



Tuesday, February 12, 2013

To: LAUSD Board President Mónica García

LAUSD Board Members, Marguerite LaMotte , Tamar Galatzan, Steve Zimmer, Bennett Kayser, Nury Martinez, Richard Vladovic

From: Toni Stein, West Coast Program Director

Subject: The Proposed Common Core Technology Project should not be approved until a required Environmental Impact Review and field testing of exposures to microwave radiation have been conducted

It is commendable that the LAUSD is committed to helping its youth gain education and prepare for success by attempting to transform the LAUSD schools to provide access to 21st century skills and technology literacy in its aim to ensure college and career readiness and participation in the modern workforce.

We urge that prior to approving this project, the full life cycle impacts of the technology be considered through an Environmental Impact Review (EIR) that takes into account the full life cycle costs: including purchase, use, operations, transport and disposal, as well as immediate and long-term public health impacts of microwave emitting devices for teachers and students. In addition, simulations and real-world tests should be carried out of exposures to RF-EMF in classrooms where 26 wireless tablets and routers may operate simultaneously along with routers, with comparisons to RF-EMF in classrooms with similar numbers of devices where wired systems are in use.

Accordingly, we recommend that LAUSD not fund the current \$50 million dollar project with taxpayer bond funds from Measures R and/or Y without first conducting a proper EIR of this Project and carefully identifying the many environmental impacts of this project including the waste generation, the expected intensive energy use, and the RF EMF emissions that may all create adverse impacts placing serious liability on LAUSD.

Regarding impacts on health of new technologies, it is important to conduct both modeling simulations and real-world pilot testing of LAUSD classroom scenarios that include proposed simultaneous operations of 26 computer devices and up to three router antennas per room. This should include testing the RF EMF peak and average emissions while operating the devices using the classroom protocols for this project, with simultaneous upload and downloads and testing at all permissible locations for the devices and the companion router antenna boxes.

In its current form the proposed project fails to articulate how many wireless operating devices per room and the allowed locations to be used in the plan. Additionally the Project definition should stipulate the battery recharging procedures and consider ways to reduce RF EMF emissions on children and staff in the vicinity of these locations. The URS report acknowledges that there are many device power emission levels but fails to articulate maximum permitted RF-EMF exposures for the proposed Project Plan and how these will comport with state and federal occupational safety and health requirements.

Brown Act Violation: The URS RF EMF Safety report hasn't been properly posted

The URS RF EMF Safety report has not been posted on the LAUSD website for noticed public review. On behalf of EHT's West Coast group, I respectfully requested a copy of the LAUSD's RF Safety report verbally over the phone in more than 5 calls to different offices and was assured that I would receive access. This RF Safety report was prepared after being contracted out using taxpayer dollars and was being used for Board Member decision making. Yet, the public

did not have access to this same document. I was told that it was being circulated to the Board Members but was NOT posted into the public documents on the LAUSD Meeting site.

This is a Brown Act violation as all materials that are being given to the legislative Board Members are supposed to be posted to the public 72 hours prior to the decision making hearing but this report has been withheld from public review and was even withheld after I requested it in writing on 1/24/2013, 2/4/2013, , 2/8/2013, and finally several calls and email on 2/4/2013. In violation of the Brown Act, I did not receive a copy until the day before this public hearing at 2/11/2013 at 2:16 pm. Providing less than 24 hours to read the 51 page technical report is clearly an unfair process. On the basis of this consideration alone, the District should not vote on this item on February 12th because it violates the Brown Act noticing provisions.

FORMAL *Williams Complaint*- If the LAUSD Board votes YES

Please realize that bringing in advanced technology does not need to be accomplished if it risks the health and well being of our children, working staff nor does it need to be accomplished at the risk of destruction to our environment or biological diversity.

