# 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.state.ct.us/csc/index.htm


April 30, 2002

Mr. Christopher B. Fisher, Esq.
Cuddy & Feder & Worby
90 Maple Avenue
White Plains, NY 10601-5196

RE: **EM-AT&T-002-015-138-158-161-020417** – AT&T Wireless notice of intent to modify existing telecommunications facilities located at: 401 Wakelee Avenue, Ansonia; 1875 Noble Avenue, Bridgeport; 623-627 Honeyspot Road, Stratford; 20 Post Office Lane, Westport; and 289 Danbury Road, Wilton, Connecticut.

Dear Atty. Fisher:

At a public meeting held on April 25, 2002, the Connecticut Siting Council (Council) acknowledged your notice to modify these existing telecommunications facilities, 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[s] dated April 16, 2002. 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,

Mortimer A. Gelston
Chairman

MAG/DM/laf

c: Honorable James T. DellaVolpe, Mayor, City of Ansonia
Honorable Joseph P. Ganim, Mayor, City of Bridgeport
Mr. Mark S. Barnhart, Town Manager, Town of Stratford
Honorable Diane G. Farrell, First Selectman, Town of Westport
Honorable Paul F. Hannah, Jr., First Selectman, Town of Wilton

L:\SITING\EM\AT&T\ANSONIA\dec020425.doc

# CUDDY & FEDER & WORBY LLP

90 MAPLE AVENUE
WHITE PLAINS, NEW YORK 10601-5196

(914) 761-1300
TELECOPIER (914) 761-5372/6405
www.cfwlaw.com

500 FIFTH AVENUE
NEW YORK, NEW YORK 10110
(212) 944-2841
TELECOPIER (212) 944-2843

WESTAGE BUSINESS CENTER
300 SOUTH LAKE DRIVE
FISHKILL, NEW YORK 12524
(845) 896-2229
TELECOPIER (845) 896-3672

STAMFORD, CONNECTICUT
NORWALK, CONNECTICUT

NEIL J. ALEXANDER (also CT)
CHARLES T. BAZYDLO (also NJ)
THOMAS R. BEIRNE (also DC)
THOMAS M. BLOOMER
JOSEPH P. CARLUCCI
KENNETH J. DUBROFF
ROBERT FEDER
CHRISTOPHER B. FISHER (also CT)
ANTHONY B. GIOFFRE III (also CT)
SUSAN E.H. GORDON
KAREN G. GRANIK
JOSHUA J. GRAUER
WAYNE E. HELLER (also CT)
KENNETH F. JURIST
MICHAEL L. KATZ (also NJ)
JOSHUA E. KIMERLING (also CT)
DANIEL F. LEARY (also CT)
BARRY E. LONG

CUDDY & FEDER
1971-1995

WILLIAM S. NULL
DAWN M. PORTNEY
ELISABETH N. RADOW
NEIL T. RIMSKY
RUTH E. ROTH
JENNIFER L. VAN TUYL
CHAUNCEY L. WALKER (also CA)
ROBERT L. WOLFE
DAVID E. WORBY

Of Counsel
MICHAEL R. EDELMAN
ANDREW A. GLICKSON (also CT)
ROBERT L. OSAR (also TX)
MARYANN M. PALERMO
ROBERT C. SCHNEIDER
LOUIS R. TAFFERA


April 16, 2002

VIA FEDERAL EXPRESS
Hon. Mortimer Gelston, Chairman and Members
of the Siting Council
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051



Re: AT&T Wireless-Petition No. 455
289 Danbury Road, Wilton, Connecticut
Notice of Exempt Modification

Hon. Mortimer Gelston, Chairman and Members of the Siting Council:

On May 10, 2000 the Council determined that AT&T's proposed installation on an existing CL&P electric transmission facility would not require a Certificate of Environmental Compatibility and Public Need (Petition No. 455) pursuant to Section 16-50g. et seq. of the General Statutes of Connecticut. AT&T's existing facility consists of three panel antennas on a 8.6" diameter pipe extension to an overall elevation of approximately 101' AGL on existing CL&P transmission line structure number 2998 with associated equipment cabinets mounted on piers at the base of the existing tower within a fenced compound located at 289 Danbury Road in Wilton, Connecticut.

At this time, AT&T is notifying the Connecticut Siting Council of its intent to modify the existing facility pursuant to Section 16-50j-72 of the Regulations of Connecticut State Agencies. AT&T proposes to install an additional equipment cabinet (approximately 76"H x 76"W x 30"D) on the existing piers at AT&T's facility. There will be no other infrastructure changes to AT&T's facility.

The proposed addition of equipment to AT&T Wireless' facility does not constitute a "modification" of an existing facility as defined in Connecticut General Statutes Section 16-50i(d). The proposed addition to AT&T Wireless' facility will not result in an increase in the Tower's height or extend the boundaries of the existing fenced area surrounding the Tower. Further, there will be no increase in noise levels by six (6) decibels or more at the Tower site's boundary. Moreover, the additional channels being deployed by AT&T at the facility together with existing channels at the site will not result in power densities exceeding the "worst case" for AT&T as originally set forth in Petition No. 455. For all the foregoing reasons, addition of AT&T Wireless' equipment to its existing facility constitutes an exempt modification which will not have a substantially adverse environmental effect.

