

ENGINEERING STATEMENT OF RYAN WILHOUR OF THE FIRM OF
KESSLER AND GEHMAN ASSOCIATES, INC., CONSULTING ENGINEERS IN
CONNECTION WITH AN APPLICATION FOR A LICENSE TO COVER APPLICATION FOR A
CONSTRUCTION PERMITTED DIGITAL TELEVISION TRANSLATOR FACILITY HAVING
CALL SIGN: W29DP-D (FCC FILE NUMBER BNPDTT-20090825BFJ)
WELCH, WEST VIRGINIA

PREFACE

Kessler and Gehman Associates, Inc. has been retained by West Virginia Educational Broadcasting Authority (“WVEBA”) to prepare engineering studies and the engineering portion of FCC Form 347 for a license to cover a construction permitted digital translator broadcast facility having a facility identification number of 181678.

ENGINEERING EXHIBITS

In carrying out the engineering studies the following attached exhibits were prepared:

1. Permitted and as Built Parameters (Exhibit 7.1)
2. Environmental impact / RFR hazard analysis and methodology (Exhibit 7.2)

DISCUSSION

During the construction of the permitted facility it was discovered that the transmitter does not have enough Transmitter Power Output (“TPO”) to generate the required ERP through the permitted antenna. In order to generate the required ERP the TLP-8A omni-directional antenna is being substituted by a TLP-12A omni-directional antenna which has a higher

elevation gain figure; furthermore, a larger transmission line was selected which has less line loss. With the substitution of the antenna and transmission line, the transmitter is able to produce the required ERP without any changes in the ERP in any azimuthal direction.

Exhibit 7.1 highlights the technical parameters modified by the substituted transmission line and antenna relative to the permitted facility. Accordingly, the following parameters are modified relative to the construction permit authorization parameters:

- The antenna description shall change from a DIE TLP-8A to a DIE TLP-12A
- The beam tilt shall change from 1.5 to 1.0 degrees
- The transmitter power output shall change from 2.84 kW to 1.8 kW

No other technical changes are being made.

ENVIRONMENTAL IMPACT / RFR HAZARD ANALYSIS

An analysis has been made of the human exposure to RFR using the calculation methodology described in OET Bulletin 65, Edition, 97-01. Exhibit 7.2 is a RFR study demonstrating compliance within 5% of the most restrictive permissible exposure at any location 2 meters above the ground (See Methodology). Exhibit 7.2 calculations were made using a frequency of 560 MHz, which is the lower edge of the proposed channel. To account for ground reflections, a coefficient of 1.6 was included in the calculations.

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 well 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 proposal complies with the FCC limits for human exposure to RF radiation and thus is excluded from further environmental processing.

The applicant will cooperate with any other users of the tower by reducing the power to the antenna or if necessary completely cutting it off in order to protect maintenance workers on the tower.

DECLARATION OF ENGINEER

The foregoing statement and the report regarding the aforementioned engineering work are true and correct to the best of my knowledge. Executed on February 13, 2013.

KESSLER AND GEHMAN ASSOCIATES, INC.

A handwritten signature in blue ink that reads 'Ryan Wilhour'.

Ryan Wilhour
Consulting Engineer