

Greg Lucey

From: Weaver, John <JOHN.WEAVER@MCLANE.com>
Sent: Monday, January 6, 2020 1:11 PM
To: Greg Lucey
Cc: Verizon Wireless - Bos Malden 001 MA (UP #26 @ 303 Commercial Street; LC: 554129; PN: 20191981039; PT: BCSRE: SMALL CELL) (15460.115798.McLaneDOCS@ws.mclane.com); Verizon Wireless - Bos Malden 113 MA (UP #4394 @ 82 Fellsmere Road; LC: 554275; PN: 20191981088; PT: BCSRE: SMALL CELL) (15460.115799.McLaneDOCS@ws.mclane.com); Verizon Wireless - Bos Malden 114 MA (UP #666 @ 21 Pine Street; LC: 554276; PN: 20191981037; PT: BCSRE: SMALL CELL) (15460.115800.McLaneDOCS@ws.mclane.com); Verizon Wireless - Bos Malden 118 MA (UP #3009 @ 14 Boundry Road; LC: 554280; PN: 20191981079; PT: BCSRE: SMALL CELL) (15460.115801.McLaneDOCS@ws.mclane.com); Verizon Wireless - Bos Malden 126 MA (UP #2683 @ 40 Alpine Street; LC: 554288; PN: 20191981129; PT: BCSRE: SMALL CELL) (15460.115802.McLaneDOCS@ws.mclane.com)
Subject: Verizon Wireless - Revised Emissions Report
Attachments: Malden Emissions Report - Revised - Public MPE.PDF

Greg,

The purpose of this email is to deliver a revised emissions report as required by the City Council when it voted to approve four Verizon Wireless small cell installations at its meeting on Tuesday, December 17, 2019, incorporating a condition of approval recommended by the Public Property Committee at its meeting on the same date. At that meeting, Committee members noted that the emissions report that Verizon submitted stated the occupational maximum permissible exposure (MPE) percentages, which are used to measure MPE levels considered safe for workers in the telecommunications field, rather than the public MPE percentages, which are used to measure MPE levels considered safe for the general public. The attached report has been revised to show the public MPE percentages, per the Committee's request. Consistent with the City's small cell ordinance and federal law, this report demonstrates that all of the proposed installations satisfy the public MPE percentages established by the Federal Communications Commission. Please file this with Verizon's other application materials to demonstrate compliance with the Council's condition.

Please let me know if you have any questions or if I can be of further assistance.

Thanks,
John



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12/23/2019

To: City of Malden

Transmitted via email

RE: Verizon Wireless Small Cell Sites

Dear City of Malden,

Verizon is installing additional wireless telecommunications facilities in order to meet the growing demand for Verizon Wireless service by residents, businesses, visitors, and emergency responders.

To ensure general public safety, it is important that you contact Verizon Wireless personnel at least 24 hours in advance should general maintenance need to be performed in areas of potential concern as marked on the next page of this document. This is required to comply with FCC guidelines and ensure the environment is safe for general maintenance workers who may require RF Safety & Awareness training. With notification, Verizon Wireless is able to evaluate appropriate actions needed relating to the antennas and proximity of the work location.

Thank you for your inquiry. Verizon has a process to deactivate power on small cells (regardless of whether the small cell is 4G or 5G) while work is being done on the pole (including joint use poles). The information needed to have a small cell powered down for work to occur on the pole (including contact numbers and pole identifiers) is provided at a safe distance from the small cell on the pole itself. Please contact Verizon Wireless personnel at least 24 hours in advance if you need to perform maintenance at that site. If you have any additional questions, our point of contact in that area is Luis Teves.

You also expressed concerns about the health effects of RF emissions from Verizon's network equipment. The Federal Communications Commission (FCC) has developed safety rules for human exposure to RF emissions in consultation with numerous other federal agencies, including the Environmental Protection Agency, the Food and Drug Administration, and the Occupational Safety and Health Administration. These rules can be found at 47 C.F.R § 1.1310. No matter which generation of technology we use, all Verizon equipment must comply with these safety requirements.

The FCC supported and adopted the standards after examining the RF research that scientists in the US and around the world conducted for decades. The research continues to this day, and agencies continue to monitor it. Based on that research, federal agencies have concluded that equipment that has been deployed in a manner that complies with the safety standards poses no known health risks. You can obtain further information about the safety of RF emissions from cell towers on the FCC's website, which you can access via this link: <http://www.fcc.gov/oet/rfsafety/rf-faqs.html>.

Thank you for reaching out to us regarding your concerns. We appreciate the chance to explain our activities regarding the wireless facility at issue. Questions related to compliance with federal regulations should be directed to VZWRFCompliance@verizonwireless.com. Please contact your local Verizon Wireless resource below if you have any additional questions.

