

FCC 13-39

Before the Federal Communications Commission  
Washington, D.C. 20554

In the Matter of

Reassessment of Federal Communications	)	ET Docket No. 13-84
Commission Radiofrequency Exposure Limits and	)	
Policies	)	
	)	
Proposed Changes in the Commission’s Rules	)	ET Docket No. 03-137
Regarding Human Exposure to Radiofrequency	)	
Electromagnetic Fields	)	

To: Office of the Secretary  
Federal Communications Commission , Washington, DC 20554

As officially presented in the Federal Register/ Vol. 78, No. 107 / Tuesday, June 4, 2013 / Proposed Rules. Federal Communications Commission, 47 CFR Parts 1, 2, 15, 24, 25, 27, 73, 90, 95, 97, and 101 [ET Docket Nos. 03–137 and 13–84; FCC 13–39], Reassessment of Exposure to Radiofrequency Electromagnetic Fields Limits and Policies, Federal Communications Commission

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## RECOMMENDATION

**The FCC should be proactively advising those who inquire about health impacts and compliance evaluations for wireless technology during the ongoing proceedings 13-39, 03-137 and 13-34 that no positive assertion of safety is justified today for them to rely on existing FCC public safety limits. The FCC has found sufficient scientific and public health evidence, and public concern to warrant this current safety limit review. The FCC should instead say that committing financial resources, for example, to large wireless projects in schools, municipalities, fire houses, health care facilities, etc is inadvisable until the proceedings are concluded. This does not necessarily mean that projects in the interim are stalled, but it will encourage consideration of options that do not pose similar health risks as wireless RF may do. Schools can implement State Common Core Technology programs with wired, rather than wireless internet connections and still meet their mandates.**

## BACKGROUND

1. The Los Angeles Unified School District has adopted a program to provide a wireless tablet (iPad) to every school child in the District starting with a pilot program of about 50 schools. The program implements State Common Core Technology projects. This program does not mandate wireless installations. Any form of internet connection is permissible, since the State mandate is silent on how it is to be achieved.

“In order to comply with new State of California instructional guidelines (Common Core State Standards and Assessments), the District will issue technology devices such as computers, laptops and tablets to students and provide wireless internet connectivity to classrooms. “

It requires every classroom to be retrofitted with wireless access points that provide the internet connections to the wireless tablet devices.

2. Recently, the LAUSD sought advice from the FCC (Attachment 1 – May 28, 2013) about potential health risks of chronic exposure to wireless classrooms and devices.

“The Los Angeles Unified School District (District) requests your assistance in determining the potential radiofrequency (RF) exposures to students who utilized wireless devices within a classroom setting and establishing an appropriate exposure standard for children.”

LAUSD cited health concerns from teachers and parents from the wireless radiation exposures. The District also said it will reduce exposures to protect children by adhering to a 0.1 uW/cm<sup>2</sup> exposure specification.

“However, with the proliferation of wireless devices introduced into the classroom, some teachers and parents have raised concern that the District may be exposing children to excessive RF radiation. “

3. The FCC wrote back (Attachment 2– August 5, 2013) saying it doesn’t have health expertise and relies on others for conclusions on biological effects and health harm:

“The Commission shares the concerns of parents and teachers that Federal regulations protect the health of the public with respect to exposure to RF emissions in all locations, including classrooms. The policy of the FCC with respect to environmental RF emissions was developed to ensure that FCC-regulated transmitters do not expose the public or workers to levels of RF energy that are considered by organizations expert on human health and safety to be potentially harmful. Since the FCC is not a health and safety agency itself, we must defer to other organizations and agencies with respect to interpreting the biological research necessary to assess the health impact of RF emissions, and to determine what levels are safe.”

Further, the FCC replied that LAUSD should consult the old and outdated FCC OET Bulletin 65 to for guidance in calculating emissions for student exposures.

“With respect to the engineering task of determining potential RF exposure levels in individual circumstances, we suggest accessing our Office of Engineering and Technology (OET) “Bulletin No. 65, *Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields*” The far-field exposure level or power density from wireless devices (including access points) are commonly estimated from equation (3) on page 19 of OET Bulletin No. 65.”

