



# 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](mailto:siting.council@po.state.ct.us)

Web Site: [www.state.ct.us/csc/index.htm](http://www.state.ct.us/csc/index.htm)

February 20, 2002

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

RE: **EM-AT&T-097-107-117-130-148-156-161-164-020124** - AT&T Wireless notice of intent to modify existing telecommunications facilities located in Newtown, West Haven, Orange, Redding, Windsor, Wilton, Southbury, and Wallingford, Connecticut.

Dear Attorney Fisher:

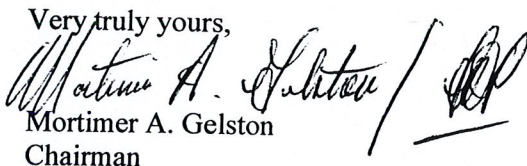
At a public meeting held on February 14, 2002, the Connecticut Siting Council (Council) acknowledged your notice to modify these existing telecommunications facilities, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notice dated January 23, 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 existing facility sites that would not increase tower height, extend the boundaries of tower sites, increase noise levels at any tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power densities measured at the tower site boundaries to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. These facilities have also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on these towers.

This decision is under the exclusive jurisdiction of the Council. Any additional change to these facilities 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/RM/laf

c: See attached list.

Honorable Paul F. Hannah, Jr., First Selectman, Town of Wilton  
Wendy Johnston, Town Planner, Town of Wilton  
Honorable Mary Hogan, Mayor, Town of Windsor  
Mario Zavarella, Town Planner, Town of Windsor  
R. Leon Churchill, Jr., Town Manager, Town of Windsor  
Honorable Natalie T. Ketcham, First Selectman, Town of Redding  
Aimee Pardee, Zoning Enforcement Officer, Town of Redding  
Honorable Mitchell R. Goldblatt, First Selectman, Town of Orange  
Paul Dinice, Zoning Enforcement Officer, Town of Orange  
Honorable William W. Dickinson, Jr., Mayor, Town of Wallingford  
Linda Bush, Town Planner, Town of Wallingford  
Honorable Mark A.R. Cooper, First Selectman, Town of Southbury  
Mark D. Cody, Zoning Enforcement Officer, Town of Southbury  
Honorable H. Richard Borer, Jr., Mayor, City of West Haven  
James Hill, City Planner, City of West Haven  
Honorable Herbert C. Rosenthal, First Selectman, Town of Newtown  
Gary Frenette, Zoning Enforcement Officer, Town of Newtown



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February 5, 2002

Honorable Mark A. R. Cooper  
First Selectman  
Town of Southbury  
Town Hall  
501 Main Street South  
Southbury, CT 06488-2295

RE: **EM-AT&T-097-107-117-130-148-156-161-164-020124** - AT&T Wireless notice of intent to modify existing telecommunications facilities located at twelve sites throughout the State of Connecticut.

Dear Mr. Cooper:

The Connecticut Siting Council (Council) received this request to modify an existing telecommunications facility, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72.

The Council will consider this item at the next meeting scheduled for February 14, 2002, at 1:30 p.m. in Hearing Room One, Ten Franklin Square, New Britain, Connecticut.

Please call me or inform the Council if you have any questions or comments regarding this proposal.

Thank you for your cooperation and consideration.

Very truly yours,

S. Derek Phelps  
Executive Director

SDP/laf

Enclosure: Notice of Intent

c: Mark D. Cody, Zoning Enforcement Officer, Town of Southbury

**CUDDY & FEDER & WORBY LLP**

90 MAPLE AVENUE  
WHITE PLAINS, NEW YORK 10601-5196

**CUDDY & FEDER**  
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NORWALK, CONNECTICUT

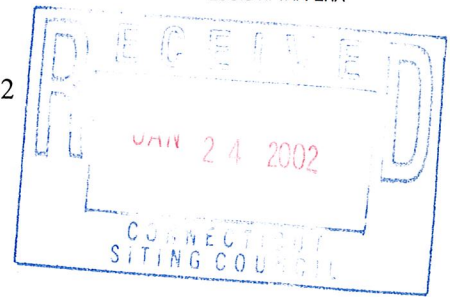
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ROBERT C. SCHNEIDER  
LOUIS R. TAFFERA

January 23, 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 Notice of Exempt Modification  
5 Fairfield Drive and 20 Barnabas Road, Newtown, Connecticut  
1 Burwell Road, West Haven, Connecticut  
1800 Ogg Meadow Road, Orange, Connecticut  
100 Old Redding Road, Redding, Connecticut  
440 Hayden Station Road, Windsor, Connecticut  
128 Mather Street, Wilton, Connecticut  
1432 Old Waterbury Road and Russian Village Road, Southbury, Connecticut  
Northrup Road, Wallingford and 945 East Center Road, Wallingford  
and 316 Woodhouse Avenue, Wallingford, Connecticut

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

On behalf of AT&T Wireless, we respectfully enclose an original and twenty copies of its notice of exempt modification with respect to the above mentioned facilities together with a check in the amount of \$500.00. We would appreciate it if these matters were placed on the next available agenda for acknowledgment by the Council. Should the Council or staff have any questions regarding this matter, please do not hesitate to contact us.

