

From: [Starr, Aaron \(CPC\)](#)
To: [Planning@RodneyFong.com](#); [richhillissf@gmail.com](#); [mooreurban@aol.com](#); [Richards, Dennis \(CPC\)](#); [Koppel, Joel \(CPC\)](#); [Meigar, Myrna \(CPC\)](#); [Johnson, Millicent \(CPC\)](#)
Cc: [CTYPLN - COMMISSION SECRETARY](#)
Subject: Board Report
Date: Thursday, September 27, 2018 10:59:02 AM
Attachments: [2018_09_27.pdf](#)
[image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)

Commissioners,

Attached, please find this week's Board Report.

Sincerely,

Aaron Starr, MA
Manager of Legislative Affairs

Planning Department, City and County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6362 **Fax:** 415-558-6409
Email: aaron.starr@sfgov.org
Web: www.sfplanning.org



From: [Secretary, Commissions \(CPC\)](#)
To: [Richards, Dennis \(CPC\)](#); [Johnson, Milicent \(CPC\)](#); [Koppel, Joel \(CPC\)](#); [Moore, Kathrin \(CPC\)](#); [Melgar, Myrna \(CPC\)](#); planning@rodneyfong.com; [Rich Hillis](#)
Cc: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: 750 Post Street (2018-008669CUA)
Date: Thursday, September 27, 2018 10:46:08 AM
Attachments: [Support Letter 4 - Neighbor \(ID 1033868\).pdf](#)
[Support Letter 3 - SFAACC \(ID 1033866\).pdf](#)
[Support Letter 1 - Curry Senior Center \(ID 1033860\).pdf](#)
[Support Letter 2 - Code Tenderloin \(ID 1033864\).pdf](#)

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department | City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309 | Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: Weissglass, David (CPC)
Sent: Thursday, September 27, 2018 10:20 AM
To: Secretary, Commissions (CPC)
Cc: Boudreaux, Marcelle (CPC)
Subject: 750 Post Street (2018-008669CUA)

Good morning,

This case is on the consent calendar today as a CB3P case. I received a phone call yesterday from somebody who said he represented many community members who are opposed to the project, so please be aware that this case could be requested to be pulled off the consent calendar today. That phone call is the only opposition correspondence I received.

I also received the four attached support letters today, sent from the sponsor. I've uploaded them all to M Files.

Thank you,

David Weissglass, Planner
Flex Team, Current Planning Division
San Francisco Planning Department
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415.575.9177 | www.sfplanning.org
[San Francisco Property Information Map](#)

*Planning Staff are currently available at Counter 38 at 1660 Mission Street, 5th floor, daily for inquiries and review of ADU/Legalization permits. Please contact your planner for visit <http://sf-planning.org/accessory-dwelling-units> for details.

From: [Secretary, Commissions \(CPC\)](#)
To: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: New Whole Foods Store on Polk Street
Date: Thursday, September 27, 2018 10:03:10 AM

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department!City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309!Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: Tom [mailto:thomasloynd@sbcglobal.net]
Sent: Tuesday, September 25, 2018 5:56 PM
To: Secretary, Commissions (CPC)
Cc: RichHillisSF@gmail.com; Melgar, Myrna (CPC); planning@rodneyfong.com; Johnson, Milicent (CPC); Koppel, Joel (CPC); Moore, Kathrin (CPC); Richards, Dennis (CPC); Rahaim, John (CPC); Foster, Nicholas (CPC)
Subject: New Whole Foods Store on Polk Street

Whole Foods 365 at Jackson and Polk Streets - Letter of Support

Ladies and Gentlemen:

I am a resident of Russian Hill.

We have all been waiting a very long time for approval of the proposed new Whole Foods 365 in the building formerly occupied by Lombardi Sports.

I can't imagine any serious objection to the Whole Foods plan. This neighborhood needs another grocery store and the proposed location is ideal.

For gods' sake, let's not miss this opportunity.

Loynd

Tom

Filbert Street, No. 302

1155

San Francisco 94109

563-8619

(415)

From: [Secretary, Commissions \(CPC\)](#)
To: [Richards, Dennis \(CPC\)](#); [Johnson, Milicent \(CPC\)](#); [Koppel, Joel \(CPC\)](#); [Moore, Kathrin \(CPC\)](#); [Melgar, Myrna \(CPC\)](#); planning@rodneyfong.com; [Rich Hillis \(CPC\)](#); [Feliciano, Josephine \(CPC\)](#)
Cc: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: Letter from MPNA, PDMA, and UFCW Local 648 RE: 1600 Jackson St CU
Date: Thursday, September 27, 2018 10:03:06 AM
Attachments: [MPNA,PDMA,UFCW Letter.pdf](#)

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department|City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309|Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: Chris Gembinski [mailto:chrisgembinski@gmail.com]
Sent: Wednesday, September 26, 2018 5:55 AM
To: Rahaim, John (CPC); Secretary, Commissions (CPC)
Cc: Rich Hillis; Foster, Nicholas (CPC); Ionin, Jonas (CPC)
Subject: Letter from MPNA, PDMA, and UFCW Local 648 RE: 1600 Jackson St CU

Dear Planning Commissioners,

Please see the attached letter from the Middle Polk Neighborhood Association (MPNA), Polk District Merchants Association (PDMA), and United Food and Commercial Workers (UFCW Local 648) regarding 1600 Jackson Street. I would like to include this in the record for the October 4th hearing.

Please contact me if you have any questions.

Thank you,

Chris Gembinski
MPNA Chair
916-300-5704

From: [Secretary, Commissions \(CPC\)](#)
To: [Richards, Dennis \(CPC\)](#); [Johnson, Milicent \(CPC\)](#); [Koppel, Joel \(CPC\)](#); [Moore, Kathrin \(CPC\)](#); [Melgar, Myrna \(CPC\)](#); planning@rodneyfong.com; [Rich Hillis](#)
Cc: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: Whole Foods at 1600 Jackson St.
Date: Thursday, September 27, 2018 10:00:39 AM

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department|City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309|Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: Toby Rosenblatt [mailto:TRosenblatt@msn.com]
Sent: Wednesday, September 26, 2018 1:45 PM
To: Secretary, Commissions (CPC)
Subject: Whole Foods at 1600 Jackson St.

I urge the Commission to approve the current proposal from Whole Foods for a new grocery store. We live at Vallejo & Jones Streets. The neighborhood desperately needs a new larger grocery store with the kind of pricing and variety and quality of product that Whole Foods provides. We have experienced their 365 store when visiting another city, in southern California, and that provides our data for knowing the improved products and service. There are no stores in the Polk Street corridor or neighborhood that can or do provide those benefits.

The alternatives being demanded or requested by those who oppose the application are unrealistic and economically infeasible. If this application is denied or if unrealistic conditions are required, the existing space will remain unoccupied and a continuing blight to the neighborhood.

We need Whole Foods 365. We urge you to approve their application.

From: [Secretary, Commissions \(CPC\)](#)
To: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: Regarding: Discretionary Review of 2515 Broadway Building Permit Application No. 2017.06.26.0318; Planning Commission Hearing of September 27th
Date: Thursday, September 27, 2018 10:00:22 AM
Attachments: [Dear Planning Commissioners.pdf](#)

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department|City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309|Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: Tom Norris [mailto:trnorris@tomnorris.com]
Sent: Wednesday, September 26, 2018 3:58 PM
To: richhillissf@gmail.com; planning@rodneyfong.com; Koppel, Joel (CPC); Melgar, Myrna (CPC); Moore, Kathrin (CPC); Richards, Dennis (CPC); Johnson, Millicent (CPC)
Cc: onas.ionin@sfgov.org; Secretary, Commissions (CPC); May, Christopher (CPC)
Subject: Regarding: Discretionary Review of 2515 Broadway Building Permit Application No. 2017.06.26.0318; Planning Commission Hearing of September 27th

From: [Secretary, Commissions \(CPC\)](#)
To: [Ikezoe, Paolo \(CPC\)](#)
Cc: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: Planning Commission Item 20b, 2018-004477PCA
Date: Thursday, September 27, 2018 10:00:19 AM
Attachments: [Central SOMA AB73 info hearing ltr.pdf](#)
[Central SoMa HSD Leg Ver2 with value-capture Inclusionary bump.docx](#)
[Central SoMa HSD Leg Ver2 with value-capture Inclusionary bump.pdf](#)

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department | City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309 | Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: Council of Community Housing Organizations [mailto:ccho@sfc-409.org]
Sent: Wednesday, September 26, 2018 6:10 PM
To: Rich Hillis; Myrna Melgar; Rodney Fong; Dennis Richards; Kathrin Moore; Joel Koppel; Milicent Johnson; Secretary, Commissions (CPC); Rahaim, John (CPC)
Cc: Fernando Marti; Peter Cohen
Subject: Planning Commission Item 20b, 2018-004477PCA

Dear Commissioners

Please see attached the materials we submitted for the record at your September 12th hearing related to the Central Soma "Housing Sustainability District" legislation, recommending an Inclusionary affordable housing bump-up for projects using the HSD streamlining allowance. We are communicating the documents again here to refresh the information for tomorrow's hearing, item #20b. Note that the amendment language is inserted on page 10 of the legislation, and one of the attachments is trimmed down to just that relevant section of the legislation for your ease of reading.

Thank you,
Fernando Marti and Peter Cohen

Council of Community Housing Organizations
CCHO Action
Celebrating 40 years as the voice of San Francisco's affordable housing movement
325 Clementina Street, San Francisco 94103
415-882-0901 office
www.sfccho.org

From: [Secretary, Commissions \(CPC\)](#)
To: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: Regarding: Discretionary Review of 2515 Broadway Building Permit Application No. 2017.06.26.0318; 9.27.18 Planning Commission Hearing
Date: Thursday, September 27, 2018 9:58:50 AM
Attachments: [Costigan letter re 2515 Broadway 9.15.18.pdf](#)

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department|City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309|Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: Jerry Suich [mailto:jjsuich@gmail.com]
Sent: Wednesday, September 26, 2018 6:48 PM
To: Rich Hillis; Secretary, Commissions (CPC)
Cc: planning@rodneyfong.com; Koppel, Joel (CPC); Melgar, Myrna (CPC); Moore, Kathrin (CPC); Richards, Dennis (CPC); Johnson, Millicent (CPC); onas.ionin@sfgov.org; May, Christopher (CPC)
Subject: Re: Regarding: Discretionary Review of 2515 Broadway Building Permit Application No. 2017.06.26.0318; 9.27.18 Planning Commission Hearing

From: [Secretary, Commissions \(CPC\)](#)
To: [Richards, Dennis \(CPC\)](#); [Johnson, Milicent \(CPC\)](#); [Koppel, Joel \(CPC\)](#); [Moore, Kathrin \(CPC\)](#); [Melgar, Myrna \(CPC\)](#); planning@rodneyfong.com; [Rich Hillis](#)
Cc: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: Concerns about 650 Divisadero
Date: Thursday, September 27, 2018 9:57:32 AM

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department|City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309|Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: Jeff [<mailto:tgramjeff@gmail.com>]
Sent: Wednesday, September 26, 2018 6:57 PM
To: May, Christopher (CPC)
Cc: Secretary, Commissions (CPC)
Subject: Re: Concerns about 650 Divisadero

I just re-read my earlier email, and noticed the phrase "Friday and Saturday night party crowd". That was a mistake: I don't mean to imply the Divisadero party crowd is limited to weekends. It's become much more prevalent on weeknights in the past year. I'm very concerned about our block of Grove being overrun with nighttime noise on weeknights as a result of new businesses.

To restate my email, in case it's used in evaluating the project:

"I live on Grove Street, between Divisadero and Scott, across from the proposed project. I'm concerned about the businesses which might be on the ground-level of the project.

I've lived in my apartment for over 20 years. While Divisadero has become more of a noisy, nighttime destination, our block on Grove has remained relatively quiet and residential. The noisy, nighttime crowd tends to stay on Divisadero. Alouis Auto Radiator previously, and Seismic Retrofitters currently, provides a buffer at the corner of Divisadero and Grove from the nighttime businesses.

Any nighttime business on Grove Street would risk changing the long-standing livability character of our block by increased nighttime noise. Even a nighttime business at the corner of Divisadero and Grove would likely spill over into our block.

I'm fine with providing more housing in San Francisco. It's the new nighttime businesses which concern me. I want to ensure our block retains its livability, and we're still able to get a good night's rest without new nighttime disturbances."

On Wed, Sep 26, 2018 at 3:08 PM Jeff <tgramjeff@gmail.com> wrote:

Hi Chris,

I'm writing about the proposed project at 650 Divisadero, record number 2013.1037CV.

I live on Grove Street, between Divisadero and Scott, across from the proposed project. I'm concerned about the businesses which might be on the ground-level of the project.

I've lived in my apartment for over 20 years. While Divisadero has become more of a noisy, nighttime destination, our block on Grove has remained relatively quiet and residential. The Friday and Saturday night party crowd tends to stay on Divisadero. Alouis Auto Radiator previously, and Seismic Retrofitters currently, provides a buffer at the corner of Divisadero and Grove from the nighttime businesses.

Any nighttime business on Grove Street would risk changing the long-standing livability character of our block. Even a nighttime business at the corner of Divisadero and Grove would likely spill over into our block.

I'm fine with providing more housing in San Francisco. It's the new nighttime businesses which concern me. I want to ensure our block retains its livability, and we're still able to get a good night's rest without new nighttime disturbances.

I talked on the phone with Elizabeth Purl. She suggested I ask you about what type of businesses might be allowed on the ground floor, and for a copy of the staff report for the case file.

I'd appreciate keeping my name anonymous for publishing these comments.

Thanks very much!

From: [Secretary, Commissions \(CPC\)](#)
To: [Foster, Nicholas \(CPC\)](#)
Cc: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: Opposition to Proposed 1600 Jackson Street : Project No. 2016-000378 CUA
Date: Thursday, September 27, 2018 9:57:20 AM
Attachments: [Whole Foods 1600 Jackson Street001.pdf](#)

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department | City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309 | Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: Richard Frisbie [mailto:frfbeagle@gmail.com]
Sent: Wednesday, September 26, 2018 7:21 PM
To: Richards, Dennis (CPC); Koppel, Joel (CPC); Secretary, Commissions (CPC); Moore, Kathrin (CPC); Millicent A. Johnson - Commissioner; Melgar, Myrna (CPC); Rich Hillis - Commission President; Rodney Fong - Commissioner
Cc: Marlayne Morgan; Gailbaugh40@gmail.com; Kathy Devincenzi
Subject: Opposition to Proposed 1600 Jackson Street : Project No. 2016-000378 CUA

Dear President Hillis and Commissioners

Find attached Laurel Heights Improvement Association's opposition to the current "no housing above Whole Foods" plan for 1600 Jackson.

Its difficult to comprehend the thought process that developed this "no housing" solution as it is diametrically opposed to the housing needs of the City.

We look forward to the Planning Commission rejecting the proposed plan and providing direction for a thoughtful mixed use development consistent with the needs and wishes of the surrounding neighborhood.

Respectfully,
Richard Frisbie

From: [Secretary, Commissions \(CPC\)](#)
To: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: Amazon / Whole Foods Market 365 CU
Date: Thursday, September 27, 2018 9:57:09 AM
Attachments: [365 letter.pdf](#)

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department!City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309!Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: Henry Karnilowicz [mailto:occexp@aol.com]
Sent: Wednesday, September 26, 2018 8:47 PM
To: richhillissf@gmail.com
Cc: Melgar, Myrna (CPC); planning@rodneyfong.com; Johnson, Millicent (CPC); Koppel, Joel (CPC); Moore, Kathrin (CPC); Richards, Dennis (CPC); Secretary, Commissions (CPC); Rahaim, John (CPC)
Subject: Amazon / Whole Foods Market 365 CU

Dear President Hillis,

Attached is our letter opposing the CU for the proposed Amazon / Whole Foods Market 365 at 1600 Jackson Street.

Henry Karnilowicz
President
San Francisco Council of District Merchants Associations

1019 Howard Street
San Francisco, CA 94103-2806
415.420.8113 cell
415.621.7583 fax

From: [Secretary, Commissions \(CPC\)](#)
To: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: Opposition to Conditional Use Authorization for 1600 Jackson Street
Date: Thursday, September 27, 2018 9:56:56 AM
Attachments: [1600 Jackson Street - NNC Opposition to CUA.pdf](#)

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department!City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309!Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: Ozzie Rohm [mailto:ozzierohm@sbcglobal.net]
Sent: Wednesday, September 26, 2018 9:25 PM
To: Foster, Nicholas (CPC); Secretary, Commissions (CPC); Ionin, Jonas (CPC); Noeneighborhoodcouncil Info
Subject: Fw: Opposition to Conditional Use Authorization for 1600 Jackson Street

Please see the attached letter from Noe Neighborhood Council that was sent to the Planning Commission in opposition to the proposed project at 1600 Jackson Street.

Best,

Ozzie Rohm

----- Forwarded Message -----

From: Ozzie Rohm <ozzierohm@sbcglobal.net>
To: "richhillissf@gmail.com" <richhillissf@gmail.com>; "myrna.melgar@sfgov.org" <myrna.melgar@sfgov.org>; "planning@rodneymong.com" <planning@rodneymong.com>; "Milicent.Johnson@sfgov.org" <Milicent.Johnson@sfgov.org>; "joel.koppel@sfgov.org" <joel.koppel@sfgov.org>; "kathrin.moore@sfgov.org" <kathrin.moore@sfgov.org>; "dennis.richards@sfgov.org" <dennis.richards@sfgov.org>
Sent: Wednesday, September 26, 2018 9:21 PM
Subject: Opposition to Conditional Use Authorization for 1600 Jackson Street

President Hillis and Members of the Planning Commission,

Please see the attached letter from Noe Neighborhood Council in opposition to the proposed project at 1600 Jackson Street.

Sincerely,

Ozzie Rohm

From: [Secretary, Commissions \(CPC\)](#)
To: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: Amazon / Whole Foods Market 365 CU
Date: Thursday, September 27, 2018 9:56:52 AM

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department | City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309 | Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: Danny Mac [mailto:danny1mac@sbcglobal.net]
Sent: Thursday, September 27, 2018 8:24 AM
To: Henry Karnilowicz
Cc: richhillissf@gmail.com; Melgar, Myrna (CPC); planning@rodneyfong.com; Johnson, Milicent (CPC); Koppel, Joel (CPC); Moore, Kathrin (CPC); Richards, Dennis (CPC); Secretary, Commissions (CPC); Rahaim, John (CPC)
Subject: Re: Amazon / Whole Foods Market 365 CU

Great letter!

Sent from my iPhone

On Sep 26, 2018, at 8:51 PM, Henry Karnilowicz <occexp@aol.com> wrote:

Dear President Hillis,

Attached is our letter opposing the CU for the proposed Amazon / Whole Foods Market 365 at 1600 Jackson Street.

[Henry Karnilowicz](#)
[President](#)
[San Francisco Council of District Merchants Associations](#)

[1019 Howard Street](#)
[San Francisco, CA 94103-2806](#)
[415.420.8113 cell](#)
[415.621.7583 fax](#)

<365 letter.pdf>

From: [Secretary, Commissions \(CPC\)](#)
To: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: Neighbor letter re 2515 Broadway Application
Date: Thursday, September 27, 2018 9:56:38 AM

Jonas P. Ionin,
Director of Commission Affairs

Planning Department|City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309|Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

-----Original Message-----

From: Frances Hochschild [<mailto:fhochschild@gmail.com>]
Sent: Thursday, September 27, 2018 9:09 AM
To: richhillissf@gmail.com; planning@rodneyfong.com; Koppel, Joel (CPC); Melgar, Myrna (CPC); Moore, Kathrin (CPC); Richards, Dennis (CPC); Johnson, Milicent (CPC)
Cc: Ionin, Jonas (CPC); Secretary, Commissions (CPC); May, Christopher (CPC)
Subject: Neighbor letter re 2515 Broadway Application

This message is from outside the City email system. Do not open links or attachments from untrusted sources.

Please find attached another letter regarding the 2515 Broadway Application.

Regards

Frances

Frances Hochschild
fhochschild@gmail.com
(415) 531-0740

From: [Ionin, Jonas \(CPC\)](#)
To: [Richards, Dennis \(CPC\)](#); [Johnson, Milicent \(CPC\)](#); [Koppel, Joel \(CPC\)](#); [Moore, Kathrin \(CPC\)](#); [Melgar, Myrna \(CPC\)](#); planning@rodneyfong.com; [Rich Hillis](#)
Cc: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: Letter from MPNA, PDMA, and UFCW Local 648 RE: 1600 Jackson St CU
Date: Thursday, September 27, 2018 9:48:50 AM
Attachments: [MPNA.PDMA.UFCW Letter.pdf](#)

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department|City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309|Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: Chris Gembinski [mailto:chrisgembinski@gmail.com]
Sent: Wednesday, September 26, 2018 5:55 AM
To: Rahaim, John (CPC); Secretary, Commissions (CPC)
Cc: Rich Hillis; Foster, Nicholas (CPC); Ionin, Jonas (CPC)
Subject: Letter from MPNA, PDMA, and UFCW Local 648 RE: 1600 Jackson St CU

Dear Planning Commissioners,

Please see the attached letter from the Middle Polk Neighborhood Association (MPNA), Polk District Merchants Association (PDMA), and United Food and Commercial Workers (UFCW Local 648) regarding 1600 Jackson Street. I would like to include this in the record for the October 4th hearing.

Please contact me if you have any questions.

Thank you,

Chris Gembinski
MPNA Chair
916-300-5704

From: [Ionin, Jonas \(CPC\)](#)
To: [Richards, Dennis \(CPC\)](#); [Johnson, Milicent \(CPC\)](#); [Koppel, Joel \(CPC\)](#); [Moore, Kathrin \(CPC\)](#); [Melgar, Myrna \(CPC\)](#); [planning@rodneyfong.com](#); [Rich Hillis](#); [Aaron Jon Hyland - HPC](#); [Andrew Wolfram \(andrew@tefarch.com\)](#); [Black, Kate \(CPC\)](#); [Diane Matsuda](#); [Ellen Johnck - HPC](#); [Jonathan Pearlman](#); [Richard S. E. Johns](#)
Cc: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: *** STATEMENT *** MAYOR LONDON BREED ON TRANSBAY TRANSIT CENTER
Date: Thursday, September 27, 2018 9:46:59 AM
Attachments: [9.26.18 Transbay Transit Center.pdf](#)

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department|City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309|Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: MayorsPressOffice, MYR (MYR)
Sent: Wednesday, September 26, 2018 11:43 AM
To: MayorsPressOffice, MYR (MYR)
Subject: *** STATEMENT *** MAYOR LONDON BREED ON TRANSBAY TRANSIT CENTER

FOR IMMEDIATE RELEASE:

Wednesday, September 26, 2018

Contact: Mayor's Office of Communications, 415-554-6131

***** STATEMENT *****

MAYOR LONDON BREED ON TRANSBAY TRANSIT CENTER

“Today I went to the Transbay Transit Center to see the site myself and meet with Transbay Joint Powers Authority leadership and City department heads to discuss the ongoing investigation and what we are doing to fix this situation. We must have a thorough and transparent investigation to determine the causes, severity, and impacts of this discovery, as well as a plan to re-open the Transit Center as soon as it is safe to do so. The Transbay Transit Center is too important for our City and our regional transportation system not to act quickly to have definitive answers for the public, and someone needs to be held accountable once the cause is determined. As the safety of the people of San Francisco is always of primary importance, we will continue to act cautiously and keep the Transit Center and block of Fremont Street closed until we have further answers. Our City agencies and regional transportation partners have been working to manage the traffic disruptions caused by these closures, and they will continue to do so.”

###

From: [Ionin, Jonas \(CPC\)](#)
To: [Richards, Dennis \(CPC\)](#); [Johnson, Milicent \(CPC\)](#); [Koppel, Joel \(CPC\)](#); [Moore, Kathrin \(CPC\)](#); [Melgar, Myrna \(CPC\)](#); planning@rodneyfong.com; [Rich Hillis](#); [Aaron Jon Hyland - HPC](#); [Andrew Wolfram \(andrew@tefarch.com\)](mailto:andrew@tefarch.com); [Black, Kate \(CPC\)](#); [Diane Matsuda](#); [Ellen Johnck - HPC](#); [Jonathan Pearlman](#); [Richard S. E. Johns](#)
Cc: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: *** PRESS RELEASE *** MAYOR LONDON BREED ANNOUNCES NEW MEASURES TO IMPROVE PEDESTRIAN AND BICYCLIST SAFETY
Date: Thursday, September 27, 2018 9:28:53 AM
Attachments: [9.26.18 Transportation Safety Improvements.pdf](#)

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department|City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309|Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: MayorsPressOffice, MYR (MYR)
Sent: Wednesday, September 26, 2018 12:55 PM
To: MayorsPressOffice, MYR (MYR)
Subject: *** PRESS RELEASE *** MAYOR LONDON BREED ANNOUNCES NEW MEASURES TO IMPROVE PEDESTRIAN AND BICYCLIST SAFETY

FOR IMMEDIATE RELEASE:

Wednesday, September 26, 2018

Contact: Mayor's Office of Communications, 415-554-6131

***** PRESS RELEASE *****

**MAYOR LONDON BREED ANNOUNCES NEW MEASURES TO
IMPROVE PEDESTRIAN AND BICYCLIST SAFETY**

*Changes include expedited implementation of the Valencia Street bike lane and quicker action
from Rapid Response Teams following traffic collisions*

San Francisco, CA – Mayor London N. Breed today announced new measures aimed at quickly implementing safety improvement projects to protect bicyclists and pedestrians in San Francisco.

