

### **Engineering Discussion - Rules Compliance**

W237ER rebroadcasts station WYSN(AM) at Huntington, West Virginia (Facility ID # 61277) as a "fill-in" translator. The service contour of Translator Station W237ER with the proposed facilities will be completely encompassed by the 2.0 mV/m daytime contour of WYSN(AM) and will not extend outside a circle with a 25-mile radius centered at the WYSN(AM) transmitter site. See Figure 1 "Primary Station Data/Rules Compliance Showing" attached herewith.

As is also shown on Figure 1, the predicted 60 dBu contour of the proposed facility will overlap the 60 dBu contour of the W237ER licensed facilities as is required for the filing of a "minor change" application.

Applicant proposes to employ a non-directional antenna for W237ER.

The W237ER antenna will be side-mounted on an existing lattice-type guyed tower which is listed in the Commission's database as Antenna Structure Registration # 1057824.

### **Contour Overlap Analysis**

An analysis of contour overlap to co-channel, adjacent channel, and IF channel facilities created by the instant proposal to operate W237ER on channel 237D (95.3 MHz) was completed. This analysis (see Figure 2) demonstrated that there will be no prohibited contour overlap to any present or proposed facilities.

Based on the foregoing, the instant application is in full compliance with all applicable FCC rules regarding interference to other existing or proposed facilities.

### **Radiofrequency Radiation Exposure and Environmental Considerations**

The RF contribution from the proposed 0.250 kW facility with the center of radiation at 26 meters above ground level was evaluated using the Commission's FM Model Program and assuming a "worst case" single bay, opposed-V dipole circularly polarized antenna. The maximum RF contribution of the facility at a height of 2 meters above ground was calculated to be 7.978  $\mu\text{W}/\text{cm}^2$  at a horizontal distance of 24.6 meters from the tower base. This is below the 5% threshold of the maximum permissible of 200  $\mu\text{W}/\text{cm}^2$  for general public exposure, and, therefore, may be excluded from consideration of a detailed analysis. Accordingly, the proposed facility will be in full compliance with the FCC-specified guidelines for human exposure to radiofrequency radiation in both the "controlled" and "uncontrolled" environments.

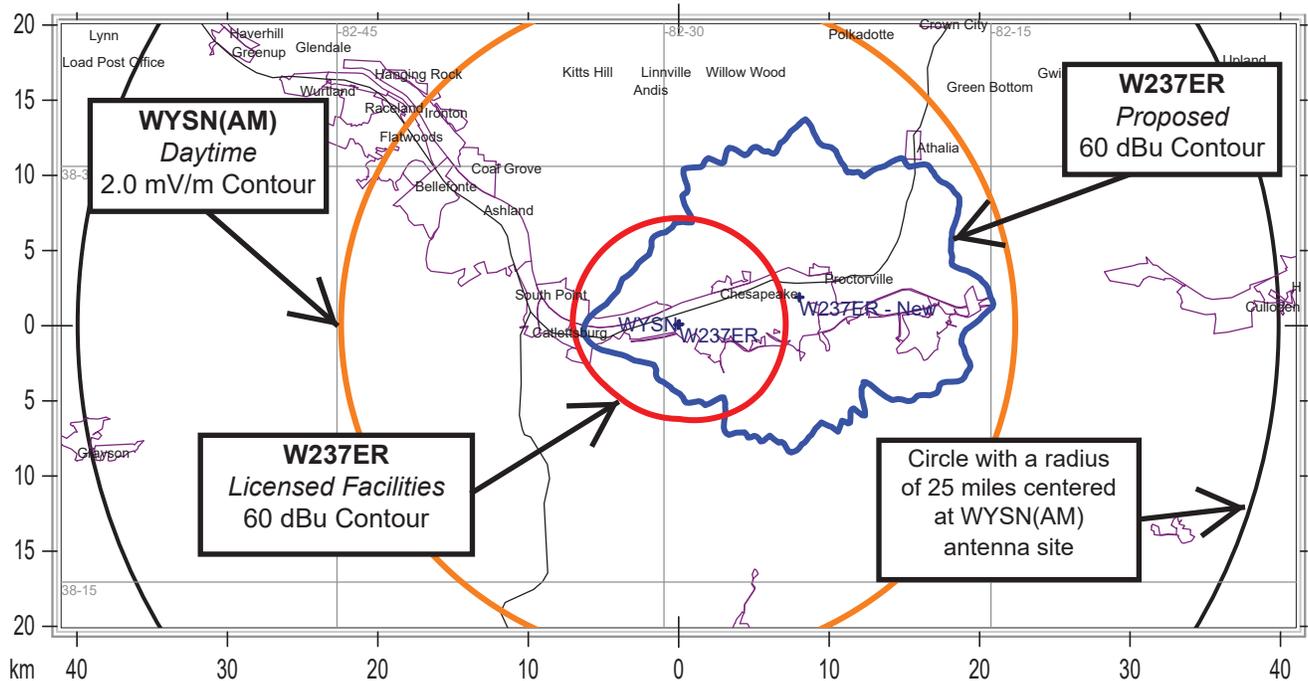
The proposed W2237ER antenna will be side-mounted on an existing tower and will create no significant visual impact to the tower.

The area at the base of the existing tower is secured to prevent unauthorized or accidental access to the area. Signs will be posted warning of potential RF danger. Additionally, the licensee in cooperation with other users at the site will reduce operating power or cease transmissions entirely to comply with ANSI guidelines whenever persons require access to the area for maintenance purposes.

In light of the foregoing, it is clear that the proposed facility will have no significant impact on the environment.

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 Application to Modify Licensed Facilities

Figure 1 - Primary Station Data/Rules Compliance Showing



FM Translator Station W237ER rebroadcasts Station WYSN(AM) at Huntington, West Virginia. The service contour of W237ER with the proposed facilities will not exceed the 2.0 mV/m daytime contour of WYSN(AM) nor will it extend outside a circle with a 25-mile radius centered at the WYSN(AM) transmitter site. WYSN(AM) is co-owned with W237ER by Bristol Broadcasting Company, Inc.

The 60 dBu contour of the proposed W237ER facilities will have overlap with the 60 dBu contour of licensed facilities authorized of W237ER as required for a "minor change" application.

