



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-089-020328** – AT&T Wireless notice of intent to modify an existing telecommunications facility located at 175 Lester Street, New Britain, Connecticut.

Dear Atty. Fisher:

At a public meeting held on April 25, 2002, 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[s] dated March 28, 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 Lucian J. Pawlak, Mayor, City of New Britain
Mr. Robert Stanford, Crown Communications
Ms. Sandra Carter, Verizon

**NOTICE OF INTENT TO MODIFY AN
EXISTING TELECOMMUNICATIONS FACILITY
175 LESTER STREET, NEW BRITAIN, CONNECTICUT**

Pursuant to the Public Utility Environmental Standards Act, Connecticut General Statutes § 16-50g et. seq. ("PUESA"), and Sections 16-50j-72(b) of the Regulations of Connecticut State Agencies adopted pursuant to the PUESA, AT&T Wireless PCS, LLC d/b/a AT&T Wireless ("AT&T Wireless") hereby notifies the Connecticut Siting Council of its intent to modify an existing facility located at 175 Lester Street, New Britain, Connecticut (the "Lester Street Facility"), owned by Crown Atlantic Company, LLC ("Crown"). AT&T Wireless and Crown have agreed to share the use of the Lester Street Facility, as detailed below.

RECEIVED

MAR 28 2002

**CONNECTICUT
SITING COUNCIL**

The Lester Street Facility

The Lester Street Facility consists of an approximately one hundred ninety (190) foot monopole (the "Tower") and associated equipment currently being used for wireless communications by Verizon. A chain link fence surrounds the Tower compound. Land uses surrounding the Lester Street Facility are predominantly commercial.

AT&T Wireless' Facility

As shown on the enclosed plans prepared by URS Corporation, including a site plan and tower elevation of the Lester Street Facility, AT&T Wireless proposes shared use of the Facility by placing antennas on the Tower and equipment cabinets needed to provide personal communications services ("PCS") within the existing fenced compound. AT&T Wireless will install 6 panel antennas at approximately the 187 foot level of the Tower and associated equipment cabinets (2 proposed, 2 future, each 76"H x 30" W x 30" D) located on a concrete pad. As evidenced in the structural report prepared by Paul J. Ford and Company, annexed hereto as Exhibit A, AT&T has confirmed that the tower is structurally capable of supporting the addition of AT&T Wireless' antennas.

AT&T Wireless' Facility Constitutes An Exempt Modification

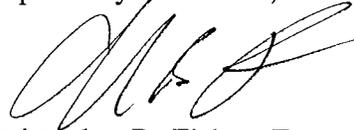
The proposed addition of AT&T Wireless' antennas and equipment to the Lester Street Facility constitutes an exempt "modification" of an existing facility as defined in Connecticut General Statutes Section 16-50i(d) and Council regulations promulgated pursuant thereto. Addition of AT&T Wireless' antennas and equipment to the Tower will not result in an increase of the Tower's height nor extend the site boundaries. Further, there will be no increase in noise levels by six (6) decibels or more at the Tower site's boundary. As set forth in an Emissions Report prepared by Frank Wentink, Radio Frequency Engineer, annexed hereto as Exhibit B, 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 and MPE limits established by the Federal Communications Commission. For all the foregoing reasons, addition of AT&T Wireless' facility to the Tower constitutes an exempt modification which will not have a substantially adverse environmental effect.

