LAFAYETTE COLLEGE

Radio Frequency (RF) Safety Program

Department of Public Safety - Environmental, Health and Safety

Standard Operating Procedure (SOP) #49

Revised on 12 November 2026

DOCUMENT REVISION HISTORY

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1.1	12 NOV 2026	EHS TEAM	- 3.2 para. 5: removed “certificates” - 4.1.c Table: removed “certificate” in *Before* row - 7.0 para 1: removed “certificates” - Appendix A Checklist Item 3: removed mention of certificate - Added Title Pages to Appendices A and B

Key Roles and Contact Information

Department of Public Safety

Emergency (610)-330-4444

Non-Emergency (610)-330-5330

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Sandra Rogers, Assistant Director: (610)-330-5330

Marlene Gubler, EHS Specialist: (610)-330-5330

Trevor Zampese, EHS Specialist: (610)-330-5330

T-Mobile Contact Number

Michael Nieves Rivera, Field Operations Technician: 877-611-5868

After Hours: 877-611-5868 Option 4 > 1 > 1

Verizon FAST Team

Hotline: (833) 899-2368 - Option 2 > 2

Radiation Safety Officer

Jeff Troxell, Public Safety Director

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APPENDIX A: RADIO FREQUENCY (RF) WORKPLAN & CHECKLIST

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1.0 PURPOSE

1.1 Objective

Define radio frequency (RF) and outline its real-world applications as well as the potential hazards associated when working in RF environments. Establish safe work practices and procedures for Lafayette College employees working in environments with potential RF exposure.

1.2 Scope

Operational scope currently applies to the Hugel Science Center located at 701 Sullivan Rd - Easton, PA 18042. Listed below are the only areas with RF considerations that these procedures outlined in this document will apply to:

- All exterior rooftop areas of Hugel Science Center
- 4th floor exterior maintenance area located outside the door next to the elevator
- Any exterior area on the 4th floor and above in the immediate vicinity of the cellular structures (see image below)



2.0 UNDERSTANDING RADIO FREQUENCY (RF) AND POTENTIAL HAZARDS

2.1 What is radio frequency and microwave radiation?

Electromagnetic radiation consists of waves of electric and magnetic energy moving together (i.e., radiating) through space at the speed of light. Taken together, all forms of electromagnetic energy are referred to as the electromagnetic "spectrum." Radio waves and microwaves emitted by transmitting antennas are one form of electromagnetic energy. They are collectively referred to as "radio frequency" or "RF" energy or radiation. Note that the term “radiation” does not mean “radioactive.” Often, the terms "electromagnetic field" or "radio frequency field" are used to indicate the presence of electromagnetic or RF energy.

The RF waves emanating from an antenna are generated by the movement of electrical charges in the antenna. Electromagnetic waves can be characterized by a wavelength and a frequency. The wavelength is the distance covered by one complete cycle of the electromagnetic wave, while the frequency is the number of electromagnetic waves passing a given point in one second. The frequency of an RF signal is usually expressed in terms of a unit called the "hertz" (abbreviated "Hz"). One Hz equals one cycle per second. One megahertz MHz equals one million cycles per second.

Different forms of electromagnetic energy are categorized by their wavelengths and frequencies. The RF part of the electromagnetic spectrum is generally defined as that part of the spectrum where electromagnetic waves have frequencies in the range of about 3 kilohertz (3 kHz) to 300 gigahertz (300 GHz). Microwaves are a specific category of radio waves that can be loosely defined as radio frequency energy at frequencies ranging from about 1 GHz to 30 GHz.

(*Source: ffc.gov*)

2.2 How is radio frequency energy used?

The most important use for RF energy is in providing telecommunications services. Radio and television broadcasting, cellular telephones, personal communications services (PCS), pagers, cordless telephones, business radio, radio communications for police and fire departments, amateur radio, microwave point-to-point links and satellite communications are just a few of the many telecommunications applications of RF energy. Microwave ovens are an example of a non-telecommunication use of RF energy. Radio frequency radiation, especially at microwave frequencies, can transfer energy to water molecules. High levels of microwave energy will generate heat in water-rich materials such as most foods. This efficient absorption of microwave energy via water molecules results in rapid heating throughout an object, thus allowing food to be cooked more quickly in a microwave oven than in a conventional oven. Other important non-telecommunication uses of RF energy include radar and industrial heating and sealing. Radar is a valuable tool used in many applications range from traffic speed enforcement to air traffic control and military surveillance. Industrial heaters and sealers generate intense levels of RF radiation that rapidly heats the material being processed in the same way that a

microwave oven cooks food. These devices have many uses in industry, including molding plastic materials, gluing wood products, sealing items such as shoes and pocketbooks, and processing food products. There are also a number of medical applications of RF energy, such as diathermy and magnetic resonance imaging (MRI).

