STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@po.state.ct.us
Web Site: www.ct.gov/csc

July 16, 2004

Kenneth C. Baldwin, Esq.
Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103-3597

RE: **EM-VER-052-040616** - Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at Rattlesnake Mountain, Farmington, Connecticut.

Dear Attorney Baldwin:

At a public meeting held on July 13, 2004, the Connecticut Siting Council (Council) acknowledged your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notice dated June 16, 2004, including the placement of all necessary equipment and shelters within the tower compound. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

Thank you for your attention and cooperation.

Very truly yours,

Pamela B. Katz, P.E.
Chairman

PBK/cm

c: Honorable Bruce A. Chudwick, Town Council Chairman, Town of Farmington
Jeffrey Ollendorf, Town Planner, Town of Farmington

EM-VER-052-040616

ROBINSON & COLE

KENNETH C. BALDWIN

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June 16, 2004

Via Hand Delivery

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

Re: **Notice of Exempt Modification – Antenna Swap**
Rattlesnake Mountain Telecommunications Facility
Farmington, Connecticut

Dear Mr. Phelps:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") currently maintains a wireless telecommunications facility at Rattlesnake Mountain in Farmington. This facility consists of eight (8) panel-type cellular antennas at the 235-foot level of the 1292-foot tower. Equipment associated with the antenna is located on the ground in an equipment shelter.

The Connecticut Siting Council ("the Council") approved Cellco's shared use of the Rattlesnake Mountain facility on December 6, 1995. Cellco now intends to modify its facility by replacing three (3) of the cellular antennas with three (3) PCS antennas. Attached behind Tab 1 are specifications for the existing cellular and proposed PCS antennas for the Rattlesnake Mountain site.

Please accept this letter as notification pursuant to R.C.S.A. § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Farmington Town Manager, Kathleen A. Eagen.

As the Council knows, on May 23, 2003, Cellco acquired, from Northcoast Communications, a license to provide PCS service throughout Connecticut. The proposed modifications to the Rattlesnake Mountain facility will allow Cellco to provide its customers in the Farmington area with enhanced wireless voice and data services.

The planned modifications to the Rattlesnake Mountain facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2).

1. The proposed modifications will not result in any increase in the overall height of the existing structure. Cellco's replacement antennas will be mounted at the same level as its existing antennas.

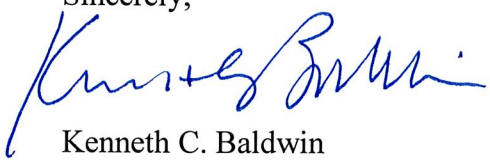
2. The proposed modifications will not affect associated equipment areas and will not require the extension of the site boundaries.

3. The proposed modifications will not increase noise levels at the facility by six decibels or more.

4. The proposed modifications will not result in radio frequency (RF) power density levels at the facility that exceed the Federal Communications Commission (FCC) adopted safety standard. Attached behind Tab 2 is an RF Exposure Analysis prepared by Raymond C. Trott, P.E.

For the foregoing reasons, Cellco respectfully submits that the proposed modifications to the above-referenced telecommunications facility constitute an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,



Kenneth C. Baldwin

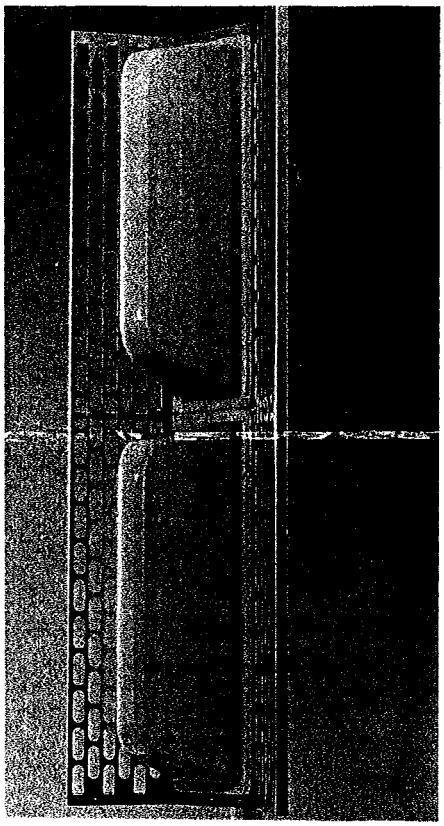
Enclosures
cc: Kathleen A. Eagen, Town Manager
Sandy M. Carter

Swedcom Corporation

ALP 6014-N

Log-Periodic Reflector Antenna

60 Degrees 14 dBd



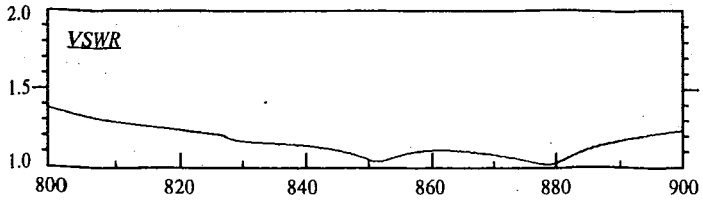
Features:

