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July 26, 2007

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CONNECTICUT
SITING COUNCIL

BY HAND DELIVERY

Mr. S. Derek Phelps
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

Re: Docket No. 335

Dear Mr. Phelps:

Enclosed please find an original and 25 copies of the Radio Frequency Engineering Report for the existing tower at 689 Old Colchester Road filed on behalf of MetroCast Communications of Connecticut, LLC in the above- referenced docket.

Thank you for your consideration.

Respectfully yours,



Ryan M. Mihalic
Attorney for MetroCast Communications

Enclosure
C. Service List

BOSTON

HARTFORD

NEW HAVEN

STAMFORD

WOBBURN

ENGINEERING REPORT

**RADIO FREQUENCY EXPOSURE MEASUREMENTS
AS REQUIRED BY THE CONNECTICUT SITING COUNCIL
DEMONSTRATING COMPLIANCE WITH THE EXPOSURE GUIDELINES
OF THE FEDERAL COMMUNICATIONS COMMISSION**

BULLETIN OET-65

**FOR AN EXISTING TOWER LOCATED AT
689 OLD COLCHESTER ROAD,
MONTVILLE, CONNECTICUT**

Prepared for

**Metrocast Communications of Connecticut
61 Myrock Avenue
Waterford, CT 06385**

ATTN: Hugh O'Brien

Prepared by

**Ronald E. Graiff, P.E.
Radio Frequency Consulting Engineer
52 Bogus Hill Road
New Fairfield, CT 06812
203 746 7600**

July 24, 2007

INTRODUCTION

This report was prepared on behalf of Metrocast Communications of Connecticut ("Metrocast") for submittal to The Connecticut Siting Council ("Council") to determine by measurement compliance with the requirements of Federal Communications Commission Bulletin OET-65, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields." Specifically, the Council required Metrocast to: **The Certificate Holder shall, prior to the installation of the satellite antennas/earth stations, provide the Council with the electromagnetic radio frequency power density of all existing entities' antennas on the existing tower at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin No. 65, August 1997.**

The measurements were performed on July 23, 2007 by the undersigned and the results recorded and witnessed by Keith Curtin and Donnie Dennison, Head-End Technicians of Metrocast. The measurement protocol followed that called for in ANSI/IEEE C95.3-1992 and NCRP Report 119 as well as Bulletin OET-65.

SUMMARY

The results of the measurements indicate that the RFR fields resulting from the operation of the existing radio transmitters at the site are significantly below the non occupational standards set forth in FCC Document OET-65 (Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields). Specifically, at those points measured the **adjusted values** of Maximum Permitted Exposure ("MPE") varied from 2.4% to 5.8% of the standard for **non occupational exposure**. There is no question that the site, as presently configured, will be well within the safety criteria adopted by the Federal Communications Commission ("FCC"), the American National Standards Institute ("ANSI"), The Institute of Electrical and Electronic Engineers ("IEEE"), National Council on Radiation Protection ("NCRP") and as required by the Telecommunications Act of 1996.

EXISTING CONDITIONS

The measurement site in question is an existing guyed tower approximately 350 feet high above ground level. The tower supports the transmitting antennas of Verizon Wireless, AT&T Wireless, two Paging Companies, one business radio service station and the Secret Service. A ground evaluation of the antennas installed and an inspection of the base stations indicated that the transmitting frequencies in use at the site were between 160 MHz and 19,575 MHz, well within the measurement capabilities of the equipment utilized to perform the measurements. As Metrocast proposes to install receive only antennas, no consideration was given to any RF fields or frequencies utilized by the proposed receive only antennas.

MEASUREMENT PROTOCOL

Measurements of MPE were made with a NARDA model 8715 survey meter SN 05008 and a NARDA electric field probe B8742D SN 05006, both calibrated in September of 2006. The benefit of utilizing such a meter and probe combination is that any RF fields measured by the equipment are "shaped" as to the requirements of IEEE C95-1 (OET-65 requirement) and summed to read directly as a percentage of MPE.