(*Source: ffc.gov*)

2.3 How is radio frequency radiation measured?

An RF electromagnetic wave has both an electric and a magnetic component (electric field and magnetic field), and it is often convenient to express the intensity of the RF environment at a given location in terms of units specific to each component. For example, the unit "volts per meter" (V/m) is used to express the strength of the electric field (electric "field strength"), and the unit "amperes per meter" (A/m) is used to express the strength of the magnetic field (magnetic "field strength"). Another commonly used unit for characterizing the total electromagnetic field is "power density." Power density is most appropriately used when the point of measurement is far enough away from an antenna to be located in the "far-field" zone of the antenna.

Power density is defined as power flow per unit area. For example, power density is commonly expressed in terms of watts per square meter (W/m2), milliwatts per square centimeter (mW/cm2), or microwatts per square centimeter (µW/cm2). One mW/cm2 equals 10 W/m2, and 100 µW/cm2 equal one W/m2. With respect to frequencies in the microwave range, power density is usually used to express intensity of exposure.

The quantity used to measure the rate at which RF energy is actually absorbed in a body is called the "Specific Absorption Rate" or "SAR." It is usually expressed in units of watts per kilogram (W/kg) or milliwatts per gram (mW/g). In the case of exposure of the whole body, a standing ungrounded human adult absorbs RF energy at a maximum rate when the frequency of the RF radiation is in the range of about 70 MHz. This means that the "whole-body" SAR is at a maximum under these conditions. Because of this "resonance" phenomenon and consideration of children and grounded adults, RF safety standards are generally most restrictive in the frequency range of about 30 to 300 MHz. For exposure of parts of the body, such as the exposure from hand-held mobile phones, "partial-body" SAR limits are used in the safety standards to control absorption of RF energy (see later questions on mobile phones).

(*Source: ffc.gov*)

2.4 What biological effects can be caused by RF energy?

Biological effects can result from exposure to RF energy. Biological effects that result from heating of tissue by RF energy are often referred to as "thermal" effects. It has been known for many years that exposure to very high levels of RF radiation can be harmful due to the ability of RF energy to heat biological tissue rapidly. This is the principle by which microwave ovens cook food. Exposure to very high RF intensities can result in heating of biological tissue and an increase in body temperature. Tissue damage in humans could occur during exposure to high RF levels because of the body's inability to cope

with or dissipate the excessive heat that could be generated. Two areas of the body, the eyes and the testes, are particularly vulnerable to RF heating because of the relative lack of available blood flow to dissipate the excess heat load.

At relatively low levels of exposure to RF radiation, i.e., levels lower than those that would produce significant heating, the evidence for production of harmful biological effects is ambiguous and unproven. Such effects, if they exist, have been referred to as "non-thermal" effects. A number of reports have appeared in the scientific literature describing the observation of a range of biological effects resulting from exposure to low levels of RF energy. However, in most cases, further experimental research has been unable to reproduce these effects. Furthermore, since much of the research is not done on whole bodies (in vivo), there has been no determination that such effects constitute a human health hazard. It is generally agreed that further research is needed to determine the generality of such effects and their possible relevance, if any, to human health. In the meantime, standards-setting organizations and government agencies continue to monitor the latest experimental findings to confirm their validity and determine whether changes in safety limits are needed to protect human health.

(Source: ffc.gov)

2.5 Are wireless cellular and PCS towers and antennas safe?

Cellular wireless radio services transmit using frequencies between 824 and 894 megahertz (MHz). Transmitters in the Personal Communications Service (PCS) use frequencies in the range of 1850-1990 MHz. More recently, advanced wireless services have been or are being introduced that transmit at frequencies in the 600, 700, 800, 1695-1780, 1915-1920, 1995-2020, 2110-2200 MHz spectrum ranges. Antennas used for cellular and PCS transmissions are typically located on towers, water tanks or other elevated structures including rooftops and the sides of buildings. The combination of antennas and associated electronic equipment is referred to as a cellular or PCS "base station" or "cell site." Typical heights for free-standing base station towers or structures are 50-200 feet. A cellular base station may utilize several "omni-directional" antennas that look like poles, 10 to 15 feet in length, although these types of antennas are less common in urbanized areas.

