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## TECHNICAL STATEMENT OF RYAN WILHOUR OF THE FIRM OF KESSLER AND GEHMAN ASSOCIATES, INC., CONSULTING ENGINEERS IN CONNECTION WITH A NEW DIGITAL COMPANION CHANNEL TV TRANSLATOR BROADCAST STATION K59CC-LD NEUHOFF FAMILY LIMITED PARTNERSHIP BURLEY, ETC., ID

## ENVIRONMENTAL IMPACT / RFR HAZARD ANALYSIS

A theoretical analysis has been made of the human exposure to Radio Frequency Radiation ("RFR") using the calculation methodology described in *OET Bulletin 65, Edition, 97-01*. The attached chart demonstrates the following colored contours:

- Green The Proposed Station's RFR Level as a Percentage of the Maximum Permissible General Population Exposure RFR Limit.
- Red Maximum Permissible General Population Exposure RFR Limit.
- Blue 5% of the Maximum Permissible General Population Exposure RFR Limit.

Pursuant to OET Bulletin 65 concerning multiple user transmitter sites, only those transmitters which produce power density levels greater than 5.0% of the maximum general population exposure RFR limit are considered significant contributors. As demonstrated in the attached chart, the proposed facility is below 5% of the maximum permissible general population exposure RFR limit threshold at any location 2 meters above the ground, and is not considered a significant contributor to RFR. Thus, contributions to exposure from other RF sources in the vicinity of K59CC-LD were not taken into account. The proposed facility

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complies with the FCC limits for human exposure to RFR, and thus is categorically 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** 

I, Ryan Wilhour, declare and state that I am a graduate electrical engineer with a Bachelor

of Science in Electrical Engineering and my qualifications are a matter of record with the

Federal Communication Commission, and that I am an engineer in the firm of Kessler and

Gehman Associates, Inc., and that firm has been retained by Neuhoff Family Limited

Partnership to prepare the herein statement.

I declare under penalty of perjury that the foregoing statement and the report regarding the

aforementioned engineering work are true and correct to the best of my knowledge.

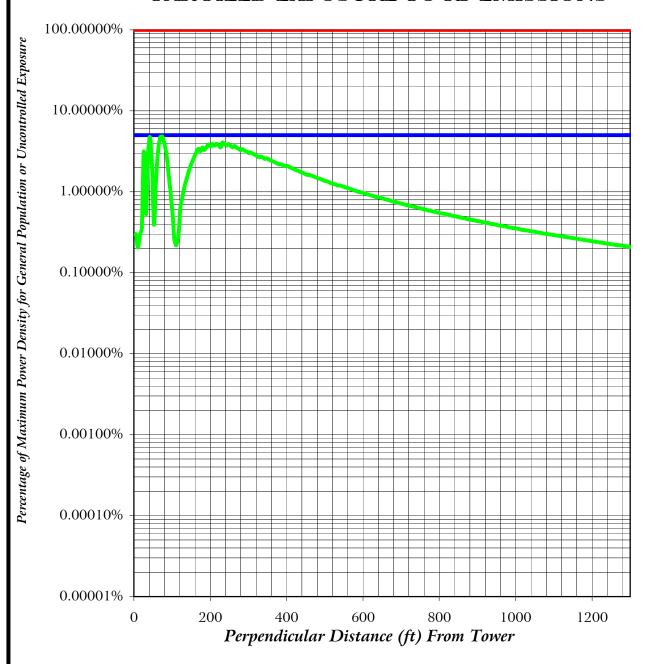
KESSLER AND GEHMAN ASSOCIATES, INC.

Ryan Wilhour

Consulting Engineer

Jan billow

## FAR FIELD EXPOSURE TO RF EMISSIONS



- Maximum Allowable General Population or Uncontrolled Exposure
- —5 % of Maximum General Population or Uncontrolled Exposure
- Percentage of Maximum General Population or Uncontrolled Exposure

KESSLER & GEHMAN

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K59CC-LD BURLEY ETC., ID

EXHIBIT E1



## METHODOLOGY AND EXPLANATION OF ENVIRONMENTAL IMPACT / RADIO FREQUENCY RADIATION HAZARD ANALYSIS

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<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. 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.

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