Mayor Breed will be closely analyzing all pending Vision Zero street safety projects planned for high-injury corridors and directing the San Francisco Municipal Transportation Agency (SFMTA) to implement these projects on an expedited schedule, beginning with the Valencia Street bike lane. She also tasked the SFMTA with making recommendations on major process overhauls that can be enacted to ensure Vision Zero projects move forward without delay, and issued clear guidelines for the SFMTA's Rapid Response teams to quickly and effectively respond to serious incidents.

“Even one pedestrian death is too many, but recently we have seen a number of sadly preventable injuries and fatalities on our streets. I am tired of waiting for months, and often

years, for important Vision Zero projects to be implemented when we know they are urgently needed to protect pedestrians and bicyclists,” said Mayor Breed. “I will be personally reviewing all pending Vision Zero safety proposals on high-injury corridors and directing the SFMTA to move more quickly on these projects. We do not have time to waste.”

High-injury corridors represent just 13% of San Francisco streets where 75% of all serious injuries and fatalities take place. The City has a stated Vision Zero goal of eliminating all traffic fatalities by engineering safe and livable streets in order to eliminate all pedestrian deaths.

“No one should die on our streets just trying to get around. Vision Zero is the right goal for our growing city right now and we must keep pushing forward to meet it,” said Ed Reiskin, Director of Transportation for the SFMTA. “Mayor Breed’s leadership and continued dedication to the safety of all those on our streets is essential to ensuring San Francisco meets its goal of zero traffic fatalities.”

The first project that Mayor Breed is directing to be expedited is a fully parking-protected bike lane on Valencia Street stretching from Market Street to 15th Street. These first four blocks of Valencia have the highest ridership counts on the corridor and also the highest injury rates. There has been a year-long community outreach process to receive feedback on this project and Mayor Breed has directed it to be implemented in the next four months to serve as a pilot to inform changes through the rest of the corridor.

“Ensuring the safety of pedestrians and cyclists is critically important, and along with those who walk and bike this corridor every day, I’m thankful that this critically important project will now be implemented a year ahead of schedule,” said Supervisor Rafael Mandelman.

“I’ve been working on improving safety on the busy Valencia corridor. I was successful in convincing Lyft to move pick-ups and drop-offs to the side streets to reduce car-bike conflicts,” said Supervisor Hillary Ronen. “While this was an important step to improving safety for riders, I remain 100% committed to protected bike lanes, and am delighted that the project will launch its first phase of construction this spring.”

“I want to thank Mayor Breed for her leadership in expediting the protected bike lane on Valencia Street, which is one of the most biked and most dangerous corridors in San Francisco,” said Brian Wiedenmeier, Executive Director of the San Francisco Bicycle Coalition. “This kind of quick action is exactly what we need in order to achieve Vision Zero by 2024 and help more people choose to bike in the City.”

Additionally, Mayor Breed announced clear guidelines for the SFMTA’s Rapid Response Team, which is tasked with responding to incidents of serious injury or fatalities. Within one hour of an incident, the SFMTA will be notified by the San Francisco Police Department. The Rapid Response team will continue to respond within 24 hours to analyze the location for any necessary safety improvements, and then implement appropriate near-term safety improvements within the following 72 hours. The SFMTA will work to design and implement longer-term safety improvements on an expedited, high-priority schedule and will regularly update Mayor Breed on Rapid Response Team deployment and safety implementations.

“After a serious crash, the City should respond quickly to identify the problem and make the changes needed to prevent future crashes,” said Cathy DeLuca, Walk San Francisco's Policy

and Program Director. “We are glad that Mayor Breed is setting clear guidelines for the SFMTA’s Rapid Response Team to follow. We look forward to swift action to make the streets safe for everyone who walks in San Francisco.”

###

From: [Ionin, Jonas \(CPC\)](#)
To: [Feliciano, Josephine \(CPC\)](#); [Foster, Nicholas \(CPC\)](#)
Subject: FW: Opposition to Conditional Use Authorization for 1600 Jackson Street
Date: Thursday, September 27, 2018 9:24:32 AM
Attachments: [1600 Jackson Street - NNC Opposition to CUA.pdf](#)

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department!City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309!Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: Ozzie Rohm [mailto:ozzierohm@sbcglobal.net]
Sent: Wednesday, September 26, 2018 9:25 PM
To: Foster, Nicholas (CPC); Secretary, Commissions (CPC); Ionin, Jonas (CPC); Noeneighborhoodcouncil Info
Subject: Fw: Opposition to Conditional Use Authorization for 1600 Jackson Street

Please see the attached letter from Noe Neighborhood Council that was sent to the Planning Commission in opposition to the proposed project at 1600 Jackson Street.

Best,

Ozzie Rohm

----- Forwarded Message -----

From: Ozzie Rohm <ozzierohm@sbcglobal.net>
To: "richhillissf@gmail.com" <richhillissf@gmail.com>; "myrna.melgar@sfgov.org" <myrna.melgar@sfgov.org>; "planning@rodneymfong.com" <planning@rodneymfong.com>; "Milicent.Johnson@sfgov.org" <Milicent.Johnson@sfgov.org>; "joel.koppel@sfgov.org" <joel.koppel@sfgov.org>; "kathrin.moore@sfgov.org" <kathrin.moore@sfgov.org>; "dennis.richards@sfgov.org" <dennis.richards@sfgov.org>
Sent: Wednesday, September 26, 2018 9:21 PM
Subject: Opposition to Conditional Use Authorization for 1600 Jackson Street

President Hillis and Members of the Planning Commission,

Please see the attached letter from Noe Neighborhood Council in opposition to the proposed project at 1600 Jackson Street.

Sincerely,

Ozzie Rohm

From: [Winslow, David \(CPC\)](#)
To: [Moore, Kathrin \(CPC\)](#); [Richards, Dennis \(CPC\)](#); [Koppel, Joel \(CPC\)](#); [Johnson, Milicent \(CPC\)](#); [planning@rodneymong.com](#); [Melgar, Myrna \(CPC\)](#); [richhillissf@gmail.com](#)
Cc: [CTYPLN - COMMISSION SECRETARY](#)
Subject: 765 Vermont 2017-003846DRP
Date: Wednesday, September 26, 2018 12:00:31 PM
Attachments: [765 Vermont DR response addenda1.pdf](#)

Dear President Hillis and Planning Commissioners,
I apologize, but the project sponsor's response was inadvertently left out of your printed packets.
Please see it attached.

David Winslow
Principal Architect
Design Review | Citywide and Current Planning
San Francisco Planning Department
1650 Mission Street, Suite 400 | San Francisco, California, 94103
T: (415) 575-9159

From: [Ionin, Jonas \(CPC\)](#)
To: [Richards, Dennis \(CPC\)](#); [Johnson, Milicent \(CPC\)](#); [Koppel, Joel \(CPC\)](#); [Moore, Kathrin \(CPC\)](#); [Melgar, Myrna \(CPC\)](#); planning@rodneyfong.com; [Rich Hillis \(CPC\)](#)
Cc: [Feliciano, Josephine \(CPC\)](#); [Foster, Nicholas \(CPC\)](#)
Subject: FW: 1600 Jackson, Whole Foods-2016-000378CUA
Date: Tuesday, September 25, 2018 2:22:55 PM
Attachments: [1600 Jackson support 92418.doc](#)

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department | City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309 | Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: Gail Baugh [mailto:gailbaugh40@gmail.com]
Sent: Tuesday, September 25, 2018 1:46 PM
To: gail baugh
Subject: 1600 Jackson, Whole Foods-2016-000378CUA

The Hayes Valley Neighborhood Association does not support the Whole Food retailer to occupy this location without adding housing units above this retail space. HVNA is in the midst of securing a grocery store in the street level retail space at 555 Fulton, and we have embraced added units of housing on the site of an old commercial space. The significance of adding market rate and BMR's onsite, within a food desert community, is a significant step to address issues of equity and service to the community at large that is undergoing significant changes.

1600 Jackson, in neighborhood experiencing significant changes, must include housing in addition to a grocery store space. After listening to the Whole Foods' presentation for a 55,000 SF retail site at 8th Street and Market, Whole Foods knows the importance of housing to support its retail model. More housing above the 1600 Jackson site is a strategy to sustain its retail grocery business.

A grocery store, eliminating this opportunity to add needed housing in the neighborhood, is just another way to clog our streets with traffic, in an area saturated with car transit. HVNA strongly urges adding more housing above this retail space.

Sincerely,

The Hayes Valley Neighborhood Association does not support the Whole Food retailer to occupy this location without adding housing units above this retail space. HVNA is in the midst of securing a grocery store in the street level retail space at 555 Fulton, and we have embraced added units of housing on the site of an old commercial space. The significance of adding market rate and BMR's onsite, within a food desert community, is a significant step to address issues of equity and service to the community at large that is undergoing significant changes.

1600 Jackson, in neighborhood experiencing significant changes, must include housing in addition to a grocery store space. After listening to the Whole Foods' presentation for a 55,000 SF retail site at 8th Street and Market, Whole Foods knows the importance of housing to support its retail model. More housing above the 1600 Jackson site is a strategy to sustain its retail grocery business.

A grocery store, eliminating this opportunity to add needed housing in the neighborhood, is just another way to clog our streets with traffic, in an area saturated with car transit. HVNA strongly urges adding more housing above this retail space.

Sincerely,

Gail Baugh
President, Hayes Valley Neighborhood Assn
Gailbaugh40@gmail.com
415-265-0546 (text ok)

From: [Ionin, Jonas \(CPC\)](#)
To: [Foster, Nicholas \(CPC\)](#)
Cc: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: Whole Foods at 1600 Jackson Street, 2016-000378CUA
Date: Tuesday, September 25, 2018 12:40:16 PM
Attachments: [chna1600 jackson.pdf](#)

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department | City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309 | Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: Marlayne Morgan [mailto:marlayne16@gmail.com]
Sent: Tuesday, September 25, 2018 12:34 PM
Cc: Rich Hillis; RODNEY FONG; Kathrin Moore; Dennis Richards; Melgar, Myrna (CPC); Johnson, Millicent (CPC); Koppel, Joel (CPC); Rahaim, John (CPC); Ionin, Jonas (CPC); Adam Mayer; Bruss, Andrea (MYR); chris schulman; Chris Gembinski; Gail Baugh; Jim Warshell; Geroge Wooding; Rose Hillson; ozzie rohm; Lee Hepner; paul webber; Richard Frisbie
Subject: Whole Foods at 1600 Jackson Street, 2016-000378CUA

Dear President Hillis and Commissioners:

Attached is a letter from the *Cathedral Hill Neighbors Association*, opposing the application for 1600 Jackson Street.

Regards,

Marlayne Morgan, President
CHNA

From: [Ionin, Jonas \(CPC\)](#)
To: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: 2417 Green St. Discretionary Review- 10/4/18 Hearing
Date: Tuesday, September 25, 2018 11:58:35 AM
Attachments: [2018.09.25 Ltr fr Emblidge to SF Planning Commission \(Hillis\).pdf](#)

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department | City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309 | Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: Anna Hill [mailto:hill@mosconelaw.com]
Sent: Tuesday, September 25, 2018 11:35 AM
To: richhillissf@gmail.com
Cc: Stefani, Catherine (BOS); Ionin, Jonas (CPC); Melgar, Myrna (CPC); planning@rodneyfong.com; Johnson, Milicent (CPC); Koppel, Joel (CPC); Moore, Kathrin (CPC); Richards, Dennis (CPC); Gordon-Jonckheer, Elizabeth (CPC); May, Christopher (CPC); Scott Emblidge; Deborah Holley
Subject: Re: 2417 Green St. Discretionary Review- 10/4/18 Hearing

Dear President Hillis and Commissioners:

At the direction of Scott Emblidge, I attach an electronic copy of Mr. Emblidge's 9/25/18 letter to you in connection with the above-referenced matter. A hard copy will follow only to President Rich Hillis by U.S. mail.

Thank you for your cooperation.

Anna Hill
Assistant to
G. Scott Emblidge, Partner

**Moscone Emblidge &
Otis LLP**
220 Montgomery Street, Suite
2100, San Francisco, California
94104
Phone 415.362.3599 | Fax
415.362.2006
hill@mosconelaw.com
www.mosconelaw.com

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From: [Secretary, Commissions \(CPC\)](#)
To: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: September 27, 2018 Planning Commission Meeting, Agenda Item 15 re 2918-2924 Mission Street
Date: Tuesday, September 25, 2018 11:57:53 AM
Attachments: [image001.png](#)
[Letter to Planning Commission re 9 27 18 Meeting.pdf](#)

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department|City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309|Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: Moulton, Karen [mailto:kmoulton@allenmatkins.com]
Sent: Tuesday, September 25, 2018 11:49 AM
To: richhillissf@gmail.com; Melgar, Myrna (CPC); planning@rodneyfong.com; Johnson, Milicent (CPC); Koppel, Joel (CPC); Moore, Kathrin (CPC); Richards, Dennis (CPC)
Cc: Secretary, Commissions (CPC); rrti@pacbell.net; Rahaim, John (CPC); Ajello Hoagland, Linda (CPC); Sucre, Richard (CPC); Moore, Julie (CPC-PUC); Kern, Chris (CPC)
Subject: September 27, 2018 Planning Commission Meeting, Agenda Item 15 re 2918-2924 Mission Street

Please see attached correspondence from David Blackwell regarding the referenced Planning Commission Agenda Item.

Karen E. Moulton

Legal Secretary
Allen Matkins Leck Gamble Mallory & Natsis LLP
Three Embarcadero Center, 12th Floor, San Francisco, CA 94111-4074
(415) 837-1515 (main)
(415) 837-1516 (fax)
kmoulton@allenmatkins.com

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From: [Secretary, Commissions \(CPC\)](#)
To: [Richards, Dennis \(CPC\)](#); [Johnson, Milicent \(CPC\)](#); [Koppel, Joel \(CPC\)](#); [Moore, Kathrin \(CPC\)](#); [Melgar, Myrna \(CPC\)](#); planning@rodneyfong.com; [Rich Hillis](#)
Cc: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: Support for 650 Divisadero Development
Date: Tuesday, September 25, 2018 9:06:07 AM

Jonas P. Ionin,
Director of Commission Affairs

Planning Department/City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309/Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

-----Original Message-----

From: Brown, Vallie (BOS)
Sent: Monday, September 24, 2018 8:44 PM
To: Cheryl Brinkman; jauncarlos.cancino@sfgov.org; Remski, Derek (BOS)
Cc: May, Christopher (CPC); warners@ankrommoisan.com; Secretary, Commissions (CPC)
Subject: Re: Support for 650 Divisadero Development

Thanks Cheryl...it was good to ride MUNi with you today!

Sent from my iPhone

> On Sep 24, 2018, at 5:28 PM, Cheryl Brinkman <cheryl.brinkman@gmail.com> wrote:

>

> Hello all, I just wanted to write in with my support for the development at 650 Divisadero. I live at 550 Broderick, just one block away, and I'm happy to know we will be able to have more neighbors in our area. My only two concerns are 1) appropriate noise proofing for residents adjacent to The Independent. I would hate for it to generate noise complaints from new neighbors, it's such a great venue and an anchor to evening life on the street. I'm sure there are building techniques which can noise proof the new units effectively.

>

> 2) I think 26 parking spots is likely over parked for this neighborhood - so, could we make sure that the parking spots are built to be convertible to some other use should they be unused? That's a lot of square footage which could house people in ground floor units.

>

> Other than those two concerns - thrilled to have more housing coming to NoPa.

>

>

> Thank you,

>

> Cheryl Brinkman

> 550 Broderick Street

>

> 94117

From: [Secretary, Commissions \(CPC\)](#)
To: [May, Christopher \(CPC\)](#)
Cc: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: 9/27/2018 Hearing re 2515 Broadway, Application # 2017.06.26.0318
Date: Tuesday, September 25, 2018 9:06:03 AM

Jonas P. Ionin,
Director of Commission Affairs

Planning Department/City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309/Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

-----Original Message-----

From: Terry Levin [<mailto:terry@levinsf.com>]
Sent: Monday, September 24, 2018 4:49 PM
To: richhillissf@gmail.com; rodney.fong@sfgov.org; Koppel, Joel (CPC); Melgar, Myrna (CPC); Moore, Kathrin (CPC); Richards, Dennis (CPC); Johnson, Milicent (CPC)
Cc: Ionin, Jonas (CPC); Secretary, Commissions (CPC)
Subject: 9/27/2018 Hearing re 2515 Broadway, Application # 2017.06.26.0318

Re: Discretionary Review of 2515 Broadway Building Permit Application No.
2017.06.26.0318; Planning Commission Hearing on 9/27/2018

Dear Planning Commissioners,

We reside at 2676 Pacific Avenue (block 0584) and we are very concerned about the proposed addition to 2515 Broadway.

We hope that you will carefully review the proposed increased dimensions of 2515 Broadway, so that the character of and the air space around and above this house will be maintained for the sake of the proximate houses, our block and the neighborhood.

Thank you for your consideration.

Terryl A. & John P. Levin
2676 Pacific Avenue
San Francisco, Ca. 941115
415.806.6224

From: [Secretary, Commissions \(CPC\)](#)
To: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: In support of Whole Foods 360
Date: Tuesday, September 25, 2018 9:05:59 AM

Jonas P. Ionin,
Director of Commission Affairs

Planning Department|City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309|Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

-----Original Message-----

From: Tracy Jaquier [<mailto:tracy@jaquier.net>]
Sent: Monday, September 24, 2018 4:28 PM
To: Secretary, Commissions (CPC)
Cc: Melgar, Myrna (CPC); richhillissf@gmail.com; planning@rodneymfong.com; Johnson, Milicent (CPC); Koppel, Joel (CPC); Moore, Kathrin (CPC); Richards, Dennis (CPC); Rahaim, John (CPC); Foster, Nicholas (CPC)
Subject: In support of Whole Foods 360

As a resident of Russian Hill, I write again in strong support of the approval of Whole Foods 360 on Polk Street. We desperately need a major retail grocery store in our neighborhood. We do not need any more luxury condominiums. Our neighborhood association Russian Hill Neighbors is strongly in favor of the proposal.

Please approve this merchant in the Lombardi Sports Building.

Tracy and Guy Jaquier
900 Green Street
San Francisco, CA. 94133

From: [Secretary, Commissions \(CPC\)](#)
To: [May, Christopher \(CPC\)](#)
Cc: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: Application for Discretionary Review for Permit 2017.04.28.5244 and 2017.10.02.0114 - 2417 Green Street - Part1
Date: Tuesday, September 25, 2018 9:04:39 AM
Attachments: [2018.09.24.2417 Green DR Ltr-Part 1.pdf](#)

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department|City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309|Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: Theresa Rettinghouse [mailto:theresa@lozeaudrury.com]
Sent: Monday, September 24, 2018 4:28 PM
To: richhillissf@gmail.com; Melgar, Myrna (CPC); planning@rodneyfong.com; Johnson, Milicent (CPC); Koppel, Joel (CPC); Moore, Kathrin (CPC); Richards, Dennis (CPC); Winslow, David (CPC); Secretary, Commissions (CPC)
Cc: Richard Drury
Subject: Application for Discretionary Review for Permit 2017.04.28.5244 and 2017.10.02.0114 - 2417 Green Street -Part1

Dear President Rich Hillis and Honorable Commissioners:

By this letter (Part 1), and attached application packet (Parts 2-5), Mr. Philip Kaufman (Applicant) hereby requests Discretionary Review ("DR") of the above-referenced permit application ("Project"). Please note that a complete hard copy and digital copy including Exhibits A-T will follow via Overnight mail. If you have any questions, please feel free to contact our office.

The emailed copy will be sent as parts 1-5 in a total of 6 emails.

Thank you,
Theresa

--

Theresa Rettinghouse
Paralegal
Lozeau | Drury LLP
410 12th Street, Suite 250
Oakland, California 94607
[\(510\) 836-4200](tel:(510)836-4200)
[\(510\) 836-4205](tel:(510)836-4205) (fax)
Theresa@lozeaudrury.com

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From: [Secretary, Commissions \(CPC\)](#)
To: [May, Christopher \(CPC\)](#)
Cc: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: Application for Discretionary Review for Permit 2017.04.28.5244 and 2017.10.02.0114 - 2417 Green Street - Part 2
Date: Tuesday, September 25, 2018 9:02:18 AM
Attachments: [2018.09.24.2417 Green DR Ltr-Part 2.pdf](#)

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department|City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309|Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: Theresa Rettinghouse [mailto:theresa@lozeaudrury.com]
Sent: Monday, September 24, 2018 4:30 PM
To: richhillissf@gmail.com; Melgar, Myrna (CPC); planning@rodneyfong.com; Johnson, Milicent (CPC); Koppel, Joel (CPC); Moore, Kathrin (CPC); Richards, Dennis (CPC); Winslow, David (CPC); Secretary, Commissions (CPC)
Cc: Richard Drury
Subject: Application for Discretionary Review for Permit 2017.04.28.5244 and 2017.10.02.0114 - 2417 Green Street -Part 2

Dear President Rich Hillis and Honorable Commissioners:

Please see Part 2 of the Discretionary Review ("DR") of the above-referenced permit application ("Project"). If you have any questions, please feel free to contact our office.

Thank you,
Theresa



--
Theresa Rettinghouse
Paralegal
Lozeau | Drury LLP
410 12th Street, Suite 250
Oakland, California 94607
[\(510\) 836-4200](tel:(510)836-4200)
[\(510\) 836-4205](tel:(510)836-4205) (fax)
Theresa@lozeaudrury.com

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From: [Secretary, Commissions \(CPC\)](#)
To: [May, Christopher \(CPC\)](#)
Cc: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: Application for Discretionary Review for Permit 2017.04.28.5244 and 2017.10.02.0114 - 2417 Green Street - Part 4a
Date: Tuesday, September 25, 2018 8:58:25 AM
Attachments: [Pages from 2018.09.24.2417 Green DR Ltr-Part 4A.pdf](#)

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department|City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309|Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: Theresa Rettinghouse [mailto:theresa@lozeaudrury.com]
Sent: Monday, September 24, 2018 4:41 PM
To: richhillissf@gmail.com; Melgar, Myrna (CPC); planning@rodneymong.com; Johnson, Milicent (CPC); Koppel, Joel (CPC); Moore, Kathrin (CPC); Richards, Dennis (CPC); Winslow, David (CPC); Secretary, Commissions (CPC)
Cc: Richard Drury
Subject: Application for Discretionary Review for Permit 2017.04.28.5244 and 2017.10.02.0114 - 2417 Green Street -Part 4a

Dear President Rich Hillis and Honorable Commissioners:

Please see Part 4A of the Discretionary Review (“DR”) of the above-referenced permit application (“Project”). If you have any questions, please feel free to contact our office.

Thank you,
Theresa

--

Theresa Rettinghouse
Paralegal
Lozeau | Drury LLP
410 12th Street, Suite 250
Oakland, California 94607
[\(510\) 836-4200](tel:(510)836-4200)
[\(510\) 836-4205](tel:(510)836-4205) (fax)
Theresa@lozeaudrury.com

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From: [Secretary, Commissions \(CPC\)](#)
To: [May, Christopher \(CPC\)](#)
Cc: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: Application for Discretionary Review for Permit 2017.04.28.5244 and 2017.10.02.0114 - 2417 Green Street - Part 4B
Date: Tuesday, September 25, 2018 8:55:43 AM
Attachments: [Pages from 2018.09.24.2417 Green DR Ltr-Part 4B.pdf](#)

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department|City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309|Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: Theresa Rettinghouse [mailto:theresa@lozeaudrury.com]
Sent: Monday, September 24, 2018 4:42 PM
To: richhillissf@gmail.com; Melgar, Myrna (CPC); planning@rodneymong.com; Johnson, Milicent (CPC); Koppel, Joel (CPC); Moore, Kathrin (CPC); Richards, Dennis (CPC); Winslow, David (CPC); Secretary, Commissions (CPC)
Cc: Richard Drury
Subject: Application for Discretionary Review for Permit 2017.04.28.5244 and 2017.10.02.0114 - 2417 Green Street -Part 4B

Dear President Rich Hillis and Honorable Commissioners:

Please see Part 4B of the Discretionary Review (“DR”) of the above-referenced permit application (“Project”). If you have any questions, please feel free to contact our office.

Thank you,
Theresa

--

Theresa Rettinghouse
Paralegal
Lozeau | Drury LLP
410 12th Street, Suite 250
Oakland, California 94607
[\(510\) 836-4200](tel:(510)836-4200)
[\(510\) 836-4205](tel:(510)836-4205) (fax)
Theresa@lozeaudrury.com

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From: [Secretary, Commissions \(CPC\)](#)
To: [Feliciano, Josephine \(CPC\)](#)
Cc: [May, Christopher \(CPC\)](#)
Subject: FW: Application for Discretionary Review for Permit 2017.04.28.5244 and 2017.10.02.0114 - 2417 Green Street - Part 5
Date: Tuesday, September 25, 2018 8:50:28 AM
Attachments: [2018.09.24.2417 Green DR Ltr-Part 5.pdf](#)

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department|City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309|Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: Theresa Rettinghouse [mailto:theresa@lozeaudrury.com]
Sent: Monday, September 24, 2018 4:43 PM
To: richhillissf@gmail.com; Melgar, Myrna (CPC); planning@rodneymong.com; Johnson, Milicent (CPC); Koppel, Joel (CPC); Moore, Kathrin (CPC); Richards, Dennis (CPC); Winslow, David (CPC); Secretary, Commissions (CPC)
Cc: Richard Drury
Subject: Application for Discretionary Review for Permit 2017.04.28.5244 and 2017.10.02.0114 - 2417 Green Street -Part 5

Dear President Rich Hillis and Honorable Commissioners:

Please see Part 5 of the Discretionary Review (“DR”) of the above-referenced permit application (“Project”). If you have any questions, please feel free to contact our office.

