STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square
New Britain, Connecticut 06051
Phone: (860) 827-2935
Fax: (860) 827-2950

August 6, 2002

Peter W. van Wilgen
SNET Mobility, LLC
500 Enterprise Drive
Rocky Hill, CT 06067-3900

RE: **EM-CING-003-110-112-116-141-145-020718** - SNET Mobility, LLC notice of intent to modify existing telecommunications facilities located in Ashford, Plainfield, Pomfret, Putnam, Thompson, and Union, Connecticut.

Dear Mr. van Wilgen:

At a public meeting held on August 1, 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 with the condition that the monopole tower in Putnam be modified in accordance with recommendations made in the tower analysis and that a professional engineer certify the satisfactory completion of these modifications to the Council before any additional antennas are installed on the tower.

The proposed modifications are to be implemented as specified here and in your notice dated July 18, 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 sites that would not increase tower heights, extend the boundaries of the tower site, increase noise levels at the tower site boundaries by six decibels, and increase the total radio frequencies electromagnetic radiation power density 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/laf

c: See attached list

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List Attachment

c: Honorable John M. Zulick, First Selectman, Town of Ashford
Stephen Lowry, Zoning Enforcement Officer, Town of Ashford
Honorable David C. Allard, First Selectman, Town of Plainfield
Planning and Zoning Official, Town of Plainfield
Honorable David I. Patenaude, First Selectman, Town of Pomfret
Walter P. Hinchman, Planning and Zoning Chairman, Town of Pomfret
Honorable Daniel S. Rovero, Mayor, Town of Putnam
Gerard Cotnoir, Planning Chairman, Town of Putnam
Honorable Douglas J. Williams, First Selectman, Town of Thompson
John E. Mahon, Jr., Zoning Enforcement Officer, Town of Thompson
Honorable Albert L. Goodhall, Jr., First Selectman, Town of Union
Planning and Zoning Official, Town of Union

EM-CING-003-110-112-116-141-145-020718

SNET Mobility, LLC
500 Enterprise Drive
Rocky Hill, Connecticut 06067-3900
Phone: (860) 513-7730
Fax: (860) 513-7190

Peter W. van Wilgen
Senior Manager – Construction

HAND DELIVERED

July 18, 2002

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

Re: SNET Mobility, LLC notice of intent to modify existing telecommunications facilities located in Ashford, Pomfret, Putnam, Union, Thompson and Plainfield

Dear Mr. Gelston:

In order to accommodate technological changes, implement E-911 capability and enhance system performance, SNET Mobility, LLC ("SNET" or "Cingular Wireless") plans to modify the antenna configurations at its existing cell sites. Please accept this letter and attachments as notification, pursuant to R.C.S.A. Section 16-50j-73, of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2). In compliance with R.C.S.A. Section 16-50j-73, a copy of this letter and attachments is being sent to the chief elected official of each of the municipalities in which an affected cell site is located.

Attached are summary sheets detailing the planned changes, including power density calculations reflecting the change in the effect of Cingular's operations at each site. Also included is documentation of the structural sufficiency of each tower to accommodate the revised antenna configuration.

The changes to the facilities do not constitute modifications as defined in Connecticut General Statutes ("C.G.S.") Section 16-50i(d) because the general physical characteristics of the facilities will not be significantly changed or altered. Rather, the planned changes to the facilities fall squarely within those activities explicitly provided for in R.C.S.A. Section 16-50j-72(b)(2).

1. The height of the overall structure will be unaffected. At almost all sites, new panel antennas approximately the same size will replace those previously installed. Tower mount amplifiers, approximately 5" x 9" x 13", will be added to the platform on which the panel antennas are mounted to enhance signal reception at the cell site. In addition, the mandated provision of E-911 capability will require installation of one LMU ("location measurement unit"), approximately 5 inches high, on either the tower, the equipment shelter or the ice bridge. One GPS receive-only antenna will be attached to the equipment shelter at each site. None of the modifications will extend the height of the tower.

2. The proposed changes will not extend the site boundaries. There will be no effect on the site compound.

3. The proposed changes will not increase the noise level at the existing facility by six decibels or more.

4. Radio frequency power density will increase due to use of additional channels broadcasting at higher power. However, the changes will not increase the calculated "worst case" power density for the combined operations at the site to a level at or above the applicable standard for uncontrolled environments as calculated for a mixed frequency site.

For the foregoing reasons, Cingular Wireless respectfully submits that the proposed changes at the referenced sites constitute exempt modifications under R.C.S.A. Section 16-50j-72(b)(2).