Very truly yours,

Linda Grant

cc: Christopher B. Fisher, Esq.

# CUDDY & FEDER & WORBY LLP

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January 23, 2002

## VIA FEDERAL EXPRESS

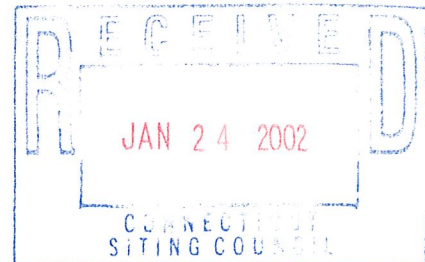
Hon. Mortimer Gelston, Chairman and Members  
of the Siting Council

Connecticut Siting Council

10 Franklin Square

New Britain, Connecticut 06051

Re: AT&T Wireless - EM-CROWN-130-991126  
1432 Old Waterbury Road, Southbury, Connecticut  
Notice of Further Exempt Modification



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

Crown Atlantic Company LLC ("Crown") holds the Siting Council certificate for the existing communications tower and related facility located at 1432 Old Waterbury Road, Southbury, Connecticut (Docket No. 88). On December 8, 1999 Crown, on behalf of AT&T Wireless ("AT&T"), received the Council's acknowledgement of a notice to modify the existing facility pursuant to Section 16-50j-72 of the Regulations of Connecticut State Agencies (EM-CROWN-130-991126) permitting AT&T to install nine (9) panel antennas at the 185' level on the existing tower, with associated equipment cabinets located on a 9' x 20' concrete pad within the fenced compound.

This notice of further exempt modification is also being provided pursuant to Section 16-50j-72 of the Council's regulations. AT&T will be installing an additional equipment cabinet (approximately 76"H x 76"W x 30"D) on AT&T's existing concrete pad at the facility. There will be no other infrastructure changes to AT&T's facility.

The proposed addition of an equipment cabinet to AT&T Wireless' facility does not constitute a "modification" of an existing facility as defined in Connecticut General Statutes

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<sup>2</sup>  
 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 meters, the ERP is in Watts, then the worst case power density in μW/cm<sup>2</sup> is given by

$$S = \frac{33.4 * ERP}{D^2} \text{ (Section 2, OET bulletin 65).}$$

Where: S = Power density in μW/cm<sup>2</sup>  
 ERP = Effective radiated power (W)  
 D = Distance in meters

WFI's analysis considered both the current configuration as well as the future GSM deployment AT&T is proposing. For the current configuration, both in-field measurements and a predictive analysis tool were used to determine compliance. For the future deployment, only a predictive analysis was performed. The maximum worst-case values of the power density for this analysis are outlined below:

Configuration	Point of Worst Case Predicted Level	Predicted Value μW/cm <sup>2</sup>	Maximum Limit for PCS Band Uncontrolled Environment Set by FCC μW/cm <sup>2</sup>	% of the Standard
Current PCS TDMA configuration	1900 feet away in front of the antenna	0.23	1000	0.023
Future PCS TDMA and GSM configuration	1900 feet away in front of the antenna	0.31	1000	0.031

In addition to predictive analysis, on-site data was recorded at different locations around the monopole. In all areas, less than 3.15 % of the MPE for public/uncontrolled limits was recorded. The reason the actual measurements are higher than the predicted values is because the actual measurements include emissions from the other carriers at that site while the theoretical study focused on the level of emissions contributed by AT&T only.

On-site measuring point	Worst Case Measured Value $\mu\text{W}/\text{cm}^2$	Maximum Limit for PCS Band Uncontrolled Environment Set by FCC $\mu\text{W}/\text{cm}^2$	% of the Standard
30 meters in front of sector 1	16.5	1000	1.65
25 meters in front of sector 2	31.5	1000	3.15
40 meters in front of sector 3	7.5	1000	0.75

The results of these analyses indicate that output power levels for the AT&T owned equipment deployed at the above referenced facility meets 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 the transmitters.) is less than 3.15 % 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

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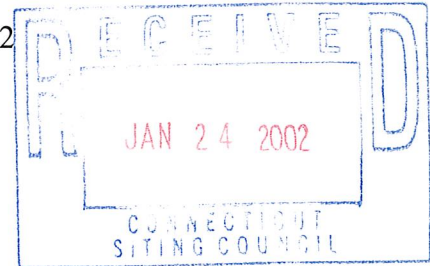
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January 23, 2002

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 - TS-AT&T-130-000828  
Russian Village Road, Southbury, Connecticut  
Notice of Exempt Modification

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

On September 19, 2000 the Council ruled that AT&T's proposed shared use of the existing Sprint facility complied with Section 16-50aa of the Regulations of Connecticut State Agencies (TS-AT&T-130-000828) permitting AT&T to install three (3) panel antennas on a pipe mounted to the top of the tower, with an associated equipment shelter located within the fenced compound.