Conclusion

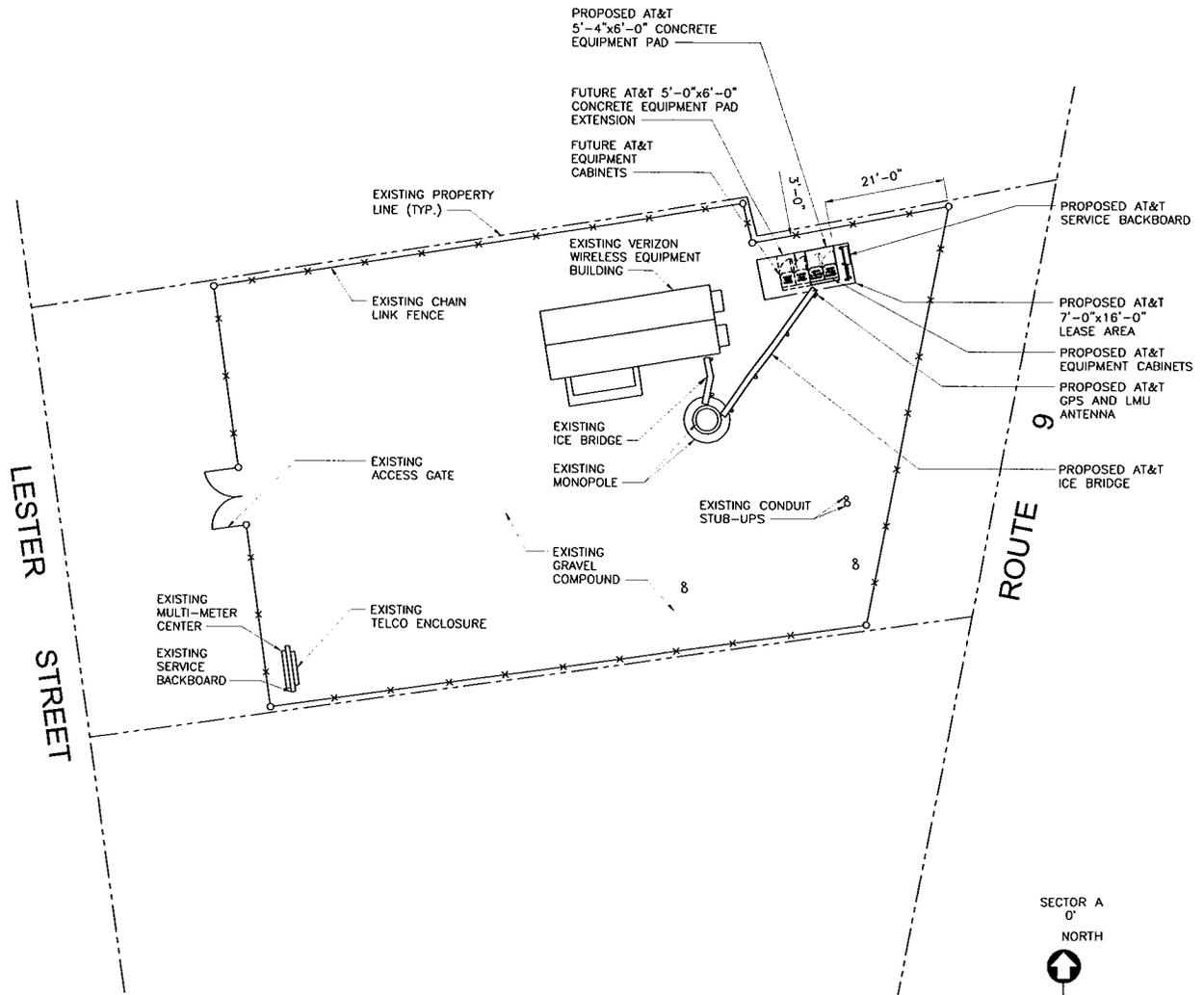
Accordingly, AT&T Wireless requests that the Connecticut Siting Council acknowledge that its proposed modification to the Lester Street Facility meets the Council's exemption criteria.

Respectfully Submitted,

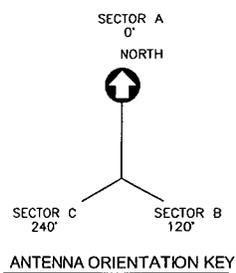


Christopher B. Fisher, Esq.
On behalf of AT&T Wireless

cc: Mayor, City of New Britain
Harold Hewett, Bechtel
Kenneth Baldwin, Esq.