I encourage you to vote no on the currently framed project. In the event that you do not vote no, then my written comments shall serve as a formal written ***Williams Complaint*** (Uniform Complaint Procedures for California Education Code Section 35186) regarding the potential unsafe and unhealthy school facility conditions that this Common Core Technology Project brings to the Phase 1 schools including all or the 47 schools that will inform the larger rollout and the 29 Office of Civil Rights schools and the 13 Schools for the Future, and 5 Proposition 39 charter schools co-located on 5 of the sites. LAUSD must not expose its disadvantaged children to carcinogenic emissions without a full risk assessment. It is not appropriate for the LAUSD to use these students to “inform yourselves on the larger roll out.” LAUSD should instead act responsibly and conduct modeling of exposures and appropriate field testing in small areas and employ its own well thought out existing rules and regulations in meeting all advancement.

This Project cannot move forward until a full EIR is completed and fully wired non-wireless system in the school classrooms are available.

Approval of this project is inconsistent with LAUSD retaining its participation as a CHPS “SUSTAINABLE, GREEN District

An additional reason for not approving this project is that LAUSD is a CHPS “SUSTAINABLE, GREEN” District and this project as conceived now violates the charter of CHPS.

In order for LAUSD to remain a CHPS District and remain a Sustainable District, LAUSD would need to first conduct a careful environmental impact study as defined in Title 5, Division 1, Chapter 13 of the California Code of Regulations and Education Code sections 17213, 17213.1, 17213.2, 17268 ...” and would need to implement measures to reduce, recycle and limit hazardous wastes from electronic equipment and also eliminate the use of non toxic-emitting materials. Thus, if this project were to proceed as proposed, LAUSD would will need to take down all of its CHPS Plaques that are posted at the CHPS schools since the Common Core Technology Project Plan is inconsistent with CHPS Resolution and the required CHPS Prerequisite Siting criteria.

Recall that LAUSD is considered a “SUSTAINABLE, and GREEN” School District because the LA Board of Education has signed a Collaborative for High Performance School (CHPS) Resolution for the entire District since 2001.

- As a CHPS District, LAUSD has been committed to well-designed facilities that truly enhance performance and make education more enjoyable and rewarding.
- As a “CHPS District” in 2003 LAUSD drafted and signed CHPS Resolution (see Exhibit 1) stating among other things ,

Resolved further, That the Board directs staff to continue its effort to ensure that **every District** new school and **modernization project, from the beginning of the design process, incorporate CHPS criteria to the extent feasible;** that the next round of new schools minimally meet the CHPS qualifying level (28 points) and preferably achieve at least 32 points; and that **the focus be on criteria in the following priority areas:**

- a. **Student performance and staff health and well being, through measures such as** daylighting, **use of non toxic-emitting materials** and sound insulation or isolation to minimize noise and enhance acoustical quality in the classroom;”

Additionally as a CHPS District, LAUSD must meet the CHPS “Siting” Prerequisite credits including (see Exhibit 2)

“SS1.0.P2 Major Modernizations

Comply with all siting and environmental impact study requirements of the School Facilities Planning Division as defined in Title 5, Division 1, Chapter 13 of the California Code of Regulations and Education Code sections 17213, 17213.1, 17213.2, 17268 & Public”

The electronics EMF emitters in this Project are toxic and potentially carcinogenic.

(See Exhibit 3 papers from Alisdar Phillips showing estimates of in room emissions from electronic devices exceeding emissions from the FCC Cellular antennas)

It is important to note that in May 2011, the International Agency for Research on Cancer (IARC), the United Nations' World Health Organization's (WHO) agency classified RF electromagnetic frequency (EMF) radiation from cell phones and other devices as "possibly carcinogenic to humans."- [RF EMF radiation was classified by the WHO IARC as a possible carcinogen. http://www.iarc.fr/en/media-centre/pr/2011/pdfs/pr208_E.pdf](http://www.iarc.fr/en/media-centre/pr/2011/pdfs/pr208_E.pdf) This IARC EMF Member participants were a Working Group of 31 scientists from 14 countries and the classification was near unanimous: <http://monographs.iarc.fr/ENG/Meetings/vol102-participants.pdf> 5 of which were from the US including the Chair, Dr. Jonathan M. Samet, M.D., M.S. Professor and Flora L. Thornton Chair for the Department of Preventive Medicine at the Keck School of Medicine at University of Southern California, USA , Dr. Carl F. Blackman, who is a Research Scientist in the Environmental Carcinogenesis Division of the US Environmental Protection Agency, USA, Dr. David B. Richardson, University of North Carolina at Chapel Hill, USA , Dr. Vijayalaxmi, Department Radiation Oncology, University of Texas Health Science Center, USA

Additionally it is noteworthy that the US is a formal member of the World Health Organization (WHO). Dr N. Daulaire, who is the Director, Office of Global Affairs, Department of Health and Human Services, Washington, DC has been serving as the U.S. Representative to the Executive Board of the World Health Organization http://www.who.int/governance/eb/eb_members/en/index.html and he has sworn and signed the WHO Constitution on behalf of the USA's membership to the WHO's work.