This notice of exempt modification is being provided pursuant to Section 16-50j-72 of the Council's regulations. AT&T will be installing additional equipment within the existing shelter at the 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



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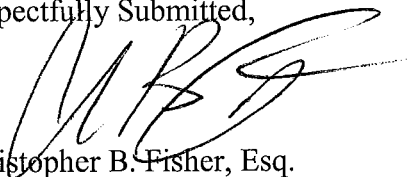
January 23, 2002

Page 2

boundary. AT&T has made measurements of the existing facility to confirm compliance with MPE limits and as set forth in a report prepared by Wireless Facilities, Inc., annexed hereto, the total radio frequency electromagnetic radiation power density at the Tower site's boundary will not be increased to or above the standard adopted by the Connecticut Department of Environmental Protection as set forth in Section 22a-162 of the Connecticut General Statutes. 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.

AT&T Wireless respectfully submits that the proposed addition of equipment to the Russian Village Road Facility meets the Council's exemption criteria and requests an acknowledgment of same.

Respectfully Submitted,



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

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



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

December 20, 2001

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

**RE: FCC Compliance Statement for AT&T Site CT-183 (Southbury West)**

Dear Mr. Gelston:

On behalf of AT&T Wireless, Wireless Facilities Inc. has performed in-field RF measurements and 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 the site configuration and technical parameters:**

<b>Site ID</b>	CT-183
<b>Site Name</b>	Southbury West
<b>Latitude</b>	41.44888
<b>Longitude</b>	-73.25166
<b>Address of structure</b>	100 Russian Village Rd., Southbury, CT 06488.
<b>Type of structure</b>	Monopole
<b>Antenna structure owner</b>	AT&T Wireless services
<b>Address of antenna owner</b>	15 East Midland Ave, Paramus, NJ 07652
<b>FCC class and Type of service</b>	PCS TDMA (IS-136)
<b>Operating frequency</b>	D, E bands (PCS)
<b>Azimuths</b>	50,170,290
<b>Elevation (ft)</b>	130
<b>Antenna manufacturer</b>	EMS Wireless
<b>Antenna type</b>	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<sup>2</sup>  
 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 meters, the ERP is in Watts, then the worst case power density in μW/cm<sup>2</sup> is given by

$$S = \frac{33.4 * ERP}{D^2} \text{ (Section 2, OET bulletin 65).}$$

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WFI's analysis considered both the current configuration as well as the future GSM deployment AT&T is proposing. For the current configuration, both in-field measurements and a predictive analysis tool were used to determine compliance. For the future deployment, only a predictive analysis was performed. The maximum worst-case values of the power density for this analysis are outlined below:

Configuration	Point of Worst Case Predicted Level	Predicted Value μW/cm <sup>2</sup>	Maximum Limit for PCS Band Uncontrolled Environment Set by FCC μW/cm <sup>2</sup>	% of the Standard
Current PCS TDMA configuration	1100 feet away in front of the antenna	0.68	1000	0.068
Future PCS TDMA and GSM configuration	1100 feet away in front of the antenna	0.91	1000	0.091

In addition to predictive analysis, on-site data was recorded at different locations around the monopole. In all areas, less than 1.75 % of the MPE for public/uncontrolled limits was recorded. The reason the actual measurements are higher than the predicted values is because the actual measurements include emissions from the other carriers at that site while the theoretical study focused on the level of emissions contributed by AT&T only.

<b>On-site measuring point</b>	<b>Worst Case Measured Value <math>\mu\text{W}/\text{cm}^2</math></b>	<b>Maximum Limit for PCS Band Uncontrolled Environment Set by FCC <math>\mu\text{W}/\text{cm}^2</math></b>	<b>% of the Standard</b>
50 meters in front of sector 1	10.5	1000	1.05
20 meters in front of sector 2	17.5	1000	1.75
50 meters in front of sector 3	16.5	1000	1.65

The results of these analyses indicate that output power levels for the AT&T owned equipment deployed at the above referenced facility meets 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 the transmitters.) is less than 1.75 % 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