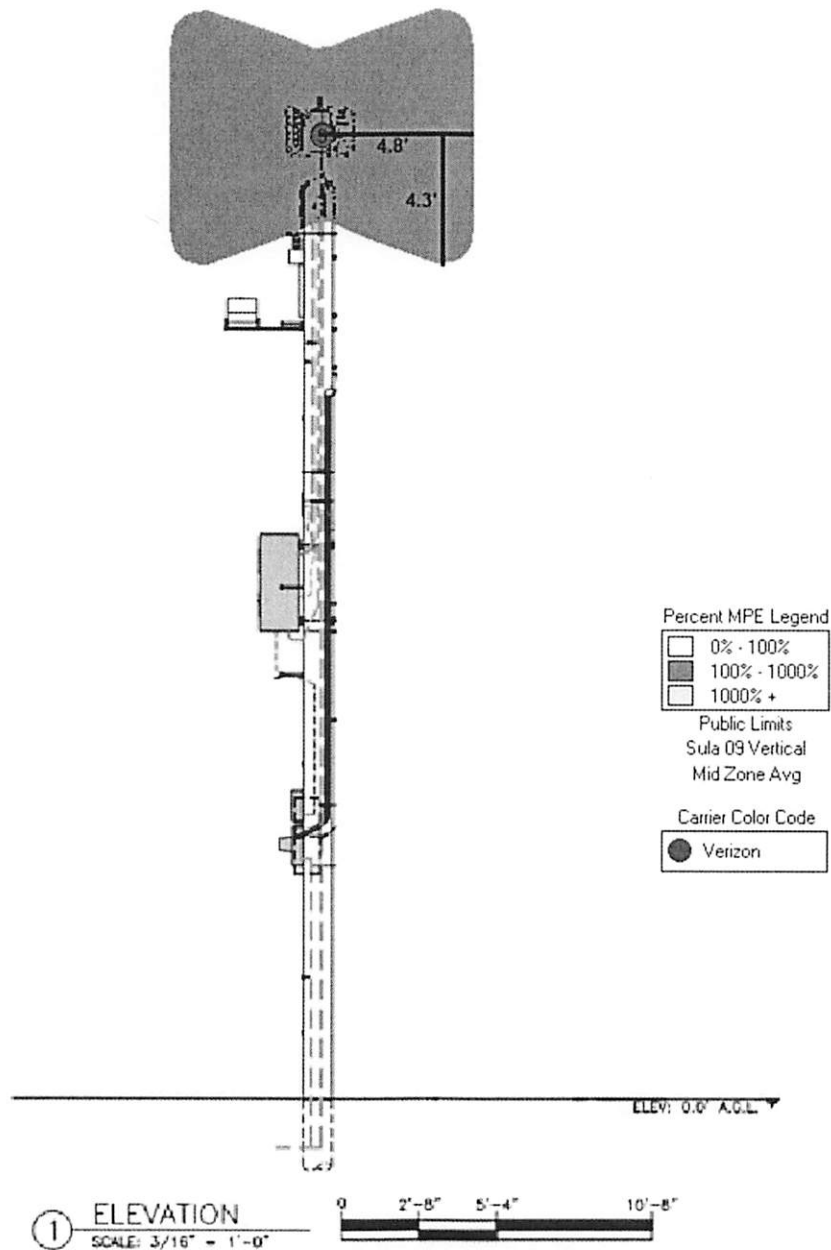
Contact Name	Contact Email	Contact Phone
Luis Teves	Luis.Teves@VerizonWireles.com	508-479-3197

Sincerely,

Michael Creamer
Sr Manager - RF Design
Verizon Wireless

Verizon Wireless (VZW) Radiofrequency (RF) Emissions Map

The following site layout represents a current snapshot in time of the predicted Verizon Wireless RF emissions from transmitting antennas on this facility. Contact Verizon Wireless should maintenance need to be performed in any non-white areas.



Color	% Public MPE	Instructions
	0 to 100	Safe In Relation to VZW. Contact Other Carriers Before Entering This Area Contact VZW Before Accessing This Area
	100 to 1000	
	Greater Than 1,000	
	Greater Than 10,000	

Property Owner Responsibilities (M.E.N.U)

RF exposure safety and the protection of every licensee's infrastructure are very important. Property owners and licensees have a shared responsibility in maintaining a safe and secure RF environment. Property owners can help in this significant endeavor by:

- ⇒ **M**aintaining all necessary wireless licensee contact information.
- ⇒ **E**nforcing restricted access (help maintain a Controlled Environment). **E**nsuring all building/maintenance personnel are aware that the potential for exposure exists, and follow all appropriate entry and safety procedures.
- ⇒ **N**otifying all licensees when any non-carrier requests access to any area with antennas **at least 24 hours in advance**.
- ⇒ **U**nderstanding that compliance with the FCC and OSHA can be achieved with RF Exposure levels above the applicable limit if the proper signage, physical/indicative barrier, and access restrictions are implemented. Commitment to compliance and willingness to cooperate are essential.



For General RF Safety & Awareness Questions

Verizon Wireless

E-mail: VZWRFCCompliance@vzw.com

E-mail Subject: "ATTN: RF Compliance"

In The Event That Emergency Maintenance Is Required

24-Hour Network Operations Center:

RF Safety & Awareness Training Contacts

Dtech Communications

(michelle@dtechcom.com.)