The Office of Global Affairs of the Department of Health and Human Services where Dr N. Daulaire, is Director is the US's key Federal Health Agency. URS has erred in its report to the LAUSD in stating the US's position on the Health matter of EMF. URS in their RF Safety report inaccurately represents the US's position on the WHO's IARC findings.

URS inaccurately and erroneously states,

"The FCC has set forth maximum power strengths that a device may emit. While manufacturers may make devices with strengths lower than these maximums, **devices that exceed these power requirements cannot be produced.** The FCC guidelines equate to a power density of 1,000 μ W/cm². ***All wireless devices sold in the US go through a formal FCC approval process to ensure that the maximum allowable level when operating at the device's highest possible power level is not exceeded*** (FCC 2012).

They instead ambiguously state the following,

"...that ***exceeding the recommended limits is permissible*** for given periods of time if ***the average exposure (over the appropriate period specified) does not exceed the MPE limit. FCC MPEs are based on an averaging time of 30 minutes for exposure of the general public and are based on protection of the general public to adverse effects of thermal heating.***"

In its current form the Common Core Technology Project Plan t lacks important elements that need to be added to the Project Plan to address the environmental health impacts of the Project.

URS is in error, the averaging in the FCC standards does not evaluate exposures on children or women of smaller stature but instead only large males, ***not representing the general public.***

URS report has failed to accurately present the facts regarding the US Federal government position on the WHO findings on EMF. The US is a WHO member and has executive membership for the US Health and Human Services and as such the US accepts the WHO's work. And importantly, in California according to the Labor Code Section 6382 it clearly states that substances listed as human or animal carcinogens by the International Agency for Research on Cancer (IARC) may be listed as a *hazardous substance.*

Because the EMF emissions are now considered toxic and hazardous, LAUSD must comply with the applicable regulations in Title 5, Division 1, Chapter 13 of the California Code of Regulations and Education Code sections 17213, 17213.1, 17213.2, 17268 that include including Article 2. School Sites § 14010. Standards for School Site Selection. All districts shall select a school site that provides safety and that supports learning. q. The district shall consider environmental factors of light, wind, noise, aesthetics, and ***air pollution*** in its site selection process.

The IARC decision was nearly unanimous position and the IARC Director, Christopher Wild MD, PhD advised consumers to “consider ways of reducing their exposure.”

In July 2012, the U.S. Government Accountability Office (GAO) issued a review of cell phone testing, entitled, [“Exposure and Testing of Mobile Phones Should be Reassessed”](#) , prompted in part by the expert peer-reviewed report on brain modeling entitled [Exposure Limits: The underestimation of absorbed cell phone radiation, especially in children](#) prepared by former industry advisors, Om P. Gandhi, Alvaro De Salles and others, [The Washington Post](#) reported that, “The GAO has found the Federal Communications Commission’s cell phone-safety regulations are woefully out of date. Congress may also urge the agency, whose radiation-limit rules are 21 years old, to take a fresh look at how children in particular may be affected by radio waves.”

And [The American Academy of Pediatrics](http://www.aap.org) (AAP)

http://kucinich.house.gov/uploadedfiles/aap_support_letter_cell_phone_right_to_know_act.pdf

has weighed in on this issue. [Chairman Robert Block](#) M.D. wrote to the FCC urging reconsideration and review of standards specifically noting that:

“Children, however, are not little adults and are disproportionately impacted by all environmental exposures, including cell phone radiation. In fact, according to [the International Agency for Research on Cancer], when used by children, the average RF energy deposition is two times higher in the brain and 10 times higher in the bone marrow of the skull, compared with mobile phone use by adults.”