Thank you,
Theresa

--

Theresa Rettinghouse
Paralegal
Lozeau | Drury LLP
410 12th Street, Suite 250
Oakland, California 94607
[\(510\) 836-4200](tel:(510)836-4200)
[\(510\) 836-4205](tel:(510)836-4205) (fax)
Theresa@lozeaudrury.com

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From: [Secretary, Commissions \(CPC\)](#)
To: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: Letter re: Casa dei Bambini - 2401 Taraval Street
Date: Monday, September 24, 2018 3:59:26 PM
Attachments: [18.09.22 Casa dei Bambini.pdf](#)

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department | City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309 | Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: Tang, Katy (BOS)
Sent: Monday, September 24, 2018 3:11 PM
To: Secretary, Commissions (CPC); richhillissf@gmail.com; Melgar, Myrna (CPC);
planning@rodneyfong.com; Johnson, Milicent (CPC); Koppel, Joel (CPC); Moore, Kathrin (CPC); Richards,
Dennis (CPC)
Cc: Starr, Aaron (CPC); Pantoja, Gabriela (CPC)
Subject: Letter re: Casa dei Bambini - 2401 Taraval Street

Dear Commissioners,

Please see attached letter regarding my support for establishment of a child care facility in the Sunset District, proposed at 2401 Taraval Street, which you be considering at this Thursday's Planning Commission meeting.

Thank you for your consideration.

Katy

Katy Tang | District 4 Supervisor
San Francisco Board of Supervisors
City Hall, Room 264
(415) 554-7460
www.sfbos.org/Tang

[Facebook](#): KatyTangSF
[Twitter](#): @SupervisorTang

From: [Ionin, Jonas \(CPC\)](#)
To: [Richards, Dennis \(CPC\)](#); [Johnson, Milicent \(CPC\)](#); [Koppel, Joel \(CPC\)](#); [Moore, Kathrin \(CPC\)](#); [Melgar, Myrna \(CPC\)](#); planning@rodneyfong.com; [Rich Hillis](#); [Aaron Jon Hyland - HPC](#); [Andrew Wolfram \(andrew@tefarch.com\)](mailto:andrew@tefarch.com); [Black, Kate \(CPC\)](#); [Diane Matsuda](#); [Ellen Johnck - HPC](#); [Jonathan Pearlman](#); [Richard S. E. Johns](#)
Cc: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: *** PRESS RELEASE *** MAYOR LONDON BREED ANNOUNCES LA COCINA MUNICIPAL MARKETPLACE TO OPEN IN TENDERLOIN
Date: Monday, September 24, 2018 12:59:19 PM
Attachments: [9.24.18 La Cocina.pdf](#)

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department|City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309|Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: MayorsPressOffice, MYR (MYR)
Sent: Monday, September 24, 2018 12:39 PM
To: MayorsPressOffice, MYR (MYR)
Subject: *** PRESS RELEASE *** MAYOR LONDON BREED ANNOUNCES LA COCINA MUNICIPAL MARKETPLACE TO OPEN IN TENDERLOIN

FOR IMMEDIATE RELEASE:

Monday, September 24, 2018

Contact: Mayor's Office of Communications, 415-554-6131

***** PRESS RELEASE *****

**MAYOR LONDON BREED ANNOUNCES LA COCINA
MUNICIPAL MARKETPLACE TO OPEN IN TENDERLOIN**

*Former vacant building to transform into food hall featuring working class and immigrant
food entrepreneurs*

San Francisco, CA – Mayor London N. Breed today announced plans to open the first women-led food hall in the heart of San Francisco's Tenderloin neighborhood. La Cocina Municipal Marketplace will open at 101 Hyde Street and offer below-market-rate rent to working class and immigrant food entrepreneurs to create a diverse look at the Bay Area's food scene and a community gathering space for Tenderloin residents.

“La Cocina Municipal Marketplace represents the City’s continued investment in equitable economic development in the Tenderloin neighborhood,” said Mayor Breed. “This first of its kind initiative will foster entrepreneurial opportunities for immigrants and women of color, provide affordable food options for Tenderloin residents, and help activate an important neighborhood space. I am thrilled to work with our community partners to transform this location into an extraordinary asset.”

La Cocina Municipal Marketplace will provide business expansion opportunities for women,

immigrant, and minority-owned businesses and create 30 new full-time positions for low-income individuals. It will also provide access to affordable foods that reflect the neighborhood's diversity. The project is led by the Mayor's Office of Housing and Community Development (MOHCD), the Office of Economic and Workforce Development (OEWD), and the Real Estate Department, in partnership with La Cocina and the Tenderloin Housing Clinic.

"The Office of Economic and Workforce Development is a proud partner of La Cocina Municipal Marketplace, where solutions to addressing empty storefronts and vacant buildings are grounded and led by the community," said Joaquín Torres, Director of the Office of Economic and Workforce Development. "The inspirational and creative temporary activation will energize the Tenderloin and provide a savory community asset for residents and visitors."

The City of San Francisco is the principal funder of the project and will lease 101 Hyde Street to La Cocina at a below-market-rate rent for at least seven years until construction begins for an affordable housing development on site. The project exemplifies a creative interim activation model for future affordable housing developments and ground floor retail in San Francisco. The food hall aligns with the City's mission to activate vacant buildings and fill storefronts in the Tenderloin to help enhance and improve safety. OEWD is providing financial and technical support to La Cocina on the permitting process.

La Cocina businesses have left their mark on the Bay Area food scene with 30 brick and mortar locations in San Francisco, Berkeley, Marin, Walnut Creek and Palo Alto. La Cocina provides working class food entrepreneurs, many of whom have historically had limited access to economic opportunities, the chance to create self-sufficient businesses that benefit local communities.

"La Cocina believes that talent exists everywhere. In an economy with skyrocketing income inequality, opportunity is unfairly distributed. By investing in working class entrepreneurs in a neighborhood that has long been home to so many of the immigrants who move to our city to seek out better lives, this marketplace truly represents the power of creating opportunities with equity in mind," said La Cocina's Deputy Director Leticia Landa.

"I think it's going to be something really wonderful for this area to have a space we can come to with our families to eat lunch or dinner and just relax and enjoy. We don't really have any places like that so this project is going to be very important for my family," said Chef Guadalupe Moreno, the owner of Mi Morena and a participant in La Cocina's Culinary Incubator Program.

Marketplaces have been important catalysts in the revitalization of neighborhoods. Shared marketplaces lower the barriers to entry, mitigate the risk imposed on low-income entrepreneurs, and increase equity in business ownership. The food hall model also enables business owners to share the cost of maintenance and reduce the individual burden felt by high rents, electricity bills, staffing salaries, general maintenance, and other operating costs that often cut into already thin margins. The Marketplace represents the biggest leap in La Cocina's history and offers an innovative and replicable model for equitable development for cities nationwide.

In addition to the City's integral support, La Cocina Municipal Marketplace is made possible through pro bono architectural services offered by Perkins+Will, a committee of real estate

development mentors, design firms LMNOP and Office, BCCI Construction and individual, corporate and foundation donor supporters. La Cocina has raised 64% of their \$5 million fundraising goal for construction and project implementation and seeks visionary funders to join the City of San Francisco in creating spaces that serve all our City's residents. The City of San Francisco has pledged \$1.5 million in support of the project.

About La Cocina

La Cocina is a 501(c)3 nonprofit that works to solve problems of equity in business ownership, inclusivity in the mainstream American marketplace, barriers to entry for women, people of color and immigrant business owners and the too-high cost of entry for the food industry generally. In an increasingly expensive economy, La Cocina businesses graduate at a rate that far exceeds the national average, outperforming other food industry clusters despite the severe limits on capital that our entrepreneurs have. Find more information at www.lacocinasf.org.

###

From: [Ionin, Jonas \(CPC\)](#)
To: [Richards, Dennis \(CPC\)](#); [Johnson, Milicent \(CPC\)](#); [Koppel, Joel \(CPC\)](#); [Moore, Kathrin \(CPC\)](#); [Melgar, Myrna \(CPC\)](#); planning@rodneyfong.com; [Rich Hillis](#)
Cc: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: Support WF365 at 1600 Jackson
Date: Monday, September 24, 2018 12:58:54 PM

Jonas P. Ionin,
Director of Commission Affairs

Planning Department/City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309/Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

-----Original Message-----

From: Rahaim, John (CPC)
Sent: Monday, September 24, 2018 12:42 PM
To: Foster, Nicholas (CPC); Ionin, Jonas (CPC)
Subject: FW: Support WF365 at 1600 Jackson

-----Original Message-----

From: Nancy Arbuckle [<mailto:crockerbuckle@mindspring.com>]
Sent: Monday, September 24, 2018 12:23 PM
To: Rahaim, John (CPC)
Subject: Support WF365 at 1600 Jackson

Re: Case #2016-00378CUA
SUPPORT

Dear Commissioners,

I am 60+ years old and have to walk a long way from my apartment on Hyde Street to get groceries. Lugging a few full bags back is pretty difficult. I would love to see a Whole Foods 365 Market nearby. The neighborhood needs such a store and would greatly benefit from such an establishment at 1600 Jackson Street.

What's more, the current eyesore that that block has been for far too long could be transformed into a vibrant community space with lots of foot traffic. And without too much construction. What a win-win-win this project would be: the neighborhood could have a needed and thriving grocery store; a sturdy and historical building could be easily repurposed for such use; a dead zone in the neighborhood could regain its place in the community.

I urge you to allow this project to go forward. Its time has surely come.

Thank you for the opportunity to add my voice.

Sincerely,

Nancy Arbuckle
2111 Hyde Street, Apt. 306

San Francisco, CA 94109

From: [Secretary, Commissions \(CPC\)](#)
To: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: Whole Foods on Polk
Date: Monday, September 24, 2018 11:06:33 AM

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department!City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309!Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: Patrick Traughber [mailto:patricktraughber@gmail.com]
Sent: Friday, September 21, 2018 5:57 PM
To: Secretary, Commissions (CPC)
Cc: RichHillisSF@gmail.com; Melgar, Myrna (CPC); planning@rodneyfong.com; Johnson, Milicent (CPC); Koppel, Joel (CPC); Moore, Kathrin (CPC); Richards, Dennis (CPC); Rahaim, John (CPC); Foster, Nicholas (CPC)
Subject: Whole Foods on Polk

Hi Planning Commissioners,

Please approve the Whole Foods on Polk ASAP. If you can fast track housing construction on it, that's great too. But please just move more quickly and approve the project.

Thanks,
Patrick
I live nearby

--

Patrick Traughber
patricktraughber@gmail.com
310.940.3273
San Francisco, CA

From: [Secretary, Commissions \(CPC\)](#)
To: [Richards, Dennis \(CPC\)](#); [Johnson, Millicent \(CPC\)](#); [Koppel, Joel \(CPC\)](#); [Moore, Kathrin \(CPC\)](#); [Melgar, Myrna \(CPC\)](#); planning@rodneyfong.com; [Rich Hillis \(CPC\)](#); [Foster, Nicholas \(CPC\)](#); [Feliciano, Josephine \(CPC\)](#)
Cc:
Subject: FW: Whole Foods 365 project
Date: Monday, September 24, 2018 11:06:25 AM

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department|City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309|Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: Kay Rousseau [mailto:krousseau2@gmail.com]
Sent: Friday, September 21, 2018 6:04 PM
To: Secretary, Commissions (CPC)
Subject: Whole Foods 365 project

I am writing again to urge you to support this vital project. I live in the Russian Hill neighborhood and everyone I speak with supports the opening of this market. It is good for the neighborhood and it is good for the city. Please do not delay this matter any further.
Thank you !

~Kay Rousseau

From: [Secretary, Commissions \(CPC\)](#)
To: [Richards, Dennis \(CPC\)](#); [Johnson, Milicent \(CPC\)](#); [Koppel, Joel \(CPC\)](#); [Moore, Kathrin \(CPC\)](#); [Melgar, Myrna \(CPC\)](#); planning@rodneyfong.com; [Rich Hillis](#)
Cc: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: 2918 Mission Street Environmental Review
Date: Monday, September 24, 2018 11:05:24 AM

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department|City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309|Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: J P [mailto:startswithj@gmail.com]
Sent: Saturday, September 22, 2018 10:33 AM
To: Moore, Julie (CPC-PUC)
Cc: Ajello Hoagland, Linda (CPC); Secretary, Commissions (CPC)
Subject: Re: 2918 Mission Street Environmental Review

Please deny this project.

It's too tall for the area. The norm here is two or three stories, not eight. The developer is seeking to override City height limits using a State loophole, by offering 11% "affordable" (below-market-rate) units.

One dollar below market rate is still half this area's median salary; that's not affordable!

If he were willing to build half this height, he'd have been approved years ago. But his motivation is greed. My neighbors and I don't want this. And the developer doesn't even live in San Francisco.

Thank you.

On Fri, Sep 21, 2018 at 11:02 AM, Moore, Julie (CPC-PUC) <julie.moore@sfgov.org> wrote:
Dear sir or madam:

You are receiving this notice because you commented on the Notice of Project Receiving Environmental Review for the [2918-2924 Mission Street](#) Project. Environmental Planning has issued a revised Initial Study-Community Plan Evaluation. The initial study can be downloaded directly here:
http://sfmea.sfplanning.org/2014.0376ENV_2918%20Mission%20Initial%20Study-CPE_09.20.2018.pdf

The shadow analysis technical report is a large file which is also available for download from our website here:

[PIM](#) > 2918 Mission St > Planning Apps > 2014.0376ENV > Related Documents.

A hearing regarding the Conditional Use Authorization for the project is scheduled at the Planning Commission on September 27th.

Please do not hesitate to contact me if you have any questions.

Regards,

Julie Moore, Senior Planner
Environmental Planning Division
San Francisco Planning Department
[1650 Mission Street, Suite 400 San Francisco, CA 94103](#)
Direct: 415.575.8733 | www.sfplanning.org
[San Francisco Property Information Map](#)

From: [Secretary, Commissions \(CPC\)](#)
To: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: Support of Whole Foods 365 Project Polk Street
Date: Monday, September 24, 2018 11:05:04 AM

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department!City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309!Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: Mike Zwiefelhofer [mailto:zwief@hotmail.com]
Sent: Sunday, September 23, 2018 9:42 AM
To: Secretary, Commissions (CPC)
Cc: RichHillisSF@gmail.com; Melgar, Myrna (CPC); planning@rodneyfong.com; Johnson, Milicent (CPC); Koppel, Joel (CPC); Moore, Kathrin (CPC); Richards, Dennis (CPC); Rahaim, John (CPC); Foster, Nicholas (CPC)
Subject: Support of Whole Foods 365 Project Polk Street

Commissioners,

This letter is to voice my support for the Wholefoods 365 project on Polk Street. I believe it would only enhance the neighborhood and I'm tired of seeing that building sit there empty and going to waste. It's hard enough to fill vacancies in San Francisco and now we have a company willing to take over a very large vacancy and it needs to be done.

Mike Zwiefelhofer
(916) 806-3610
zwief@hotmail.com
LinkedIn: www.linkedin.com/in/mikezwiefelhofer

From: [Ionin, Jonas \(CPC\)](#)
To: [Richards, Dennis \(CPC\)](#); [Johnson, Milicent \(CPC\)](#); [Koppel, Joel \(CPC\)](#); [Moore, Kathrin \(CPC\)](#); [Melgar, Myrna \(CPC\)](#); [planning@rodneyfong.com](#); [Rich Hillis](#); [Aaron Jon Hyland - HPC](#); [Andrew Wolfram \(andrew@tefarch.com\)](#); [Black, Kate \(CPC\)](#); [Diane Matsuda](#); [Ellen Johnck - HPC](#); [Jonathan Pearlman](#); [Richard S. E. Johns](#)
Cc: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: *** STATEMENT *** MAYOR LONDON BREED ON SAN FRANCISCO TRANSIT WEEK
Date: Monday, September 24, 2018 10:56:22 AM
Attachments: [9.24.18 Transit Riders Week.pdf](#)

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department|City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309|Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: MayorsPressOffice, MYR (MYR)
Sent: Monday, September 24, 2018 10:54 AM
To: MayorsPressOffice, MYR (MYR)
Subject: *** STATEMENT *** MAYOR LONDON BREED ON SAN FRANCISCO TRANSIT WEEK

FOR IMMEDIATE RELEASE:

Monday, September 24, 2018

Contact: Mayor's Office of Communications, 415-554-6131

***** STATEMENT *****
MAYOR LONDON BREED ON SAN FRANCISCO TRANSIT WEEK

“Transit Week is an opportunity for the public to celebrate what is great about our transportation system and focus on solving the challenges it faces. Whether you ride Muni, BART, or Caltrain, our riders deserve to know that their trains and buses will arrive on time and get them where they need to go. As our city continues to grow, we need to modernize and expand our public transportation system, or we are going to force more and more people to rely on private automobiles, making the gridlock on our streets even worse. No one wants more traffic or the pollution that comes with each additional car. This week, I will be taking the Transit Riders’ Transit Week pledge to ride public transportation daily, but more importantly I will continue working every day to make sure our transportation system is not only meeting the basic needs of today’s riders, but the future needs of our growing city.”

###

From: [Secretary, Commissions \(CPC\)](#)
To: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: Case #2016-00378CUA- Whole Foods 365 at 1600Jackson Street —Letter of Support
Date: Friday, September 21, 2018 2:11:40 PM
Importance: High

Jonas P. Ionin,
Director of Commission Affairs

Planning Department/City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309/Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

-----Original Message-----

From: Richard Sherrie [<mailto:sherrichard61@gmail.com>]
Sent: Friday, September 21, 2018 1:37 PM
To: Secretary, Commissions (CPC)
Cc: RichHillisSF@gmail.com; Melgar, Myrna (CPC); planning@rodneyfong.com; Johnson, Milicent (CPC); Koppel, Joel (CPC); Moore, Kathrin (CPC); Richards, Dennis (CPC); Rahaim, John (CPC); Foster, Nicholas (CPC)
Subject: Case #2016-00378CUA- Whole Foods 365 at 1600Jackson Street —Letter of Support
Importance: High

Dear Commissioners,

I am an owner at 1650 Jackson St., I am disabled and use a wheelchair, to have store that I can wheel to from my condo would be a much needed asset to me and the other disabled owners in my building. We would not have to use a bus which is hard for us. We would not need a taxi, which is expensive for us.

Mainly it would benefit the entire neighborhood where we only have a few small foo stores, which are more expensive and do not have a good selection. This space also has parking for everyone surround the area to be able to market and park!!

Everyone in the neighborhood would like Whole Foods to become a part of our neighborhood, and represents an upgrade to the Polk Street shops. We are tired of seeing all the small stores disappear because they are not meeting our needs, and feel Whole Food would revitalize the area and bring more customers to the other small businesses on Polk St. rather than hinder them!

Please accept my letter of support to present at the next meeting Oct.4th.

Sherrie Richard and my friends listed below
Geoff Decker
Daniel O'Neill
Cindy O'Neill
Dany Vallerand

From: [Ionin, Jonas \(CPC\)](#)
To: [Richards, Dennis \(CPC\)](#); [Johnson, Milicent \(CPC\)](#); [Koppel, Joel \(CPC\)](#); [Moore, Kathrin \(CPC\)](#); [Melgar, Myrna \(CPC\)](#); planning@rodneyfong.com; [Rich Hillis \(CPC\)](#)
Cc: [CTYPLN - COMMISSION SECRETARY](#); [CTYPLN - SENIOR MANAGERS](#); [JENSEN, KRISTEN \(CAT\)](#); [STACY, KATE \(CAT\)](#); [Tugbenyoh, Mawuli \(MYR\)](#)
Subject: CPC Calendars for September 27, 2018
Date: Friday, September 21, 2018 2:06:27 PM
Attachments: [20180927_cal.pdf](#)
[20180927_cal.docx](#)
[Advance Calendar - 20180927.xlsx](#)
[CPC Hearing Results 2018.docx](#)

Commissioners,
Attached are your Calendars for September 27, 2018.

Enjoy the weekend weather!

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department!City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309!Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: [Secretary, Commissions \(CPC\)](#)
To: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: Case #2016-00378CUA- Whole Foods 365 at 1600 Jackson Street – Letter of SUPPORT
Date: Friday, September 21, 2018 1:22:14 PM
Attachments: [image001.png](#)

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department!City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309!Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: Abbott, Chadwick [mailto:CAbbott@levi.com]
Sent: Friday, September 21, 2018 1:20 PM
To: Secretary, Commissions (CPC)
Cc: Commission President Rich Hillis; Melgar, Myrna (CPC); Commissioner Fong; Johnson, Millicent (CPC); Koppel, Joel (CPC); Moore, Kathrin (CPC); Richards, Dennis (CPC); Rahaim, John (CPC); Foster, Nicholas (CPC)
Subject: Case #2016-00378CUA- Whole Foods 365 at 1600 Jackson Street – Letter of SUPPORT

Case #2016-00378CUA- Whole Foods 365 at 1600 Jackson Street – Letter of SUPPORT

Dear Commissioners:

I know that the Russian Hill Neighbors have submitted the below letter and as a Russian Hill resident I fully support it. The block and the neighborhood need it. It will be a reason to go to that area which will benefit the existing merchants. Thanks!

Chad Abbott
Russian Hill resident

You have before you a small miracle:

- A developer who wants to open a new neighborhood-friendly grocery store in San Francisco.
- An owner who has the financial strength to make it succeed.
- A project that will not require another teardown and will reuse a familiar but long-vacant early 20th century structure.
- A project that will displace no one.
- A store that the vast majority of residents in the neighborhood have repeatedly said they badly want.

Russian Hill Neighbors, which represents over 500 households in the neighborhood of the proposed project, has now submitted multiple letters of support for this project in the course of more than two and a half years since it was originally proposed. As the continued October 4th Conditional Use hearing approaches, we are writing again to confirm our strongest level of support for this project and to respond with additional information.

Here are our main reasons for supporting this project: It has overwhelming support from the neighborhood. Based on our own survey and other surveys, there is huge backing for this project. The strongest support comes from the people who live the closest to it. Most of the opposition appears to come from people and entities that live far away from it.

We need a grocery store here. In the last few years hundreds of new housing units have been built adjacent and near this site while meanwhile several independent general grocery stores on Polk Street have closed. We now have in the blocks around the proposed project a large imbalance in the mix of uses where there is housing, but insufficient full-service grocery stores to serve the people who live there.

We need to bring more life to this part of Polk Street. There is a dead zone here, which a well-run grocery will help fix.

The mixed-use alternative that some of the opponents advocate has major disadvantages. An almost full-block vacancy would be extended yet another 4-5 years for new planning and construction. This would be intolerable. Given the recent spike in construction and financing costs, this vacancy could extend even longer, as we understand a number of approved projects have recently been put on hold as their financial feasibility is reevaluated. A new building could not provide a grocery, as zoning limits a new retail space to no more than 4,000 square feet. If and when the smaller retail spaces are ultimately rented, the likely types of tenancies, such as gyms or work-space, would be far less successful in creating foot-traffic.

Having a store that is part of a larger company could in fact be a positive. It is clear that the independent locally-owned grocery store, however attractive in concept, is an unlikely proposition in a world of modern supply-chain management. No non-chain groceries have been proposed here and most feature much higher prices than WF365 and are less positioned to serve families and seniors in this neighborhood. Since this store is backed by a company with financial strength, it may be able to succeed in what is widely thought to be a brutal retail environment.

This project would preserve a familiar 1908 structure that fits well in the neighborhood. This project can be finished in months. Unlike the hypothetical alternative proposed by the organized opposition, it is feasible and reuses a simple but useful and pleasant concrete garage. We don't need to tear down any more of our built history.

The three or four local merchants who say the new store will cost them business are probably mistaken. There has been some opposition from a few local merchants who indicate they are worried that their businesses and livelihoods will be harmed. But what we know about urban land use actually tells us the opposite is usually true: in vibrant cities, activity breeds activity.

The problems of brick-and-mortar retail have been much discussed, and we have seen that it has been difficult to get a grocery store to open up in San Francisco lately. This is a project that, if approved, has a good chance of succeeding in a difficult environment.

Commissioners, after a very long wait, we ask you again in the strongest possible way to please, finally, allow this project to go forward.

Thank you.

CHAD ABBOTT

Levi Strauss & Co.

1155 Battery Street

San Francisco, CA 94111

cabbott@levi.com; 415-501-6852



This message is intended only for the person to whom it is addressed. If you are not the intended recipient, you are not authorized to disclose, distribute, copy or use this message or any information contained in this message. If you are not the intended recipient, please notify us immediately by reply e-mail or telephone and please delete this message. Thank you very much for your cooperation

From: [Secretary, Commissions \(CPC\)](#)
To: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: Whole Foods 365 Store
Date: Friday, September 21, 2018 1:18:52 PM

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department!City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309!Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: Perry Freeman [mailto:perrywfree@gmail.com]
Sent: Friday, September 21, 2018 12:58 PM
To: Secretary, Commissions (CPC)
Cc: RichHillisSF@gmail.com; Melgar, Myrna (CPC); planning@rodneyfong.com; Johnson, Milicent (CPC); Koppel, Joel (CPC); Moore, Kathrin (CPC); Richards, Dennis (CPC); Rahaim, John (CPC); Foster, Nicholas (CPC)
Subject: Whole Foods 365 Store

Dear Commissioners and Planners,
I hope you will vote to approve a new Whole Foods 365 store in the space that was formerly Lombardi Sports at 1600 Jackson Street and Polk Street. We need a comprehensive and less expensive grocery store alternative to the existing small, higher mark-up food stores along Polk Street. Each of those has something to offer, but affordability is not often one of them.