In urban and suburban areas, cellular and PCS service providers commonly use "sector" antennas for their base stations. These antennas are rectangular panels, e.g., about 1 by 4 feet in size, typically mounted on a rooftop or other structure, but they are also mounted on towers or poles. Panel antennas are usually arranged in three groups of three each. It is common that not all antennas are used for the transmission of RF energy; some antennas may be receive-only.

At a given cell site, the total RF power that could be radiated by the antennas depends on the number of radio channels (transmitters) installed, the power of each transmitter, and the type of antenna. While it is theoretically possible for cell sites to radiate at very high power levels, the maximum power radiated in any direction usually does not exceed 500 watts.

The RF emissions from cellular or PCS base station antennas are generally directed toward the horizon in a relatively narrow pattern in the vertical plane. In the case of sector (panel) antennas, the pattern is fan-shaped, like a wedge cut from a pie. As with all forms of electromagnetic energy, the power density from the antenna decreases rapidly as one moves away from the antenna. Consequently, ground-level exposures are much less than exposures if one were at the same height and directly in front of the antenna.

Measurements made near typical cellular and PCS installations, especially those with tower-mounted antennas, have shown that ground-level power densities are hundreds to thousands of times less than the FCC's limits for safe exposure. This makes it extremely unlikely that a member of the general public could be exposed to RF levels in excess of FCC guidelines due solely to cellular or PCS base station antennas located on towers or monopoles.

When cellular and PCS antennas are mounted at rooftop locations it is possible that a person could encounter RF levels greater than those typically encountered on the ground. However, once again, exposures approaching or exceeding the safety guidelines are only likely to be encountered very close to and directly in front of the antennas. For sector-type antennas, RF levels to rear are usually very low.

(*Source: ffc.gov*)

2.6 Are cellular and other radio towers located near homes or schools safe?

As discussed above, radio frequency emissions from antennas used for cellular and PCS transmissions result in exposure levels on the ground that are typically thousands of times below safety limits. These safety limits were adopted by the FCC based on the recommendations of expert organizations and endorsed by agencies of the Federal Government responsible for health and safety. Therefore, there is no reason to believe that such towers could constitute a potential health hazard to nearby residents or students.

Other antennas, such as those used for radio and television broadcast transmissions, use power levels that are generally much higher than those used for cellular and PCS antennas. Therefore, in some cases there could be a potential for higher levels of exposure to persons on the ground. However, all broadcast stations are required to demonstrate compliance with FCC safety guidelines, and ambient exposures to nearby persons from such stations are typically well below FCC safety limits.

(*Source: ffc.gov*)

2.7 What is the FCC's policy on radio frequency warning signs?

Radio frequency warning or alerting signs should be used to provide information on the presence of RF radiation or to control exposure to RF radiation within a given area. Standard radio frequency hazard warning signs are commercially available from several vendors. Appropriate signs should incorporate the format recommended by the Institute for Electrical and Electronics Engineers (IEEE) and as specified in the IEEE standard: IEEE Std C95.2-1999 (Web address: http://www.ieee.org). Guidance concerning the

placement of signs can be found in the IEEE Standard: IEEE Std C95.7-2005 (available for free through the IEEE Get Program). When signs are used, meaningful information should be placed on the sign advising affected persons of: (1) the nature of the potential hazard (i.e., high RF fields), (2) how to avoid the potential hazard, and (3) whom to contact for additional information. In some cases, it may be appropriate to also provide instructions to direct individuals as to how to work safely in the RF environment of concern. Signs should be located prominently in areas that will be readily seen by those persons who may have access to an area where high RF fields are present.

(*Source: ffc.gov*)

3.0 SAFETY

3.1 Personal Protective Equipment

There is no personal protective equipment (PPE) required for this RF environment assuming workers are following all proper procedures listed previously in this document. Supervisors and workers can add additional PPE as required for the work being conducted, but there are no considerations for RF hazards.

3.2 General Safe Practices

Assume all antennas and towers are active whenever entering a RF area.

Do not touch any of the cellular tower or antenna equipment unless specifically authorized by T-Mobile or Verizon to do so. Do not touch the antennas (gray boxes) under any circumstances, they can cause severe burns.

Workers must be in "buddy pairs" at all times. No one will access the RF areas alone at any time.