1 COMPOUND PLAN
SC-1 SCALE: 1" = 30'-0"



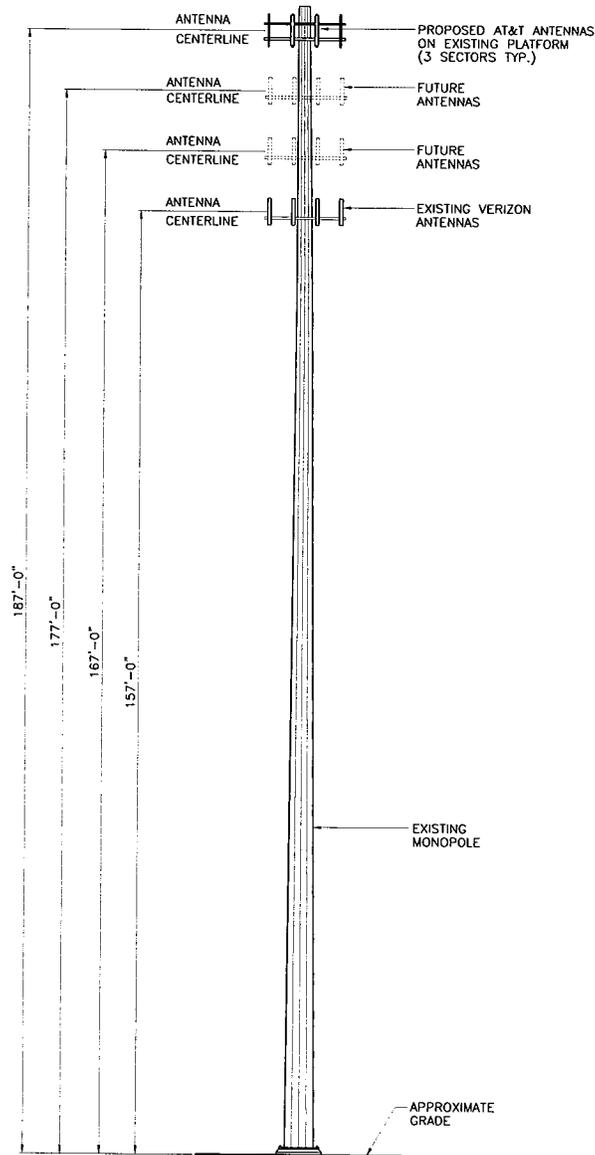
URS
URS CORPORATION-AES
795 BROOK STREET, BLDG 5
ROCKY HILL, CT. 06067
1-(860)-529-8882

AT&T
AT&T WIRELESS PCS LLC
12 OMEGA DRIVE
STAMFORD, CONNECTICUT 06902

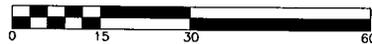
DRAWING TITLE: COMPOUND PLAN
PROJECT INFORMATION:
LESTER STREET
24445-3CO-379-SC1-1
175 LESTER STREET
NEW BRITAIN, CONNECTICUT
PROPERTY OWNER:
CROWN ATLANTIC COMPANY LLC
500 WEST CUMMINGS PARK, SUITE 6500
WOBURN, MA 01801

LATITUDE: 41.68661 (NAD 83)			
LONGITUDE: 72.75800 (NAD 83)			
SCALE: AS NOTED	DRAWN BY: KJB		
DATE ISSUED: 03/25/02	CHECKED BY: JCF		
APPROVED BY:			
ISSUED FOR SITING COUNCIL			
JOB NO. 24445	SITE NO. CT-379	DRAWING NUMBER SC-1	REV. 1

URS JOB No.: F302224.10



1 TOWER ELEVATION
 SC-2 SCALE: 1" = 30'-0"



LATITUDE: 41.68661 (NAD 83)
 LONGITUDE: 72.75800 (NAD 83)

SCALE: AS NOTED DRAWN BY: KJB
 DATE ISSUED: 03/25/02 CHECKED BY: JCF
 APPROVED BY:

