



The National Health Federation
A Non-Profit Health Freedom Organization

SINCE 1955



Virginians for Safe Technology

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The TERRA Act of 2021: Tracking, Enforcing and Reducing Radiation in Air Act

- ***Establishes a scientific objective process for reviewing current and establishing new maximum permissible exposure limits (MPEL) for non-ionizing radiation.***
- ***Develops and deploys a robust automatic tracking system to enforce the MPEL.***
- ***Restructures the regulatory and oversight roles of the Federal Communications Commission (FCC) to be transferred back to the Environmental Protection Agency (EPA) and uses the National Academy of Sciences for the advisory medical and health research roles instead of the Federal Drug Administration (FDA).***
- ***Implements radiofrequency radiation (RFR) mitigation measures to reduce background levels of radiation:***
 - ***Use fiber optic cable as the preferred method of broadband.***
 - ***Reduce power consumption by using the minimum power necessary for communications desired.***
- ***Reduces greenhouse gas (GHG) emissions through RFR mitigation measures or changing the fuel sources for the Communications Technology (CT) Industry.***
- ***Requires fuses to be installed to automatically limit power in strategic areas; schools, public buildings, neighborhoods, and higher density urban areas.***
- ***Establishes state managed wifi-free zones similar to non-smoking zones in schools and public buildings.***

ENFORCEMENT OF THE MAXIMUM PERMISSIBLE EXPOSURE LIMIT (MPEL) AND REDUCTION OF BACKGROUND RF RADIATION (RFR)

Appropriate federal funds in the US infrastructure bill for the following:

- **Establishes a scientific objective process for reviewing current and establishing new maximum permissible exposure limits (MPEL) for non-ionizing radiation** by classifying radio frequency radiation (RFR) as a significant air pollutant and carcinogen to be regulated by the Environmental Protection Agency (EPA) similar to gamma radiation. (See <https://www.epa.gov/radnet>).
- **Develop and deploy a robust automatic tracking system to enforce the MPEL** per [47 CFR 1.1310](#). The automatic tracking system will consist of hardware and proprietary commercial software that will track, enforce and control the power usage of any generation (3G/4G/5G+) wireless telecommunication cell towers and base stations according to their permissible and pre-approved coverage maps.
- **Restructures the regulatory and oversight roles of the Federal Communications Commission to be transferred back to the Environmental Protection Agency and uses the National Academy of Sciences for the advisory medical and health research roles instead of the Federal Drug Administration.** This will require a restructuring and transfer of the FCC's oversight and regulatory role with respect to how the maximum permissible exposure limit (MPEL) guidelines for non-ionizing radiation are established and enforced for promoting the US public's safety of life and property per [47 USC 151](#).
- **Implements radiofrequency radiation (RFR) mitigation measures to reduce background levels of radiation** (These are two of the most important RFR mitigation measures necessary to impact climate change in a positive manner):
 - **Promote fiber optic cables as the preferred and least intrusive method of broadband connectivity** due to its superior environmental footprint, lower energy consumption, better cybersecurity, safety and privacy, higher reliability and faster upload and download speeds as compared to wireless infrastructure.
 - **Reduce power consumption by using the minimum power necessary for communications desired** per [47 USC 324](#).
- **Reduces greenhouse gas (GHG) emissions through RFR mitigation measures or changing the fuel sources for the CT Industry.** Reduce, mitigate and/or sequester CO2 emissions from fossil fuel based energy sources that power base stations and other CT equipment, such as wireless telecommunication facilities and digital wireless devices. The CT industry is one of the only large industries not being held accountable for their contribution to air pollution and continues its infrastructure expansion at an accelerated rate while exhausting valuable resources that are not easily replenishable.
- **Requires fuses to be installed to automatically limit the minimum power necessary in strategic areas i.e. schools, public buildings, neighborhoods, and higher density urban areas.** Add a requirement to place fuses on all cell towers and Over the Air Reception Devices (OTARDS) to control the power usage in accordance with [47 USC 324](#), the minimum power necessary for the communications desired in the strategic areas. The fuses will act as an immediate RFR reduction measure and the tracking software will create the history of the towers' and OTARDS' performance for compliance and/or permitting purposes.
- **Establishes state managed wifi-free zones similar to non-smoking zones in schools and public buildings.** Wifi-free zones will be required by the surgeon general to protect electrohypersensitive (EHS) individuals and vulnerable portions of the population in designated areas of public spaces in the same manner as non-smoking zones.