A workplan must be completed prior to accessing the rooftop for any reason (see *Appendix A*). This includes notification of Facilities Supervisors and Public Safety Dispatch.

All workers requesting access to the rooftop will have taken the Radio Frequency Awareness training on Moodle, verified by their supervisor. See *Section 7.0 Training* for details.

Workers will not cross or walk in front of the cellular towers unless specifically authorized by T-Mobile or Verizon (depending on the tower they are working near).

All personnel will maintain a minimum safe distance (MSD) of 3-feet behind or to the side of all towers at all times unless specifically authorized by T-Mobile or Verizon (depending on the tower they are working near).

A Safety Brief must be conducted each day prior to beginning work in RF areas. All workers on the project must be in attendance.

All personnel will read and obey all posted signage at all times when working in RF areas.

3.3 Radio Frequency Testing

The RF environment on the rooftop of Hugel Science Center has been categorized as Green and Low Risk given that workers follow all posted signage and proper procedure.

For more information on RF Sampling and the last conducted test, please refer to *Section 4.3*

4.0 HUGEL OPERATIONS

4.1 Operating in this RF Environment

4.1.a Situation

There are multiple cell towers installed on the rooftop of Hugel Science Center, 701 Sullivan Rd Easton, PA. The towers belong to both Verizon and T-Mobile and are installed near the edges of the rooftop oriented out and away from the building for safety.

Verizon has advised that the towers must be "tuned down" during periods of maintenance on the rooftop, regardless of workers' proximity and position to the cell towers.

T-Mobile has advised that it is safe to work on the rooftops as long as you maintain a 3-feet minimum safe distance to the towers behind the cell towers. If working on or in front of the towers, they require the towers to be turned off by scheduling in advance.

Defaulting to the most cautious safety guidance, any time a worker is required to conduct maintenance in these RF areas they must follow the proper procedures outlined in *Section 4.1.c.*

4.1.b Mission

To keep Lafayette College employees and those contracted by Lafayette safe when working in RF environments by having proper awareness, training, PPE, and supervisor approval before conducting work.

4.1.c Execution (Procedures for Hugel Rooftop Work)

Use the below chart for procedures when working on the rooftop of Hugel. Appendix A also has a Workplan template that follows the below procedures. Departments are responsible for completing and maintaining record of a workplan each time work is performed on the Hugel rooftop.

PROCEDURES FOR HUGEL ROOFTOP WORK (complete in order)	
BEFORE	1. Notify Facilities Supervisors and Public Safety Dispatch 2. Create a workplan: Identify date, time window, number of personnel required, equipment/PPE (see Appendix A for Workplan Template) 3. Confirm all personnel on project have taken the Radio Frequency Awareness training on Moodle and adhere to the General Safe Practices outlined in *Section 3.2* 4. Call both T-Mobile and Verizon (numbers listed in *Section 5.0*) to schedule a tune-down of the cell towers and notify of work being conducted a. T-Mobile or Verizon may advise that a tune-down is not required for the work being conducted, but that will be at their discretion

DURING	1. On day of project, confirm with both T-Mobile and Verizon of scheduled tune-down period 2. Complete work on rooftop 3. Wear all PPE required for work (no considerations for RF) 4. Maintain a 3-foot minimum safe distance from the antennas (mounted gray boxes) 5. Do not stand directly or cross in front of the antennas. Obey all posted signage.
AFTER	1. Confirm and re-confirm that all personnel, equipment, and personal items are removed from the roof after completion of work. Leave the area. 2. Notify Facilities Supervisors and Public Safety Dispatch that work is complete and personnel are clear 3. Call both T-Mobile and Verizon once all personnel are clear of the area to resume normal tower operations. Do not allow any personnel on the roof after this period. 4. Submit completed workplan to Environmental Health and Safety at public-safety-ehs.group@lafayette.edu

4.1.d Sustainment

There is no personal protective equipment (PPE) required for this RF environment assuming workers are following all proper procedures listed previously in this document. Supervisors and workers can add additional PPE as required for the work being conducted, but there are no considerations for RF hazards.

Workers will not cross or walk in front of the cellular towers unless specifically authorized by T-Mobile or Verizon (depending on the tower they are working near).

All personnel will maintain a minimum safe distance (MSD) of 3-feet behind or to the side of all towers at all times unless specifically authorized by T-Mobile or Verizon (depending on the tower they are working near).

4.1.e Command & Control

All personnel conducting work in RF areas will contact their supervisor and follow all outlined procedures in this document prior to accessing these areas. Public Safety must be notified before, during, and after work is completed in these areas.