And furthermore AAP wrote,

"The AAP strongly supports HR 6358's emphasis on examining the effects of radiofrequency (RF) energy on vulnerable populations, including children and pregnant women. In addition, we are pleased that the bill would require the consideration of those effects when developing maximum exposure standards. Children are disproportionately affected by environmental exposures, including cell phone radiation. The differences in bone density and the amount of fluid in a child's brain compared to an adult's brain could allow children to absorb greater quantities of RF energy deeper into their brains than adults. It is essential that any new standards for cell phones or other wireless devices be based on protecting the youngest and most vulnerable populations to ensure they are safeguarded through their lifetimes."

As a result of their important classification there is definitive need to proactively develop and promote available “best practices” to protect children, pregnant women, airline workers, elderly, disabled and others from any adverse exposure risks on board airlines as we do for other toxic agents that are 2B level IARC carcinogens such as ***lead, pesticides including DDT,***

airborne emissions of carbon black, styrene and talc (the complete IARC list here: <http://monographs.iarc.fr/ENG/Classification/index.php>)

The District must comply with the OEHS Distance Criteria for School Siting

LAUSD District knows that it must abide by its own Office of Environmental Health and Safety Distance Criteria for School Siting which explicitly states that all classrooms must be 200 ft distance from any Cellular Phone Antenna. Today Cellular Phones include Smart phones with Wi-Fi. And therefore Cellular Phone Antennas by this relevant definition includes Wi-Fi Antennas. Based on this existing Distance Criteria for School Siting LAUSD must not place these Cellular Phone Antennas inside of LAUSD classrooms. If LAUSD is intending to place Cellular Phone Antennas closer than 200ft from classrooms, and specifically to provide booster antennas within the classrooms directly, this violates its current siting policies.

Because EMF from in-room antennas and routers are a possible carcinogen LAUSD must hold public process hearings about approving this new use and exposure to our children. If the LAUSD published value is to be different for the Common Core Technology Project Plan and changes the Distance Criteria for School Siting of antennas, this proposed change must receive Board approval and be subject to public review and comment, rather than be carried out behind closed doors.

LAUSD must vote No because it must comply with Title 5, Division 1, Chapter 13

It is relevant to note that LAUSD must comply with Title 5, Division 1, Chapter 13 of the California Code of Regulations including *the required provisions in Article 4. Standards, Planning and Approval of School Facilities § 14030. Standards for Development of Plans for the Design and Construction of School Facilities. g. Classrooms that requires all classrooms have available* ***“Conduit/cabling and outlets for technology in each classroom to provide network and stand alone equipment related to the planned and future potential educational functions”***.

LAUSD must first go to the legislature to amend this Code and if it will not be complying with the requirement to provide **Conduit/cabling and outlets for technology in each classroom to provide network and stand alone equipment related to the planned and future potential educational functions**

LAUSD must Vote No because it must comply with CEQA

Currently this project is proposed as a 50 million dollar project with taxpayer bond funds from Measures R and/or Y. This state-funded school district technology Project must prepare an environmental impact report, or negative declaration in compliance with the Environmental Quality Act, Public Resources Code, Division 13, (commencing with Section 21000 with particular attention to Section 21151.8) with full noticing. It is essential that the many environmental impacts be evaluated and assessed and reported on and that mitigations be suggested for all found environmental and health impacts.

Of particular interest is that the LAUSD put together a well thought out plan to ensure:

1. That the purchase of all of the electronic devices include multi-attribute Environmentally Preferable Purchasing (*Public Contract Code §12400-12404*) with inclusion of environmental specifications to address •Reduction/elimination of environmentally sensitive materials, •Post Consumer Recycled Content Material selection, •Design for end of life, •Product longevity/life extension, •Energy conservation, •End-of-life management, •Corporate performance, and •Reduction of Packaging as required by California law.
2. That there are facility use policies to reduce waste energy usage
3. That there is an End of life plan with Take Back requirements to the manufacturers.
4. That the EMF emissions are modeled and that provisions are put into policy before the project to eliminate all toxic exposures to children. Because there are more than one device per room and because there are endless possibilities on exposures LAUSD Facility and Health department should define clear rules and regulations on placement and movement of all devices such that the exposures estimated for the project represent the expected exposure in real use. The Plan shall articulate
 - a. where devices will be located in the classrooms
 - b. where children will be located in exact distances from all emitting antenna
 - c. how long children are permitted to be in exposure locations
 - d. Where the safe harbor zones are located for disabled electromagnetic hypersensitivity (EHS) populations.