Please feel free to call me at (860) 513-7730 with questions concerning this matter. Thank you for your consideration.

Sincerely,

Peter W. van Wilgen
Senior Manager - Construction

Enclosures

CINGULAR WIRELESS
Antenna Modification

Site Address: 36 Janowski Road, Ashford
tower share

Tower Owner/Manager: Sprint Sites USA

Antenna configuration Antenna center line – 140'

Current and/or approved: 9 Allgon 7120.16 or comparable

Planned: 9 CSS DUO4-8670 or comparable
6 tower mount amplifiers
1 LMU (at 110')

Power Density:

Calculations for Cingular's current operations at the site indicate a radio frequency electromagnetic radiation power density, measured at the tower base, of approximately 5.9% of the standard adopted by the FCC. As depicted in the second table below, the total radio frequency electromagnetic radiation power density for Cingular's planned operations would be approximately 8.4%, or an additional 2.5% of the standard.

Cingular Current

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm^2)	Standard Limits (mW/cm^2)	Percent of Limit
SNET	140	880 - 894	19	100	0.0349	0.5867	5.9

Cingular Planned

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm^2)	Standard Limits (mW/cm^2)	Percent of Limit
SNET TDMA	140	880 - 894	16	100	0.0294	0.5867	5.0
SNET GSM	140	880 - 894	2	296	0.0109	0.5867	1.9
SNET GSM	140	1930 - 1935	2	427	0.0157	1.0000	1.6
Total							8.4%

Structural information: Please see attached.

1. EXECUTIVE SUMMARY

This report summarizes the structural analysis of the 192' lattice tower located on 36 Jandowski Road in Ashford, Connecticut. The analysis was conducted in accordance with the TIA/EIA-222-F standard for wind velocity of 85 mph bare and 74 mph concurrent with ½" ice design wind loads. The antenna loading considered in the analysis consists of all existing and proposed antennas, transmission lines, and ancillary items as outlined in the Analysis Methodology and Loading Condition Section of this report. The proposed Cingular Wireless modification is to replace the existing Cingular Wireless antennas with the antennas listed below:

(9) DUO4-8670 antennas and (6) ADC MHA amplifiers with (3) T-Frame mounts and (12) 1 5/8" coax cables	Cingular	@ 140' elevation
(1) (LMU) Catrain 738449 antenna with stand off mount and (1) ½" coax cable	Cingular	@ 110' elevation

The results of the analysis indicate the tower structure to be in compliance with the proposed loading conditions. The tower is considered feasible with the TIA/EIA-222-F wind load classification specified above and all the existing and proposed antenna loading. No further analysis was conducted on the tower foundation since the forces calculated were below the original design.

This analysis is based on:

1) Tower and Foundation reports prepared by Rohn Industries Incorporated file no. 34589PH dated December 17, 1996.

2) Antenna inventory as specified in section 2 and 6 of this report.

3) TIA\EIA-222-F wind load classification.

This report is only valid as per the assumptions and data utilized in this report for antenna inventory, mounts and associated cables. The user of this report shall field verify the assumption of the antenna and mount configuration. Notify the engineer immediately if any of the assumptions in this report are found to be other than specified.

If you should have any questions, please call.

Sincerely,
URS Corporation AES

Richard A. Sambor, P.E.
Manager Facilities Design

RAS/rmn

cc: Richard R. Johanson – Bechtel
Doug Roberts – URS
N.A. – URS
A.A. – URS
CF/Book

2. INTRODUCTION

The subject tower is located on 36 Jandowski Road in Ashford, Connecticut. The structure is a self supporting 192' steel triangular tapered lattice tower manufactured by Rohn Industries Incorporated.

The tower is constructed of pipe legs, diagonal angle braces and horizontal braces. The tower sections are all bolted together. The width of the face is 6'-7 3/4" at the top and 25' at the bottom. The tower geometry and structural member sizes were taken from Rohn Industries Incorporated file no. 34589PH dated December 17, 1996.

The existing structure supports several communication antennas. The antenna and mount configuration as specified below:

Antenna Type	*Carrier*	*Mount*	*Elevation*	*Cable*
(9) DB980H90	Sprint	T-Frame	190'	(9) 1 5/8" coax cable
(12) ALP9011	Verizon	T-Frame	180'	(12) 1 5/8" coax cable
(12) DB980H90	Nextel	T-Frame	170'	(12) 1 5/8" coax cable
(6) Allgon 7250.03	AT&T	T-Frame	160'	(12) 1 5/8" coax cable
(6) DAPA 79210	Voicestream	T-Frame	150'	(12) 1 5/8" coax cable
(9) DUO4-8670 & (6) ADC MHA	Cingular	T-Frame	140'	(12) 1 5/8" coax cable
(1) (LMU) Catrain 738449	Cingular	Stand off	110'	(1) 1/2" coax cable

This structural analysis of the communications tower was performed by URS Corporation, AES (URS) for Cingular Wireless. The purpose of this analysis was to investigate the structural integrity of the existing tower with its existing and proposed antenna loads. This analysis was conducted to evaluate twist (rotation), sway (deflection) and stress on the tower, and the effect of forces to the foundation of the tower resulting from existing and proposed antenna arrangements.