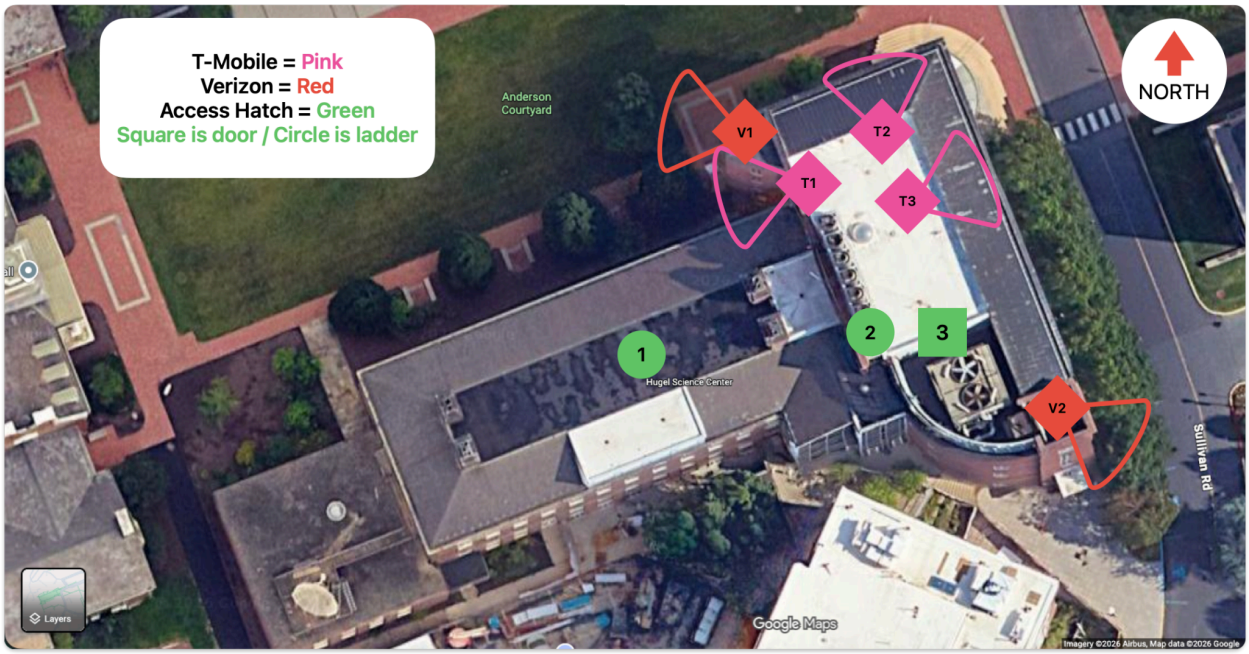
Departments conducting work in RF areas are responsible for completing and maintaining record of a workplan, worker education and safety, conducting a pre-work safety brief, and all other elements required in *Section 4.1.c.*