- ❑ **Broadbanded. (800-900 MHz)**
- ❑ **Low backlobe radiation. Front-to-back ratio better than 30 dB**
- ❑ **Low Intermodulation Products.**
- ❑ **Low Wind-load.**
- ❑ **Low weight.**
- ❑ **Small size.**
- ❑ **Rugged design.**

Please see the following pages including radiation patterns/tables for *ALP 6014-N.*

Electrical Specifications:

Frequency range:	806-896 MHz
Impedance:	50 ohm
Connector:	N-female or 7/8" EIA
VSWR:	Typ. 1.3:1 max 1.5:1
Polarization:	Vertical
Gain:	14 dBd
Front to back ratio:	>30 dB
Side-lobe supression:	>17 dB
Intermodulation: (2x25W):	IM3 >146 dB IM5 >153 dB IM7 & IM9 >163 dB
Power Rating:	500 W
H-Plane: -3 dB	60 °
E-Plane: -3 dB	15 °
Lightning Protection:	DC Grounded



Mechanical Specifications:

Overall Height:	52 in	(1320 mm)
Width:	17.3 in	(440 mm)
Depth:	11.4 in	(290 mm)
Weight including brackets:	28.9 lbs	(13 Kg)
Rated wind velocity:	113 mph	(180 Km/h)
Wind Area (CxA/Front):	5.4 sq.ft	(0.5 sq.m)
Lateral thrust at rated wind		
Worst case:	780 N	

Materials:

Radiating elements:	Aluminum
Element housing:	Grey PVC
Back-plate:	Aluminum
Mounting hardware	
clamps:	Hot dip galvanized steel
bolts:	Stainless steel

Manufactured by: ***Allgon System AB***

DECIBEL
Base Station Antennas

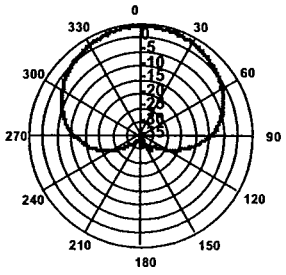
948F85T2E-M

16.1 dBi, Directed Dipole Antenna
1850-1990 MHz

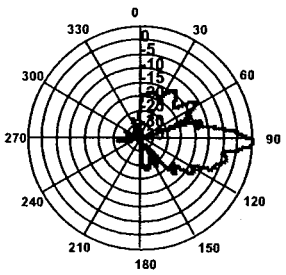
1850-1990 MHz

dB Director®
MaxFill™

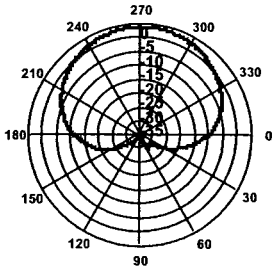
- Exceptional azimuth roll-off reducing soft hand-offs and improving capacity
- Excellent upper side lobe suppression
- Deep null filling below the horizon assures improved signal intensity
- Low profile appearance and low wind loading profile for easier zoning approvals



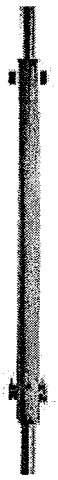
Azimuth 1850 MHz (Tilt=2)



Vertical 1850 MHz (Tilt=2)



Horizontal 1850 MHz (Tilt=2)



ELECTRICAL	
Frequency (MHz):	1850-1990
Polarization:	Vertical
Gain (dBd/dBi):	14/16.1
Azimuth BW:	85°
Elevation BW:	8°
Beam Tilt:	2°
USLS* (dB):	>18
Null Fill* (dB):	15
Front-to-Back Ratio* (dB):	40
VSWR:	<1.33:1
IM Suppression - Two 20 Watt Carriers:	-150
Impedance:	50 Ohms
Max Input Power:	250 Watts
Lightning Protection:	DC Ground
Opt Electrical Tilt:	0°,4°,6°

MECHANICAL	
Weight:	8.5 lbs (3.9 kg)
Dimensions (LxWxD):	48 X 3.5 X 7 in (1219 X 89 X 178 mm)
Max. Wind Area:	2.3 ft² (0.21 m²)
Max. Wind Load (@ 100mph):	92 lbf (409 N)
Max. Wind Speed:	125 mph (201 km/h)
Radiator Material:	Low Loss Circuit Board
Reflector Material:	Passivated Aluminum
Radome Material:	ABS, UV Resistant
Mounting Hardware Material:	Galvanized Steel
Connector Type:	7-16 DIN - Female (Bottom)
Color:	Light Gray
Standard Mounting Hardware:	DB390 Pipe Mount Kit, included
Downtilt Mounting Hardware:	DB5098, optional
Opt. Mounting Hardware:	DB5094-AZ Azimuth Wall Mount