ISSUED FOR SITING COUNCIL

JOB NO.	SITE NO.	DRAWING NUMBER	REV.
24445	CT-379	SC-2	1



URS CORPORATION-AES
 795 BROOK STREET, BLDG 5
 ROCKY HILL, CT. 06067
 1-(860)-529-8882

URS JOB NO.: F302224.10



AT&T

AT&T WIRELESS PCS LLC
 12 OMEGA DRIVE
 STAMFORD, CONNECTICUT 06902

DRAWING TITLE: TOWER ELEVATION

PROJECT INFORMATION:
 LESTER STREET
 24445-3CO-379-SC2-1
 175 LESTER STREET
 NEW BRITAIN, CONNECTICUT

PROPERTY OWNER:
 CROWN ATLANTIC COMPANY LLC
 500 WEST CUMMINGS PARK, SUITE 6500
 WOBURN, MA 01801

CT-379

701 000-511



**PAUL J. FORD AND COMPANY
STRUCTURAL ENGINEERS**

250 East Broad Street • Suite 500 • Columbus, Ohio 43215

March 8, 2002

Crown Castle Atlantic, LLC
500 West Cummings Park, Suite 3400
Woburn, MA 01801

ATTN: Lincoln Ernhard

RE: Analysis of Existing 190-ft Monopole
Monopole Located in Hartford Co., CT: New Britain III Site
(PJF project number: 37502-0005, reference 29200-1787)

Dear Mr. Ernhard:

Paul J. Ford and Company understands that AT&T is proposing to co-locate on the existing Crown Castle monopole. The AT&T antennas will be in addition to the antennas currently placed on the pole. Listed below is the existing and proposed antenna loading for this analysis;

Status	Elevation	Antenna Description	Owner
Proposed	Top	(12) Allgon 7184 Panel Antennas On a 14-ft Platform w/ Handrail	AT&T
Design	177-ft	(12) 60" x 12" x 3" Panel Antennas On a 14-ft Platform w/ Handrail	
Existing	160-ft	(12) Decibel DB844H90 Panel Antennas On a 14-ft Platform w/ Handrail	Verizon
Design	147-ft	(12) 60" x 12" x 3" Panel Antennas On a 14-ft Platform w/ Handrail	

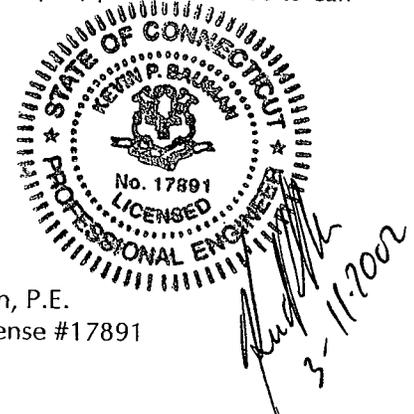
The monopole was originally designed to support (12) 60" x 12" x 3" Panel Antennas with a wind area (CaAa) of 7.00 ft² per antenna at the 190-ft and 160-ft elevation. The (12) Proposed Allgon 7184 antennas have an equivalent wind area (CaAa) of 2.85 ft² per antenna and the (12) Proposed Decibel DB844H90 Panel Antennas have an equivalent wind area (CaAa) of 2.87 ft² per antenna. Since the existing and proposed loading has less wind area than the original design antenna, then the stresses in the monopole will be less than the original design. If the proposed loading replaces the original design loading, the pole will maintain the current TIA/EIA wind rating of 85 mph.

If you have any questions regarding our analysis, or if we can be of further service to you, please feel free to call us @ (614) 221-6679.

Sincerely,

PAUL J. FORD AND COMPANY

Kurt J. Swarts, P.E.
Project Engineer
e-mail: kswarts@pjfweb.com



Kevin P. Bauman, P.E.
Connecticut License #17891

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**RF Exposure Analysis for Proposed
AT&T Wireless Antenna Facility**

SITE ID: 907-007-379

March 20, 2002

**Prepared by AT&T Wireless Services, Inc.
Frank Wentink, RF Engineer**

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1. Introduction

This report constitutes an RF exposure analysis for the proposed AT&T Wireless antenna facility to be located at 1367 East Allen St, New Britain, CT 06053. This analysis uses site-specific engineering data to determine the predicted levels of radio frequency (RF) electromagnetic energy in the vicinity of the proposed facility and compares those levels with the Maximum Permissible Exposure (MPE) limits established by the Federal Communications Commission.

