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October 15, 2002

By Facsimile to 202-727-6072

Secretary
Zoning Commission
Office of Zoning
441 - 4th St., N.W., Suite 210
Washington, DC 20001

Re: Case No. 01-02

Dear Sir or Madam:

Following this letter, please find a statement that I request be associated with the record in the proceeding involving the regulation of antennas, antenna towers, and monopoles.

I was born in the District and have resided here continuously since 1967. I have practiced law with a communications specialty since 1967 and have represented many clients as owners, lessors, or lessees of antenna towers. I thus have practical experience with many of the issues that arise in connection with tower construction and maintenance.

I request an opportunity to speak at the hearing on October 17, 2002, for 5-10 minutes. I am appearing on my own behalf only and not on behalf of any client. I represent one tower owner and one lessee in the District, but they are not involved in any way with my presentation. My views are solely my own.

Sincerely,

Peter Tannenwald

Attachment

ZONING COMMISSION
District of Columbia
Case 01-02
Exhibit 91
ZONING COMMISSION
District of Columbia
CASE NO.01-02
EXHIBIT NO.91

Before the
ZONING COMMISSION FOR THE DISTRICT OF COLUMBIA
Washington, DC

In the Matter of	)	
	)	**Case No. 01-02**
Regulation of Antennas, Antenna	)	
Towers,and Monopoles	)	

STATEMENT OF PETER TANNENWALD

1. This statement is submitted by Peter Tannenwald, a private individual, with a request that it be included in the record in this proceeding.

2. I was born in the District of Columbia and have resided in the District continuously since 1967. I also work in the District as an attorney. I have specialized in communications law for my entire career. I have represented many clients who are owners, lessors, or lessees of tower space for broadcast and non-broadcast radio transmission antennas and satellite "dish" antennas. I believe that I am familiar with some of the practical problems, as well as the legal considerations, involved with tower construction and maintenance. I would like to suggest some additional elements that might be taken into account in the proposed regulations.

3. Section 2601.2: The proposed text focuses on radiofrequency radiation, but there are two other elements that are of concern to the public in addition to visual impact and the possibility that tower might fall which are taken into account in other sections. They are falling **ice** and **debris** and the visual impact from tower **lights**.

a. Either in the certification of an engineer or elsewhere during the approval process, an applicant should have to explain how it is anticipated that ice and debris might fall from the tower -- in particular, where it would land and why no harm will be caused. In our

climate in particular, it is not unusual for trees to be coated with ice. The same phenomenon can occur with a tower structure; and when the temperature rises, heavy blocks of ice may detach from the tower and fall, sometimes being carried to some distance by wind. A tower that is immediately adjacent to a building would appear to pose a falling ice hazard to the building rooftop and to sidewalk pedestrians. Debris may be less of a problem, although some birds are likely to fly into the tower and fall injured or dead to the ground. Officials reviewing an application should be able to evaluate whether debris will not be a hazard.

b. Tower lighting can be a serious visual impact issue, particularly since the Federal Aviation Administration currently favors high or medium intensity strobe lights to warn aircraft of the presence of a tower. Strobe lights are especially annoying to people on the ground, because they flash brightly and attract involuntary attention. To warn aircraft, lights need aim only upward. It is important to require tower proponents to install lights that minimize bright light radiation below the horizon, even if costs are increased.

c. Maintenance and upkeep are also important. Tower owners should be required to inspect their towers regularly and frequently and to look out for and correct the hazards noted above. A certification regarding their planed maintenance schedule should be required.

4. Section 2602.1: While short ground-mounted antennas have less visual impact than tall structures, the lower the radiation element is, the more hazardous the radiation is on the ground. Section 2603.1 should recite explicitly that it is a requirement of the District that all antenna owners determine that they are in compliance with FCC regulations and be prepared to

present their calculations to District inspectors immediately on request (which means that the studies have already been prepared, not that they are prepared after the District makes a request). Such a requirement should not be an excessive burden, since the calculation exercise is required for FCC applications in any event, even if only a certification box is checked and the details are not filed with the FCC.

5. Section 2606.3:

a. One of the permitted antennas is "residential type super high frequency...not to exceed three (3) feet in any dimension..." The term "super high frequency" is not defined. My understanding of that term is that it relates to frequencies above 3,000 MHz, which are microwave frequencies. It is not clear why such an antenna is required at a residence, unless it is for a wireless local area computer network, in which case it can be located indoors.

b. Also in this section, I am not sure that there is a valid reason to prohibit dish antennas mounted on the ground, particularly if they are not in the front yard. FCC regulations require that small dishes be permitted without undue cost or burden on the home owner. Ground mounting may be less expensive than roof mounting and may be less obtrusive. Dishes are also often mounted on an arm attached to the side or corner of a residential structure. Perhaps toe regulations should be a little more flexible than the published draft.

c. I am not sure that the categories of antenna provided for include all of the Amateur radio antennas that are protected by FCC rules. One example is a "long wire" antenna used for low frequency transmission. Amateur radio operators may wish to address this issue

in more detail.

6. Section 2608.1(f): This section prohibits a tower or monopole on any lot on which there is a ground-mounted antenna. The Commission should consider the possibility that a small satellite dish might be used to receive data to be retransmitted via an antenna. If the total structure is not obtrusive, I am not sure there is a need to require the dish to be mounted on the tower or monopole (which appears to be permitted) rather than placed on a concrete slab on the ground.

7. Section 2610(a): One of the problems often encountered with large towers is that each antenna on the tower appears harmless, but all the operations at the site taken together approach or exceed FCC RF radiation limits. It is difficult to assign responsibility in that situation, unless it is explicitly placed on the entity that constructs the tower. In anticipation of this kind of problem, an application for BZA approval should include a statement of the total capacity of the tower and how many antennas of which types will be placed on the tower before it is considered "full" and additional users are turned away. The owner should also explain how the total RF radiation hazard level will be determined and who will be responsible for monitoring it, including by on-site actual measurements if necessary. Periodic reports of the occupancy of the tower (perhaps quarterly or semi-annually, or even annually for broadcast-only towers where occupancy changes infrequently) would be useful. A tower maintenance plan should also be included with any BZA application.

8. Stealth Structures: The proposed regulations appear to favor hidden or camouflaged

antenna installations, known as "stealth" structures. While these installations may minimize visual impact, they can be dangerous in terms of RF radiation and falling ice and debris. It is particularly important to assess RF radiation impact in residential zones. I suggest that it might be desirable not to permit stealth structures as matter of right, at least in residential zones. Where BZA approval is sought, there should be a required minimum distance from any residential structure. The distance may depend on the total radiation anticipated, or a fixed minimum of 300-500 feet could be established for administrative simplicity. A setback requirement from the property line would help protect against falling ice and debris.

9. Accommodating the need of the District for mass media distribution and advanced technologies, while protecting the visual character of our city and keeping it safe for our residents, is a difficult balancing act. I appreciate the opportunity to present these views.

Respectfully submitted,

Peter Tannenwald

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