EBI Consulting

(spenta@ebiconsulting.com)

SiteSafe

(cbaglev@sitesafe.com)

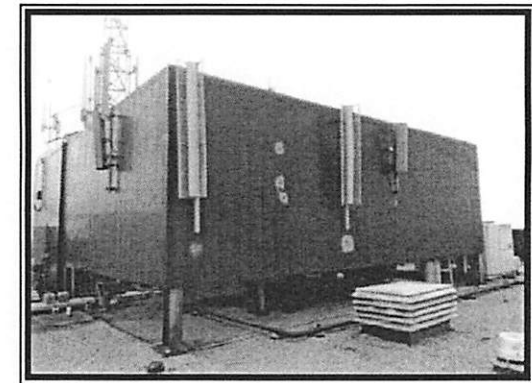
Waterford Consultants

Sbaier-

anderson@waterfordconsultants.com

Radio Frequency (RF) Emissions

S A F E T Y
&
A W A R E N E S S



Federal Compliance Requirements

The Federal Communications Commission (FCC) has established safety guidelines relating to RF exposure from cell sites. The FCC developed those standards, known as Maximum Permissible Exposure (MPE) limits, in consultation with numerous other federal agencies, including the Environmental Protection Agency, the Food and Drug Administration, and the Occupational Safety and Health Administration. The standards were developed by expert scientists and engineers after extensive reviews of the scientific literature related to RF biological effects. The FCC explains that its standards incorporate prudent margins of safety. The following represents an overview of the most applicable information:

Classifications for Exposure Limits

Occupational

Persons are "exposed as a consequence of their employment" and are "fully aware of the potential for exposure and can exercise control over their exposure".

General Population

Any persons that "may not be made fully aware of the potential for exposure or cannot exercise control over their exposure".

Those in this category do not have RF Safety & Awareness Training.

Ensuring Compliance With FCC Guidelines

Areas or portions of any transmitter site may be susceptible to high power densities that could cause personnel exposures in excess of the FCC guidelines.

Wireless Licensees are required by law to implement the following:

- Restrict access (lock doors/ladders)
- Post notification signage on every access point to increase awareness of the potential for exposure BEFORE one enters an area with antennas.
- Place additional notification signage and visual indicators in an area with antennas (beyond an access point) where RF exposure levels may start to exceed the FCC's limits.

Compliance Materials

Notification Signage



(Notice) RF Guidelines - Informs viewer of the basic safety guidelines for working in an RF Environment.



Information - Provides relevant contact information for any questions or requests.



(Blue) Notice - Informs viewer that beyond the sign, RF exposure levels may exceed the General Population MPE limit but will remain below the Occupational MPE limit.



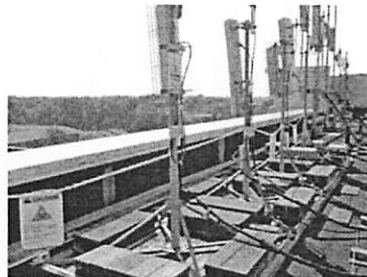
(Yellow) Caution - Informs viewer that beyond the sign, RF exposure levels may exceed the General Population and Occupational MPE limit.



(Red) Warning - Informs viewer that beyond the sign, RF exposure levels may substantially exceed the General Population and Occupational MPE limit.

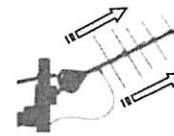
Indicative Barriers

In addition to physical barriers such as locked doors or ladders, wireless licensees may also be required to place indicative barriers as a means of visually demarcating an area where RF levels are expected to exceed the FCC's limits. **Examples of Indicative Barrier Materials:** plastic chains, buckets, reflective paint or tape, plastic cones, fiber-glass fences, and poles mounted in cinderblocks.



Antenna Safety

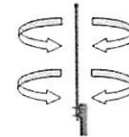
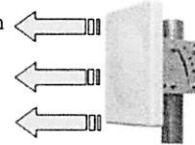
Antenna Types



Yagi - Antenna that radiates energy in one direction. RF energy has a narrow beam. **Walk behind or under this antenna.**

Panel

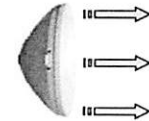
Antenna that radiates energy in one direction. RF energy beam can range from narrow to very wide. **Walk behind this antenna. Stay out of the general direction that the antenna is pointing.**



Whip - Antenna that radiates energy equally in all directions. **Maintain as much distance as possible from this antenna.**

Microwave

Antenna that radiates energy in one direction. RF energy has a narrow beam. **Walk under or behind this antenna.**



When In An Environment With Antennas:

- ⇒ Maintain at least a 3-foot clearance from all antennas. A 10-foot separation distance is preferred.
- ⇒ Never touch an antenna. Assume all are active.
- ⇒ Read and obey ALL signs on an access point.
- ⇒ Read and obey ALL signs in the environment with antennas.
- ⇒ Never walk past an indicative barrier without first confirming transmitter inactivity.
- ⇒ Never walk in front of or stand in front of an antenna whenever possible. Keep walking.
- ⇒ Contact all wireless licensees at least 24 hours in advance of scheduled maintenance.