4.2 Site Layout and Aerial Photographs

4.2.a Identified RF Environments

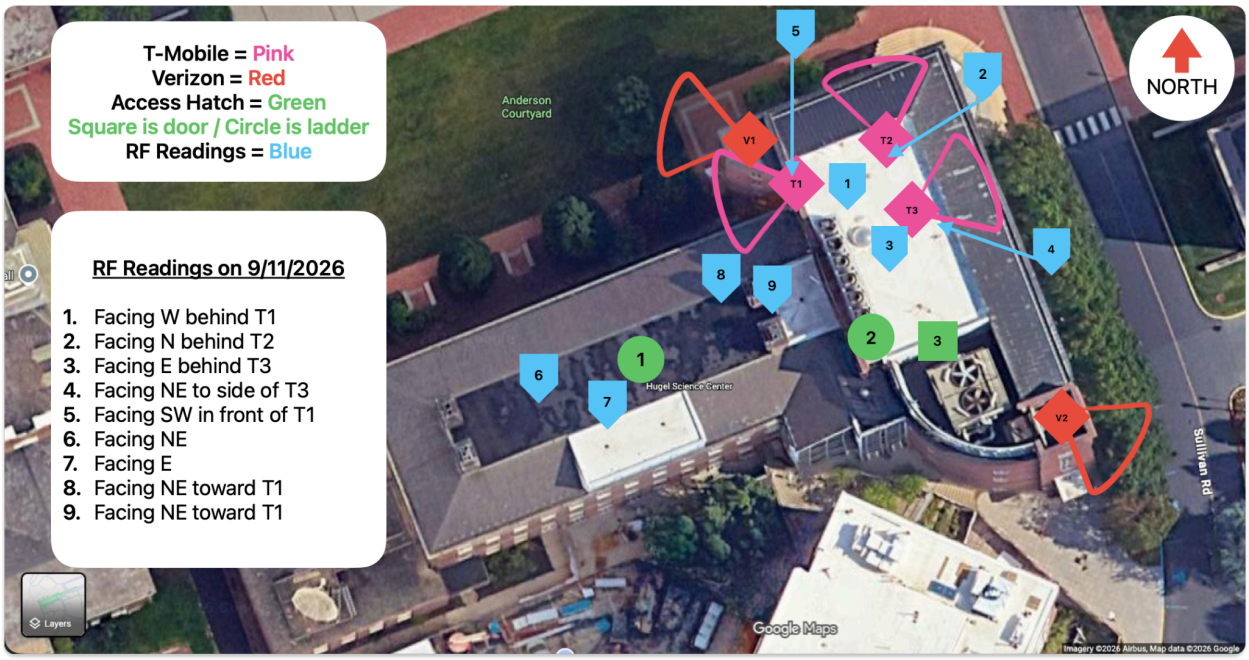


4.2.b Tower Positioning and Orientations with Worker Access Points



4.3 RF Testing Conducted on September 11, 2026

4.3.a How this test was conducted



On September 11th, 2026 a representative from Lafayette College's EHS department and a T-Mobile technician conducted RF sampling on the rooftop of Hugel Science Center. The personnel administering the test used a MVG EME Guard XS 40GHz Radio Frequency Meter during daytime clear weather conditions.

Refer to the above image for the nine sampling positions and the meter's orientation to collect readings.

Test #	f=0.7GHz	F=2GHz	Test #	f=0.7GHz	F=2GHz
1	< 0.4%	< 0.4%	6	<= 0.4%	<= 0.4%
2	< 0.4%	< 0.4%	7	<= 0.4%	<= 0.4%
3	< 0.4%	< 0.4%	8	<= 0.4%	<= 0.4%
4	0.4% < 2%	0.4% < 1%	9	<= 0.4%	<= 0.4%
5*	40% < 100%	20% < 45%			

**Test #5 serves as a control for the sampling. The meter was held less than 12" directly in front of T1 while antennas were fully operational. Do not walk in front of or stand in front of towers at any time.*

The MVG EME samples both 0.7GHz (LTE and low-band standard) and 2GHz (mid-band and millimeter-wave). When sampling, the lights will activate near the percentage of RF it is detecting.

4.3.b What the results mean

In summary, the findings from this sampling confirmed that the areas near and behind the T-Mobile towers are **CLASSIFIED AS GREEN**.

Category Green (0.4% - 10%)	Indicates baseline background levels of RF in the area. No limitation on exposure or time in the area. No RF PPE considerations.
Category Orange (20% - 45%)	Elevated field strength. Serves as an early caution that the user is approaching active antennas or RF fields. Minimize time in the area. RF PPE required if working for extended periods.
Category RED (100% - 800%)	Hazardous Exposure. Meter will begin sounding an alarm, warning the user to back away immediately.

5.0 SITE INFORMATION AND REFERENCES

Service Provider	T-Mobile	Verizon
Number to Call	Michael Nieves Rivera (Site Technician): 215-869-2567 If no answer: 877-611-5868 Option 4 > 1 > 1	FAST Team: 833-899-2368 Option 2 > 2
Lafayette Site Information	Site ID: 1NH4585B	Site ID: 617419097 Sector: BETA Node: 101952
Lafayette Public Safety Dispatch		
Emergency: (610) 330-4444		Non-Emergency: (610) 330-5330