Sincerely,

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Antoinette Stein's background and qualifications

1. I have been the Chair of the Indoor Environmental Quality sub-committee for the [Collaborative for High Performance Schools](#) (CHPS) since 2006.
2. I have been working for the State of California for the past seven years. I currently am employed at the Department of General Services in the Procurement Division as an Associate Procurement Engineer in Environmentally Preferable Purchasing where I have been the Principle author of the State of California's Indoor Environmental Quality (IEQ) criteria in the California's [open office panel furniture](#) (Section 4.7 Indoor Air Quality) of the Environmentally Preferable Purchasing (EPP) contract specification addressing toxic Volatile Organic Compounds (VOCs) and evaluation methodologies. I have authored a number of other environmental procurement specifications protective of the environment and public health including specifications for bio-diesel, disposable food containers, IT electronic devices including printers/Multi Functional Devices, servers, office supplies, paper products, and auto parts. Prior to this position, I worked for the State of California Department of Public Health in the Indoor Air Quality Program from 2005 to 2008 for three years. My focus at the Department of Public Health was on toxics and the protection of children in schools. I initiated and participated in the update of California's IAQ Standard for VOCs, "01350 Standard Practice" also called the [Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers Version 1.1 \(2010\)](#) including the technical criteria for sample preparations; chamber test parameters; analytical testing protocols; exposure models and parameters; and science based health threshold limits.
3. I also participated in the IEEE development of the [EPEAT standard update](#) for two electronic devices; multi-functional imaging devices and televisions. I helped develop the technical criteria for Corporate Performance including Disclosures for GHGs, waste, water and toxic emissions as well as the development of Indoor Air Quality criteria.

4. I completed a Post Doctoral Research term at the University of California, Davis and Irvine, in the Materials and Chemical Engineering Department, and the Department of Environmental Analysis and Design, School of Social Ecology. My research focused on the complete life cycle of electronic equipment including the environmental, public health, and economic impacts of various alternative policy options for electronic solder materials. I was a co-author with Toffel, M. W. and , Lee, K.L, "Extending Producer Responsibility: An Evaluation Framework for Product Take-Back Policies", Working Paper 09-026, Harvard Business School, September 2008, <http://www.hbs.edu/research/pdf/09-026.pdf> .
5. I have a PhD in Environmental Engineering from the University of Cincinnati specializing in Air Quality Control, 2001
6. And I have a Master's of Science in Engineering specializing in Manufacturing Processes and Systems from Milwaukee School of Engineering (MSOE), 1988
7. And I have a Bachelors of Science in Engineering Mechanics from the University of Wisconsin-Madison, 1983.
8. I worked for General Electric Corporation for 7 plus years from 1985 to 1993 including at GE AIRCRAFT ENGINES, Engineering Materials Technology Laboratory and in GE MEDICAL SYSTEMS in their Research and Development Laboratory in Coatings Technology where I authored several US Patents for high emissivity radiation coatings.
9. As an environmental volunteer I work on EMF Safety topics; I have been co-moderating the Collaborative for Health and the Environment's EMF Workgroup with Michael Lerner
10. <http://www.healthandenvironment.org/initiatives/emf> since the start of 2012. The CHE-EMF has hosted in three EMF teleconferences with expert scientists including the CHE Fertility and Reproductive Health and CHE EMF working group call: with Dr. Ashok Agarwal, PhD, Dr. De-Kun Li, MD, PhD. CHE EMF Working Group call: Cell Antennas and Health: The State of the Science With Speakers: Dr. Henry Lai , B. Blake Levitt.
11. I have been working on EMF Policy development, reviewing the state of the science for the Environmental Health Trust, and now serve as Project Director for their West Coast operations.

12. I have been volunteering with the California Brain Tumor Association on children's health protection.
13. And I am a Technical Advisor for Informed Green Solutions