

August 30, 2023

BY EMAIL

Phyllis Randall, Chair, Board of Supervisors
Loudoun County, Virginia
Phyllis.Randall@loudoun.gov

Re: LED Streetlights Lack FDA Approval

Dear Phyllis Randall,

An LED streetlight is an electronic product which is regulated by the US Food and Drug Administration. The FDA presentation “How to Get Your Electronic Product on the U.S. Market” details the authority of the FDA to regulate the radiation from electronic products and the requirements of manufacturers to receive FDA approval for their electronic products that emit radiation.¹

Loudoun County is considering installing LED streetlights. However, no LED streetlight manufacturer has submitted a petition to the FDA for approval and the FDA has not approved any LED streetlight products to ensure the comfort, health, and safety of the public. The FDA is mandated by the 1968 Radiation Control for Health and Safety Act (21 U.S.C. 360ii) to publish performance standards for electronic products that emit radiation, and yet the FDA has failed to comply with 21 U.S.C. 360ii for LED products, including LED streetlights.

LED streetlights are a human health hazard which have been documented to cause seizures, migraines, anxiety, nausea, eye pain, and eye injury. In addition, artificial light at night has been documented to cause significant increases in risk for mood disorders, diabetes, heart disease, breast cancer, and early mortality.² It is likely that LED streetlights have increased acts of misbehavior and violence. The street lighting company Cree Lighting states that LED streetlights are dangerous.³ The LED chip company Lumileds states that blue wavelength light is a hazard to human health.⁴ The contact person at the FDA is Robert Ochs, Director, FDA Center for Devices and Radiological Health, OHT8 (robert.ochs@fda.hhs.gov).

It is negligent for a municipality to install and operate an electronic product that has no FDA approval, and which is known to put the public at risk of harm. The installation or operation of LED streetlights meets the criteria for negligence, harm, discrimination, and liability. There are already

¹ <https://www.fda.gov/media/88417/download>

² <https://www.softlights.org/human-health/>

³ <http://www.softlights.org/wp-content/uploads/2022/04/Cree-Lighting-White-Paper.pdf>

⁴ <https://lumileds.com/lumileds-nightscape-technology-lowers-blue-light-below-2-to-support-our-natural-ecosystem-and-dark-sky-initiatives/>

multiple legal actions across the country related to LED streetlights and the discriminatory barriers that they create.⁵

To protect the public from LED visible radiation, LED streetlights must not be operated in public spaces. To recover expenses related to the removal of any existing LED streetlights, the Soft Lights Foundation recommends that Loudoun County sue the FDA and the DOE for failing to disclose to Loudoun County that LED products are a human health hazard and for failing to comply with 21 U.S.C 360ii and publish the required performance standards for LED streetlights.

Loudoun County has a responsibility to notify citizens that switching from HPS streetlights to LED streetlights would change the type of radiation emitted by the streetlights, with HPS light being something like a basketball (point source, incoherent light) and LED light being something like a javelin (Lambertian source, semi-coherent light).⁶ The claim that LED streetlights are energy-efficient is false because the radiation types are different between HPS and LED. LED light is a hazardous, low-quality light, not an energy-efficient light. The citizens of Loudoun County must be notified by the Board of Supervisors that LED streetlights emit a different type of radiation and that these devices are experimental and lack FDA approval.

Loudoun County must not install or operate LED streetlights knowing that the LED streetlights have not been FDA approved, knowing that the LED streetlights are causing serious adverse health impacts, and knowing that LED streetlights are creating discriminatory barriers. Loudoun County must be transparent and notify the public of these issues.

Sincerely,

/s/ Mark Baker

President

Soft Lights Foundation

mbaker@softlights.org

cc:

Full Board - bos@loudoun.gov

County Attorney - attorney@loudoun.gov

County Administrator - coadmin@loudoun.gov

⁵ <https://www.softlights.org/law-and-action/>

⁶ <https://www.frontiersin.org/articles/10.3389/fphy.2023.1181343/full>