

April 11, 2012

TO: Ike Leggett. County Executive, Montgomery County
Roger Berliner. President, Montgomery County Council
Marc Elrich, Nancy Floreen, George Leventhal, Hans Riemer.
Council members of Montgomery County
Marjorie Williams. Franchise Manager, Office of Cable and Communication Services,
Chair of Transmission Facility Coordinating Group (TFCG), Montgomery County
CC: Susanne Lee. President, West Montgomery County Citizens Association

**Subject: Relocate Node 9 & Pole, #739420-PEPCO-6571, at 7800 Brickyard Road,
Potomac, MD**

Reference: (1) Montgomery County Transmission Facility Coordinating Group (TFCG) Meeting
Minutes, File #201005-06, May 5, 2010
http://www.montgomerycountymd.gov/apps/ttfcg/meeting_minutes_view.cfm?viewdate=05/05/2010
(2) Letter to Crown Castle Inc. and PEPCO, January 21, 2012. "DAS Node 9 Petition
Letter_1_120115.pdf"
<http://health.groups.yahoo.com/group/safecelltowers/message/20>

(In this letter, Node 9 and Pole, #739420-PEPCO-6571, one of the nodes in Distributed Antenna System (DAS), Madeira Hub (#201005-06), is referenced as "Node 9"; Montgomery County Transmission Facility Coordinating Group (TFCG) is referenced as the "Tower Committee".)

Background:

A week before Christmas 2011, without any prior notification to residents, Crown Castle Inc. and PEPCO installed a 65 foot pole, topped with 3 sets of cell phone antennas, next to the driveway of 7800 Brickyard Road. This pole is 42 feet from children's bedrooms at 7800 Brickyard, 48 feet from the master bedroom at 7712 Brickyard, and 51 feet from a school bus pickup at 7801 Brickyard.

In January, the residents of 7700-7800 blocks of Brickyard Road jointly signed a petition to Crown Castle Inc. and PEPCO requesting Node 9 to be relocated. To date, Crown Castle has replied only with informal comment and promising a site study from its subcontractor, Network Building & Consulting, LLC (NB&C). PEPCO replied and said that the replacement of the 65-foot Node 9 was approved by the Montgomery County.

We, the families in the neighborhood of Node 9, respectfully request the following:

I. Relocate the Antennas and Supporting Pole at 7800 Brickyard Road

The proposed area is indicated on the map marked with a rectangular red box. This area has similar elevation as current Node 9. The Crown Castle/PEPCO design engineer should be

able to find an appropriate site within the perimeter that can provide network coverage to service the cell phone customers in this neighborhood without harming our family members.



II. Review and Amend TFCG Tower Committee Process and Responsibilities

From the meeting minutes to approve Madeira hub DAS by the TFCG Tower Committee on May 05, 2010, we have strong concerns that the committee failed to challenge the flawed design, and did not follow-up the red-flagged issues. We would like to know:

- During the review, what was the Committee's responsibility when concerns were raised? What was the process to mitigate the concerns?
- When the ill-placed pole was objected by home owner, what was the County and/or Committee Chair's responsibility to mitigate the issue? What was the process?

Under current Montgomery County telecom regulations, residents have no rights or voice in the placement of cellular antenna facilities in the right-of-way (ROW) in residential areas. Therefore, the Tower Committee is the only safeguard to protect resident's health and property values from inappropriately placed cellular antennas.


Due to Tower Committee's failure to mitigate the flawed Node 9 design, the following harm has been done to home owners near Node 9.

A. Health Hazard

Our utmost concern is the radiation impact to residents from Node 9. The FCC¹, publishes "Maximum Permissible Exposure (MPE) Limits for General Population/Uncontrolled Exposure." For cell phone frequency 1.5 GHz, the FCC MPE for Power Density is 1.0 milliWatt/cm² for 30 minutes (highlighted with a red box in the table).

To understand the biological effects on human, we must consider the distance and the duration of the exposure. A school-age child, retiree, or an individual working from home stays about 10 ~ 12 hours a day in his/her bedroom working, reading, relaxing, and sleeping. The FCC software² estimates that at a distance of less than 20 meters or 60 feet, that an individual in the house, over a period of 10 ~ 12 hours, would be subject to the amount of Power Density more than the FCC maximum permissible exposure (MPE).^{1 2} The Power Density level does not begin to fall until after 60 feet from the cell antennas. However, the bedrooms of the two adjacent houses are well within the 60 feet radius.

