



Department of Development Services

Central Permitting Division
108 East Front Street, PO Box 65
Lillington, NC 27546
Office: (910) 814-6431

**Subject: Duke Energy Tower Replacement – Site Sound Emission
Tower Site: Lillington Radio – 315-ft Guyed Tower
1132 Docs Road, Lillington, Harnett County, NC 27546
TEP# 50076**

To whom it may concern:

The construction drawings, dated October 9, 2018, for the proposed replacement tower at the location stated above, show minimal disturbance to the site ground equipment. Per these drawings, the existing shelter and generator are to remain.

Currently, the existing on-site generator is a Cummins 20kW standby gaseous generator (model GGMA). The Cummins specifications for this model generator lists a sound emission of 66 dB at a distance of 7 meters, at full load. Estimating the sound level at a distance away from the generator equal to the tower fall zone of 160-ft, and using the Inverse Square Law, would presume the sound level at the fall radius extent to be 49 dB. This estimate does not consider any echoing effect, or sound attenuation for any tree buffer present. With the manufacturer reported sound emission and the emission estimate at a distance of 160-ft being under the 70dB requirement per article 11.2.8(B)(9) of the Harnett County ordinance, plus the actual distance from the existing generator to the nearest property line being greater than the assumed 160-ft; it is very likely the sound emission is below the required 70dB threshold.

Please feel free to contact our office with questions.

Regards,

A handwritten signature in blue ink, appearing to be "John Goins", is written over the "Regards," text.

John Goins, P.E.
Tower Engineering Professionals, Inc. (TEP)