The measurement protocol consisted of fourteen measurement points spaced at equal intervals of approximately 12 feet along each of the four (4) sides of the existing and proposed fence extension surrounding the base of the tower. Figure 1 indicates the location of the measurement points. As the points are beyond the locked fence enclosure, the locations are considered the closest points of uncontrolled access by the general public.

The monitoring equipment was zeroed in an RF free environment according to the manufacturer's requirements prior to the measurement procedure. During the period of measurement, the equipment was occasionally re-zeroed. Prior to each measurement, the peak hold feature was turned on and off to insure new readings at each point.

At each point the field was probed at a distance of 6 feet above the ground by utilizing a circular motion of the probe in front of the operator, while the probe, itself, was rotated about its axis to insure measurement of any off vertical axis fields. In addition the operator both approached and moved away from the measurement point to reduce the affects of standing waves. The peak hold feature of the survey meter was utilized to insure that the peak reading was recorded. After a reasonable period time (minimum 3 minutes) of measurement at each point, the undersigned recorded the reading on the measurement equipment.

DATA INTERPRETATION

The raw data were taken and analyzed according to the precision in the measurement procedure. Specifically, the following modifications were made to the data. The overall precision associated with the measurements (which results from instrument limitations and accuracy as well as field interactions between the instrument and the operator) of RF power density is plus or minus 2 dB (+58%, -37%). **So as to be as conservative as possible, the modified data were multiplied by a factor of 1.58 (58%).** Table 1 is a presentation of the recorded and modified measurements at the site.

CONCLUSION

This report is an analysis of the existing RF fields in the uncontrolled environment in the vicinity of the existing Metrocast guyed tower. The adjusted data indicate that at any area just adjacent to, but outside of the controlled environment, the worst case Maximum Permitted Exposure ("MPE") resulting the simultaneous and continuous operation of all existing transmitters is less

than 5.8% MPE. The existing equipment at the site produces less than 5.8% of the **non occupational safety criteria** adopted by the FCC as mandated by the Telecommunications Act of 1996, and is also be less than 5.8% of the non occupational exposure limits of ANSI, IEEE, NCRP and the limits of all states that regulate RF exposure.

AFFIDAVIT

COUNTY OF FAIRFIELD)
)
STATE OF CONNECTICUT)

Ronald E. Graiff, being first duly sworn, deposes and states that he is a Licensed Professional Engineer in the State of New York; that he is a graduate electrical engineer with a Bachelor of Science in Electrical Engineering from The Pennsylvania State University; that he is familiar with the guidelines for human exposure to electromagnetic emissions that have been adopted by the FCC; and that he has performed many power density measurements of the type presented herein during his 40 year career. He further states that this engineering report has been prepared for Metrocast to determine RF exposure levels in the vicinity of an existing transmission site located at 689 Old Colchester Road, Montville, Connecticut and that the measurements and calculations contained therein were performed by him and that the statements contained therein are true of his own personal knowledge except to those stated to be on information and belief and, as to those statements, he believes them to be true and correct.