Accordingly, AT&T Wireless requests that the Connecticut Siting Council acknowledge that its proposed modification to the Danbury Road Facility meets the Council's exemption criteria.

Respectfully Submitted,

Christopher B. Fisher, Esq.
On behalf of AT&T Wireless

cc: First Selectman, Town of Wilton
Darryl Hendrickson, Bechtel Telecommunications

the global leader
IN TELECOM OUTSOURCING

*Wireless Facilities, Inc.*
*1840 Michael Faraday Drive*
*Suite 200*
*Reston, VA 20190*

March 28, 2002

Mr. Mortimer A. Gelston, Chairman
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

**RE: FCC Compliance Statement for AT&T Site CT-058 (Wilton-Transmission Tower)**

Dear Mr. Gelston:

On behalf of AT&T Wireless, Wireless Facilities Inc. has performed office analyses for the above referenced site to determine compliance with FCC mandated Maximum Permissible Exposure (MPE) limits as defined in 47 CFR § 1.1310.

The table below gives a brief summary of the site location, its configuration and associated technical parameters.

| ***Summary of Site Parameters*** | |
|---|---|
| **Site ID** | CT-058 |
| **Site Name** | Wilton-Transmission Tower |
| **Latitude** | 41.195 |
| **Longitude** | -73.43138 |
| **Address of Structure** | 289 Danbury Road,<br>Fairfield, CT |
| **Type of Structure** | Lattice Tower |
| **Antenna Owner** | AT&T |
| **Address of Antenna Owner** | 15 East Midland Ave.<br>Paramus, NJ 07652 |
| **FCC Class and Type of Service** | PCS TDMA (IS-136)<br>PCS GSM |
| **Operating Frequency** | PCS Band |
| **Azimuths (deg.)** | 0, 120, 240 |
| **Antenna Radiation Center (AGL)** | 99 ft. |
| **Antenna Manufacturer** | EMS Wireless |
| **Antenna Type** | Panel |

The mathematical equations used in evaluating the power density values are exactly as outlined in the Office of Engineering & Technology (OET) Bulletin Number 65 which contains the FCC guidelines for evaluating human exposure to radio-frequency electromagnetic fields.

In the case of a single radiating antenna, a prediction for power density in the far field of the antenna can be written as:

$$S = \frac{EIRP}{4\pi D^2} = \frac{1.64 * ERP}{4\pi D^2}$$

Where: S = Power density in $W/m^2$
EIRP = Effective isotropic radiated power (W)
ERP = Effective radiated power (W)
D = Distance in meters

Using the EPA's recommended factor of 1.6 for 100 % reflection, the worst case power density can be obtained by incorporating this factor into the above equation. If the distance, D, is in centimeters, the ERP is in Watts, then the worst case power density in $mW/cm^2$ is given by

$$S = \frac{(1.64)(.64)(ERP)(1000\,mW/W)}{\pi D^2}$$

Where: S = Power density in $mW/cm^2$
ERP = Effective radiated power (W) (# of channels x ERP/channel)
D = Distance in centimeters

The results presented in this analysis are based on the following:

- WFI's analysis considered the transmit parameters for both AT&T's existing TDMA system and the future GSM deployment they are proposing.
- The formula utilized for the calculation is taken directly from the FCC OET Bulletin 65 as shown above.
- The worst-case scenario was assumed with all of the antennas for both the current and the future installation pointing to the base of the tower.
- A 100% duty cycle with maximum power and the maximum number of channels for each system was assumed.

| Description | AT&T PCS | |
|---|---|---|
| | Current | Future |
| Max. ERP/Ch, Watts | 129.5 | 275 |
| Max. No. of Ch/Sector | 16 | 4 |
| Max. ERP/Sector, Watts | 2072 | 1100 |
| Antenna Centerline, ft. | 99 | 99 |

The maximum calculated values of power density for this analysis are outlined below:

| Provider/Carrier | | Point of Worst Case Predicted Level | Predicted Value ($\mu W/cm^2$) | Maximum Limit for PCS Band Uncontrolled Environment Set by FCC ($\mu W/cm^2$) | % of the Standard |
|---|---|---|---|---|---|
| AT&T | Current PCS TDMA | Base of the Tower | 86.08 | 1000 | 8.61 |
| | Future PCS GSM | Base of the Tower | 45.70 | 1000 | 4.57 |
| | | | | Total % of Standard | 13.18 |

Note: AT&T is the only carrier on this structure.

The results of these analyses indicate that output power levels for the AT&T owned equipment deployed at the above referenced facility meet FCC approved exposure limits for all uncontrolled areas where general population exposure may exist. Thus, the maximum level of RF radiation in all uncontrolled areas, assuming a worst case scenario and a 100% duty cycle for all transmitters, is equal to or less than 13.18% of the maximum permissible exposure limit mandated by the FCC and endorsed by the NCRP and ANSI/IEEE.

To the best of my knowledge, the statements made and information disclosed in this study are complete and accurate.

Sincerely,
Wireless Facilities, Inc.

Dan Hardiman
Senior Engineer II
Fixed Network Engineering