6.0 EMERGENCY PROCEDURES

Event	Immediate Action	Reporting
Injury Sustained (related to RF) * if a worker makes physical contact with antenna boxes	- Cease all work - Have others assist injured worker in removing any gear that may hinder their movement - Have all workers safely and immediately leave the rooftop - Secure all accessways	- Call Public Safety Dispatch (610) 330-4444 - Notify Facilities Supervisor (610) 330-5375 - Call T-Mobile/Verizon to report the incident and if there is any damage to the towers
Injury sustained (not related to RF)	- Cease all work - Have others assist injured worker in removing any gear that may hinder their movement - Escort them off of the rooftop safely	- Call Public Safety Dispatch - Notify Facilities Supervisor - Resume work only after cleared by supervisor
Nausea, light-headed, blurred vision, or any other unnatural sensations observed	- Cease all work - Have others assist the worker in removing any gear that may hinder their movement - Have all workers safely and immediately leave the rooftop, leaving equipment behind if necessary - Secure all accessways - Monitor all workers for symptoms	- Call Public Safety Dispatch - Notify Facilities Supervisor - Call T-Mobile/Verizon to report the incident and if there is any damage to the towers
Damage to any towers or structures	- Cease all work - Have all workers safely and immediately leave the rooftop, leaving equipment behind if necessary - Secure all accessways	- Call Public Safety Dispatch - Notify Facilities Supervisor - Call T-Mobile/Verizon to report the incident and describe the damage as best as possible
Hazard Zone Breach (Near-Miss) *a worker crosses in front of an antenna without physical contact	- Cease all work immediately - Have the worker step away from the work site and monitor for any irregular symptoms - Mandatory 10-minute safety standdown and Safety Brief to entire working group	- Notify Facilities Supervisor

7.0 TRAINING

All Lafayette College personnel planning to work in RF areas must complete the *Safe Transmission - RF Awareness for the Construction Industry* training video on Moodle, and notify their supervisors once complete. Supervisors and Department Heads are responsible for ensuring that their staff have taken the training prior to conducting any work in RF areas.

To access the training, contact *public-safety-ehs.group@lafayette.edu*.

Appendix A

RADIO FREQUENCY (RF) WORKPLAN

Radio Frequency (RF) Area Workplan & Checklist

This form is to be used anytime a Lafayette College employee or contractor is conducting work in a radio frequency (RF) environment. For any questions, please contact Public Safety Dispatch at (610) 330-5330 or public-safety-ehs.group@lafayette.edu .

Planned Start & End Date (subject to change)	Start Date	End Date
Description of the work being conducted:		
Full Names of Employees working in the Area of Operation (AO)		
Personal Protective Equipment (PPE) required for the work		
Additional Safety Considerations (other than RF)		

Checklist

Before Work is Completed	
Notify Facilities Supervisors and Public Safety Dispatch/EHS	☐
Complete a workplan	☐
Confirm all personnel on working detail have completed the Radio Frequency Awareness training on Moodle	☐
Contact both T-Mobile and Verizon (numbers listed below in *Site Information and References*) to schedule a tune-down of the cell towers and work being conducted **T-Mobile or Verizon may advise that a tune-down is not required for the work being conducted, but that will be at their discretion*	☐
Safety Brief to all personnel on the working detail was conducted each day prior to beginning work	☐
During Work	
On day of project, confirm with both T-Mobile and Verizon of scheduled tune-down period	☐
Wear all PPE required and maintain a 3-foot minimum safe distance (MSD) from the antennas and its vertical structures	☐
Do not stand directly or cross in front of the antennas unless absolutely necessary (tune-down required). OBEY ALL POSTED SIGNAGE	☐
After Work is Completed	
All work has been completed	☐
Confirm and re-confirm that all personnel, equipment, and personal items are removed from the roof	☐
Doors /access hatches are locked and secured	☐
Notify Facilities Supervisors and Public Safety Dispatch that work is complete and personnel are clear	☐
Contact both T-Mobile and Verizon once all personnel are clear of the area to resume normal tower operations. Do not allow any personnel on the roof after this period.	☐
Submit completed workplan to Environmental Health and Safety at public-safety-ehs.group@lafayette.edu	☐

Supervisor Name:	
Supervisor Signature:	
Today's (Project End) Date:	

Site Information and References

Service Provider	T-Mobile	Verizon
Number to Call	Michael Nieves Rivera (Site Technician): 215-869-2567 If no answer: 877-611-5868 Option 4 > 1 > 1	FAST Team: 833-899-2368 Option 2 > 2
Lafayette Site Information	Site ID: 1NH4585B	Site ID: 617419097 Sector: BETA Node: 101952

Lafayette Public Safety Dispatch	
Emergency: (610) 330-4444	Non-Emergency: (610) 330-5330