2. Site Data

Site Name: New Britain East	
Number of simultaneously operating channels	16
Type of antenna	Allgon 7250.02
Power per channel (Watts ERP)	250.0 Watts
Height of antenna (feet AGL)	187 feet
Antenna Aperture Length	5 feet

3. RF Exposure Prediction

The following equations established by the FCC, in conjunction with the site data, were used to determine the levels of RF electromagnetic energy present in the vicinity of the proposed facility¹:

$$PowerDensity = \frac{0.64 * N * EIRP(\theta)}{\pi * R^2} (mw/cm^2) \quad Eq. 1-Far-field$$

Where, N = Number of channels, R = distance in cm from the RC (Radiation Center) of antenna, and $EIRP(\theta)$ = The isotropic power expressed in milliwatts in the direction of prediction point.

$$PowerDensity = \frac{P_{in} / ch * N * 10^3}{2 * \pi * R * h * \alpha / 360} (mw/cm^2) \quad Eq. 2-Near-field$$

Where P_{in}/ch = Input power to antenna terminals in watts/ch, R = distance to center of radiation, h = aperture height in meters, α = 3 dB band-width of horizontal pattern.

¹ RF exposure is measured and predicted in terms of power density in units of milliwatts (mW), a thousandth of a watt, or microwatts (μ W), a millionth of a watt, per square centimeter (cm²). Data comparing predictive analysis with on site measurements has demonstrated that power density can be effectively predicted at given locations in the vicinity of a wireless antenna facility.

4. FCC Guidelines for Evaluating the Environmental Effects of RF Radiation

In 1985, the FCC established rules to regulate radio frequency (RF) exposure from FCC licensed antenna facilities. In 1996, the FCC updated these rules, which were further amended in August 1997 by a Second Memorandum Opinion and Order. These new rules represent a consensus of the federal agencies responsible for the protection of public health and the environment, including the Environmental Protection Agency (EPA), the Food and Drug Administration (FDA), the National Institute for Occupational Health and Safety (NIOSH), and the Occupational Safety and Health Administration (OSHA).

Under the laws that govern the delivery of wireless communications services in the United States, as amended by the Telecommunications Act of 1996, the FCC has exclusive jurisdiction over RF emissions from personal wireless antenna facilities, which include cellular, PCS, messaging and aviation sites.² Pursuant to its authority under federal law, the FCC has established rules to regulate the safety of emissions from these facilities.

5. Comparison with Standards

Exhibit A shows the levels of RF electromagnetic energy as one moves away from the antenna facility. As shown in Exhibit A, the maximum power density is 0.58 μ W/cm² which occurs at 1200 feet from the antenna facility. The chart in exhibit A also shows that the power density is only 0.02 μ W/cm² at a distance of 4 feet. Table 1 below shows the Maximum Permissible Exposure (MPE) limits established by the FCC. There are different MPE limits for public/uncontrolled and occupational/controlled environments.

Table 1: Maximum Permissible Exposure limits for RF radiation

<i>Frequency</i>	<i>Public/Uncontrolled</i>	<i>Occupational/controlled</i>	<i>Maximum power density at Accessible location</i>
Cellular	580 μ W/cm ²	2,900 μ W/cm ²	0.58 μ W/cm ²
PCS	1000 μ W/cm ²	5,000 μ W/cm ²	

The maximum power density at the proposed facility represents only 0.09% of the public MPE limit.