4. This is an example where the FCC may gravely mislead organizations and agencies in building new wireless infrastructure in schools, for example, rather than waiting to see the outcome of these Proceedings which may reasonably be presumed to result in stricter safety limits for pregnant women, the fetus, the developing infant and young child, and school children. The FCC errs in giving false confidence in outdated and irrelevant public safety limits. To encourage any organization to justify spending millions of dollars on wireless infrastructure in schools, for example, and to create vast new exposures to electromagnetic radiation based on clearly outdated safety limits is likely to result in grave health impacts and waste millions of dollars. Wired (ethernet, fiber optic) internet connections would give the same or better technology access, but without the pulsed radiofrequency health risks. This is critically important for children, in particular, who may spend up to twelve (12) years of schooling in classrooms intentionally exposing them to a Possible Human Carcinogen (2011).

5. The FCC should have told the LAUSD and any others inquiring about the status of safety provided to school children, pregnant teachers and staff and other employees that the FCC public safety limits are under review, and that no positive assertion of

confidence in the existing exposure limits described in FCC OET Bulletin 65 can provide any assurance of safety for chronic exposure to pulsed radiofrequency (wireless technology emissions). The FCC should now inform any inquirer that it is better to wait for the outcome of this RF health standards review based on reasonable precaution.

6. In 2011, the WHO IARC classified RF radiation as a Group 2B Possible Human Carcinogen; it joins the IARC classification of ELF-EMF (Extremely Low Frequency Electromagnetic Fields) as a Group 2B Possible Human Carcinogen. The evidence for carcinogenicity for RFR was primarily from cell phone/brain tumor studies but IARC applies this classification to all RFR exposures. Scientific evidence is demonstrated clearly enough so that IARC did not find RF to be “Group 4 - NOT A CARCINOGEN”, nor Group 3 where there is “Group 3 - INSUFFICIENT EVIDENCE TO JUDGE”. IARC determined there is sufficient evidence to classify RF as a Group 2B Possible Human Carcinogen. This is not a weak or dismissable classification.

7. It is doubtful if any school district in the US, and specifically the LAUSD would today intentionally create lead or DDT exposures in every District classroom. Lead, DDT and radiofrequency radiation from wireless devices and exposures are all classified by IARC as Group 2B Possible Human Carcinogens.

8. Sage Associates has reviewed LAUSD’s Common Core Technology Program specifics and provided an analysis of the problems apparent in concluding that the installations will meet the 0.1 uW/cm<sup>2</sup> specification, that was based on the 2007 BioInitiative Report recommendation (Attachment 3–February 12, 2013).

9. The LAUSD provided it’s consultant report by URS Corporation ostensibly documenting compliance with the wireless exposure specification of 0.1 uW/cm<sup>2</sup> ((Attachment 4–URS February 2013).

10. Sage Associates reviewed the URS Radiofrequency (RF) Report and filed a rebuttal on deficiencies ((Attachment 5– February 28, 2013).

11. URS Corporation filed a Response Letter to Sage Associates (Attachment 6–March 26, 2013).

12. Sage Associates reviewed the Response Letter from URS Corporation and provided the District a third assessment report on deficiencies in the URS reports. The URS letter failed to clarify how compliance could be achieved, and did not document adherence to the District’s specifications for RF exposure (Attachment 7 - March 28, 2013).

Respectfully submitted:

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Attachment 1: LAUSD letter to the FCC dated May 28, 2013

Attachment 2: FCC letter to the LAUSD dated August 5, 2013

Attachment 3: Sage Associates Comment Letter to LAUSD (February 12, 2013)

Attachment 4: URS Corporation RF Report to LAUSD (February, 2013)

Attachment 5: Sage Associates Letter to LAUSD on URS Report (February 28, 2013)

Attachment 6: URS Corporation Rebuttal Letter to LAUSD (March 26, 2013)

Attachment 7: Sage Associates Letter to LAUSD documenting deficiencies in URS Rebuttal (March 28, 2013)