Thank you for the work you do on behalf of all San Franciscans.

Sincerely,
Perry Freeman
2548 Polk Street
San Francisco

From: [Ionin, Jonas \(CPC\)](#)
To: [Foster, Nicholas \(CPC\)](#)
Cc: [Feliciano, Josephine \(CPC\)](#)
Subject: Whole Foods
Date: Friday, September 21, 2018 12:47:04 PM
Attachments: [Support of Whole Food 365 in RussianHill.msg](#)
[Case #2016-00378CUA - Whole Foods 365 at 1600 Jackson.msg](#)
[Whole Foods Market on Polk Street.msg](#)
[Whole Foods 365 in Russian Hill Neighborhood..msg](#)
[Case #2016-00378CUA.msg](#)
[Support for Whole Foods on Polk St..msg](#)

From: [Secretary, Commissions \(CPC\)](#)
To: [Richards, Dennis \(CPC\)](#); [Johnson, Milicent \(CPC\)](#); [Koppel, Joel \(CPC\)](#); [Moore, Kathrin \(CPC\)](#); [Melgar, Myrna \(CPC\)](#); planning@rodneyfong.com; [Rich Hillis](#)
Cc: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: Additional Russian Hill Neighbors Letter of Support for Whole Foods 365 at 1600 Jackson Street
Date: Thursday, September 20, 2018 1:09:15 PM
Attachments: [RHN Additional Letter of Support for Whole Foods 365 CU.pdf](#)

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department|City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309|Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: Carol Ann Rogers [mailto:carolannrogers@prodigy.net]
Sent: Thursday, September 20, 2018 11:16 AM
To: Secretary, Commissions (CPC)
Cc: Rahaim, John (CPC); Foster, Nicholas (CPC)
Subject: Additional Russian Hill Neighbors Letter of Support for Whole Foods 365 at 1600 Jackson Street

Good morning Mr. Ionin,
Attached please find a PDF formatted copy of an additional letter of support for the Whole Foods 365 Conditional Use (Case #2016-00378CUA). This is a new letter (RHN has already submitted several) and we would appreciate its distribution to the Commissioners in preparation for the October 4th continued hearing on this matter. Please call or email me with any questions.
With appreciation,
Carol Ann Rogers, President
Russian Hill Neighbors
415-902-3980

From: [Ikezoe, Paolo \(CPC\)](#)
To: [Richards, Dennis \(CPC\)](#); ["richhillissf@gmail.com"](#); [Melgar, Myrna \(CPC\)](#); [planning@rodneyfong.com](#); [Johnson, Millicent \(CPC\)](#); [Koppel, Joel \(CPC\)](#); [Moore, Kathrin \(CPC\)](#)
Cc: [CTYPLN - COMMISSION SECRETARY](#); [Ojeda, Teresa \(CPC\)](#)
Subject: 2017 Downtown Plan Monitoring Report - Memo on fees
Date: Wednesday, September 19, 2018 5:08:20 PM
Attachments: [2018 09 19 CPC DTPMR Fee Memo.pdf](#)
[Impact Fee Schedule.pdf](#)
[DirectorsBulletin01_Impact_Fees-April2016.pdf](#)

Good afternoon Commissioners,

I apologize for the delay in sending this out. I am attaching a memo in response to Commissioner Richard's request at the August 23 hearing for more information on our various impact fees: how much they are, how they are set, and what they pay for. I am attaching a memo detailing the fee amounts for the two fees reported in the Downtown Monitoring Report, as well as our current impact fee schedule and Director's Bulletin #1, which explains more about our Department's various fees.

I am of course happy to answer any additional questions about our various impact fees, or the Downtown Plan Monitoring Report in general, at any time.

Best,

Paolo Ikezoe, Senior Planner
Information & Analysis Group, Citywide Planning Division
San Francisco Planning Department
1650 Mission Street, Suite 400 San Francisco, CA 94103
Direct: 415.575.9137 | www.sfplanning.org
[San Francisco Property Information Map](#)

From: [Ionin, Jonas \(CPC\)](#)
To: [Feliciano, Josephine \(CPC\)](#); [Richards, Dennis \(CPC\)](#); [Johnson, Millicent \(CPC\)](#); [Koppel, Joel \(CPC\)](#); [Moore, Kathrin \(CPC\)](#); [Melgar, Myrna \(CPC\)](#); planning@rodneyfong.com; [Rich Hillis](#); [Aaron Jon Hyland - HPC](#); [Andrew Wolfram \(andrew@tefarch.com\)](#); [Black, Kate \(CPC\)](#); [Diane Matsuda](#); [Ellen Johnck - HPC](#); [Jonathan Pearlman](#); [Richard S. E. Johns](#)
Subject: FW: *** PRESS RELEASE *** MAYOR LONDON BREED ISSUES EXECUTIVE DIRECTIVE TO ENCOURAGE RECRUITMENT AND RETENTION OF DIVERSE WORKFORCE
Date: Wednesday, September 19, 2018 3:58:39 PM
Attachments: [9.19.18 Inclusive City Executive Directive.pdf](#)

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department!City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309!Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: Rahaim, John (CPC)
Sent: Wednesday, September 19, 2018 1:51 PM
To: CTYPLN - SENIOR MANAGERS
Subject: FW: *** PRESS RELEASE *** MAYOR LONDON BREED ISSUES EXECUTIVE DIRECTIVE TO ENCOURAGE RECRUITMENT AND RETENTION OF DIVERSE WORKFORCE

From: MayorsPressOffice, MYR (MYR)
Sent: Wednesday, September 19, 2018 1:31 PM
To: MayorsPressOffice, MYR (MYR)
Subject: *** PRESS RELEASE *** MAYOR LONDON BREED ISSUES EXECUTIVE DIRECTIVE TO ENCOURAGE RECRUITMENT AND RETENTION OF DIVERSE WORKFORCE

FOR IMMEDIATE RELEASE:
Wednesday, September 19, 2018
Contact: Mayor's Office of Communications, 415-554-6131

***** PRESS RELEASE *****
**MAYOR LONDON BREED ISSUES EXECUTIVE DIRECTIVE
TO ENCOURAGE RECRUITMENT AND RETENTION OF
DIVERSE WORKFORCE**

Executive Directive creates two full-time positions to focus on diversity recruitment, expands harassment and implicit bias training

San Francisco, CA – Mayor London N. Breed has signed an Executive Directive to encourage the recruitment and retention of a diverse workforce for the City and County of San Francisco.

“San Francisco’s diversity is one of our biggest strengths and our City’s workforce should

reflect the numerous communities we serve,” said Mayor Breed. “We have successfully instituted a number of important diversity initiatives including anti-bias training and a nationally-recognized conviction history program that have led to our workforce being more diverse than our local labor market, but there is still plenty of work to be done. This Executive Directive will ensure that our City departments have clear, consistent standards for recruiting and retaining a qualified, diverse workforce.”

Despite making significant progress, the City still struggles for diversity in some roles. Some City departments have targeted recruitment programs but there is not currently a consistent set of standards to attract a diverse applicant pool. Furthermore, the City lacks a centralized reporting and tracking mechanism to ensure the workplace is free of harassment, bias, and discrimination, which is key to retaining diversity in employment.

“San Francisco has a diverse workforce we can all be proud of,” said Human Resources Director Micki Callahan. “But with the Mayor’s strong leadership there is more we can do to ensure our workplaces are inclusive and fair for all employees.”

The Directive specifies four actions to be taken:

- 1) The Department of Human Resources (DHR) will hire two full-time staff members to focus on diversity recruitment, who will serve as a centralized resource to all City departments to support diversity recruitment and ensure outreach efforts are coordinated and effective.
- 2) DHR will significantly expand its harassment prevention, implicit bias, and cultural communications training to include significantly more City employees.
- 3) All City departments will begin reporting instances of disciplinary action to DHR so potential problematic areas, divisions, or problem areas can be quickly identified and addressed.
- 4) DHR will convene a group of stakeholders which represent City departments, labor unions, and stakeholders to continue a discussion of ways the City can improve diversity and equity in the workplace.

The Executive Directive goes into effect immediately.

###

From: [Ionin, Jonas \(CPC\)](#)
To: [Richards, Dennis \(CPC\)](#); [Johnson, Millicent \(CPC\)](#); [Koppel, Joel \(CPC\)](#); [Moore, Kathrin \(CPC\)](#); [Melgar, Myrna \(CPC\)](#); planning@rodneyfong.com; [Rich Hillis](#); [Aaron Jon Hyland - HPC](#); [Andrew Wolfram \(andrew@tefarch.com\)](mailto:andrew@tefarch.com); [Black, Kate \(CPC\)](#); [Diane Matsuda](#); [Ellen Johnck - HPC](#); [Jonathan Pearlman](#); [Richard S. E. Johns](#)
Cc: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: *** PRESS RELEASE *** MAYOR LONDON BREED ISSUES EXECUTIVE DIRECTIVE TO ENCOURAGE RECRUITMENT AND RETENTION OF DIVERSE WORKFORCE
Date: Wednesday, September 19, 2018 3:58:24 PM
Attachments: [9.19.18 Inclusive City Executive Directive.pdf](#)

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department|City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309|Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: MayorsPressOffice, MYR (MYR)
Sent: Wednesday, September 19, 2018 1:36 PM
To: MayorsPressOffice, MYR (MYR)
Subject: *** PRESS RELEASE *** MAYOR LONDON BREED ISSUES EXECUTIVE DIRECTIVE TO ENCOURAGE RECRUITMENT AND RETENTION OF DIVERSE WORKFORCE

FOR IMMEDIATE RELEASE:

Wednesday, September 19, 2018

Contact: Mayor's Office of Communications, 415-554-6131

***** PRESS RELEASE *****

**MAYOR LONDON BREED ISSUES EXECUTIVE DIRECTIVE
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Despite making significant progress, the City still struggles for diversity in some roles. Some City departments have targeted recruitment programs but there is not currently a consistent set of standards to attract a diverse applicant pool. Furthermore, the City lacks a centralized reporting and tracking mechanism to ensure the workplace is free of harassment, bias, and discrimination, which is key to retaining diversity in employment.

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- 4) DHR will convene a group of stakeholders which represent City departments, labor unions, and stakeholders to continue a discussion of ways the City can improve diversity and equity in the workplace.

The Executive Directive goes into effect immediately.

###

From: [Ionin, Jonas \(CPC\)](#)
To: [Richards, Dennis \(CPC\)](#); [Johnson, Milicent \(CPC\)](#); [Koppel, Joel \(CPC\)](#); [Moore, Kathrin \(CPC\)](#); [Melgar, Myrna \(CPC\)](#); planning@rodneyfong.com; [Rich Hillis](#); [Aaron Jon Hyland - HPC](#); [Andrew Wolfram \(andrew@tefarch.com\)](mailto:andrew@tefarch.com); [Black, Kate \(CPC\)](#); [Diane Matsuda](#); [Ellen Johnck - HPC](#); [Jonathan Pearlman](#); [Richard S. E. Johns](#)
Cc: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: *** PRESS RELEASE *** MAYOR LONDON BREED INTRODUCES LEGISLATION TO KEEP ENDANGERED HOUSING PROJECTS MOVING FORWARD
Date: Wednesday, September 19, 2018 10:36:20 AM
Attachments: [9.19.18 Securing Housing Pipeline.pdf](#)

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department|City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309|Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: MayorsPressOffice, MYR (MYR)
Sent: Wednesday, September 19, 2018 10:32 AM
To: MayorsPressOffice, MYR (MYR)
Subject: *** PRESS RELEASE *** MAYOR LONDON BREED INTRODUCES LEGISLATION TO KEEP ENDANGERED HOUSING PROJECTS MOVING FORWARD

FOR IMMEDIATE RELEASE:

Wednesday, September 19, 2018

Contact: Mayor's Office of Communications, 415-554-6131

***** PRESS RELEASE *****

**MAYOR LONDON BREED INTRODUCES LEGISLATION TO
KEEP ENDANGERED HOUSING PROJECTS MOVING
FORWARD**

Legislation will ensure 3,420 housing units – including nearly 500 affordable units – are not derailed by unrealistic permitting deadlines

San Francisco, CA – Mayor London N. Breed today announced legislation aimed at protecting 3,420 units of housing, including 498 permanently affordable units, in San Francisco's housing pipeline that are currently at-risk due to unrealistic permitting deadlines.

When San Francisco changed its affordable housing requirements in 2016, a number of projects were grandfathered in at specific inclusionary rates to keep them moving through the approval process. However, they were only given 30 months to get their site permits, and many projects had not gone through the City's entitlement process, which can take years. Many of these projects will not meet this deadline, and are at risk of not moving forward if they do not.

The legislation introduced by Mayor Breed will provide that all projects, including the

grandfathered projects under Proposition C, have 30 months to secure building permits from the time they receive their entitlement from the Planning Commission or Planning Department. This will ensure that the projects still move forward in a timely manner, while also recognizing that the projects should not be penalized for a long entitlement process.

“This legislation is critical to prevent the loss of 3,420 new homes, 498 of which will be permanently affordable,” said Mayor Breed. “We need to fix the timeline put on these projects so that we continue to add new homes for people, including badly needed affordable housing. We also need consistent, realistic deadlines for all projects, and we need to fix how we approve housing in San Francisco so that it does not take years and years to get housing built in this city.”

Following the passage of Proposition C in June 2016, which raised the City’s inclusionary rate for new housing projects, a number of existing projects were grandfathered in at specific inclusionary rates in recognition that they should not be subject to new standards mid-project. These projects were given 30 months to receive their building permits before their grandfathered inclusionary rate would expire.

The intent of this deadline was to encourage these projects to be built quickly, but many have not been able to move through the complicated planning process. With the December 7th deadline approaching for these grandfathered projects, many are now at risk of facing new inclusionary requirements that would likely cause them to be abandoned.

The legislation was introduced at the Board of Supervisors on Tuesday, September 18.

###

From: [Ionin, Jonas \(CPC\)](#)
To: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: Civic Center Public Realm Plan - Draft Pin-Up Session reminder
Date: Tuesday, September 18, 2018 12:11:11 PM

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department|City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309|Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: Race, Patrick (CPC)
Sent: Monday, September 17, 2018 2:09 PM
Cc: Ionin, Jonas (CPC)
Subject: Civic Center Public Realm Plan - Draft Pin-Up Session reminder

Dear Commissioners,

After over a year of community engagement and interagency collaboration, the [Civic Center Public Realm Plan](#) team is almost ready to share a draft preferred concept design for Civic Center's public spaces.

As the team prepares the draft design, we'd like to extend an offer to interested commissioners for an informal pin-up session and preview of the draft designs. The draft designs will also be coming before the Commission in October as an informational item.

An invitation for briefing went out to you all on Friday 9/7 and we are able to offer additional dates as part of this reminder. We will work to schedule these sessions so that there is no quorum of commissioners during a visit. The briefing will either take place at Planning's offices or at the office of our consultant, CMG Landscape Architecture, at 444 Bryant Street in SoMa.

If you'd like to come, please let us know your availability for the times below:

- Monday, 9/24: 11:30-12:30 p.m.
- Thursday 9/27: 2:00-3:00 p.m.
- Tuesday 10/2: 10:00-11:00 a.m.
- Tuesday 10/2: 2:30-3:30 p.m.

If none of these time slots work for your schedule but you are still interested in a briefing, please let us know and we'll work with you to find an alternate time.

Please note that the drawings shared in these sessions will be works-in-progress, and they

will continue to be revised based on interagency review, stakeholder input and public comment over the course of the fall. The team will publicly share drafts of the designs this October (including an informational presentation at the Planning Commission) and the final plans are set to be released via a community open house after the holidays in early 2019.

Thank you,

Patrick Race, PLA

Planner | Landscape Architect

Assistant Plan Manager: Civic Center Public Realm Plan
Citywide Planning Division

San Francisco Planning Department

1650 Mission Street, Suite 400 San Francisco, CA 94103

Direct: 415.575.9132 | www.sfplanning.org

[San Francisco Property Information Map](#)

From: [Secretary, Commissions \(CPC\)](#)
To: [Richards, Dennis \(CPC\)](#); [Johnson, Milicent \(CPC\)](#); [Koppel, Joel \(CPC\)](#); [Moore, Kathrin \(CPC\)](#); [Melgar, Myrna \(CPC\)](#); planning@rodneyfong.com; [Rich Hillis](#)
Cc: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: Four Letters re 2515 Broadway Application
Date: Tuesday, September 18, 2018 10:48:55 AM
Attachments: [Casey 9.17.18.pdf](#)
[Codik 9.17.18.pdf](#)
[Swig 9.17.18.pdf](#)
[Williams 9.17.18.pdf](#)

Jonas P. Ionin,
Director of Commission Affairs

Planning Department/City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309/Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

-----Original Message-----

From: Jerry Suich [<mailto:jjsuich@gmail.com>]
Sent: Monday, September 17, 2018 4:15 PM
To: May, Christopher (CPC)
Cc: Secretary, Commissions (CPC)
Subject: Four Letters re 2515 Broadway Application

Chris,

Please find the attached re the above. We would appreciate your distributing them.

Thank you.

Jerry & Suich

2513 Broadway
jjsuich@gmail.com

From: [Secretary, Commissions \(CPC\)](#)
To: [Richards, Dennis \(CPC\)](#); [Johnson, Milicent \(CPC\)](#); [Koppel, Joel \(CPC\)](#); [Moore, Kathrin \(CPC\)](#); [Melgar, Myrna \(CPC\)](#); planning@rodneyfong.com; [Rich Hillis](#)
Cc: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: The Bomb In Our Back Yard – Ahimsa Porter Sumchai MD – Medium
Date: Monday, September 17, 2018 11:39:15 AM

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department|City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309|Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org


From: Ahimsa Porter Sumchai MD [mailto:asumchai@gmail.com]
Sent: Sunday, September 16, 2018 9:39 AM
To: Secretary, Commissions (CPC); Ethics Commission, (ETH); Commission Planning
Subject: The Bomb In Our Back Yard – Ahimsa Porter Sumchai MD – Medium

<https://medium.com/@asumchai/the-bomb-in-our-back-yard-dfe0b22834f4>

The Bomb In Our Back Yard

[Ahimsa Porter Sumchai MD](#) Aug 31, 2009


President & Medical Director - Golden State MD Health & Wellness. Author
and UCSF/Stanford Trained Researcher



***Ahimsa Porter Sumchai, M.D. — Founding Chair Radiological
Subcommittee Hunters Point Shipyard Restoration Advisory Board Physician
Specialist San Francisco Department of Public Health 1992–1997***

This article was originally published in the SF Bayview Newspaper August 31,

2009: <http://sfbayview.com/2009/08/-the-bomb-in-our-back-yard/>



“The World’s Greatest Shipping Yard” at Hunters Point

On September 14, 2018 GreenAction for Health & Environmental Justice issued the following statement in response to discovery of a highly radioactive radium emitting deck marker found adjacent to homes at the Hunters Point Naval Shipyard:

Today it is clear that the decade of claims by local, state and federal government agencies and Lennar developers that there was no radioactive contamination at Parcel A of the Hunters Point Naval Shipyard were completely false.

It is unclear if the repeated bold and false claims by government officials and agencies were knowing lies, or were the result of incompetence and negligence. We intend to find out.

The truth is out. Highly radioactive contamination was present next to homes where residents were promised there was no radiation.



The truth is that information provided for many years by whistleblowers and community members about reckless and illegal activities during the “cleanup” of the federal Superfund site at the Hunters Point Shipyard was accurate.


Yet the cover-up continues. GreenAction learned three days ago that a radioactive deck marker was reportedly discovered and worked to confirm it. Our attorneys contacted government agencies but got no response.


Yesterday, the Navy and California Department of Public Health confirmed a radioactive deck marker was discovered on Friday, September 7, 2018—one week ago. The government did not reveal this finding until September 13, 2018—and only informed Parcel A residents not other nearby residents.


We believe the only reason the government finally admitted this discovery is because we found out and were about to blow the whistle on this alarming news.

It is time for truth, transparency, accountability, and a totally comprehensive cleanup of the entire shipyard and adjacent areas—with full independent community oversight.

No one should live next to or on top of radioactive and toxic waste!


Bradley Angel—Executive Director of GreenAction for Health & Environmental Justice leads the historic movement in Bayview Hunters Point at the May 2018 Hearing of the San Francisco Board of Supervisors calling for comprehensive retesting of the Hunters Point Shipyard


Whistle blowers testimony drives the unearthing of “The greatest case of eco-fraud in US history” at the Hunters Point Naval Shipyard”



“On Sunday, the 15th of July, about noon, we were at Hunters Point and they put on us what we now know was the atomic bomb.”—Capt. Charles B. McVay III, U.S. Navy commanding officer, USS Indianapolis (from the Operational Archives Branch, Naval Historical Center)

The atom bomb “Little Boy” sailed from the Hunters Point Shipyard and on Aug. 6, 1945, was dropped on Hiroshima, killing 140,000 people by the end of that year. The USS Indianapolis, which carried the bomb across the Pacific, was sunk, with great loss of life, by a Japanese submarine on its return trip.

Heavy is the head that wears the crown! On Aug. 2, 1945, U.S. President Harry S Truman, acting on the advice of military and civilian advisers, gave the order to drop the atomic bomb on a Japanese target. On Aug. 6, the first bomb fell on Hiroshima; on Aug. 9, the second was dropped on Nagasaki in Western Japan. On Aug. 14, 1945, Japanese Emperor Hirohito agreed to an unconditional surrender, thus bringing to an end the final tragic combat theatre of World War II.


On Aug. 6, 2009, in commemoration of the 64th anniversary of the world’s first atomic bomb attack, the mayor of Hiroshima, Tadatoshi Akiba, urged global leaders to back President Barack Obama’s call to abolish nuclear weapons.

The United States is the only nation that has deployed atomic bombs in combat. So much as we cower from the prospect of a nuclear Iran or North Korea, American leadership changed the history of mankind forever with the ultimatum—drafted by Truman, Winston Churchill and the joint chiefs of staff—sent to Japan on July 26, 1945, demanding it “surrender in safety or face utter destruction.”

War is the ultimate battleground of human ethics and morality. Quoting the wisdom of Martin Luther King Jr.: “There is nothing more tragic in all this world than to know right and not do it.” Wiser still is the dictum: Those who do


not know their history are doomed to repeat it!

The Hunters Point Shipyard is located in southeastern San Francisco on a peninsula that extends east into San Francisco Bay. It is a federal Superfund site—one of the nation’s most toxic properties . The legacy of the shipyard in the creation, testing and delivery of weapons of destruction will not remain quietly buried in the depths of our conscience.

 Parcel D of the Hunters Point Naval Shipyard sites the historic gun mole pier and iconic gantry crane. Lennar Developers plans to site residential development adjacent to the gun mole pier.


According to documents on file with the Naval Historical Center, Capt. Lewis L. Haynes, senior medical officer on board the USS Indianapolis, recalls:

“On July 15th we were ordered to go to San Francisco to take on some cargo. I was amazed to notice that there was a quiet, almost dead Navy yard. We tied up at the dock there and two big trucks came alongside. The big crate on one truck was put in the port hanger. The other truck had a bunch of men aboard including two army officers, Captain James Nolan and Major Robert Furman. I found out later that Nolan was a medical officer. I don’t know what his job was—probably to monitor radiation. The two men carried a canister about 3 feet by 4 feet tall up to Admiral Spruance’s cabin, where they welded it to the deck. Later on, I found out that this held the nuclear ingredients for the bomb and the large box in the hanger contained the device for firing the bomb. And I had that thing welded to the deck above me for ten days.”

 <img class="progressiveMedia-noscript js-


progressiveMedia-inner" src="https://cdn-images-1.medium.com/max/1600/1*GmWIJwDOxV9-BYe9YL1vyw.jpeg">
The historic gun mole pier and gantry crane circa 1947


According to Capt. McVay's recollections, ***"We sailed from San Francisco 0800 the morning of 16th July. We arrived in Tinian the morning of 26 July and unloaded the material and the bomb which was later to be dropped over Hiroshima."***


Little Boy replica on display at the Smithsonian


The components of "Little Boy," the atomic bomb dropped on Hiroshima, were loaded onto the USS Indianapolis from the drydocks now designated Parcel D - the radiation contaminated Gun Mole Pier.

The fissile components of the bomb contained half the uranium-235 in the United States valued at trillions of dollars by today's standards. Little Boy dropped by parachute from the B-29 Enola Gay at 8:15am on August 6, 1945. It exploded with 15 kilotons of force, wiping out 90% of the city and immediately killing 80,000 people.


Christopher Carpenter was a worker at the Hunters Point shipyard in 2005 repeatedly exposed to toxic radioactive dust in soils and asbestos laden rock. In 2016 he died of peripheral T-cell lymphoma, a cancer not reported in an African American. Carpenter is the principle plaintiff in the Hunters Point Community Lawsuit.


The gantry crane is the largest and most iconic landmark at the Hunters Point Naval Shipyard. Completed in 1947, it was surpassed in height only by the Oakland and Golden Gate Bridges as man made structures. As long as the Titanic and erected using 8.4 thousand tons of steel, the gantry crane is recognizable in the southeastern backdrop of the San Francisco skyline.

In 1959 Operation Skycatch was conducted by Lockheed Missiles and Space Division at the Hunters Point Shipyard to study dummy missiles structurally identical to live Polaris missiles. The gantry crane on the gun mole pier was equipped with arresting cables to catch multi-ton dummy Polaris missiles launched in mid-air and hurled out into San Francisco Bay and then retrieved.