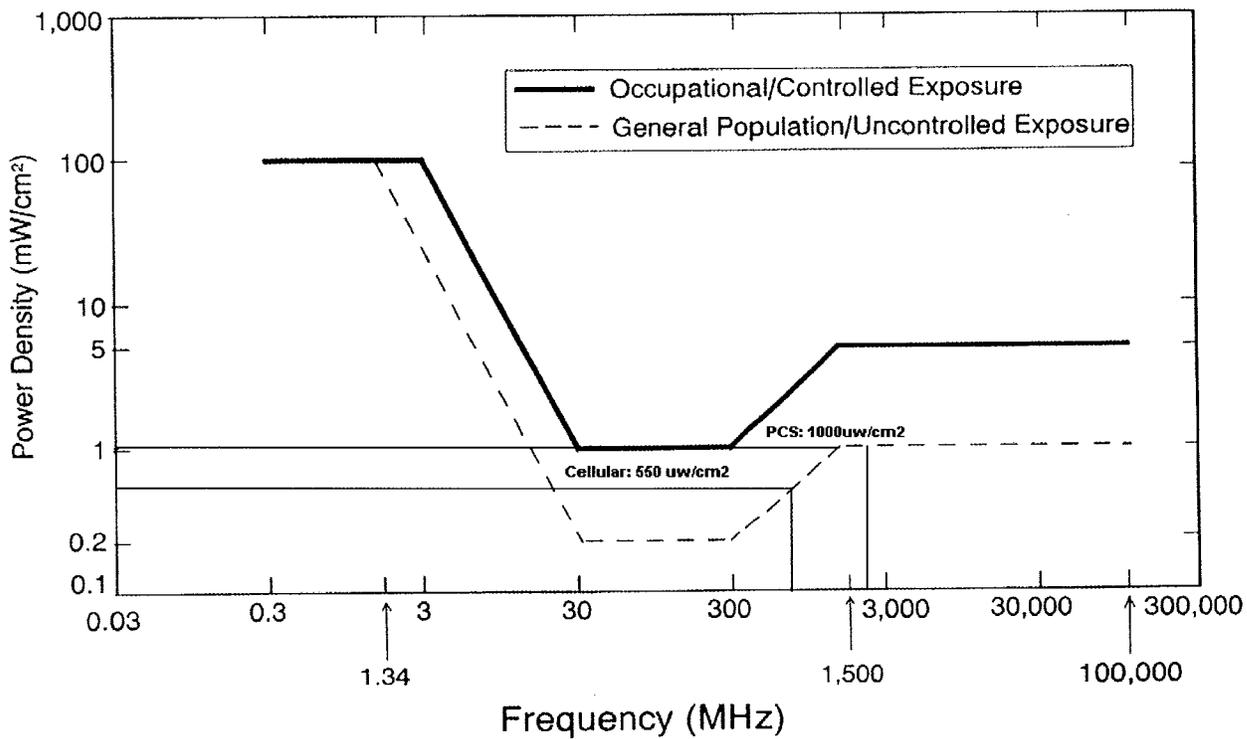
6. Conclusion

This analysis show that the maximum power density in accessible areas at this location is 0.58 μ W/cm², a level of RF energy that is well below the Maximum Permissible Exposure limit established by the FCC.

² 47 U.S. C. Section 332 (c) (7)(B)(iv) states that “[n]o State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the Commission’s regulations concerning such emissions.”

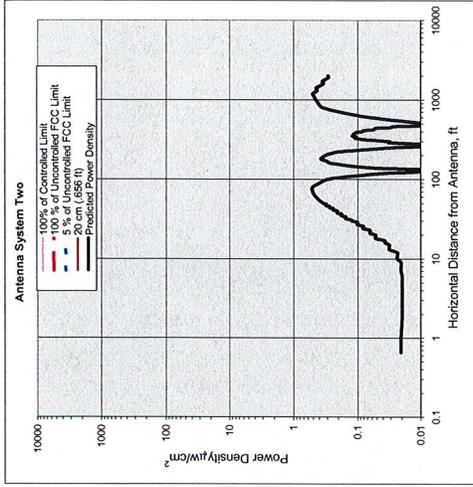
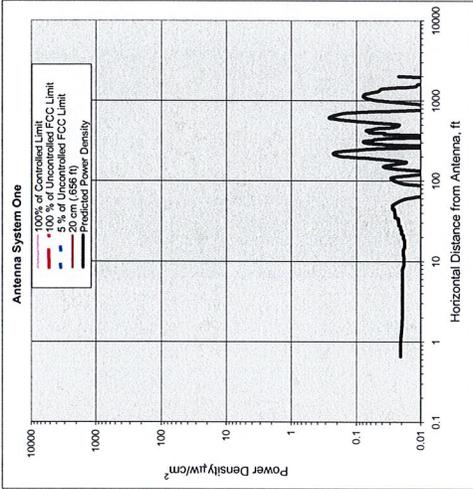
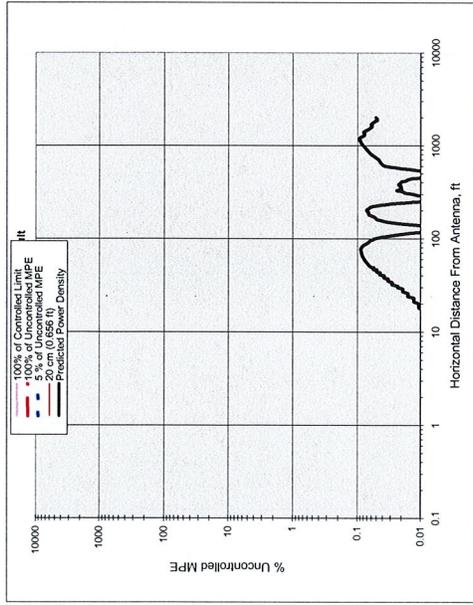
7. FCC Limits for Maximum Permissible Exposure