MPEL ENFORCEMENT HISTORY

The enforcement of the MPEL requires multiple agencies to perform oversight and regulatory roles as part of an interagency working group. In the past, the EPA was funded to perform the MPEL oversight role and the FCC was tasked with regulating technical spectrum management. However, the Telecommunications Act (TCA) of 1996 defunded the EPA's oversight role, transferred it to the FCC, and gave an advisory role to the FDA to review the MPEL limit for medical and biological effects. According to [47 USC 151](#), the purpose of the FCC's regulatory role is to promote safety of life and property and national defense. However, the FCC is a [captured agency](#) and in the 25 years since the TCA was enacted, the FCC's actions have proven they are more concerned with the commercial development of the telecommunications infrastructure than they are for the protection of public safety, the environment, cybersecurity, privacy, and depreciating property values due to small cell installations in the public right-of-ways (ROW) of residential neighborhoods. Therefore, due to abandonment of this duty and failure to protect the public due to conflicts of interest, the FCC's oversight role needs to be transferred back and reinstated to the EPA and the regulatory roles need to be restructured such that the MPEL can be sufficiently and scientifically reviewed for its veracity to protect the public and be robustly enforced.

FCC/FDA MEDICAL RESEARCH LEGISLATIVE HISTORY

The EPA's oversight and regulatory roles established in 1985 regarding non-ionizing electromagnetic radiation (NEMR) were defunded and restructured under the FCC, by the enactment of the Telecommunications Act of 1996. The MPEL for radiation that was established at that time was only recommended for guideline purposes and had a very limited budget to research proof of safety. Instead, the FCC relied heavily on telecom testing "waivers" and "categorical exclusions" to pre-empt the uncertainty of public safety becoming an issue. This type of public policy is dangerous to continue during the 5G+ rapid wireless broadband expansion due to the anticipated rise in RFR and greenhouse gas pollution. Instead of addressing these environmental dangers, the FDA is vested in recognizing only the research outcomes that are beneficial to the FCC's boundless commercial development of the wireless infrastructure. For example, the FDA dismissed the findings of the government sponsored 10-year \$30 million [National Toxicology Program study](#) in favor of behaving as though they're a captured agency just like the FCC. The type of Agency structure that exists now between the FCC and FDA results in incompetency, inadequate findings, lack of enforceability of any health standard needed to protect the public with a [safety limit that is meaningful](#) and evidence based. It is for this reason that the National Academy of Sciences is recommended for the advisory role to the EPA instead of the FDA.

EPA LEGISLATIVE OVERSIGHT AND REGULATORY RESTRUCTURING

- **EPA:** Refund EPA's Office of Air and Radiation to reinstate functional capacities for MPEL oversight role. This includes producing a federal implementation plan to manage and control RF non-ionizing radiation with duties including tracking, enforcing and reducing radiofrequency radiation (RFR) in air emissions levels to accelerate net carbon zero objectives.
- **FCC:** Defund FCC's oversight and regulatory role to be limited to only technical spectrum management where they perform all of the tasks previously performed in this area, but forfeit the oversight and regulatory roles under medical research and MPEL regulation. This means they no longer would be involved with determining any revisions to the MPEL or its enforcement since they don't have the capacity or the personnel for that role and have effectively abandoned this duty for the past 25 years.
- **NATIONAL ACADEMY OF SCIENCES (NAS):** Fund National Academy of Sciences to authorize an advisory role for completing the medical research needed to establish, revise or update the MPEL for enforcement purposes.
- **DEPT OF COMMERCE OR NATIONAL BUREAU OF STANDARDS (NBS):** Fund NBS for an advisory role to develop the standards for monitoring equipment and measuring procedures needed for tracking, enforcement and reducing the MPEL for the EPA as part of a standard operating procedure that can be used at the state levels nationwide.
- **DEPT OF ENVIRONMENTAL QUALITY (DEQ):** Fund all state DEQs to authorize a regulatory role for MPEL tracking, enforcing and reducing RFR at the state level. This includes producing a state implementation plan to manage and control non-ionizing radiation in accordance with the mandates set forth by the EPA's federal implementation plan. The DEQ implements state environmental programs pursuant to state laws and rules and is authorized to administer state programs in lieu of the EPA administering these federal acts.
- **SOFTWARE NON-GOVERNMENTAL ORGANIZATIONS:** Fund multiple private corporations at the state level for the software development of cybersecurity and SMART software dashboard displays for automatic electronic tracking and enforcement of the MPEL. The use of power control systems will archive measurement data and apply metrics to evaluate and control broadband system performance and outages.
- **EDUCATIONAL NON-GOVERNMENTAL ORGANIZATIONS:** Fund multiple private corporations to provide safety training and educational programs made publicly available online and/or in person at the state and local levels for consumer, corporate and governmental agency device users. Also, develop a standardized procedure using recommended metering equipment to instruct how to measure individual workspace non-ionizing radiation emissions to lower the EMF footprint. Formulate various mitigation methods to reduce individual CO2 footprints through video conferences, in-person, or group training for CT businesses and industries, if requested. This training will be made available on multiple sponsored web link portals and media platforms.