3. ANALYSIS METHODOLOGY AND LOADING CONDITIONS

Methodology:

The structural analysis was done in accordance with TIA/EIA-222-F June 1996, Structural Standard for Steel Antenna Towers and Antenna Supporting Structures, the American Institute of Steel Construction (AISC) and the Manual of Steel Construction; Allowable Stress Design (ASD).

The analysis was conducted using ERI Tower 2.0. Two load conditions were evaluated as shown below which were compared to allowable stresses according to AISC and TIA/EIA. The two load combinations were investigated in ERI Tower 2.0 to determine the stress, sway and rotation.

Load Condition 1 = 85 mph Wind Load (without ice) + Tower Dead Load
Load Condition 2 = 74 mph Wind Load (with ice) + Ice Load + Tower Dead Load

The TIA/EIA standard permits one-third increase in allowable stresses for towers and monopoles less than 700 feet tall. For purposes of this analysis, allowable stresses of tower members were increased by one-third in computing the load capacity; in addition, the appropriate "k" factors were assigned to each member.

4. FINDINGS AND EVALUATION

The combined axial and bending stresses on the tower structure were evaluated to compare with the allowable stress in accordance with AISC. The analysis indicates that the tower legs, diagonals and horizontal members have sufficient capacity to carry the loads applied.

The tower base reactions are as follows:

Original Design Tower Reactions	
Compression (kips)	331.9
Uplift (kips)	291.6
Total Shear (kips)	63
Moment (kips-ft)	6632.7

Proposed Tower Reactions	
Compression (kips)	322
Uplift (kips)	279
Total Shear (kips)	58
Moment (kips-ft)	6617

For detailed proposed tower reactions, see drawing no. E-1 in section 6 of this report.

The analysis indicates that the reactions of the tower base are below the Original Design prepared by Rohn Industries Incorporated. No further analysis was conducted on the tower foundation since the forces calculated were below the original design.

5. CONCLUSIONS

The results of the analysis indicate the structure to be in compliance with the loading conditions and the materials and member sizes for the tower. The tower is considered feasible with the TIA/EIA-222-F wind load classification specified above and all the existing and proposed antenna loading.

Limitations/Assumptions:

This report is based on the following:

A. Tower is properly installed and maintained.

B. All members were as specified in the original Construction Documents and are in good condition.

C. All required members are in place.

D. All bolts are in place and are properly tightened.

E. Tower is in plumb condition.

F. All members are galvanized.

G. All tower members were properly designed, detailed, fabricated, installed, and have been properly maintained since erection.

URS is not responsible for any modifications completed prior to or hereafter in which URS is not or was not directly involved. Modifications include but are not limited to:

A. Removing/Replacing antennas
B. Adding antennas & amplifiers

URS hereby states that this document represents the entire report and that it assumes no liability for any factual changes that may occur after the date of this report. All representations, recommendations, and conclusions are based upon information contained and set forth herein. If you are aware of any information which conflicts with that which is contained herein, or you are aware of any defects arising from original design, material, fabrication, or erection deficiencies, you should disregard this report and immediately contact URS. URS disclaims all liability for any representation, recommendation, or conclusion not expressly stated herein.

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square
New Britain, Connecticut 06051
Phone: (860) 827-2935
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July 25, 2002

Honorable John M. Zulick
First Selectman
Town of Ashford
Knowlton Memorial Town Hall
25 Pompey Hollow Road
P O Box 38
Ashford, CT 06278

RE: **EM-CING-003-110-112-116-141-145-020718** - SNET Mobility, LLC notice of intent to modify existing telecommunications facilities located in Ashford, Plainfield, Pomfret, Putnam, Thompson, and Union, Connecticut.

Dear Mr. Zulick:

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 August 1, 2002, at 2:30 p.m. in Hearing Room Two, 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,

SDP/AKE

S. Derek Phelps
Executive Director

SDP/laf

Enclosure: Notice of Intent

c: Stephen Lowry, Zoning Enforcement Officer, Town of Ashford