FCC Limits for Maximum Permissible Exposure (MPE)
Plane-wave Equivalent Power Density



8. Exhibit A

Heading



Number of Antenna Systems: 2

Meets FCC Controlled Limits for The Antennas Systems.

Meets FCC Uncontrolled Limits for The Antenna Systems.

Meets 5% of FCC Uncontrolled Limits for The Antenna Systems.

No Further Maximum Permissible Exposure (MPE) Analysis Required.

Power Density	@Horiz. Dist.
μW/cm ²	feet
Maximum Power Density = 0.58	% of limit
1,083.53 times lower than the MPE limit for uncontrolled environment	1200.00
Composite Power (ERP) = 8,000.00	Watts

Site ID: 907-007-379
 Site Name: New Britain East
 Site Location: 1367 East Allen St, New Britain, CT 06053

Performed By: Jatish Bhandare

Date: 3/25/02

Antenna System Two

Frequency	Units	Value
890	MHz	890
# of Channels	#	16
Max ERP/Ch	Watts	250
Max Pwr/Ch Into Ant.	Watts	18.53275603
(Center of	feet	157
Point	feet	0
ground or		
roof surface)		
No.		ALP9212
Max Ant Gain	dBd	11.3
Down tilt	degrees	0
Miscellaneous Att.	dB	0
Height of aperture	feet	4
Ant HBW	degrees	95
Distance to Ant _{bottom}	feet	155
WOS?	Y/N/P	n

Ant System TWO Owner: Verizon
 Sector: 3
 Azimuth: 23/143/263

Antenna System One

Frequency	Units	Value
1945	MHz	1945
# of Channels	#	16
Max ERP/Ch	Watts	250
Max Pwr/Ch Into Ant.	Watts	5.59680285
(Center of	feet	187
Calculation Point	feet	0
or		
roof surface)		
No.		Alligon 7250.02
Max Ant Gain	dBd	16.5
Down tilt	degrees	0
Miscellaneous Att.	dB	0
Height of aperture	feet	5.11
Ant HBW	degrees	65
Distance to Ant _{bottom}	feet	184.445
WOS?	Y/N/P	n

Ant System ONE Owner: AT&T
 Sector: 3
 Azimuth: 0/120/240

9. For Further Information

Additional information about the environmental impact of RF energy from personal wireless antenna facilities can be obtained from the Federal Communications Commission:

Dr. Robert Cleveland
Federal Communications Commission
Office of Engineering and Technology
Washington, DC 20554

RF Safety Program: 202-418-2464
Internet address: rfsafety@fcc.gov
RF Safety Web Site: www.fcc.gov/oet/rfsafety

10. References

- [1] The Communications Act of 1934, as amended by the Telecommunications Act of 1996, 47 U.S.C. Section 332 (c)(7)(B)(iv).
- [2] *Guidelines for Evaluating the Environmental Effects of Radio frequency Radiation*, Notice of Proposed Rulemaking, ET Docket 93-62, 8 FCC Rcd 2849 (1993).
- [3] *Guidelines for Evaluating the Environmental Effects of Radio frequency Radiation*, Report and Order, ET Docket 93-62, FCC 96-326, adopted August 1, 1996. 61 Federal Register 41006 (1996).
- [4] *Guidelines for Evaluating the Environmental Effects of Radio frequency Radiation*, Second Memorandum Opinion and Order, ET Docket 93-62, adopted August 25, 1997.
- [5] *Evaluating Compliance with FCC Guidelines for Human Exposure to Radio frequency Electromagnetic Fields*, OET Bulletin 65, August, 1997.