As the U.S. Navy prepared for the 2010 dirty transfer of radiation impacted buildings, equipment and infrastructure at Parcel D to the city, questions regarding the past, present and future of the shipyard were pushed to the forefront of public debate.

Radiation impacted sites at the shipyard have the potential for radioactive materials to be present and require further action. Impacted sites include areas where radioactive materials were used or stored, where known spills, discharges or unusual occurrences were documented and where radioactive materials were disposed of and buried, including landfills, laboratory drains and the underwater regions surrounding the base.


Parcel D comprises about 98 acres in the central portion of the shipyard. It was

formerly part of the industrial support area used for shipping, ship repair, office and commercial activities. The docks at Parcel D were formerly part of the industrial production area.

In 1985 a tetrahedron shaped metal frame was attached to the iconic gantry crane to facilitate the testing of trident missiles that fell into the bay after reaching an altitude of 250 feet.




Portions of Parcel D were used by the Naval Radiological Defense Laboratory (NRDL). NRDL was the premier radiation research laboratory of the post-World War II era. The main laboratories were located along Spear Avenue at the intersection of Parcel A with Parcels D and E.



Parcel A where approximately 300 families are sited in homes now known to be on radiation contaminated property on a federal Superfund site. Parcel A sits at the western boundary of Parcel D.


In July of 1946 Operation Crossroads series nuclear explosions were conducted in the Bikini Atoll lagoon in the Marshall Islands. A fleet of 71 surplus and captured ships were used as targets. The weapons used were Mk3A “Model 1561” Fat Man atomic bombs from wartime designs. Shot Baker was conducted on July 24, 1946 causing serious radioactive contamination of the lagoon and radiation exposure at the surface amounting to a lethal 730 R in the first 24 hours.



Shot Able was conducted on June 30, 1946. The standard Fat Man fission bomb fell short and to the left of target due to a collapsed tail fin. It sunk and severely damaged five vessels and led to a government investigation of the B-29 flight crew.

Several of those damaged ships were hauled back to the combined naval station at Hunters Point and Treasure Island and at least one was docked at the gun mole pier...where Lennar Developers wants to site residential development in a shipyard south multi use district or “MUD” on a parcel designated Parcel G created like a “cookie cutter” from heavily contaminated Parcel D.


The federal law for environmental cleanup at the shipyard is the Comprehensive Environmental Response, Compensation and Liability Act, called CERCLA or **Superfund**. CERCLA defines radionuclides as particles that emit radiation. They are hazardous substances under CERCLA and, as such, must be investigated, characterized and cleaned up.



Congresswoman Cynthia McKinney and Senate candidate Cindy Sheehan show sisterly support for Dr. Ahimsa Sumchai at her fundraiser held in the SF Bayview’s back yard on Oct. 6, 2007, during her campaign for Mayor of San Francisco. The first African American woman to run for Mayor, Dr. Sumchai’s platform prioritized environmental health and justice, public safety and a moratorium on residential development at the Hunters Point Shipyard. Photo: John Morton

Radiation damages human tissue by stripping it of charged particles called electrons. Radiation in low doses is linked to many solid cancers including breast, thyroid, lung and skin cancer as well as cancers of the blood and lymphoid tissues. Radiation can change the basic structure of our genetic material and impact future generations. Radium 226 is one of the most abundant radionuclides of concern at the shipyard and the principle emitter of gamma waves. According to the Agency For Toxic Substances and Diseases Registry, Radium 226 exposure is linked to a myriad of health effects including anemia, fractured teeth, itching, dermatitis and skin ulcers, cataracts, cancer and ultimately, death.

The answer to the breast cancer conundrum evident in the world's highest incidence of breast cancer arising from San Francisco's Bay Area counties may be linked to our known exposure to low level radiation in air, water and dispersed soil from activities at the Hunters Point Shipyard.


>
Madame Marie Curie died of aplastic anemia due to prolonged exposure to the radium she discovered

Madame Marie Curie became the first woman to win the Nobel Prize in 1903 and the first person to win it twice. In 1911 she accepted her second Nobel Prize in chemistry for her discovery of radium. She saved the lives of thousands of wounded soldiers by advancing the use of portable x-ray machines during World War 1. She and her husband Pierre became obsessed with the glow in the dark fluorescent properties of radium. She carried test tubes of radium in the pocket of her lab coat and died on July 4, 1934 of aplastic anemia. Her daughter, Nobel Laureate Irene Joliot-Curie, died of leukemia.

The Navy has identified radiologically impacted areas at Parcel D associated with the former use of general radioactive materials, decontamination of ships and NRDL research. The sewers and storm drains beneath Parcel D were designated radiation impacted because the scientists of the NRDL were known to have poured effluents of low level radioactive waste down their laboratory

drains. These radioactive materials ultimately communicated in the 10 linear miles of sewer and storm drains with San Francisco Bay, the surrounding community and, ultimately, the entire Bay Area.

In February 2004 the Navy completed the Draft Final Historical Radiological Assessment for Hunters Point Shipyard. The Navy Radiological Affairs Support Office conducted extensive research on past radiological activities using both federal and personal historical archives. That research was supplemented by interviews with people who knew first hand of radiological operations at the shipyard.




Members of the Hunters Point Shipyard Restoration Advisory Board (RAB), including myself as founding chair of the Radiological Subcommittee, commented extensively on the three draft versions of the Historical Radiological Assessment. The HRA studied 882 sites at the shipyard and found that, while the majority were not radiation contaminated, Fifty-eight of those sites were found to require further investigation and cleanup and another 32 sites were pending release for unrestricted use.

By 2018 the radiation cleanup at the Hunters Point Shipyard had been coined “The greatest case of eco-fraud in U.S. History” by Public Employees for Environmental Responsibility Executive Director Jeff Ruch. In a March 30, 2018 letter to the U.S. Navy, as well as state, regional and city officials, EPA Remedial Project Manager Lily Lee wrote that the soil tests on four land parcels transferred to San Francisco in 2015 were flawed by “potential falsification, data manipulation and/or data quality concerns”. The parcels EPA identified as suspect are adjacent to homes on Parcel A and Parcel D. The soil tests on the parcels demonstrate “a widespread pattern of practices that appear to show deliberate falsification, failure to perform the work in a manner required...or both”, according to Lee.

According to Ruch, “Documents emerging in recent weeks show that the

radiation testing for soil covering most of the shipyard and it's buildings are inaccurate and useless from a public health standpoint.”



Bay View Health and Environmental Science Editor Dr. Ahimsa Porter Sumchai can be reached at [\(415\) 859-5471](tel:4158595471) or AhimsaPorterSumchaiMD@Comcast.net. Dr. Sumchai is a wikipedia editor for the Hunters Point Shipyard at <https://en.m.wikipedia.org/wiki/Hunters-Point-Naval-Shipyard>.

Related

Originally published at sfbayview.com on August 31, 2009.

Like what you read? Give Ahimsa Porter Sumchai MD a round of applause.

From a quick cheer to a standing ovation, clap to show how much you enjoyed this story.

Ahimsa Porter Sumchai MD
Golden State MD Health & Wellness
Sent from my iPhone

From: [Secretary, Commissions \(CPC\)](#)
To: [Richards, Dennis \(CPC\)](#); [Johnson, Milicent \(CPC\)](#); [Koppel, Joel \(CPC\)](#); [Moore, Kathrin \(CPC\)](#); [Melgar, Myrna \(CPC\)](#); planning@rodneyfong.com; [Rich Hillis](#)
Cc: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: BVHP
Date: Monday, September 17, 2018 11:38:47 AM

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department|City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309|Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: Ahimsa Porter Sumchai MD [mailto:asumchai@gmail.com]
Sent: Sunday, September 16, 2018 9:41 AM
To: Raymond Tompkins
Cc: DPH, Health Commission (DPH); Secretary, Commissions (CPC)
Subject: Re: BVHP

Please submit these to the Health & Police Commission. There are officers located on Parcel E. Search the specific email for the SFPD commission on line.

On Sep 15, 2018, at 12:18 PM, rtomp@sbcglobal.net wrote:

Ahimsa:

Please read The two doc. Especially the PowerPoint presentation that we made to the community. As a Physician looking at the possible exposures to the different byproducts that occur when Radium decays. You may want additional tests to be provided for the general public to evaluate what damage has taken place to human life.

I find the excuse that has been provided to the public, "that only one radium dial was found". This answer defies human logic, to develop the housing on this property they have run heavy constructive equipment all over this land site. In my view is quite easy that other Radium dials have been crushed by the wake of the equipment and have been displaced deeper in the soil and then the surface scanner can detect. Surface scanning that they are utilizing at the site can only detect gamma rays in 6 to 12 inches of soil. In addition to certain soil conditions can limit the effectiveness of the scanning to only 6 inches.

Keep the faith and keep fighting
Ray

On Saturday, September 15, 2018 9:18 AM, Charles Bonner <cbonner799@aol.com> wrote:

Good Morning Dr. Tompkins,
This is a very valuable item of evidence!!
Please contact these scientists and arrange a meeting with us ASAP!
We need them as our experts now!
Thanks for sending this evidence!
Charles
Sent from my iPhone

On Sep 14, 2018, at 5:07 PM, "rtomp@sbcglobal.net" <rtomp@sbcglobal.net> wrote:

Charles:

Please read the two attachments. Dr. Palmer and I talked about this subject at the church on Oakdale a few years ago. Minister Christopher X was in attendance. Dr. Palmer's and I made a pledge to the community that we would never lie about the science and always tell the truth as we understand the fact

Look closely at the presentation on

"RADIUM DECAY PROCESSES AND BY- PRODUCTS"

Keep the faith and keep fighting

Ray

<Tech_presentation_parcel_E2_RIFS[1] (2).ppt>

<Response_to_draft_Parcel_E2_RIFS[2].doc>

<Tech_presentation_parcel_E2_RIFS[1] (2).ppt>

<Response_to_draft_Parcel_E2_RIFS[2].doc>

From: [Secretary, Commissions \(CPC\)](#)
To: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: Another voice opposing CorePower Yoga on Divisadero
Date: Monday, September 17, 2018 11:38:05 AM

Jonas P. Ionin,
Director of Commission Affairs

Planning Department|City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309|Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

-----Original Message-----

From: Jeff [<mailto:calvinforbin@gmail.com>]
Sent: Sunday, September 16, 2018 4:18 PM
To: planning@rodneyfong.com; Richards, Dennis (CPC); Koppel, Joel (CPC); Moore, Kathrin (CPC); Johnson, Milicent (CPC); Melgar, Myrna (CPC); richhillissf@yahoo.com; Weissglass, David (CPC); Secretary, Commissions (CPC); affordabledivis@gmail.com
Subject: Another voice opposing CorePower Yoga on Divisadero

Dear Planning Commission,
I hope I am correct in understanding that this hearing has been continued and therefore hope this email will still be relevant.

At first upon hearing of CorePower Yogas intention to open on Divisadero St, I was ambivalent and unenthusiastic but not adamantly opposed to a chain moving into this location.

However my opinion has changed into strong opposition upon learning that they are also planning to open another location less than a mile away. I believe this type of corporate tactic - flooding areas with multiple closely situated outlets - is precisely why the SF government and residents passed laws requiring conditional use authorization hearings for these types of projects and specifically and deliberately gives you the power to stop this from occurring. It is exactly this corporate behavior that (intentionally?) harms the local competing businesses and is contrary to all our efforts to preserve neighborhood character.

So, although I am no fan of empty storefronts I urge you to deny this request for formula retail and I'm convinced that with Divisadero's popularity there will be a more suitable business at this location soon.

Thank you,
Jeff

My bona fides: I have lived a block away for over 25 years.

From: [Secretary, Commissions \(CPC\)](#)
To: [Richards, Dennis \(CPC\)](#); [Johnson, Milicent \(CPC\)](#); [Koppel, Joel \(CPC\)](#); [Moore, Kathrin \(CPC\)](#); [Melgar, Myrna \(CPC\)](#); planning@rodneyfong.com; [Rich Hillis \(CPC\)](#); [Campbell, Cathleen \(CPC\)](#); [Feliciano, Josephine \(CPC\)](#)
Cc: [Campbell, Cathleen \(CPC\)](#); [Feliciano, Josephine \(CPC\)](#)
Subject: FW: Happy Vape Extend hours
Date: Monday, September 17, 2018 11:37:57 AM
Attachments: [Happy Vape support letter.pdf](#)

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department!City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309!Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: Henry Karnilowicz [mailto:occexp@aol.com]
Sent: Sunday, September 16, 2018 6:33 PM
To: Secretary, Commissions (CPC)
Cc: occexp@aol.com
Subject: Happy Vape Extend hours

Hi Jonas,

Attached is my letter in support of granting the extension of hours of operation for Happy Vape.

Please distribute to the commissioners.

[Henry Karnilowicz](#)
President
[SomBa \(South Of Market Business Association\)](#)

[615 7th Street](#)
[San Francisco, CA 94103-4910](#)
[415.420.8113 cell](#)
[415.621.7583 fax](#)

From: [Ionin, Jonas \(CPC\)](#)
To: [Richards, Dennis \(CPC\)](#); [Johnson, Milicent \(CPC\)](#); [Koppel, Joel \(CPC\)](#); [Moore, Kathrin \(CPC\)](#); [Melgar, Myrna \(CPC\)](#); planning@rodneyfong.com; [Rich Hillis \(CPC\)](#)
Cc: [CTYPLN - COMMISSION SECRETARY](#); [CTYPLN - SENIOR MANAGERS](#); [STACY, KATE \(CAT\)](#); [JENSEN, KRISTEN \(CAT\)](#); [Tugbenyoh, Mawuli \(MYR\)](#)
Subject: CPC Calendars for September 20, 2017
Date: Friday, September 14, 2018 1:48:38 PM
Attachments: [Advance Calendar - 20180920.xlsx](#)
[20180920_can.pdf](#)
[20180920_can.docx](#)
[CPC Hearing Results 2018.docx](#)

Commissioners,
Attached are your Calendars for September 20, 2018 (A CANCELED MEETING).

Enjoy the break,

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department!City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309!Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: [Ionin, Jonas \(CPC\)](#)
To: [Richards, Dennis \(CPC\)](#); [Johnson, Milicent \(CPC\)](#); [Koppel, Joel \(CPC\)](#); [Moore, Kathrin \(CPC\)](#); [Melgar, Myrna \(CPC\)](#); planning@rodneyfong.com; [Rich Hillis](#)
Cc: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: Save The Opera Plaza Cinemas
Date: Friday, September 14, 2018 10:54:42 AM

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department|City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309|Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: PIC, PLN (CPC)
Sent: Thursday, September 13, 2018 1:09 PM
To: Woods, Mary (CPC)
Cc: CTYPLN - COMMISSION SECRETARY
Subject: Fw: Save The Opera Plaza Cinemas

Property Information Map (PIM): <http://propertymap.sfplanning.org>

The information provided in this correspondence is based on a preliminary review of information provided by the requestor. It does not constitute a comprehensive review of the project or request. For a more extensive review it is strongly recommended to schedule a project review meeting. The information provided in this email does not constitute a Zoning Administrator letter of determination. To receive a letter of determination you must submit a formal request directly to the Zoning Administrator. For complaints, please contact the Code Enforcement Division.

From: Peter Wong <glorycompy@yahoo.com>
Sent: Thursday, September 13, 2018 11:51 AM
To: PIC, PLN (CPC)
Subject: Save The Opera Plaza Cinemas

Dear Planning Commission Members,

San Francisco's film culture is one of The City's important jewels. It provides opportunities for new cinematic talents to be heard and established cinematic talents to experimenting with new creative directions if they so desire.

Key to our city's film culture are venues to show first-run art house features. However, one such complex known as the Opera Plaza Cinemas is in danger of disappearing. The problem

isn't lack of interest. Landmark Theatres, the company running this theatre, was all set to renovate the space to upgrade its rooms. But the owner of the Opera Plaza complex responded by inflicting a rent hike to unaffordable levels. Unless the Planning Commission intervenes, the Opera Plaza Cinemas are toast.

The loss of the Opera Plaza Cinemas would be a disaster for local art film lovers.

Landmark, which used to offer fourteen screens for showing art films in the City, has lost nearly a third of its screens. If the Opera Plaza Cinemas are lost as well, Landmark's presence in the city would be half of what it once was.

Expecting existing commercial cinema multiplexes to take up the art screen slack is not a realistic option. It's true that such features as "Three Identical Strangers" and "Sorry To Bother You" play on both art house and commercial cinema screens. But the more commercial cineplexes are less likely to happily show such films as "BPM" (French drama about the activities of ACT-UP Paris in the 1990s) or "Support The Girls" (a non-exploitative workplace comedy-drama taking place in a local Texas breastaurant). Worthy films such as these need more places such as the Opera Plaza Cinemas to show films whose artistic value can outstrip their "commercial" value.

I have been a patron of the Opera Plaza Cinemas for many years. My hope is that you do the right thing and vote to save one of the few dedicated art house spaces left in this city.

Sincerely,

Peter Wong

[Sent from Yahoo Mail for iPad](#)

From: [Ionin, Jonas \(CPC\)](#)
To: [Richards, Dennis \(CPC\)](#); [Johnson, Milicent \(CPC\)](#); [Koppel, Joel \(CPC\)](#); [Moore, Kathrin \(CPC\)](#); [Melgar, Myrna \(CPC\)](#); [planning@rodneyfong.com](#); [Rich Hillis](#); [Aaron Jon Hyland - HPC](#); [Andrew Wolfram \(andrew@tefarch.com\)](#); [Black, Kate \(CPC\)](#); [Diane Matsuda](#); [Ellen Johnck - HPC](#); [Jonathan Pearlman](#); [Richard S. E. Johns](#)
Cc: [Feliciano, Josephine \(CPC\)](#)
Subject: FW: *** PRESS RELEASE *** MAYOR LONDON BREED SIGNS LEGISLATION CREATING OFFICE OF SEXUAL HARASSMENT AND ASSAULT RESPONSE PREVENTION
Date: Friday, September 14, 2018 10:54:06 AM
Attachments: [9.13.18 SHARP Office.pdf](#)

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department|City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309|Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: MayorsPressOffice, MYR (MYR)
Sent: Thursday, September 13, 2018 1:59 PM
To: MayorsPressOffice, MYR (MYR)
Subject: *** PRESS RELEASE *** MAYOR LONDON BREED SIGNS LEGISLATION CREATING OFFICE OF SEXUAL HARASSMENT AND ASSAULT RESPONSE PREVENTION

FOR IMMEDIATE RELEASE:

Thursday, September 13, 2018

Contact: Mayor's Office of Communications, 415-554-6131

***** PRESS RELEASE *****

**MAYOR LONDON BREED SIGNS LEGISLATION CREATING
OFFICE OF SEXUAL HARASSMENT AND ASSAULT
RESPONSE PREVENTION**

Legislation Will Create Centralized Point of Contact to Assist Survivors of Sexual Assault and Harassment

San Francisco, CA – Mayor London N. Breed today signed legislation creating the Office of Sexual Harassment and Assault Response and Prevention (SHARP), which will help survivors of sexual assault and harassment better navigate City government and advocate on their behalf.

Under existing law, survivors are responsible for interacting with City offices that they believe to be relevant to their cases. As a result, there have been numerous instances in which survivors reported struggling to navigate City bureaucracy or being turned away from City departments, hospitals, and police stations.

“Survivors who come forward to report sexual assault or harassment deserve to be treated with respect while their cases are investigated. Instead, they often have to recount their deeply

personal and painful experiences to multiple different authorities,” said Mayor Breed. “The SHARP Office will help us better support victims to ensure that they have an advocate helping them navigate this difficult process.”

The SHARP Office will be responsible for receiving complaints from members of the public concerning the manner in which City departments have handled allegations of sexual assault or harassment, as well as assisting complainants in interacting with the City government. In addition, it will study and develop recommendations about the City’s overall systems in handling these cases.

“By passing my legislation that creates a dedicated team to oversee accountability within our City departments when sexual violence cases are disregarded by any City department or employee, we are disrupting the current culture of injustice, and sending a message as a city that every survivor deserves respect,” said Supervisor Hillary Ronen. “I look forward to the work of this office to begin and for true accountability to be the new norm for all rape survivors in San Francisco.”

The Director of the SHARP Office will be appointed by the Human Rights Commission, with input from a three-member advisory committee composed of a sexual assault survivor, a community advocate, and an academic with expertise on sexual assault and harassment.

“The HRC is grateful for the leadership of Supervisor Ronen and the commitment of Mayor Breed to allocate resources to address system failures and to create opportunities for survivors to be heard,” said Sheryl Evans Davis, Executive Director of the San Francisco Human Rights Commission. “The creation of the SHARP Office is an essential step forward that will provide survivors the essential access to participate in developing strategies and protocols toward preventing attacks and supporting survivors.”

###

From: [Starr, Aaron \(CPC\)](#)
To: Planning@RodneyFong.com; richhillissf@gmail.com; mooreurban@aol.com; [Richards, Dennis \(CPC\)](#); [Koppel, Joel \(CPC\)](#); [Meigar, Myrna \(CPC\)](#); [Johnson, Millicent \(CPC\)](#)
Cc: [CTYPLN - COMMISSION SECRETARY](#)
Subject: Board Report
Date: Thursday, September 13, 2018 12:04:58 PM
Attachments: [2018_09_13.pdf](#)
[image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)

Commissioners,

Attached, please find this week's Board Report.

Sincerely,

Aaron Starr, MA
Manager of Legislative Affairs

Planning Department, City and County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6362 **Fax:** 415-558-6409
Email: aaron.starr@sfgov.org
Web: www.sfplanning.org



From: [Ionin, Jonas \(CPC\)](#)
To: [Richards, Dennis \(CPC\)](#); [Johnson, Milicent \(CPC\)](#); [Koppel, Joel \(CPC\)](#); [Moore, Kathrin \(CPC\)](#); [Melgar, Myrna \(CPC\)](#); planning@rodneyfong.com; [Rich Hillis \(CPC\)](#); [Feliciano, Josephine \(CPC\)](#); [Adina, Seema \(CPC\)](#)
Cc: [Feliciano, Josephine \(CPC\)](#); [Adina, Seema \(CPC\)](#)
Subject: FW: 385 Eddy Street - Revised Motion
Date: Thursday, September 13, 2018 10:53:45 AM
Attachments: [Draft Motion 385 Eddy Street Correct \(ID 1027483\).docx](#)
Importance: High

Commissioners,
Attached is a revised motion to correct findings in the original. This item is on your Consent Calendar. Hardcopies will be provided to you at the hearing. There is no known opposition.

*Jonas P. Ionin,
Director of Commission Affairs*

Planning Department|City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309|Fax: 415-558-6409

jonas.ionin@sfgov.org
www.sfplanning.org

From: Adina, Seema (CPC)
Sent: Thursday, September 13, 2018 10:46 AM
To: Ionin, Jonas (CPC)
Cc: Asbagh, Claudine (CPC)
Subject: 385 Eddy Street - Revised Motion

Hi Jonas,

Please see attached revised motion redlined as discussed, omitting the unit not subject to 317.

Thank you,

Seema Adina, AICP, Planner
Northeast Team, Current Planning Division
San Francisco Planning Department
1650 Mission Street, Suite 400 San Francisco, CA 94103
Direct: 415.575.8722 | www.sfplanning.org
[San Francisco Property Information Map](#)



SAN FRANCISCO PLANNING DEPARTMENT

MEMO

DATE: 20 September 2018
TO: City Planning Commission
FROM: Teresa Ojeda, Manager
Information and Analysis Group, Citywide Policy Planning
(415) 558 6251
RE: **CURRENT PIPELINE**

1650 Mission St.
Suite 400
San Francisco,
CA 94103-2479

Reception:
415.558.6378

Fax:
415.558.6409

Planning
Information:
415.558.6377

Attached, please find a visual summary of the housing development pipeline as of the second quarter of 2018 (Q2). This informational flyer also illustrates a ten-year housing production trend covering the third quarter of 2008 (Q3) through the second quarter of 2018 (Q2).

- Of the 28,050 net new units built in ten-year reporting period, **2,150 net new units were built in the first two quarters of 2018.**

At the end of the second quarter of 2018, there were some **69,620 net new units in the pipeline.**

- There are some **7,100 net units under construction.** An additional 6,560 net units have building permits to start construction and building permit applications have been filed for projects with about 5,030 units.
- Of projects that have received Planning entitlement, there are **26,560 net new units in major, multi-phased projects.**
- About **20,890 net new units are under review.** These are in projects that have filed for Planning entitlement or for building permits that have yet to receive Planning Department approval.

Not shown in the information flyer are the following progress worth noting in the development pipeline:

- There are about **2,050 net new units in projects that were filed in the first two quarters of 2018** and are under review with the Planning Department. This includes 1,300 units in the Balboa Reservoir development project.
- Applications for planning approvals were also filed in January 2018 for permits to build 730 units in four buildings in the Executive Park development project. Please note that these applications were not included in the count of new filings with Planning cited above.
- Building permits have been filed for over 1,010 net new units in Parkmerced.
- Building permits have been filed for over 1,390 net new units in Candlestick Point.