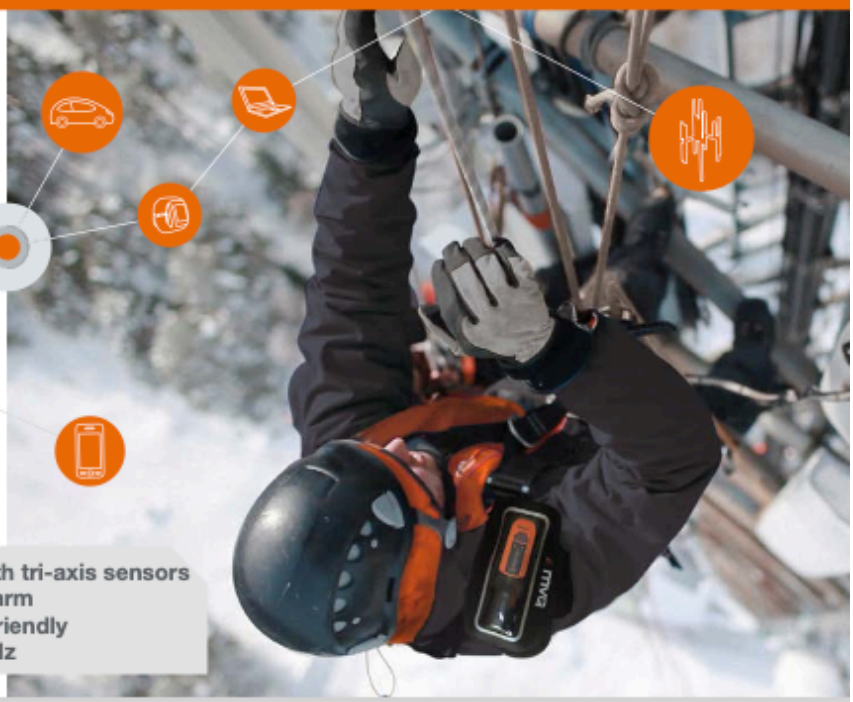
Appendix B

RF METER MANUFACTURER DETAILS

EME Guard XS 40 GHz

An EMF Monitoring Device to Alert Workers Near Antennas





- Accurate measurement with tri-axis sensors
- Instant audio and visual alarm
- Robust, reliable and user-friendly
- Measurements up to 40 GHz

Main features

User profile

- Persons working near antennas including installation and maintenance workers, broadcast, PMR and mobile phone operators or regulatory body employees

Measurement capabilities

- Continuous monitoring of Electromagnetic Field levels with isotropic tri-axis E-field sensors
- EMF Level indicated by a LED color scale
- Audio and visual alarms triggered when EMF exceeds the reference level

Frequency bands

- 1 MHz – 40 GHz

Safety recommendations

- ICNIRP 2020
- FCC 96-326
- Safety Code 6 2015
- 2013/35/UE

Product Configuration

Equipment

- ■ EME Guard XS 40 GHz
- ■ MVG Case
- ■ Wirst strap
- ■ Lanyard
- ■ Connecting adapter
- ■ Armband
- ■ 2 x 1.5 V Size N Alkaline batteries
- ■ Instructions for use

Services

- ■ Initial calibration
- □ Additional calibration
- □ Extended warranty

■ Included □ Optional

TECHNICAL CHARACTERISTICS

Probe	Isotropic 3-axes probe
Frequency range	1 MHz - 40 GHz
Lower detection limit	5 V/m
Upper detection limit	350 V/m

MEASUREMENT UNCERTAINTY

Frequency response	1-1000 MHz: +1/+5 dB 1-3 GHz: +/-2.5 dB 3-7 GHz: +2/+6 dB 7-13 GHz: +6/+11 dB 13-27 GHz: -7/+5.5 dB 27-40 GHz: -6/0 dB
Axial isotropy	100 MHz : ± 0.5 dB 2.6 GHz : ± 1 dB 5.5 GHz : ± 1 dB

ALARM & CONFIGURATION

Visual alarm	7 LEDs
Audio alarm	2 tones
Low battery indicator	Orange flashing LED

MEASUREMENT CONFIGURATION

Measurement period	1 sec

CONDITIONS FOR USE

Temperature, humidity	-10°C to 50°C, 85% max humidity
Battery	2 x 1.5 V Size N Alkaline removable batteries
Battery life	> 1000 hours (> 50 days)[1]

MECHANICAL CHARACTERISTICS

Dimensions	132.5 x 48.5 x 28.7 mm (LxWxH) without connecting adapter
Weight	120 g with batteries

(1) If no alarm is triggered







Contact your local sales representative for more information
salesteam@mvg-world.com
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