Andrew Corporation
8635 Stemmons Freeway
Dallas, Texas U.S.A 75247-3701
Tel: 214.631.0310

Fax: 214.631.4706
Toll Free Tel: 1.800.676.5342
Fax: 1.800.229.4706
www.andrew.com

dbtech@andrew.com

Date: 1/23/2004
* - Indicates Typical Values

Rattlesnake Mountain
RF Exposure Analysis
Verizon Wireless

The following report analyzes the fields at the center of the Rattlesnake Tower (elevator) from the Verizon Wireless (Verizon) antennas utilized for Verizon's existing cellular and proposed PCS Systems. The cellular and PCS antennas are mounted near the 230' level of the tower (bottom of antenna). For the PCS study, the ERP for each of the PCS antennas was set at 410 Watts.

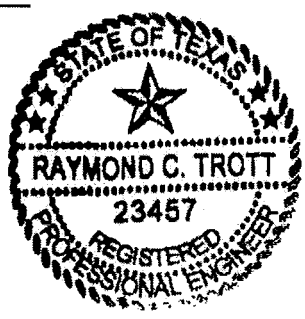
The study looks at the FCC/OSHA limits of Maximum Permissible Exposure (MPE) values for the Occupational/Controlled standard. This Occupational standard is for those who are aware of the possibility of exposure from a radiating source and who have had RF Awareness training. It is assumed and/or recommended that personnel ascending this tower have had RF Awareness training.

The results show that the emissions at the center of the tower from the Verizon cellular and PCS antennas (230' to 240') ranged from 7.1% to 0.3% of the Occupational/Controlled MPE limit.

Exhibit TCG-1 shows the MPE values along the tower from 220' – 270' above the ground.

Conclusion
The result of the study shows that, for personnel aware of RF Exposure potential and have had RF Awareness training, the MPE limits are not exceeded at the center of the tower at the aperture of the Verizon cellular and PCS antennas.

Raymond C. Trott, P.E.
March 11, 2004



Composite, Spatially Averaged % MPE Values as a Function of Height on the Tower

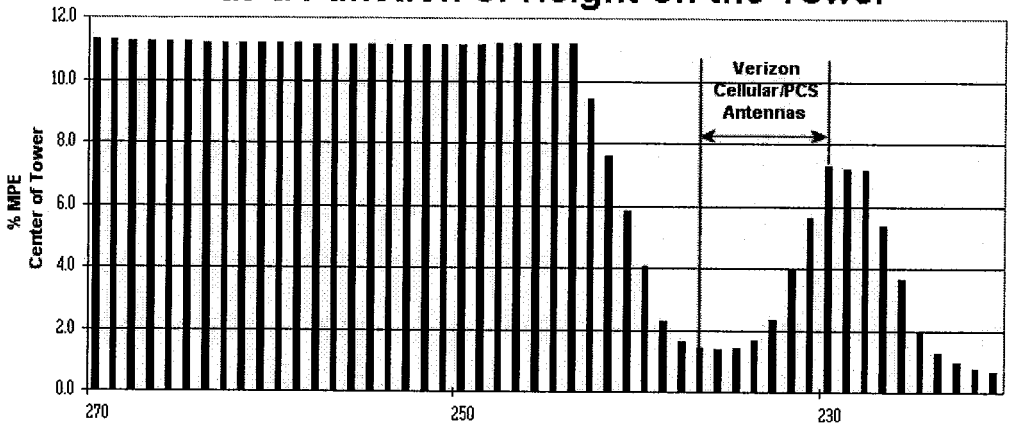


Exhibit TCG-1

General Power Density

Site Name: Farmington, CT
Tower Height: 235 ft rad center

Operator	Operating Frequency	Number of Trans.	ERP Per Trans.	Total ERP	Distance to Target	Calculated Power Density	Maximum Permissable Exposure*	Fraction of MPE
	(MHz)		(watts)	(watts)	(feet)	(mW/cm^2)	(mW/cm^2)	(%)
Verizon	875	9	200	1800	235	0.0117	0.5833	2.01%
Verizon PCS	1900	3	200	600	235	0.0039	1.0	0.39%
Total Percentage of Maximum Permissible Exposure								2.40%

*Guidelines adopted by the FCC on August 1, 1996, 47 CFR Part 1 based on NCRP Report 86, 1986 and generally on ANSI/IEEE C95.1-1992

MHz = Megahertz
mW/cm^2 = milliwatts per square centimeter
ERP = Effective Radiated Power

Absolute worst case scenario, maximum values used.

verizonwireless