10 Year Housing Production

TOTAL NEW
CONSTRUCTION

28,050
net new units

AFFORDABLE
UNITS*

6,900
net new units



25%
Affordable

2018 Q2

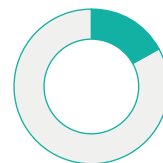
Housing Development Pipeline

TOTAL PIPELINE
UNITS

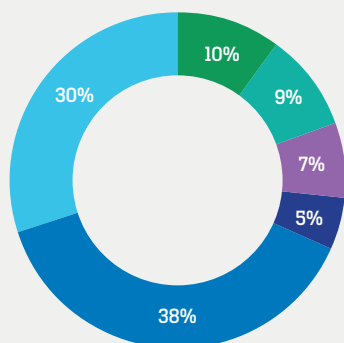
69,620
net new units

AFFORDABLE
UNITS **

11,750
net new units



17%
Affordable



Entitled		Units
	Under Construction	7,100
	Building Permits Approved	6,560
	Building Permits Filed	5,030
	Building Permits Not Yet Filed	3,500
	Major Multi-Phased Projects	26,560
Under Review		
	Under Review	20,890



Candlestick Point
9,110



Treasure Island
7,800



Parkmerced
4,670



Pier 70
2,150



HopeSF
1,520



Schlage Lock
1,680

*This figure only accounts for net new addition to the affordable housing stock. It does not include existing units preserved under the rehab and acquisition program, Rental Assistance Demonstration (RAD) units, or units acquired under the small site acquisition program.

**Includes only units in projects that have already determined its affordability options (typically at entitlement) and in projects that are 100% affordable. Twenty percent of entitled projects are affordable.



SAN FRANCISCO PLANNING DEPARTMENT

MEMO

DATE: 20 September 2018
TO: City Planning Commission
FROM: John Rahaim, Director of Planning
RE: HOUSING BALANCE REPORT No. 7
1 July 2008 – 30 June 2018

STAFF CONTACT: Teresa Ojeda, 415 558 6251

1650 Mission St.
Suite 400
San Francisco,
CA 94103-2479

Reception:
415.558.6378

Fax:
415.558.6409

Planning
Information:
415.558.6377

SUMMARY

This report is submitted in compliance with Ordinance No. 53-15 requiring the Planning Department to monitor and report on the housing balance between new market rate and new affordable housing production. One of the stated purposes of the Housing Balance is "to ensure that data on meeting affordable housing targets Citywide and within neighborhoods informs the approval process for new housing development." This report is the seventh in the series and covers the ten-year period from 1 July 2008 through 30 June 2018.

The "Housing Balance" is defined as the proportion of all new affordable housing units to the total number of all new housing units for a 10-year "Housing Balance Period." In addition, a calculation of "Projected Housing Balance" which includes residential projects that have received approvals from the Planning Commission or Planning Department but have not yet received permits to commence construction will be included.

In the 2008 Q3 -2018 Q2 Housing Balance Period, about 24% of net new housing produced was affordable. By comparison, the expanded Citywide Cumulative Housing Balance is 26%, although this varies by districts. Distribution of the expanded Cumulative Housing Balance over the 11 Board of Supervisor Districts ranges from -277% (District 4) to 72% (District 5). This variation, especially with negative housing balances, is due to the larger number of units permanently withdrawn from rent control protection relative to the number of total net new units and net affordable units built in those districts.

The Projected Housing Balance Citywide is 16%. Three major development projects were identified in the ordinance for exclusion in the projected housing balance calculations until site permits are obtained. Remaining phases for these three projects will add up to over 21,570 net units, including some 4,920 affordable units; this would increase the projected housing balance to 20% if included in the calculations.

BACKGROUND

On 21 April 2015, the Board of Supervisors passed Ordinance No. 53-15 amending the *Planning Code* to include a new *Section 103* requiring the Planning Department to monitor and report on the Housing Balance between new market rate housing and new affordable housing production. The *Housing Balance Report* will be submitted bi-annually by April 1 and October 1 of each year and will also be published on a visible and accessible page on the Planning Department's website. *Planning Code Section 103* also requires an annual hearing at the Board of Supervisors on strategies for achieving and maintaining the required housing balance in accordance with the City's housing production goals. (See *Appendix A* for complete text of Ordinance No. 53-15.)

The stated purposes for the Housing Balance Monitoring and Reporting are: a) to maintain a balance between new affordable and market rate housing Citywide and within neighborhoods; b) to make housing available for all income levels and housing need types; c) to preserve the mixed-income character of the City and its neighborhoods; d) to offset the withdrawal of existing housing units from rent stabilization and the loss of single-room occupancy hotel units; e) to ensure the availability of land and encourage the deployment of resources to provide sufficient housing affordable to households of very low, low, and moderate incomes; f) to ensure adequate housing for families, seniors and the disabled communities; g) to ensure that data on meeting affordable housing targets Citywide and within neighborhoods informs the approval process for new housing development; and h) to enable public participation in determining the appropriate mix of new housing approvals.

Specifically, the *Housing Balance Report* will supplement tracking performance toward meeting the goals set by the City's *Housing Element* and Proposition K. Housing production targets in the City's *Housing Element*, adopted in April 2015, calls for 28,870 new units built between 2015 and 2022, 57%¹ of which should be affordable. As mandated by law, the City provides the State Department of Housing and Community Development an annual progress report.² In November 2014, San Francisco's voters endorsed Proposition K, which set as city policy a goal to help construct or rehabilitate at least 30,000 homes by 2020, at least 33% of which will be affordable to low- and moderate-income households. In addition, Mayor Ed Lee set a similar goal of creating 30,000 new and rehabilitated homes by 2020, pledging at least 30% of these to be permanently affordable to low-income families as well as working, middle income families.³

This *Housing Balance Report* was prepared from data gathered from previously published sources including the Planning Department's annual *Housing Inventory* and quarterly *Pipeline Report* data,

¹ The Ordinance inaccurately stated that "22% of new housing demands to be affordable to households of moderate means"; San Francisco's Regional Housing Needs Assessment (RHNA) allocation for moderate income households is 19% of total production goals.

² Printed annual progress reports submitted by all California jurisdictions can be accessed here – <http://www.hcd.ca.gov/community-development/housing-element/annual-progress-reports/index.php> -- or by calling HCD at 916-263-2911 for the latest reports as many jurisdictions now file reports online.

³ For more information on and tracking of 30K by 2020, see <http://sfmayor.org/housing-for-residents> .

San Francisco Rent Board data, and the Mayor’s Office of Housing and Community Development’s *Weekly Dashboard*.

CUMULATIVE HOUSING BALANCE CALCULATION

Planning Code Section 103 calls for the Housing Balance “be expressed as a percentage, obtained by dividing the cumulative total of extremely low, very low, low, and moderate income affordable housing (all units 0-120% AMI) minus the lost protected units, by the total number of net new housing units within the Housing Balance Period.” The ordinance requires that the “Cumulative Housing Balance” be provided using two calculations: a) one consisting of net housing built within a 10 year Housing Balance period, less units withdrawn from protected status, plus net units in projects that have received both approvals from the Planning Commission or Planning Department and site permits from the Department of Building Inspection, and b) the addition of net units gained through acquisition and rehabilitation of affordable units, HOPE SF and RAD units. “Protected units” include units that are subject to rent control under the City’s Residential Rent Stabilization and Arbitration Ordinance. Additional elements that figure into the Housing Balance include completed HOPE SF and RAD public housing replacement, substantially rehabilitated units, and single-room occupancy hotel units (SROs). The equation below shows the second, expanded calculation of the Cumulative Housing Balance.

$$\begin{array}{rcl}
 & \text{[Net New Affordable Housing +} & \\
 & \text{Completed Acquisitions \& Rehabs + Completed} & \\
 & \text{HOPE SF + RAD Public Housing Replacement +} & \\
 & \text{Entitled \& Permitted Affordable Units]} & \\
 - & \text{[Units Removed from Protected Status]} & \\
 \hline
 & & = \text{CUMULATIVE HOUSING BALANCE} \\
 & \text{[Net New Housing Built + Net Entitled \& Permitted Units]} &
 \end{array}$$

The first “Housing Balance Period” is a ten-year period starting with the first quarter of 2005 through the last quarter of 2014. Subsequent housing balance reports will cover the 10 years preceding the most recent quarter. This report covers July 2008 (Q3) through June 2018 (Q2).

Table 1A below shows the Cumulative Housing Balance for 10-year reporting period (2008 Q3 – 2018 Q2) is 18% Citywide. With the addition of RAD units, the expanded Cumulative Housing Balance is 26% (Table 1B). In 2016, the Board of Supervisors revised the ordinance to include Owner Move-Ins (OMIs) in the Housing Balance calculation. Although OMIs were not specifically called out by in the original Ordinance in the calculation of the Housing Balance, these were included in earlier reports because this type of no-fault eviction results in the loss of rent controlled units either permanently or for a period of time.

Table 1A
Cumulative Housing Balance Calculation, 2008 Q3 – 2018 Q2

BoS Districts	Net New Affordable Housing Built	Acquisitions & Rehabs and Small Sites Completed	Units Removed from Protected Status	Total Entitled Affordable Units Permitted	Total Net New Units Built	Total Entitled Units	Cumulative Housing Balance
BoS District 1	170	5	(527)	4	336	155	-70.9%
BoS District 2	45	24	(319)	2	875	189	-23.3%
BoS District 3	209	6	(313)	6	931	244	-7.8%
BoS District 4	-	-	(462)	7	28	136	-277.4%
BoS District 5	601	293	(359)	162	1,443	646	33.4%
BoS District 6	3,406	1,137	(146)	1,122	16,613	6,260	24.1%
BoS District 7	99	-	(236)	-	553	1,101	-8.3%
BoS District 8	244	28	(605)	90	1,413	328	-14.0%
BoS District 9	210	406	(606)	406	948	919	22.3%
BoS District 10	1,565	-	(295)	1,351	4,694	3,341	32.6%
BoS District 11	28	21	(395)	9	161	317	-70.5%
TOTALS	6,577	1,920	(4,263)	3,159	27,995	13,636	17.8%

Table 1B below shows the Expanded Cumulative Housing Balances for Board of Supervisor Districts ranging from -277% (District 4) to 72% (District 5). Negative balances in Districts 1 (-42%), 7 (-2%), and 11 (-77%) resulted from the larger numbers of units removed from protected status relative to the net new affordable housing and net new housing units built in those districts.

Table 1B
Expanded Cumulative Housing Balance Calculation, 2008 Q3 – 2018 Q2

BoS Districts	Net New Affordable Housing Built	Acquisitions & Rehabs and Small Sites Completed	RAD Program and Hope SF Replacement Units	Units Removed from Protected Status	Total Entitled Affordable Units Permitted	Total Net New Units Built	Total Entitled Units	Expanded Cumulative Housing Balance
BoS District 1	170	5	144	(527)	4	336	155	-41.5%
BoS District 2	45	24	251	(319)	2	875	189	0.3%
BoS District 3	209	6	577	(313)	6	931	244	41.3%
BoS District 4	-	-	-	(462)	7	28	136	-277.4%
BoS District 5	601	293	806	(359)	162	1,443	646	71.9%
BoS District 6	3,406	1,137	561	(146)	1,122	16,613	6,260	26.6%
BoS District 7	99	-	110	(236)	-	553	1,101	-1.6%
BoS District 8	244	28	330	(605)	90	1,413	328	5.0%
BoS District 9	210	406	268	(606)	406	948	919	36.6%
BoS District 10	1,565	-	436	(295)	1,351	4,694	3,341	38.0%
BoS District 11	28	21	-	(395)	9	161	317	-70.5%
TOTALS	6,577	1,920	3,483	(4,263)	3,159	27,995	13,636	26.1%

PROJECTED HOUSING BALANCE

Table 2 below summarizes residential projects that have received entitlements from the Planning Commission or the Planning Department but have not yet received a site or building permit. Overall projected housing balance at the end of the second quarter of 2018 is 16%. This balance is expected to change as several major projects have yet to declare how their affordable housing requirements will be met. In addition, three entitled major development projects – Treasure Island, ParkMerced, and Hunters Point – are not included in the accounting until applications for building permits are filed or issued as specified in the ordinance. Remaining phases from these three projects will yield an additional 21,570 net new units; 23% (or 4,920 units) would be affordable to low and moderate income households.

The Projected Housing Balance also does not account for affordable housing units that will be produced as a result of the Inclusionary Housing Fee paid in a given reporting cycle. Those affordable housing units are produced several years after the fee is collected. Units produced through the Fee typically serve lower income households than do the inclusionary units, including special needs populations requiring services, such as seniors, transitional aged youth, families, and veterans.

Table 2
Projected Housing Balance Calculation, 2018 Q2

BoS District	Very Low Income	Low Income	Moderate	TBD	Total Affordable Units	Net New Units	Total Affordable Units as % of Net New Units
BoS District 1	-	-	-	-	-	3	0.0%
BoS District 2	-	-	-	-	-	40	0.0%
BoS District 3	-	-	8	178	186	267	69.7%
BoS District 4	-	-	-	-	-	2	0.0%
BoS District 5	-	-	12	3	15	479	3.1%
BoS District 6	-	179	98	47	324	3,030	10.7%
BoS District 7	-	-	-	-	-	40	0.0%
BoS District 8	-	-	3	-	3	44	6.8%
BoS District 9	-	-	46	6	52	382	13.6%
BoS District 10	-	718	79	810	1,607	9,234	17.4%
BoS District 11	-	-	-	-	-	-	0.0%
TOTALS	-	897	246	1,044	2,187	13,521	16.2%

CUMULATIVE HOUSING BALANCE ELEMENTS

Because the scope covered by the Housing Balance calculation is broad, each element – or group of elements – will be discussed separately. The body of this report will account for figures at the Board of Supervisor district level. The breakdown of each element using the Planning Department District geographies, as required by *Section 103*, is provided separately in an *Appendix B*. This is to ensure simple and uncluttered tables in the main body of the report.

Affordable Housing and Net New Housing Production

Table 3 below shows housing production between 2008 Q3 and 2018 Q2. This ten-year period resulted in a net addition of almost 28,000 units to the City's housing stock, including almost 6,580 affordable units (or about 24%). A majority (59%) of net new housing units and affordable

units built in the ten-year reporting period were in District 6 (over 16,310 and 3,400 respectively). District 10 follows with over 4,690 net new units, including 1,565 affordable units.

The table below also shows that almost 24% of net new units built between 2008 Q3 and 2018 Q2 were affordable units, mostly (52%) in District 6. While District 1 saw modest gains in net new units built, half of these were affordable (51%).

Table 3
New Housing Production by Affordability, 2008 Q3 – 2018 Q2

BoS District	Very Low	Low	Moderate	Middle	Total Affordable Units	Total Net Units	Affordable Units as % of Total Net Units
BoS District 1	170	-	-	-	170	336	50.6%
BoS District 2	-	-	45	-	45	875	5.1%
BoS District 3	161	2	46	-	209	931	22.4%
BoS District 4	-	-	-	-	-	28	0.0%
BoS District 5	335	183	83	-	601	1,443	41.6%
BoS District 6	1,620	1,258	505	23	3,406	16,613	20.5%
BoS District 7	70	29	-	-	99	553	17.9%
BoS District 8	131	92	21	-	244	1,413	17.3%
BoS District 9	138	40	32	-	210	948	22.2%
BoS District 10	671	559	335	-	1,565	4,694	33.3%
BoS District 11	-	7	21	-	28	161	17.4%
TOTAL	3,296	2,170	1,088	23	6,577	27,995	23.5%

It should be noted that units affordable to Extremely Very Low Income (EVLI) households are included under the Very Low Income (VLI) category because certain projects that benefit homeless individuals and families – groups considered as EVLI – have income eligibility caps at the VLI level.

Acquisition and Rehabilitation of Affordable Housing Units

Table 4a below lists the number of units that have been rehabilitated and/or acquired between 2008 Q3 and 2018 Q2 to ensure permanent affordability. These are mostly single-room occupancy hotel units that are affordable to extremely very low and very low income households.

Table 4a
Acquisitions and Rehabilitation of Affordable Housing, 2008 Q3 – 2017 Q2

BoS District	No. of Buildings	No. of Units
BoS District 2	1	24
BoS District 5	2	290
BoS District 6	12	1,085
BoS District 9	2	319
TOTALS	17	1,718

Small Sites Program

The San Francisco Small Sites Program (SSP) is an initiative of the Mayor's Office of Housing and Community Development (MOHCD) to acquire small rent-controlled buildings (with four to 25 units) where tenants are at risk of eviction through the Ellis Act or owner move-ins. Since its inception in 2014, some 26 buildings with 202 units have been acquired, as shown in Table 4b.

Table 4b
Small Sites Program, 2014-2018 Q2

BoS District	No. of Buildings	No. of Units
BoS District 1	1	5
Bos District 3	1	6
BoS District 5	1	3
BoS District 6	4	52
BoS District 8	6	28
BoS District 9	12	87
BoS District 11	1	21
TOTALS	26	202

RAD Program

The San Francisco Housing Authority's Rental Assistance Demonstration (RAD) program preserves at risk public and assisted housing projects. According to the Mayor's Office, RAD Phase I transferred 1,425 units to developers in December 2015. An additional 2,058 units were transferred as Phase II in 2016.

Table 5
RAD Affordable Units, 2015-2018 Q2

BoS District	No of Buildings	No of Units
BoS District 1	2	144
BoS District 2	3	251
BoS District 3	4	577
BoS District 5	7	806
BoS District 6	4	561
BoS District 7	1	110
BoS District 8	4	330
BoS District 9	2	268
BoS District 10	2	436
BoS District 11	-	-
TOTALS	29	3,483

Units Removed From Protected Status

San Francisco's Residential Rent Stabilization and Arbitration Ordinance protects tenants and preserves affordability of about 175,000 rental units by limiting annual rent increases. Landlords can, however, terminate tenants' leases through no-fault evictions including condo conversion, owner move-in, Ellis Act, demolition, and other reasons that are not the tenants' fault. The Housing Balance calculation takes into account units permanently withdrawn from rent stabilization as loss of affordable housing. The following no-fault evictions affect the supply of rent controlled units by removing units from the rental market: condo conversion, demolition, Ellis Act, and owner move-ins (OMIs). It should be noted that initially, OMIs were not specifically called out by the Ordinance to be included in the calculation. However, because owner move-ins have the effect of the losing rent controlled units either permanently or for a substantial period of time, these numbers are included in the Housing Balance calculation as intended by the legislation's sponsors. Some of these OMI units may return to being rentals and will still fall under the rent control ordinance. On 14 November 2016, the Board of Supervisors amended Planning Code Section 103 to include OMIs as part of the housing balance calculation.

Table 6 below shows the distribution of no-fault eviction notices issued between July 2008 and June 2018. Eviction notices have been commonly used as proxy for evictions. Owner Move-In and Ellis Out notices made up the majority of no fault evictions (59% and 30% respectively). Distribution of these no-fault eviction notices is almost evenly dispersed, with Districts 9 and 8 leading (both with 14%).

Table 6
Units Removed from Protected Status, 2008 Q3 – 2018 Q2

BoS District	Condo Conversion	Demolition	Ellis Out	Owner Move-In	Units Removed from Protected Status
BoS District 1	2	22	152	351	527
BoS District 2	18	10	89	202	319
BoS District 3	7	10	176	120	313
BoS District 4	-	74	81	307	462
BoS District 5	15	16	97	231	359
BoS District 6	1	75	57	13	146
BoS District 7	-	31	56	149	236
BoS District 8	21	31	228	325	605
BoS District 9	5	50	213	338	606
BoS District 10	2	26	52	215	295
BoS District 11		68	56	271	395
TOTALS	71	413	1,257	2,522	4,263

Entitled and Permitted Units

Table 7 lists the number of units that have received entitlements from the Planning Commission or the Planning Department. These pipeline projects have also received site permits from the Department of Building Inspection and most are under construction as of the final quarter of 2017. Over half of these units are being built in or will be built in District 6 (52%). Twenty percent of units that have received Planning entitlements and site permits from the DBI will be affordable.

Table 7
Permitted Units, 2018 Q2

BoS District	Very Low Income	Low Income	Moderate	TBD	Total Affordable Units	Net New Units	Total Affordable Units as % of Net New Units
BoS District 1	-	-	4	-	4	155	2.6%
BoS District 2	-	2	-	-	2	189	1.1%
BoS District 3	-	-	6	-	6	244	2.5%
BoS District 4	-	-	7	-	7	136	5.1%
BoS District 5	-	112	50	-	162	646	25.1%
BoS District 6	-	793	244	85	1,122	6,260	17.9%
BoS District 7	-	-	-	-	-	1,101	0.0%
BoS District 8	-	85	5	-	90	328	27.4%
BoS District 9	-	378	28	-	406	919	44.2%
BoS District 10	-	670	681	-	1,351	3,341	40.4%
BoS District 11	-	-	9	-	9	317	2.8%
TOTALS	-	2,040	1,034	85	3,159	13,636	23.2%

PERIODIC REPORTING AND ONLINE ACCESS

This report complies with *Planning Code Section 103* requirement that the Planning Department publish and update the *Housing Balance Report* bi-annually on April 1 and October 1 of each year. *Housing Balance Reports* are available and accessible online, as mandated by the ordinance, by going to this link: <http://www.sf-planning.org/index.aspx?page=4222>.

ANNUAL HEARING

An annual hearing on the Housing Balance before the Board of Supervisors will be scheduled by April 1 of each year. The Mayor's Office of Housing and Community Development, the Mayor's Office of Economic and Workforce Development, the Rent Stabilization Board, the Department of Building Inspection, and the City Economist will present strategies for achieving and maintaining a housing balance consistent with the City's housing goals at this annual hearing. The ordinance also requires that MOHCD will determine the amount of funding needed to bring the City into the required minimum 33% should the cumulative housing balance fall below that threshold.

APPENDIX A
Ordinance 53-15

	AMENDED IN COMMITTEE 4/6/15	ORDINANCE NO. 53-15
1	[Planning Code - City Housing Balance Monitoring and Reporting]	
2		
3	Ordinance amending the Planning Code to require the Planning Department to monitor	
4	the balance between new market rate housing and new affordable housing, and publish	
5	a bi-annual Housing Balance Report; requiring an annual hearing at the Board of	
6	Supervisors on strategies for achieving and maintaining the required housing balance	
7	in accordance with San Francisco's housing production goals; and making	
8	environmental findings, Planning Code, Section 302 findings, and findings of	
9	consistency with the General Plan, and the eight priority policies of Planning Code,	
10	Section 101.1.	
11		
12	NOTE: Unchanged Code text and uncodified text are in plain Arial font.	
13	Additions to Codes are in <u>single-underline italics Times New Roman font</u> .	
14	Deletions to Codes are in strikethrough italics Times New Roman font .	
15	Board amendment additions are in <u>double-underlined Arial font</u> .	
16	Board amendment deletions are in strikethrough Arial font .	
17	Asterisks (* * * *) indicate the omission of unchanged Code	
18	subsections or parts of tables.	
19		
20	Be it ordained by the People of the City and County of San Francisco:	
21		
22	Section 1. Findings.	
23	(a) The Planning Department has determined that the actions contemplated in this	
24	ordinance comply with the California Environmental Quality Act (California Public Resources	
25	Code Sections 21000 et seq.). Said determination is on file with the Clerk of the Board of	
	Supervisors in File No. 150029 and is incorporated herein by reference. The Board of	
	Supervisors affirms this determination.	
	(b) On March 19, 2015, the Planning Commission, in Resolution No. 19337, adopted	
	findings that the actions contemplated in this ordinance are consistent, on balance, with the	
	Supervisor Kim	
	BOARD OF SUPERVISORS	
		Page 1

1 adopts these findings as its own. A copy of said Resolution is on file with the Clerk of the
2 Board of Supervisors in File No. 150029, and is incorporated herein by reference.

3 (c) Pursuant to Planning Code Section 302, this Board finds that this Planning Code
4 Amendment will serve the public necessity, convenience, and welfare for the reasons set forth
5 in Planning Commission Resolution No. 150029 and the Board incorporates such reasons
6 herein by reference.

7
8 Section 2. The Planning Code is hereby amended by adding new Section 103 to read
9 as follows:

10 **SEC. 103. HOUSING BALANCE MONITORING AND REPORTING.**

11 **(a) Purposes.** *To maintain a balance between new affordable and market rate housing City-*
12 *wide and within neighborhoods, to make housing available for all income levels and housing need*
13 *types, to preserve the mixed income character of the City and its neighborhoods, to offset the*
14 *withdrawal of existing housing units from rent stabilization and the loss of single-room-occupancy*
15 *hotel units, to ensure the availability of land and encourage the deployment of resources to provide*
16 *sufficient housing affordable to households of very low, low, and moderate incomes, to ensure adequate*
17 *housing for families, seniors and the disabled community, to ensure that data on meeting affordable*
18 *housing targets City-wide and within neighborhoods informs the approval process for new housing*
19 *development, and to enable public participation in determining the appropriate mix of new housing*
20 *approvals, there is hereby established a requirement, as detailed in this Section 103, to monitor and*
21 *regularly report on the housing balance between market rate housing and affordable housing.*

22 **(b) Findings.**

23 *(1) In November 2014, the City voters enacted Proposition K, which established City*
24 *policy to help construct or rehabilitate at least 30,000 homes by 2020. More than 50% of this housing*
25 *would be affordable for middle-class households, with at least 33% affordable for low- and moderate-*

1 income households, and the City is expected to develop strategies to achieve that goal. This section
2 103 sets forth a method to track performance toward the City's Housing Element goals and the near-
3 term Proposition K goal that 33% of all new housing shall be affordable housing, as defined herein.

4 (2) The City's rent stabilized and permanently affordable housing stock serves very low-,
5 low-, and moderate-income families, long-time residents, elderly seniors, disabled persons and others.
6 The City seeks to achieve and maintain an appropriate balance between market rate housing and
7 affordable housing City-wide and within neighborhoods because the availability of decent housing and
8 a suitable living environment for every San Franciscan is of vital importance. Attainment of the City's
9 housing goals requires the cooperative participation of government and the private sector to expand
10 housing opportunities to accommodate housing needs for San Franciscans at all economic levels and to
11 respond to the unique needs of each neighborhood where housing will be located.

