



STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

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VIA ELECTRONIC MAIL

March 3, 2022

G. Scott Shepherd
Property Development Specialist II
SBA Communications
134 Flanders Rd., Suite 125
Westborough, MA 01581
GShepherd@sbsite.com

RE: **EM-T-MOBILE-044-220127** - T-Mobile notice of intent to modify an existing telecommunications facility located at 60 Commerce Street, East Haven, Connecticut.

Dear Mr. Shepherd:

On February 22, 2022, the Connecticut Siting Council (Council) received your email with attachment of Mr. Michael Fischer explaining the results of the Radio Frequency Emissions Analysis Report (Report) prepared by Centerline Communications, dated January 25, 2022. The Report indicates a calculated, Maximum Permissible Exposure (%MPE) of 9.21 % at ground level accounting for both T-Mobile and Verizon via RoofMaster software.

Mr. Fischer asserts if the Council's power density database calculation were "to use a more realistic offset of -20 dB for calculated ground level areas close to the tower based on vertical antenna patterns for the antennas in use would bring that calculated figure down to 14% which is closer to our predictive value of ~9%".

Please see the attached power density database table for the above referenced facility for T-Mobile. The power density calculation accounts for -20dB in the denominator and the result for MPE is 68%; much higher than 14% which Mr. Fischer claims. The Report does not include this type of table. Please provide such table as well as clarification of the vertical plane antenna gain values within the attached power density calculation consistent with a FCC OET Bulletin 65 formula.

Therefore, the exempt modification request remains incomplete at this time. The Council recommends that SBA provide a Radio Frequency Analysis Report with addendum reflecting the proposed modifications to the facility with a cumulative %MPE at or below 100%, on or before April 1, 2022. If additional time is needed to gather the requested information, please submit a written request for an extension of time prior to April 1, 2022. **Please provide an electronic version of the requested information for the incomplete exempt modification to be rendered complete and processed. Please include the Council's exempt modification identification number referenced above with the submittal.**

This notice of incompleteness shall have the effect of tolling the FCC 60-day timeframe in accordance with Paragraph 217 of the FCC Wireless Infrastructure Report and Order issued on October 21, 2014 (FCC 14-153).

Thank you for your attention to this matter. Should you have any questions, please feel free to contact me at 860-827-2951.

Sincerely,

Melanie Bachman
Executive Director
MAB/FOC/emr

From: Glenn Shepherd <GShepherd@sbsite.com>

Sent: Tuesday, February 22, 2022 5:22 PM

To: Robidoux, Evan <Evan.Robidoux@ct.gov>

Cc: CSC-DL Siting Council <Siting.Council@ct.gov>

Subject: RE: EM-T-MOBILE-044-220127 [External] FW: Council Incomplete Letter for EM-T-MOBILE-044-220127 (Commerce Street, East Haven)

EXTERNAL EMAIL: This email originated from outside of the organization. Do not click any links or open any attachments unless you trust the sender and know the content is safe.

Re: EM-T-MOBILE-044-220127

Evan et al,

Please see the attached email with regard to the MPE% and associated PD Report conducted by Centerline in response to Council's letter of incomplete referenced above and attached for your reference.

Please let me know if you have any questions in this regard.

Thank You,

G. Scott Shepherd

Site Development Specialist II

508.251.0720 Ext.3807 + **T**

508.366.2610 + F + **F**

508.868.6000 + C + **C**

This what I received from the Engineer performing the EME – I had to admit, its not clear to me. Is it to you?

Thanks

From: Michael Fischer <mfischer@clinellc.com>

Sent: Friday, February 18, 2022 9:49 AM

To: Lakpa Sherpa <lsherpa@clinellc.com>; Michael Austin <maustin@clinellc.com>

Cc: Jessica Meyer <jmeyer@clinellc.com>

Subject: RE: CSC returned EME report - can you please review? CTNH723A_Sprint Keep

