GREG BEST
CONSULTING, INC.
16100 Outlook Avenue
Stilwell, KS 66085
816-792-2913

August 15 2020

SUPPLEMENTAL EXHIBIT FOR LICENSE TO COVER

Dear Sir,

The licensee of WSIU, the Board of Trustees of Southern Illinois University was granted a construction permit with FCC file number BLANK-0000107828. The facility has been constructed but it is not constructed in accordance with the associated construction permit. Specifically, the radiation center of the antenna is different than specified in the construction permit. The permittee requests that the license to cover be granted with the modified radiation center as it is lower than the construction permit identifies. The construction permit specifies 425 ft and the proposed height is 390 ft.

The reason for the difference is traced to two factors. One was the fact that the tower is in process of being reinforced and modified at the prescribed height, the tower crew was pulled off the project to service other Phase 10 repack and more urgent projects The tower crew has not returned to the site and it is undetermined when that will occur. The second reason is that the transmission line bridge length was not correctly assessed. Thus the purchased amount of 1 5/8" foam transmission line in a single roll would not extend to the height prescribed by the construction permit.

The change in radiation center has no impact on causing interference to other authorized facilities as the height is 35 ft lower. With regard to the concern of RF exposure, the attachment to this document describes the predicted RF exposure, which is of de minimis impact.

As such, the permittee wishes to request the license to cover be granted at the existing ERP of 5 kW and the modified radiation center. No other changes are made to the operating parameters or location of the transmission facility.

The operating constants are described in the application to which this exhibit is attached.

Sincerely,

Gregory L Best, PE

Consulting Engineer

RF EXPOSURE CALCULATION WITH NEW RADIATION CENTER OF 119 METERS

This will serve as the exhibit to confirm that no significant Environmental Impact Assessment as defined in FCC Rule 1.1307 for the proposed facility is necessary. The site is not a Native American religious site, nor located in a flood plain area, nor officially designated wilderness area, nor officially designated wildlife preserve. Likewise, the proposed change of the facility does not include any lighting changes, nor creates any land disturbance or surface features to the existing facility.

To ensure the proposed facility does not create an RF Radiation Hazard, the calculation for this proposed facility is calculated below. The RF radiation near the ground (2 meters above ground) can be calculated using the OET-65 formula for broadcast television stations taking into account the following factors

S= power density in watts per square meter

P= total Effective Radiated Power from the antenna

F= field radiated on the axis to the ground level

R= distance to the ground level (actually 2 meters above ground)

Therefore, given the following data for the proposed facility:

P= 5.0 kwatts

R=Radiation center above ground level – 2 meters)
= 117 meters

F= 0.1 for UHF antennas

The RF radiation near the ground level can be calculated with the following result:

0.12 μwatts/cm^2

which is 0.03 % of the general population exposure limit of 371 μw/cm^2 for this channel 28 facility

Since the contribution from this RF source is less than 5% of the MPE limit for Occupational/Controlled Exposure or General Population/Uncontrolled Exposure at any point on the ground, proposed facility is not considered a “significant contributor” to the RF exposure environment pursuant to OET Bulletin 65, Edition 97-01. The licensee, in coordination with the other users of the antenna facility, will reduce power or cease operation as necessary to protect persons having access to the tower or antenna from RF energy in excess of the FCC guidelines.

Should you have any questions regarding this information please contact me.

Sincerely,

Gregory L Best, PE

Consulting Engineer