12 (3) For tenants in unsubsidized housing, affordability is often preserved by the
13 Residential Rent Stabilization and Arbitration Ordinance's limitations on the size of allowable rent
14 increases during a tenancy. As documented in the Budget and Legislative Analyst's October 2013
15 Policy Analysis Report on Tenant Displacement, San Francisco is experiencing a rise in units
16 withdrawn from rent controls. Such rises often accompany periods of sharp increases in property
17 values and housing prices. From 1998 through 2013, the Rent Board reported a total of 13,027 no-fault
18 evictions (i.e., evictions in which the tenant had not violated any lease terms, but the owner sought to
19 regain possession of the unit). Total evictions of all types have increased by 38.2% from Rent Board
20 Year (i.e. from March through February) 2010 to Rent Board Year 2013. During the same period, Ellis
21 Act evictions far outpaced other evictions, increasing by 169.8% from 43 in Rent Board Year 2010 to
22 116 in Rent Board Year 2013. These numbers do not capture the large number of owner buyouts of
23 tenants, which contribute further to the loss of rent-stabilized units from the housing market. Any fair
24 assessment of the affordable housing balance must incorporate into the calculation units withdrawn
25 from rent stabilization.

1 (4) Pursuant to Government Code Section 65584, the Association of Bay Area
2 Governments (ABAG), in coordination with the California State Department of Housing and
3 Community Development (HCD), determines the Bay Area's regional housing need based on regional
4 trends, projected job growth, and existing needs. The regional housing needs assessment (RHNA)
5 determination includes production targets addressing housing needs of a range of household income
6 categories. For the RHNA period covering 2015 through 2022, ABAG has projected that at least 38%
7 of new housing demands for San Francisco will be from very low and low income households
8 (households earning under 80% of area median income), and another 22% of new housing demands to
9 be affordable to households of moderate means (earning between 80% and 120% of area median
10 income). Market-rate housing is considered housing with no income limits or special requirements
11 attached.

12 (5) The Housing Element of the City's General Plan states: "Based on the growing
13 population, and smart growth goals of providing housing in central areas like San Francisco, near jobs
14 and transit, the State Department of Housing and Community Development (HCD), with the
15 Association of Bay Area Governments (ABAG), estimates that in the current 2015-2022 Housing
16 Element period San Francisco must plan for the capacity for roughly 28,870 new units, 57% of which
17 should be suitable for housing for the extremely low, very low, low and moderate income households to
18 meet its share of the region's projected housing demand." Objective 1 of the Housing Element states
19 that the City should "identify and make available for development adequate sites to meet the City's
20 housing needs, especially permanently affordable housing." Objective 7 states that San Francisco's
21 projected affordable housing needs far outpace the capacity for the City to secure subsidies for new
22 affordable units.

23 (6) In 2012, the City enacted Ordinance 237-12, the "Housing Preservation and
24 Production Ordinance," codified in Administrative Code Chapter 10E.4, to require Planning
25 Department staff to regularly report data on progress toward meeting San Francisco's quantified

1 production goals for different household income levels as provided in the General Plan's Housing
2 Element. That Ordinance requires data on the number of units in all stages of the housing production
3 process at various affordability levels to be included in staff reports on all proposed projects of five
4 residential units or more and in quarterly housing production reports to the Planning Commission. The
5 Planning Department has long tracked the number of affordable housing units and total number of
6 housing units built throughout the City and in specific areas and should be able to track the ratio called
7 for in this Section 103.

8 (7) As the private market has embarked upon, and government officials have urged, an
9 ambitious program to produce significant amounts of new housing in the City, the limited remaining
10 available land makes it essential to assess the impact of the approval of new market rate housing
11 developments on the availability of land for affordable housing and to encourage the deployment of
12 resources to provide such housing.

13 **(c) Housing Balance Calculation.**

14 (1) For purposes of this Section 103, "Housing Balance" shall be defined as the
15 proportion of all new housing units affordable to households of extremely low, very low, low or
16 moderate income households, as defined in California Health & Safety Code Sections 50079.5 et seq.,
17 as such provisions may be amended from time to time, to the total number of all new housing units for a
18 10 year Housing Balance Period.

19 (2) The Housing Balance Period shall begin with the first quarter of year 2005 to the
20 last quarter of 2014, and thereafter for the ten years prior to the most recent calendar quarter.

21 (3) For each year that data is available, beginning in 2005, the Planning Department
22 shall report net housing construction by income levels, as well as units that have been withdrawn from
23 protection afforded by City law, such as laws providing for rent-controlled and single resident
24 occupancy (SRO) units. The affordable housing categories shall include net new units, as well as
25 existing units that were previously not restricted by deed or regulatory agreement that are acquired for

1 preservation as permanently affordable housing as determined by the Mayor's Office of Housing and
2 Community Development (MOHCD) (not including refinancing or other rehabilitation under existing
3 ownership), protected by deed or regulatory agreement for a minimum of 55 years. The report shall
4 include, by year, and for the latest quarter, all units that have received Temporary Certificates of
5 Occupancy within that year, a separate category for units that obtained a site or building permit, and
6 another category for units that have received approval from the Planning Commission or Planning
7 Department, but have not yet obtained a site or building permit to commence construction (except any
8 entitlements that have expired and not been renewed during the Housing Balance Period). Master
9 planned entitlements, including but not limited to such areas as Treasure Island, Hunters Point
10 Shipyard and Park Merced, shall not be included in this latter category until individual building
11 entitlements or site permits are approved for specific housing projects. For each year or approval
12 status, the following categories shall be separately reported:

13 (A) Extremely Low Income Units, which are units available to individuals or
14 families making between 0-30% Area Median Income (AMI) as defined in California Health & Safety
15 Code Section 50106, and are subject to price or rent restrictions between 0-30% AMI;

16 (B) Very Low Income Units, which are units available to individuals or families
17 making between 30-50% AMI as defined in California Health & Safety Code Section 50105, and are
18 subject to price or rent restrictions between 30-50% AMI;

19 (C) Lower Income Units, which are units available to individuals or families
20 making between 50-80% AMI as defined in California Health & Safety Code Section 50079.5, and are
21 subject to price or rent restrictions between 50-80% AMI;

22 (D) Moderate Income Units, which are units available to individuals or families
23 making between 80-120% AMI, and are subject to price or rent restrictions between 80-120% AMI;

24 (E) Middle Income Units, which are units available to individuals or families
25 making between 120-150% AMI, and are subject to price or rent restrictions between 120-150% AMI;

1 (F) Market-rate units, which are units not subject to any deed or regulatory
2 agreement with price restrictions;

3 (G) Housing units withdrawn from protected status, including units withdrawn
4 from rent control (except those units otherwise converted into permanently affordable housing),
5 including all units that have been subject to rent control under the San Francisco Residential Rent
6 Stabilization and Arbitration Ordinance but that a property owner removes permanently from the
7 rental market through condominium conversion pursuant to Administrative Code Section 37.9(a)(9),
8 demolition or alterations (including dwelling unit mergers), or permanent removal pursuant to
9 Administrative Code Section 37.9(a)(10) or removal pursuant to the Ellis Act under Administrative
10 Code Section 37.9(a)(13);

11 (H) Public housing replacement units and substantially rehabilitated units
12 through the HOPE SF and Rental Assistance Demonstration (RAD) programs, as well as other
13 substantial rehabilitation programs managed by MOHCD.

14 (4) The Housing Balance shall be expressed as a percentage, obtained by dividing the
15 cumulative total of extremely low, very low, low and moderate income affordable housing units (all
16 units 0-120% AMI) minus the lost protected units, by the total number of net new housing units within
17 the Housing Balance Period. The Housing Balance shall also provide two calculations:

18 (A) the Cumulative Housing Balance, consisting of housing units that have
19 already been constructed (and received a Temporary Certificate of Occupancy or other certificate that
20 would allow occupancy of the units) within the 10-year Housing Balance Period, plus those units that
21 have obtained a site or building permit. A separate calculation of the Cumulative Housing Balance
22 shall also be provided, which includes HOPE SF and RAD public housing replacement and
23 substantially rehabilitated units (but not including general rehabilitation / maintenance of public
24 housing or other affordable housing units) that have received Temporary Certificates of Occupancy
25

1 within the Housing Balance Period. The Housing Balance Reports will show the Cumulative Housing
2 Balance with and without public housing included in the calculation; and

3 (B) the Projected Housing Balance, which shall include any residential project
4 that has received approval from the Planning Commission or Planning Department, even if the
5 housing project has not yet obtained a site or building permit to commence construction (except any
6 entitlements that have expired and not been renewed during the Housing Balance period). Master
7 planned entitlements shall not be included in the calculation until individual building entitlements or
8 site permits are approved.

9 (d) **Bi-annual Housing Balance Reports.** Within 30 days of the effective date of this
10 Section 103 By June 1, 2015, the Planning Department shall calculate the Cumulative and Projected
11 Housing Balance for the most recent two quarters City-wide, by Supervisorial District, Plan Area, and
12 by neighborhood Planning Districts, as defined in the annual Housing Inventory, and publish it as an
13 easily visible and accessible page devoted to Housing Balance and Monitoring and Reporting on the
14 Planning Department's website. By ~~August~~ **September 1st** and ~~February~~ **March 1st** of each year, the
15 Planning Department shall publish and update the Housing Balance Report, and present this report at
16 an informational hearing to the Planning Commission and Board of Supervisors, as well as to any
17 relevant body with geographic purview over a plan area upon request, along with the other quarterly
18 reporting requirements of Administrative Code Chapter 10E.4. The annual report to the Board of
19 Supervisors shall be accepted by resolution of the Board, which resolution shall be introduced
20 by the Planning Department. The Housing Balance Report shall also be incorporated into the
21 Annual Planning Commission Housing Hearing and Annual Report to the Board of Supervisors
22 required in Administrative Code Chapter 10E.4.

23 (e) **Annual Hearing by Board of Supervisors.**

24 (1) The Board of Supervisors shall hold a public Housing Balance hearing on an annual
25 basis by April 1 of each year, to consider progress towards the City's affordable housing goals.

1 including the goal of a minimum 33% affordable housing to low and moderate income households, as
2 well as the City's General Plan Housing Element housing production goals by income category. The
3 first hearing shall occur no later than 30 days after the effective date of this ordinance, and by April 1
4 of each year thereafter.

5 (2) The hearing shall include reporting by the Planning Department, which shall present
6 the latest Housing Balance Report City-wide and by Supervisorial District and Planning District; the
7 Mayor's Office of Housing and Community Development, the Mayor's Office of Economic and
8 Workforce Development, the Rent Stabilization Board, by the Department of Building Inspection, and
9 the City Economist on strategies for achieving and maintaining a housing balance in accordance with
10 San Francisco's housing production goals. If the Cumulative Housing Balance has fallen below 33% in
11 any year, MOHCD shall determine how much funding is required to bring the City into a minimum
12 33% Housing Balance and the Mayor shall submit to the Board of Supervisors a strategy to accomplish
13 the minimum of 33% Housing Balance. City Departments shall at minimum report on the following
14 issues relevant to the annual Housing Balance hearing: MOHCD shall report on the annual and
15 projected progress by income category in accordance with the City's General Plan Housing Element
16 housing production goals, projected shortfalls and gaps in funding and site control, and progress
17 toward the City's Neighborhood Stabilization goals for acquiring and preserving the affordability of
18 existing rental units in neighborhoods with high concentrations of low and moderate income
19 households or historically high levels of evictions; the Planning Department shall report on current
20 and proposed zoning and land use policies that affect the City's General Plan Housing Element
21 housing production goals; the Mayor's Office of Economic and Workforce Development shall report on
22 current and proposed major development projects, dedicated public sites, and policies that affect the

1 City's General Plan Housing Element housing production goals; the Rent Board shall report on the
2 withdrawal or addition of rent-controlled units and current or proposed policies that affect these
3 numbers; the Department of Building Inspection shall report on the withdrawal or addition of
4 Residential Hotel units and current or proposed policies that affect these numbers; and the City
5 Economist shall report on annual and projected job growth by the income categories specified in the
6 City's General Plan Housing Element.

7 (3) All reports and presentation materials from the annual Housing Balance hearing
8 shall be maintained by year for public access on the Planning Department's website on its page
9 devoted to Housing Balance Monitoring and Reporting.

10
11 Section 4. Effective Date. This ordinance shall become effective 30 days after
12 enactment. Enactment occurs when the Mayor signs the ordinance, the Mayor returns the
13 ordinance unsigned or does not sign the ordinance within ten days of receiving it, or the Board
14 of Supervisors overrides the Mayor's veto of the ordinance.

15
16 APPROVED AS TO FORM:
17 DENNIS J. HERRERA, City Attorney

18 By: 
19 MARLENA BYRNE
Deputy City Attorney

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Supervisor Kim
BOARD OF SUPERVISORS

Page 10



City and County of San Francisco
Tails
Ordinance

City Hall
1 Dr. Carlton B. Goodlett Place
San Francisco, CA 94102-4689

File Number: 150029

Date Passed: April 21, 2015

Ordinance amending the Planning Code to require the Planning Department to monitor the balance between new market rate housing and new affordable housing, and publish a bi-annual Housing Balance Report; requiring an annual hearing at the Board of Supervisors on strategies for achieving and maintaining the required housing balance in accordance with San Francisco's housing production goals; and making environmental findings, Planning Code, Section 302, findings, and findings of consistency with the General Plan, and the eight priority policies of Planning Code, Section 101.1.

April 06, 2015 Land Use and Transportation Committee - AMENDED, AN AMENDMENT OF THE WHOLE BEARING SAME TITLE

April 06, 2015 Land Use and Transportation Committee - RECOMMENDED AS AMENDED

April 14, 2015 Board of Supervisors - PASSED, ON FIRST READING

Ayes: 11 - Avalos, Breed, Campos, Christensen, Cohen, Farrell, Kim, Mar, Tang, Wiener and Yee

April 21, 2015 Board of Supervisors - FINALLY PASSED

Ayes: 11 - Avalos, Breed, Campos, Christensen, Cohen, Farrell, Kim, Mar, Tang, Wiener and Yee

File No. 150029

I hereby certify that the foregoing Ordinance was FINALLY PASSED on 4/21/2015 by the Board of Supervisors of the City and County of San Francisco.


Angela Calvillo
Clerk of the Board


Mayor


Date Approved

APPENDIX B

CUMULATIVE HOUSING BALANCE REPORT No 7 TABLES BY PLANNING DISTRICTS

Table 1A

Cumulative Housing Balance Calculation, 2008 Q3 – 2018 Q2

Planning Districts	New Affordable Housing Built	Acquisitions & Rehabs and Small Sites Completed	Units Removed from Protected Status	Total Entitled Affordable Units Permitted	Total Net New Units Built	Total Entitled Permitted Units	Cumulative Housing Balance
1 Richmond	219	5	(599)	4	567	166	-50.6%
2 Marina	1	24	(186)	-	215	141	-45.2%
3 Northeast	197	6	(330)	2	783	200	-12.7%
4 Downtown	1,685	851	(120)	371	5,996	2,561	32.6%
5 Western Addition	513	293	(182)	136	1,513	374	40.3%
6 Buena Vista	199	5	(225)	111	1,028	413	6.2%
7 Central	110	-	(340)	5	430	125	-40.5%
8 Mission	344	403	(543)	559	1,527	2,204	20.5%
9 South of Market	2,091	262	(134)	1,376	13,110	4,749	20.1%
10 South Bayshore	1,091	-	(104)	579	1,966	1,069	51.6%
11 Bernal Heights	-	50	(187)	-	51	45	-142.7%
12 South Central	11	21	(466)	9	135	324	-92.6%
13 Ingleside	116	-	(198)	-	551	1,089	-5.0%
14 Inner Sunset	-	-	(188)	-	98	42	-134.3%
15 Outer Sunset	-	-	(461)	7	25	134	-285.5%
TOTALS	6,577	1,920	(4,263)	3,159	27,995	13,636	17.8%

Table 1B**Expanded Cumulative Housing Balance Calculation, 2008 Q3 – 2018 Q2**

Planning Districts	New Affordable Housing Built	Acquisitions & Rehabs and Small Sites Completed	RAD Program & HopeSF Replacement Units	Units Removed from Protected Status	Total Entitled Affordable Units Permitted	Total Net New Units Built	Total Entitled Permitted Units	Expanded Cumulative Housing Balance
1 Richmond	219	5	144	(599)	4	567	166	-31.0%
2 Marina	1	24	138	(186)	-	215	141	-6.5%
3 Northeast	197	6	577	(330)	2	783	200	46.0%
4 Downtown	1,685	851	285	(120)	371	5,996	2,561	35.9%
5 Western Addition	513	293	919	(182)	136	1,513	374	89.0%
6 Buena Vista	199	5	132	(225)	111	1,028	413	15.4%
7 Central	110	-	107	(340)	5	430	125	-21.3%
8 Mission	344	403	91	(543)	559	1,527	2,204	22.9%
9 South of Market	2,091	262	276	(134)	1,376	13,110	4,749	21.7%
10 South Bayshore	1,091	-	436	(104)	579	1,966	1,069	66.0%
11 Bernal Heights	-	50	268	(187)	-	51	45	136.5%
12 South Central	11	21	-	(466)	9	135	324	-92.6%
13 Ingleside	116	-	-	(198)	-	551	1089	-5.0%
14 Inner Sunset	-	-	110	(188)	-	98	42	-55.7%
15 Outer Sunset	-	-	-	(461)	7	25	134	-285.5%
TOTALS	6,577	1,920	3,483	(4,263)	3,159	27,995	13,636	26.1%

Table 2
Projected Housing Balance Calculation, 2018 Q2

BoS District	Very Low Income	Low Income	Moderate	TBD	Total Affordable Units	Net New Units	Total Affordable Units as % of Net New Units
1 Richmond	-	-	-	-	-	3	0.0%
2 Marina	-	-	-	-	-	36	0.0%
3 Northeast	-	-	8	178	186	265	70.2%
4 Downtown	-	60	73	-	133	1,578	8.4%
5 Western Addition	-	-	-	3	3	264	1.1%
6 Buena Vista	-	-	15	-	15	242	6.2%
7 Central	-	-	-	-	-	12	0.0%
8 Mission	-	107	46	6	159	968	16.4%
9 South of Market	-	423	32	689	1,144	4,565	25.1%
10 South Bayshore	-	-	72	168	240	4,935	4.9%
11 Bernal Heights	-	-	-	-	-	2	0.0%
12 South Central	-	307	-	-	307	608	50.5%
13 Ingleside	-	-	-	-	-	8	0.0%
14 Inner Sunset	-	-	-	-	-	33	0.0%
15 Outer Sunset	-	-	-	-	-	2	0.0%
TOTALS	-	897	246	1,044	2,187	13,521	16.2%

Table 3
New Housing Production by Affordability, 2008 Q3 – 2018 Q2

Planning Districts	Very Low	Low	Moderate	Middle Income	Total Affordable Units	Total Net Units	Affordable Units as % of Total Net Units
1 Richmond	207	12	-	-	219	567	38.6%
2 Marina	-	-	1	-	1	215	0.5%
3 Northeast	161	2	34	-	197	783	25.2%
4 Downtown	954	481	227	23	1,685	5,996	28.1%
5 Western Addition	266	171	76	-	513	1,513	33.9%
6 Buena Vista	71	74	54	-	199	1,028	19.4%
7 Central	92	18	-	-	110	430	25.6%
8 Mission	214	62	68	-	344	1,527	22.5%
9 South of Market	590	1,000	501	-	2,091	13,110	15.9%
10 South Bayshore	671	314	106	-	1,091	1,966	55.5%
11 Bernal Heights	-	-	-	-	-	51	0.0%
12 South Central	-	7	4	-	11	135	8.1%
13 Ingleside	70	29	17	-	116	551	21.1%
14 Inner Sunset	-	-	-	-	-	98	0.0%
15 Outer Sunset	-	-	-	-	-	25	0.0%
TOTALS	3,296	2,170	1,088	23	6,577	27,995	23.5%

Table 4a
Acquisitions and Rehabilitation of
Affordable Housing, 2008 Q3 – 2018 Q2

Planning District	No. of Buildings	No. of Units
2 Marina	1	24
4 Downtown	6	826
5 Western Addition	2	290
8 Mission	2	319
9 South of Market	6	259
TOTALS	17	1,718

Table 4b
Small Sites Program Acquisitions, 2014 Q1 – 2018 Q2

Planning District	No. of Buildings	No. of Units
1 Richmond	1	5
3 Northeast	1	6
4 Downtown	2	25
5 Western Addition	1	3
6 Buena Vista	1	5
8 Mission	11	84
9 South of Market	1	3
11 Bernal Heights	2	50
12 South Central	1	21
TOTALS	21	202

Table 5
RAD Affordable Units, 2015 Q1 – 2018 Q2

Planning District	No of Buildings	No of Units
1 Richmond	2	144
2 Marina	2	138
3 Northeast	4	577
4 Downtown	3	285
5 Western Addition	8	919
6 Buena Vista	2	132
7 Central	1	107
8 Mission	1	91
9 South of Market	1	276
10 South Bayshore	2	436
11 Bernal Heights	2	268
12 South Central	-	-
13 Ingleside	-	-
14 Inner Sunset	1	110
15 Outer Sunset	-	-
TOTALS	29	3,483

Table 6
Units Removed from Protected Status, 2008 Q3 – 2018 Q2

Planning District	Condo Conversion	Demolition	Ellis Out	Owner Move-In	Total Units Permanently Lost
1 Richmond	4	26	187	382	599
2 Marina	11	4	38	133	186
3 Northeast	12	11	175	132	330
4 Downtown	-	68	48	4	120
5 Western Addition	7	9	34	132	182
6 Buena Vista	4	5	91	125	225
7 Central	18	17	95	210	340
8 Mission	2	30	260	251	543
9 South of Market	3	18	36	77	134
10 South Bayshore	-	11	12	81	104
11 Bernal Heights	5	24	53	105	187
12 South Central	-	64	58	344	466
13 Ingleside	-	37	32	129	198
14 Inner Sunset	5	15	57	111	188
15 Outer Sunset	-	74	81	306	461
Totals	71	413	1,257	2,522	4,263

Table 7
Entitled and Permitted Units, 2018 Q2

BoS District	Very Low Income	Low Income	Moderate	TBD	Total Affordable Units	Net New Units	Total Affordable Units as % of Net New Units
1 Richmond	-	-	-	-	-	3	0.0%
2 Marina	-	-	-	-	-	36	0.0%
3 Northeast	-	-	8	178	186	265	70.2%
4 Downtown	-	60	73	-	133	1,578	8.4%
5 Western Addition	-	-	-	3	3	264	1.1%
6 Buena Vista	-	-	15	-	15	242	6.2%
7 Central	-	-	-	-	-	12	0.0%
8 Mission	-	107	46	6	159	968	16.4%
9 South of Market	-	423	32	689	1,144	4,565	25.1%
10 South Bayshore	-	-	72	168	240	4,935	4.9%
11 Bernal Heights	-	-	-	-	-	2	0.0%
12 South Central	-	307	-	-	307	608	50.5%
13 Ingleside	-	-	-	-	-	8	0.0%
14 Inner Sunset	-	-	-	-	-	33	0.0%
15 Outer Sunset	-	-	-	-	-	2	0.0%
TOTALS	-	897	246	1,044	2,187	13,521	16.2%

RECEIVED

September 15, 2018

SEP 21 2018

Subject: 2515 Broadway – Permit Application No. 2017.06.26.0318.

CITY & COUNTY OF S.F.
PLANNING DEPARTMENT
CPC/HPC

Dear Members of the Planning Commission,

I am the property owner that lives directly behind the Applicant at 2515 Broadway, San Francisco. My address is 2650 Pacific Avenue.

I would like to express my concern about the needless disappearance of Mid-Block Open Space that this project would produce. Because the Applicant proposes to eliminate the cut-out in the rear wall of his house, we in the neighborhood lose a valuable community resource that is important to us all. I would ask that any proposed expansion continue to include the existing cut-out at the rear of the house.

I am also concerned that the extensive demolition shown in the plans indicate that this is really a demolition permit application rather than what was submitted, an alteration permit. This should not be allowed. The planning process should respect a definition of "demolition" that is meaningful and understood by all. Otherwise the planning process itself is meaningless.

Thank you for your consideration.

Sincerely,

Carol G. Costigan

Carol G. Costigan
2650 Pacific Avenue
San Francisco, CA 94115

P.S. The height of your home is a real consideration to me. It was impossible to tell what is planned by viewing the printed project information! I would be very glad to see what is proposed! Cbe

RECEIVED

SEP 18 2018

CITY & COUNTY OF S.F.
PLANNING DEPARTMENT
CPC/HPC

Cheryl Lea Hogan, M.A.
415-572-8231
clhogan3@gmail.com

September 13, 2018

To: The San Francisco Department of Public Works,
The San Francisco Planning Commission, the Board of Supervisors, and
The Mayor of San Francisco. London Breed.

RE: Permit # 18WR-0171, applicant is Verizon Wireless for a microwave
cell tower at 3529 Sacramento Street, San Francisco, California.

Good Morning. I have come before you today to speak about the unwise
decision to install a microwave/cell tower outside the window so close
to where I live, and on the tree and SFPUC pole outside the window
where I live.

I implore you to listen to scientific advice from professors and scientists
not funded by large corporations about microwave towers. It would
behoove you to listen to these scientists rather than to funded research
from Verizon or other cell phone carriers. It would also behoove you to
not make decisions from antiquated building codes that were written
before the Communication Age. I am not protesting the aesthetics of
these microwave devices. I will be presenting to you scientific journal
articles about the health effects of microwaves. I would hope that after
hearing and reading these articles that you will then take guidance from
the wonderful town of Mill Valley, who has banned these new 5G
towers.