DAS Safety Basics



FCC Maximum Exposure Limits

PCS (1900 MHz) 1.00 Milliwatts per cm²
Cell (800MHz) .533 Milliwatts per cm²

DAS General Population Exposure
Example Case (person standing at base of pole)

Wireless Operators	% of FCC Exposure Limit
4 PCS Operators	0.6%
3 Cell/SMR, 1 PCS	0.2%

Exposure standing at base of standard 42' pole is less than exposure sitting next to someone on a cell phone.

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Table 1. FCC Limits for Maximum Permissible Exposure (MPE)

(A) Limits for Occupational/Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f ²)*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

(B) Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f ²)*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

f = frequency in MHz

*Plane-wave equivalent power density

Crown Castle's Misinformation to the Public: In responding to our first petition, Crown Castle sent two slides to us. Left of the figure above is Crown Castle's interpretation of FCC

¹ FCC Office of Engineering & Technology (OET), Bulletin 56, 4th Edition, "Questions and Answers about Biological Effects and Potential Hazards of Radiofrequency Electromagnetic Fields, Page 15, August 1999 http://transition.fcc.gov/Bureaus/Engineering_Technology/Documents/bulletins/oet56/oet56e3.pdf

² FCC FM Model, A computer program for predicting ground level power density due to FM antenna systems. <http://transition.fcc.gov/oet/info/software/fmmodel/>

standards (on the right). Crown Castle has omitted the exposure duration (30 minutes). The blue caption on their viewgraph did not address the duration of the exposure either. Involuntary exposure to radiation 24/7 is NOT the same as casually “sitting next to someone on a cell phone.”

B. Tower Committee Ignored the Red Flag Before Approval

According to the Montgomery County Cable and Technology website, one of the purposes of the Tower Committee is to “promote appropriate location and co-location of transmission facilities to minimize adverse impact to the community and public facilities”.

The Tower Committee did not follow these policies when approving the Madeira Hub Location (#201005-06) DAS. They ignored red flags as recorded in the meeting minutes on May 5 2010:

“...all of the replacement poles would be taller than the existing poles and that two of the poles would be considerably higher. He³ noted that some of the poles to be replaced were next to poles previously replaced by NextG for its DAS; consequently, some residents may object to the changes...”

The old short pole at 7800 Brickyard Road was not part of any DAS. The pole never had antenna on it (see figures on the next page). If the county’s replacement requirement was “pole previously had NextG for its DAS”, then the Committee failed to follow own rule.

When compared to the other 10 cell poles in the Madeira DAS, we observe that several cell poles are either on county land without any adjacent houses, or on lots with significant distance from the houses. However, Node 9 is the only pole with unacceptable and dangerously proximity to our homes with at risk age groups such as school-age children, infants, elderly folks, and individuals working from home.

Node 9 was neither at “appropriate location”, nor “co-located” with other transmission facilities. Yes, we object to it. Node 9 greatly impacted our families and neighborhood. Tower Committee’s “unanimous approval” was irresponsible to their mission.

C. Devaluation of Real Estate

Our neighborhood is comprised of residential one- or two-story houses. Node 9 is 65 feet-- much taller than any adjacent houses. In fact, it is the height of a 5~6-story building. As shown in the picture below, it is truly an eyesore. Node 9 doesn't fit in with the environment and it is incompatible with the character of our neighborhood.

We consulted local real-estate agents about the possible devaluation of houses at 7700 – 7800 block of Brickyard Rd. We were unanimous informed that the cell pole would have negative impact to home value due to health effect concerns and poor aesthetics. The agents stated that

³ Robert Hunnicutt, Columbia Telecommunications Corporation (CTC), (301) 933-1488

Node 9 Issue (Cont'd)

the home value will be approximately 10% less than comparables. In addition, time to sell the property would be much longer – until a family is willing to take advantage of the severely discounted price over the risk of radiation. As a result, our financial damage would be considerable.



Conclusion

As we pointed out earlier, Node 9's approval was under compromised circumstances. We respectfully request to relocate Node 9 to a large wooded area, about two tenths of a mile north of 7800 Brickyard Road, as indicated in the attached map. Do not misinterpret our concerns about devaluation or safety. We are not saying we are willing to accept money to resolve this matter. Nor are we saying to move Node 9 to the front of another house. Moving the towering pole to the nearby undeveloped area is the only rational solution.

With specific issues cited in this letter, we request an immediate review and amend of TFCG Tower Committee process and responsibilities. The Tower Committee should be the gatekeeper for companies and the protector for county residents. We believe that the Tower Committee can accomplish their job providing citizens needed telecommunication; however, the measure of success should not be how fast and smooth the approval can glide through the system. The tower approval process must be amended to include early notification and participation of residents impacted by antenna facilities (including DAS systems) placed in their right-of-way (ROW).

Please contact Vicki Huo at 301-983-9453 if you need additional information.