The report provided by Centerline utilizes a predictive modeling software, Roofmaster®, to perform RF exposure calculations in accordance with methodologies prescribed in OET Bulletin 65. Roofmaster® is the industry standard tool accepted by the major carriers to evaluate wireless telecommunications facilities. The analysis uses upper-limit operating parameters with radios operating at maximum power and 100% duty cycle for a worst-case look at potential exposure. The analysis incorporates the spatial separation of the antennas, antenna sector azimuths, and the horizontal and vertical antenna patterns of each antenna model in performing the calculations to provide cumulative exposure predictions at all evaluated levels. For the ground level prediction in the provided site compliance report, the worst-case composite predictive exposure was 9.21% General Population MPE, which takes into account contributions from both T-Mobile and Verizon. This is a spatially averaged value calculated 0-6' above ground level. Having personally measured many tower-mounted facilities with calibrated instruments over the past 20 years, actual exposure levels at the ground rarely exceed 1% of the allowable general public standard during normal operating conditions.

The CSC calculations referenced in the February 16, 2022 letter are conservative by nature in using a -10 dB reduction, whereas the Roofmaster® calculations incorporate more of a reduction in the vertical plane with the actual vertical antenna patterns taken into account. Though still conservative, using a -12 dB offset in the CSC calculations would result in a predictive level below 100% GP MPE. Using a more realistic offset of -20 dB for calculated ground level areas close to the tower based on vertical antenna patterns for the antennas in use would bring that calculated figure down to 14% which is closer to our predictive value of ~9%.

Hope this helps. Happy to discuss with the CSC folks if needed.



Michael Fischer, P.E. | Director of Engineering

750 W Center St, Suite 301 | West Bridgewater, MA 02379

Mobile: 215-205-2130

mfischer@clinellc.com | www.centerlinecommunications.com

From: Lakpa Sherpa <lsherpa@clinellc.com>

Sent: Thursday, February 17, 2022 7:08 PM

To: Michael Austin <maustin@clinellc.com>; Michael Fischer <mfischer@clinellc.com>

Cc: Jessica Meyer <jmeyer@clinellc.com>

Subject: RE: CSC returned EME report - can you please review? CTNH723A_Sprint Keep

Michael – I am forwarding this to our PE – Michael Fischer (cc on mail) for review.

Mike – Please see e-mail below and advise.

Thank you,



Lakpa Sherpa | RF Project Manager
750 W Center St, Suite 301 | West Bridgewater, MA 02379
Mobile: 703-935-9076
lsherpa@clinellc.com | www.centerlinecommunications.com

From: Michael Austin <maustin@clinellc.com>
Sent: Thursday, February 17, 2022 2:00 PM
To: Amberly Krahwinkel <akrahwinkel@clinellc.com>
Cc: Lakpa Sherpa <lsherpa@clinellc.com>; Jessica Meyer <jmeyer@clinellc.com>
Subject: CSC returned EME report - can you please review? CTNH723A_Sprint Keep

Hello,

Please see following email in regard to the eme report completed for CTNH723 and advise. Letter is attached.

Thank you
Michael

From: Glenn Shepherd <GShepherd@sbsite.com>
Sent: Thursday, February 17, 2022 1:57 PM
To: Michael Austin <maustin@clinellc.com>
Cc: Jeff Steinberg <JSteinberg@sbsite.com>; Kri Pelletier <KPelletier@sbsite.com>; Rick Woods <RWoods@sbsite.com>; John Morrison <JoMorrison@sbsite.com>; Elizabeth Jamieson <EJamieson@sbsite.com>
Subject: CTNH723A_Sprint Keep

Michael,

Please see the attached Letter of Incomplete from the CSC.

- In short, according to the CSC it appears the MPE% is a lot higher than what the PD Report provided by Centerline stated it was.

Excerpt from attached letter:

Council staff calculated the power density for the proposed T-Mobile modification using the data provided in Site Antenna Data Table on Page 6 of the report. Using the Federal Communications Commission (FCC) OET Bulletin 65 predictive methods accounting for the -10 dB off beam pattern

adjustment and a 6-foot tall person at ground level at the base of the tower and results indicate that the requested modification, as proposed, would produce radio frequency emissions with a %MPE of 136.67% for each sector of T-Mobile's antennas and a cumulative %MPE of 143.88% with Verizon's antennas. This exceeds the FCC's allowable General Public/Uncontrolled cumulative MPE limit of 100%.

G. Scott Shepherd

Site Development Specialist II



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