Ronald E. Graiff
Ronald E. Graiff, P.E.
7-24-07



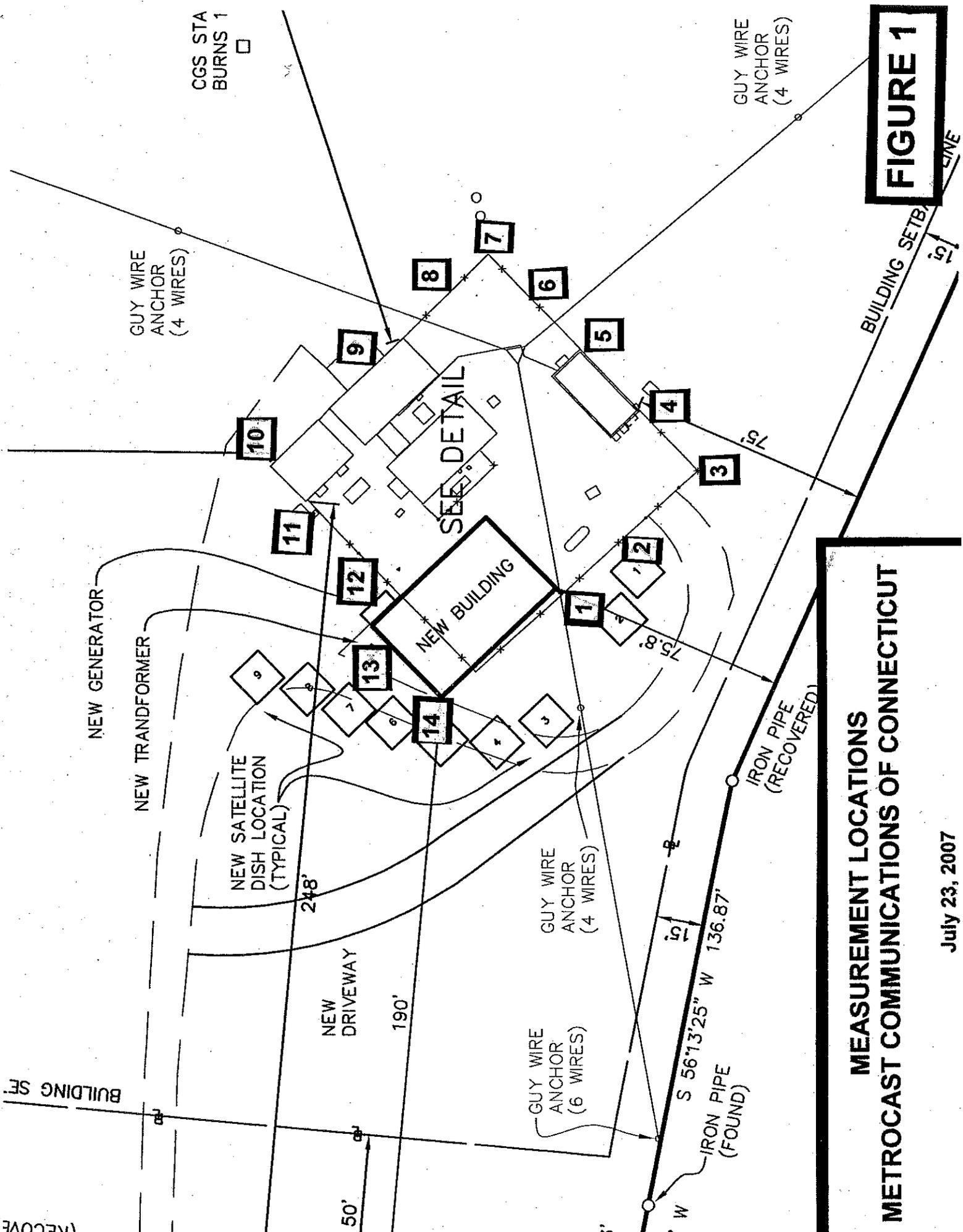


FIGURE 1

**MEASUREMENT LOCATIONS
METROCAST COMMUNICATIONS OF CONNECTICUT**

July 23, 2007

TABLE 1

PERCENT OF MPE ADJUSTED
Raw data multiplied by 1.58

MEASUREMENT POINT	RAW DATA % MPE	ADJUSTED DATA %MPE rounded to 1 significant figure
1	1.5	2.4
2	1.9	3.0
3	1.6	2.5
4	2.3	3.6
5	2.6	4.1
6	2.3	3.6
7	2.9	4.6
8	3.1	4.9
9	3.7	5.8
10	2.5	4.0
11	3.3	5.2
12	3.2	5.1
13	2.9	4.6
14	3.7	5.8