



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

# NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) IMPACT ANALYSIS

**CALL SIGN: WNEP-TV**  
**FACILITY ID: 73318**  
**FCC FILE NO.: 0000117109**  
**LOCATION: SCRANTON, PA**

**Prepared For:**

TEGNA Broadcast  
Holdings, LLC  
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**Prepared On:**

February 27, 2023

## **1.0 Executive Summary**

Kessler and Gehman Associates Inc. has been retained by TEGNA Broadcast Holdings, LLC to prepare a NEPA and theoretical analysis of human exposure to Radio Frequency Radiation (RFR) using the calculation methodology described in OET Bulletin 65 for the modification of broadcast station WNEP-TV, Facility ID number 73318.

## **2.0 National Environmental Policy Act (NEPA)**

### **2.1 General Environmental Requirements**

ASR 1026992 was granted a modification to update the site coordinates. The instant license modification is being filed to match the coordinates of the ASR. No physical changes have been made to the ASR and license modification and thus it is presumed that the following NEPA Environmental Assessment key trigger points have already been mitigated:

- 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).

## 2.2 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. The RFR analysis is conducted pursuant to the following methodology:

Terrain extraction is compiled from the support structure site, if the support structure is on a rooftop with no higher elevations (e.g., elevator shaft) then flat terrain is compiled. Terrain is extracted using radial lengths of 0.25 miles in 0.001-mile increments for 360 radials. 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:

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.

The resulting RFR study in Appendix A demonstrates that the peak exposure is 0.17% of the most restrictive permissible exposure threshold. Pursuant to OET Bulletin 65 concerning multiple-user transmitter sites only those licensees whose transmitters produce power density levels

greater than 5.0% of the exposure limit are considered significant contributors to RFR. Since the proposed operation is within 5% of the most permissible exposure at any location 2 meters above the ground, it is not considered a significant contributor to RFR exposure. Thus, contributions to exposure from other RF sources in the vicinity of the proposed facility were not taken into account. The instant application is compliant with the FCC limits for human exposure to RF radiation and thus is excluded from further environmental processing.

### **3.0 CERTIFICATION**

The foregoing statement and the report regarding the aforementioned engineering work are true and correct to the best of my knowledge.

Ryan Wilhour



Consulting Engineer

February 27, 2023

APPENDIX A – FAR FIELD EXPOSURE TO RF EMISSIONS

