



**Kessler and Gehman Associates**  
Consultants • Broadcast • Wireless

# DIGITAL TELEVISION STATION APPLICATION FOR MINOR MODIFICATION OF A LICENSED FACILITY

CALL SIGN: WVEC  
FACILITY ID: 74167  
LOCATION: HAMPTON, VA

## ***Prepared For:***

WVEC TELEVISION, LLC  
TEGNA Inc.  
8350 Broad Street, Suite 2000  
Tysons, VA 22102

## ***Prepared By:***

Ryan Wilhour  
Consulting Engineer  
Kessler and Gehman Associates  
507 NW 60<sup>th</sup> Street, Suite D  
Gainesville, FL 32607-2055  
352-332-3157 Extension 3  
[ryan@kesslerandgehman.com](mailto:ryan@kesslerandgehman.com)  
[www.kesslerandgehman.com](http://www.kesslerandgehman.com)

April 12, 2023

## **1.0 EXECUTIVE SUMMARY**

WVEC Television, LLC is the licensee of digital television station WVEC, Channel 11, Facility ID 74167 located in Hampton VI. The channel allotment for WVEC was recently changed from Channel 11 to 35 as described in the FCC Report and Order (“R&O”) in MB Docket 22-151. Pursuant to the R&O, WVEC Television, LLC is submitting the instant minor change application to facilitate a Construction Permit.

The proposed WVEC facility conforms to the same technical parameters adopted in MB Docket 22-151, therefore realizing a 100.0 percent match of the allotted service population. Since no change in technical parameters are proposed, an interference analysis and contour map has been omitted.

## **2.0 STATION TRANSMITTER LOCATION AND TOWER ELEVATION**

It is proposed to keep WVEC at its licensed location on an existing tower which has an FCC Antenna Structure Registration Number (“ASRN”) of 1043102. The instant application does not propose to increase or modify the existing support structure or ASRN

## **3.0 NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)**

### **3.1 General Environmental Requirements**

The existing support structure with the addition of the proposed new antenna will not modify any of the following environmental considerations that trigger an environmental assessment:

- Require high intensity white lighting.

- Is not located in an official designated wilderness area or wildlife preserve.
- Does not threaten the existence or habitat of endangered species.
- Does not affect districts, sites, buildings, structures, or objects significant in American history, architecture, archaeology, engineering, or culture that are listed in the National Register of Historic Places or are eligible for listing.
- Does not affect Indian religious sites.
- Is not located in a floodplain
- Does not require construction that involves significant changes in surface features (e.g., wetland fill, deforestation, or water diversion).

### 3.2 Radio Frequency Radiation (RFR) Compliance.

A theoretical analysis has been conducted of the human exposure to radio frequency radiation (“RFR”) using the calculation methodology described in OET Bulletin 65, Edition 97-01, pursuant to the following methodology:

Terrain<sup>1</sup> extraction is compiled from the proposed tower site to radial lengths of 0.25 miles in 0.001 mile increments for 360 radials. In this case flat terrain was used to simulate standing on the top floor of the building. The power density is calculated for each terrain point at 6 feet above ground level using the elevation and azimuth pattern of the proposed broadcast antenna. The power density calculations are conducted using the lower edge of the proposed channel frequency. To account for ground reflections, a coefficient of 1.6 was included in the calculation.

The resulting cylindrical polar analysis is then summarized into a coordinate plane graph using the following methodology:

---

<sup>1</sup> Terrain extraction is based upon a 3 arc second point spacing terrain database.

Starting from the origin the maximum calculated RFR value is determined among the 360 degree radials for each 0.001 mile increment, the value is then converted into a percentage of the maximum allowable general population or uncontrolled exposure and plotted as a function of perpendicular distance from the tower.

Appendix A is the resulting RFR study demonstrating that the peak exposure is 0.009%. The instant application is compliant with the FCC limits for human exposure to RF radiation and thus is excluded from further environmental processing.

#### **4.0 CERTIFICATION**

The foregoing statement and the report regarding the engineering work are true and correct to the best of my knowledge. Executed April 12, 2023.

Kessler and Gehman Associates, Inc.



Ryan Wilhour  
Consulting Engineer

APPENDIX A – Far Field Exposure to RF Emissions