In this letter, I am not referring to the aesthetics of the cell tower nor am
I referring to whether the cell tower will fall. It very well might fall in
the wind and then have its microwaves redirected. I am referring only
to the health effects of the microwaves on the populace of the citizens of
San Francisco. I urge you here today to be an example for the rest of the
nation in your vote and in your decision as to whether or not a
microwave cell tower should be installed so near to a building where

people live. From my research, I have read that these cell towers should not be closer than 300 meters from buildings where people live and work.

After presenting my thoughts, I will provide you with copies of my current research on this subject of microwaves so that you can better make an informed scientific decision.

I assure you, I am not against scientific progress and the furtherance of the recent wonderful communication devices that we use today in this awesome era of the "New Communication Age." Much that was invented in the mid-twentieth century is now available to the larger public. Bell Laboratories was the hotbed of invention in the early to mid twentieth century.

About now, you are probably wondering what qualifies me to present to you today. My education is that I have a Bachelor of Science degree from the University of Arizona, and I also have a Master of Arts degree. I am the mother of two sons who live and work in San Francisco and the Bay Area. One of my sons is a San Francisco Firefighter and my other son is a jet pilot. Their health and safety is of utmost concern, as is the health and safety of the other citizens here in San Francisco. I understand from my research that these microwave/cell towers are forbidden on the roofs of fire stations here in San Francisco. My most recent job was doing backup research for a worker's compensation applicant doctor concerning injuries in the workplace.

I am also the daughter of the late Clarence Lester Hogan, Ph.D. who was an early scientist at Bell Laboratories. Dr. Hogan was inventing the microwave gyrator, isolator, and circulator at Bell Laboratories during the same years that William Shockley was inventing the transistor down the hall at Bell Laboratories. Many of these inventions at Bell Laboratories in the mid twentieth century would later open an entire new era for the Computer Age and the Communication Age. Silicon Valley was then born from the manufacture of these transistors, communication devices, computers, cell phone, and microwave communication devices. Everyone benefits from scientific progress, both personally and economically. Dr. William Shockley went on to receive the Nobel prize and Dr. Hogan went on to receive the Philips award, the Pioneer award and he was honored by the IET in London.

Other scientists to receive this prestigious award from the IET were Alexander Graham Bell, Thomas Edison, and Michael Faraday. The early Silicon Valley was born here in California with several “startups” by six very talented men, many who escaped from Europe during the second world war. The future of the Communication Age was in its infancy.

I mention these two scientists for you to get a perspective about how academia, science, and corporations in Silicon Valley are very much intertwined. The corporations fund the universities, and then the students when they graduate go on to work at some of these very same corporations. There is a long history in the Bay Area of the very important financial agreements of the corporations and the academic institutions. I do not refer to skewed research. I refer to pure research without the “the bureaucratic supervision that rides herd over the government sponsored research in America’s universities.” (Clarence Lester Hogan, PH.D. 1984). I do not refer to research that is paid for or funded by corporations to put them in a better light to the public. I speak about free research where the professors and students can present their findings in a true and scientific way. Students who were and are talented can benefit from the economic advantages of the corporations funding their education. No one benefits if the corporations and government demand a certain outcome in this scientific research.

Along came the government. The government began only funding research that agreed with the political powers to be. The corporations began using their lobbying efforts to influence government. What happened to pure research of independent voices and independent universities needing funding too?

Dr. Hogan was instrumental in the early Silicon Valley when he had CEO’s from Silicon Valley over to his house and he seated these Titans of Industry next to Berkeley, and Stanford professors. They spoke during these dinners and Voila! The professor got their needed funding, without strings attached. Dr. Hogan, having been a Harvard professor, really understood the financial needs of an underpaid professor and he also understood the need for funding of critical research at the universities. He was and had been Vice President of Motorola (a grand communication corporation and fabricator of transistors) and he was also President of Fairchild Camera Inc.

Now, you are thinking why am I telling you this. I am telling you this for you to know that in the past there was a very healthy agreement between scientific endeavors at the universities, and the corporate funding of this research. What happened later when the corporations only funded or published research that skewed the truth, or put their corporations in a better light to the public? What happened when the corporations lobbied Congress and coerced them to only give grants that would agree with the corporations' views? What happened when the Congress members and Senators voted according to their agenda and did not make decisions based on the pure research of science.?

I now give you a quote. On August 27, 1984 Dr. C. Lester Hogan, along with many other colleagues testified before the Joint Economic Committee of Congress, 98th Congress, Second Session, when many Congress members came to Silicon Valley in Cupertino to gain advice from the then Presidents of Intel, Ask Computers, AMD, National, Fairchild and other prominent corporations. I urge you to read this document as it is very relevant now in this age, for advice on immigration, foreign worker status, business, economics, law, science, inventions and other issues that are still debated now.

"So, if Congress is truly interested in strengthening the scientific base upon which our technology is founded, then I suggest one of the most useful things you can do is remove some of the bureaucratic supervision that rides herd over the government sponsored research in America's universities". C. Lester Hogan, Ph.D.

Now, let's get back to the permit in question: Permit number 18WR-0171. The pole upon which the microwave/cell tower is tentatively to be built is owned by San Francisco Public Utilities Commission. I was told by the Department of Public Works that the pole is actually on the property line of 3529 and 3533/3535 Sacramento Street.

I understand that Verizon has a tentative permit. Construction of insertion of a fiber optic cable was, to my knowledge started on August 23, 2018. My dog woke me up barking when she heard the workers on the sidewalk at 11 p.m. at night. Are there rules about starting a project before a final permit is issued? Are there rules about working noisily and with bright lights on the street or sidewalk in neighborhoods after

regular working hours.... Way past 10 p.m.? The worker, Rob Hamilton of Pinnacle that night told me that the city would not allow their company to work during the day because of traffic. I didn't see any traffic on the sidewalk, nor do I see traffic on the sidewalk during the day. Rob Hamilton said that he and the workers were installing fiber optic cables that would later connect to the microwave cell tower. I asked to see a permit. He was unable to produce a permit. Rob Hamilton's supervisor was also unable to produce a permit. Rob Hamilton's supervisor also said he didn't have a business card. The license plate on the truck was from out of state. Included here is a photo of one of the license plates of the various trucks. I was then told that Extranet hired Pinnacle to do this nightly work and that Verizon had hired Extranet. On another day more workers came to work on this project on the sidewalk. Some policemen were called the night of August 23, 2018 to investigate and said that the workers had "permission". I asked to see the permit that the workers might have shown a police officer. No worker at Pinnacle could find a referral to a permit on their computers.

I subsequently called the Department of Public Works on another day and spoke to Leo Palacios and asked him who owned the pole upon which this microwave cell tower was to be installed. He said he didn't know and suggested that I call the applicant, Verizon. I did not call Verizon. I then reframed my question and asked Mr. Palacios if I were to fly a balloon on the pole and perhaps needed a permit to do so, how would I find out who owned the pole so that I would know who to pay for the rental of the pole. He said he would get back to me. He did get back to me and then he told me that SFPUC owned the pole. Thus, I am supposing that Verizon is paying SFPUC for the rental of the pole. Correct me if I am wrong.

Now, let's get on with the research surrounding and published about microwave/cell towers. I will start with explaining exactly what a cell phone is. It is a small microwave two- way radio. The cell phone transmits and receives a signal to and from the microwave/cell tower. Some communication devices transmit and receive signals from earth to a satellite.

In recent years, Verizon and other communication carriers have been installing microwave towers in urban areas on apartment building roofs, rooftops of schools, and other buildings in the cities. Landlords of these buildings and schools are paid thousands of dollars a month from the various communication corporations for the right to install these devices on the various rooftops. I am sure you are aware of this as you at the building and planning, and public works departments also have to agree to these installations as you provide the building permits.

I include for you now in the stack of research presented with this essay: "Exposure Limits: The underestimation of absorbed cell phone radiation, especially in children". Electromagnetic Biology and Medicine: Vol31, No.1.

I also include for your reading: Radio Frequency Electromagnetic Fields: Mild hyperthermia and safety standards. Science Direct.

I include here also an article entitled the "Dangers of Living near cell phone towers Raised", printed by the East county Magazine.

For the next article, I include an article from the Wall Street Journal. "WSJ reports one in 10 cell phone towers violate radiation safety rules." The authors found at the time of writing the article 300,000 cell phone tower locations and "one in ten violates the rules. "

I also include here Cell Tower Health Risks. This article mentions the effects of lower milk production in cows that lived near the cell tower. The cows were moved away from the cell tower and milk production increased. The cows were moved back near the cell tower and milk production again decreased. The residents of an apartment in London who lived on the top floor of where a cell tower was installed on the roof, experienced 10 times the national average for cancer.

One of the articles that I read indicated that these cell phone towers should not be within 300 meters of buildings where people live and work.

For those of you inclined to read about the Federal Communications Commission, I suggest the book:

Alster, Norm. "Captured Agency: How the Federal Communications Commission is dominated by the industries it presumably regulates." Cambridge, MA: Edmund J. Safra Center for Ethics, Harvard University, 2015. "

"In all CTIA, Verizon, AT&T, T Mobile USA, and Sprint spent roughly 145 million dollars in lobbying in 2013."

"Overall, the communication/electronics sector is one of Washington's super heavy weight lobbyists, spending nearly 800 million dollars in 2013-14 according to CRP data."

"As a result, consumer safety, health and privacy, along with consumer wallets have all been overlooked, sacrificed, or raided due to unchecked industry influence.... Most insidious of all, the wireless industry has been allowed to grow unchecked and virtually unregulated, with fundamental questions on public health impact routinely ignored. Industry control, in the case of wireless health issues, extends beyond Congress and Regulators to basic scientific research. And in an obvious echo of the hardball tactics of the tobacco industry, the wireless industry has backed up its economic and political power by stonewalling on public relations and bullying potential threats into submission with its huge standing army of lawyers. In this way, a coddled wireless industry intimidated and silenced the City of San Francisco, while running roughshod over local opponents of its expansionary infrastructure."

We all know about the government cutting of funding to credible scientists if they don't agree with the current government's viewpoint. This is well known in the scientific community.

Let me digress here a moment and tell a little story about when I was a young teenager and studying civics. I came home and discussed this with my father and told him what I had learned in school and that there were these people in Washington called Senators and Congress people and that my teacher had told me that these people in Washington wrote the laws. My father's response was this. " My dear young daughter let

me explain something to you. The corporations give money to those people in Washington and those people in Washington then write the laws accordingly." I, a young inquisitive daughter then replied. "Well then, Dad, how do you know who to give the money to? I mean which political party?" He then replied, "That's easy. Whoever is in power at the time. That's who we give the money to. We want to sell our transistors." He never mentioned the word "lobby" but he did explain the concept very well. Being a bit of an upstart, I suppose I went back to school and explained this alternate idea to my teacher. Has anything changed? Has everything gotten worse? By now, I suppose you might be shocked at explaining such bluntness to a young person, or by now you may be thinking No, No , No , not my god, not my Republican or Democrat god. Yes, yours, I am sad to say. You are now thinking, "for sure my party is loyal to me and wouldn't lead me astray." Yes, I am sad to say, they would. What's that old song, "Money, money, money, makes the world go 'round."

As a scientist, C. Lester Hogan, PH.D. honored the facts and scientific research. As a vice president and later CEO of another Silicon Valley company he knew how the game was played with the politicians. His obituary in the New York Times actually headlined, "Harvard Professor who fought Motorola and won, has died."

Back to the research.... I have made copies for you all and underlined, scored or starred various paragraphs for your ease and speed of "digesting" all this in a timely fashion. I have only been given about 10 days notice about the upcoming meeting to discuss these matters. I really don't know how long Verizon has known about the September 24 meeting at City Hall. Do you know when Verizon was notified of the Sept. 24 meeting so that their lawyers could get all their "ducks in a row"? None of the neighbors met with Verizon for a meeting about this. I understand that in your Public Works Codes that Verizon was supposed to meet with the neighbors. A small notice was tacked onto a tree near 3529 and 3499 Sacramento. One of the neighbors didn't read it as the print was so small. He thought it might have been a private notice or just a lost dog notice. Or maybe it was just a building permit for a personal building? I do not know who received letters from Verizon here on Sacramento Street.

Back to the research articles:

"Top House and Senate recipients of cellular industry campaign contributions."

"It all begins with passage of the Telecommunications Act of 1996, legislation once described.... As "the most lobbied bill in history." Late lobbying won the wireless industry enormous concessions from lawmakers, many of them major recipients of industry hard and soft dollar contributions. Congressional staffers who helped lobbyists write the new law did not go unrewarded. Thirteen of fifteen staffers later became lobbyists themselves."

"In preempting local zoning authority-along with the public's right to guard its own safety and health-Congress unleashed an orgy of infrastructure build-out. Emboldened by the government green light and the vast consumer appetite for wireless technology, industry has had a free hand in installing more than 300,000 sites. Church steeples, schoolyards, school rooftops, even trees can house these facilities.

"One RF engineer who has worked on more than 3,000 rooftop sites found vast evidence of non-compliance. Marvin Wessel estimates that "10-20% exceed allowed radiation standards." "With 30,000 rooftop antenna sites across the U.S. that would mean that as many as 6,000 are emitting radiation in violation of FCC standards." Often, these emissions can be 600% or more of allowed exposure levels, according to Wessel.

A 2013 study by the Indian scientists S. Sivani and D. Sudarsanam reports. " Based on current available literature, it is justified to conclude that RF-EMF (electromagnetic fields) radiation exposure can change neurotransmitter functions, blood-brain barrier, morphology, electrophysiology, cellular metabolism, calcium efflux, and gene and protein expression in certain types of cells even at lower intensities."

"Cell phone Towers are the Largest Contributor to Environmental Radiofrequency Radiation." (article included here in this document)

Berkeley Cell Phone "Right to Know" Ordinance: Media Coverage.
<http://bit.ly/berkeleycellordinance>

Industry-funded Scientists Undermine Cell Phone Radiation Science

"How Big Wireless Made Us Think That Cell Phones Are Safe: A Special Investigation"

The disinformation campaign-and massive radiation increase-behind the 5G rollout.

Mark Hertsgaard and Mark Dowie, THE NATION, March 29, 2018.

Epidemiological Evidence for a Health risk from Mobile Phone Base Stations: International Journal of Occupational and Environmental Health: Vol. 16, No. 3 "Human populations are increasingly exposed to microwave/radiofrequency (RF) emissions from wireless communication technology, including mobile phones and their base stations. By searching PubMed, we identified a total of 10 epidemiological studies that assessed for putative health effects of mobile phone base stations. Seven of these studies explored the association between base station proximity and neurobehavioral effects and three investigated cancer. We found that eight of the 10 studies reported increased prevalence of adverse neurobehavioral symptoms or cancer in populations living at distances < 500 meters from base stations. None of the studies reported exposure above accepted international guidelines, suggesting that current guidelines may be inadequate in protecting the health of human populations. We believe that comprehensive epidemiological studies of long term mobile phone base station exposure are urgently required to more definitely understand its health impact."

Health Effects of living near mobile phone base transceiver station (BTS) antennae: a report from Isfahan, Iran: Electromagnetic Biology and Medicine: Vol. 33, No. 3. "Background: In recent years, by tremendous use of mobile phone telecommunication, a growing concern about the possible health hazards has increased greatly among public and scientists. The mobile phone exposure has been shown to have many effects upon the immune functions, stimulating hormones, mammalian brain, sperm motility and morphology, and neurological pathologies syndrome. The aim of this study was to find out the psychological and psychobiological reactions of the people who are living near mobile phone base transceiver station (BTS) antenna, in Isfahan, Iran.

Results: The results showed that most of the symptoms such as nausea, headache, dizziness, irritability, discomfort, nervousness,

depression, sleep disturbance, memory loss and lowering of libido were statistically significant in the inhabitants living near the BTS antenna (<300m distances) compared to those living far from the BTS antenna (>300 m). Conclusion: It is suggested that cellular phone BTS antenna should not be sited closer than 300 m to populations to minimize exposure of the neighbors."

" Reassessment of Federal Communications Commission Radiofrequency Exposure Limits and Policies: (Proceeding Number 13-84) Part 1: The FCC's obsolete RF exposure limits are twenty years old. The current request for public input is four years old. The FCC is not likely to act on the current submissions until it addresses a similar request issued in 2003. " "Last year a Harvard publication exposed how industry captured the FCC. "As a captured agency, the FCC is a prime example of institutional corruption. Officials in such institutions do not need to receive envelopes bulging with cash. But even their most well-intentioned efforts are often overwhelmed by a system that favors powerful private influences, typically at the expense of public interest."

Please refer to "Cell Tower Health Effects" April 30, 2018. There is an extensive list of review papers and an extensive bibliography. "Federal regulations protect the public only from the thermal (i. e. heating) risk due to short-term exposure to high intensity, cell tower radiation. The Federal regulations ignore the hundreds of studies that find harmful bio-effects from long-term exposure to non-thermal levels of cell phone radiation."

"The Telecommunications Act of 1996 does not allow communities to stop the siting of cell towers for health reasons. Nevertheless, landlords may be liable for any harm caused by cell phone radiation emitted by towers situated on their property. "

April 26, 2018. Scientists and Doctors Demand Moratorium on 5G. "International Society of Doctors for the Environment Support 5G Moratorium" (See attached printout)

I implore you now to make the correct and most ethical decision with the knowledge that you now have and vote for the safety of the citizens of San Francisco and set an example, as the town of Mill Valley has, to

the rest of the Nation as San Francisco has been known to do in other matters for the welfare of the people living here in this great city. Do not succumb to any promises of money or false statements from any corporate entity. That may be difficult for any of you who are wishing for a large campaign contribution. I hope you have heard me here today.

Let's not have this be a Millenium Tower disaster where digging to the "bedrock" of the issue wasn't done. You now have been given some scientific facts. Read them, use them, be influenced by them. After all, this is the "Grand Communication Age and Information Age." Don't be accused later of having to say, "Oops, we just didn't know. We didn't have the facts. We weren't told or warned by the doctors, physicists, engineers, and scientific community about microwaves." I urge you to call a physicist, scientist, or professor that is not paid by industry. I have started an important conversation with you today. Do read and listen to the scientific research that I have presented to you today.

Maybe all we say today doesn't matter. I just received an email today stating that the FCC is trying to take your decision making powers away and to take my rights away as they will make all these decisions. The deadline to protest against the FCC was last week.

Regards,

A handwritten signature in cursive script that reads "Cheryl Lea Hogan". The signature is fluid and extends to the right.

Cheryl Lea Hogan, M.A.

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Exposure Limits: The underestimation of absorbed cell phone radiation, especially in children: Electromagnetic Biology and Medicine: Vol 31, No 1 [Inbox](#)

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<https://www.tandfonline.com/doi/full/10.3109/15368378.2011.622827?scroll=top&needAccess=true>

Exposure Limits: The underestimation of absorbed cell phone radiation, especially in children

The existing cell phone certification process uses a plastic model of the head called the Specific Anthropomorphic Mannequin (SAM), representing the top 10% of U.S. military recruits in 1989 and greatly underestimating the Specific Absorption Rate (SAR) for typical mobile phone users, especially children. A superior computer simulation certification process has been approved by the Federal Communications Commission (FCC) but is not employed to certify cell phones. In the United States, the FCC determines maximum allowed exposures. Many countries, especially European Union members, use the "guidelines" of International Commission on Non-Ionizing Radiation Protection (ICNIRP), a non governmental agency. Radiofrequency (RF) exposure to a head smaller than SAM will absorb a relatively higher SAR. Also, SAM uses a fluid having the average electrical properties of the head that cannot indicate differential absorption of specific brain tissue, nor absorption in children

or smaller adults. The SAR for a 10-year old is up to 153% higher than the SAR for the SAM model. When electrical properties are considered, a child's head's absorption can be over two times greater, and absorption of the skull's bone marrow can be ten times greater than adults. Therefore, a new certification process is needed that incorporates different modes of use, head sizes, and tissue properties. Anatomically based models should be employed in revising safety standards for these ubiquitous modern devices and standards should be set by accountable, independent groups.

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Radio frequency electromagnetic fields: mild hyperthermia and safety standards

This chapter is a short review of literature that serves as the basis for current safe exposure recommendations by ICNIRP (International Commission on Non-Ionizing Radiation Protection, 1998). and the IEEE C95.1 (IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz, 2005) for exposure to radio frequency electromagnetic radiation (RF-EMF). Covered here are topics on dosimetry, thermoregulatory responses, behavioral responses, and how these have been used to derive safe exposure limits for humans to RF-EMF. Energy in this portion of the electromagnetic spectrum, 3 kHz-300 GHz, can be uniquely absorbed and is different from ionizing radiation both in dosimetry and effects. The deposition of thermalizing energy deep in the body by exposure to RF-EMF fields provides a unique exception to the energy flows normally encountered by humans. Behavioral effects of RF-EMF exposure range from detection to complete cessation of trained behaviors. RF-EMF is detectable and can in most cases, presumably by thermal mechanisms, support aversion and disruption or complete cessation (work stoppage) of behavior. Safety standards are based on behavioral responses by laboratory animals to RF-

EMF, enhanced by careful studies of human thermoregulatory responses at four specific RF frequencies, thereby providing a conservative level of protection from RF-EMF for humans.

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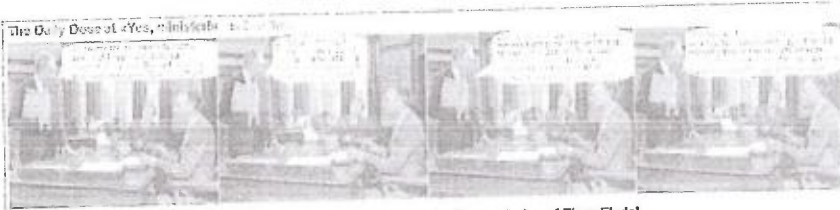
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Electromagnetic Radiation Safety

Scientific and policy developments regarding the health effects of electromagnetic radiation exposure from cell phones, cell towers, Wi-Fi, Smart Meters, and other wireless technology.

Sunday, November 12, 2017

An Exposé of the FCC: An Agency Captured by the Industries it Regulates



Click on graphic to enlarge. Posted with permission of Einar Flydal.

The Corporate Takeover of the Trump-FCC Is in Full Attack Mode

Bruce Kushnick, HuffPost, Nov 9, 2017 (Part 1 of 2)

https://www.huffingtonpost.com/entry/the-corporate-takeover-of-the-trump-fcc-is-in-full_us_5a041fb3e4b055de8d096ab0

The Trump-FCC-AT&T-Et Al. Plan: The Insidious "Wheel of Mis-Fortune"

Bruce Kushnick, HuffPost, Nov 10, 2017 (Part 2 of 2)

https://www.huffingtonpost.com/entry/the-trump-fcc-att-et-al-plan-the-insidious-wheel_us_5a055a13e4b0ee8ec3694081

Bruce Kushnick is the Executive Director of New Networks Institute (NNI), which was established in 1992, and a founding member of the IRREGULATORS, and has been a telecommunications analyst and visionary for over 35 years. During his career he has predicted that the addition of new technologies and networks would change the way we used the phone networks and he helped launch numerous interactive information markets and services that have now become commonplace.
<http://newnetworks.com/about-bruce-kushnick/>

June 26, 2015

Captured agency: How the Federal Communications Commission is dominated by the industries it presumably regulates

Alster, Norm. *Captured agency: How the Federal Communications Commission is dominated by the industries it presumably regulates*. Cambridge, MA: Edmund J. Safra Center for Ethics, Harvard University. 2015.

PDF: <http://bit.ly/FCCcaptured> (free)

Kindle: <http://amzn.to/1SQThCU> (\$0.99 – check out the book reviews)

FCC filing: <http://bit.ly/FCCcapturedagency>

Introduction

This exposé provides insight into how the FCC became a victim of regulatory capture by industry and the implications of these corrupting influences for our health and safety, our privacy, and our wallets.

This book concludes with a series of recommendations by its author, Norm Alster, an investigative journalist, who has written for the *New York Times*, *Forbes*, *Business Week*, and *Investor's Business Daily*. He wrote this book while serving as a journalism fellow with the Investigative Journalism Project at Harvard University.

Following are some excerpts that pertain to the wireless radiation industry and its corrupting influences on the FCC. I encourage you to read Mr. Alster's entire treatise.



Joel M. Moskowitz, Ph.D.
Director
Center for Family and Community Health
School of Public Health
University of California, Berkeley

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A detailed look at FCC actions—and non-actions—shows that over the years the FCC has granted the wireless industry pretty much what it has wanted.

Money—and lots of it—has played a part ... In all, CTIA, Verizon, AT&T, T-Mobile USA, and Sprint spent roughly \$45 million lobbying in 2013. Overall, the Communications/Electronics sector is one of Washington's super heavyweight lobbyists, spending nearly \$800 million in 2013-2014, according to CRP data.

As a result, consumer safety, health, and privacy, along with consumer wallets, have all been overlooked, sacrificed, or raided due to unchecked industry influence Most insidious of all, the wireless industry has been allowed to grow unchecked and virtually unregulated, with fundamental questions on public health impact routinely ignored. Industry control, in the case of wireless health issues, extends beyond Congress and regulators to basic scientific research. And in an obvious echo of the hardball tactics of the tobacco industry, the wireless industry has backed up its economic and political power by stonewalling on public relations and bullying potential threats into submission with its huge standing army of lawyers. In this way, a coddled wireless industry intimidated and silenced the City of San Francisco, while running roughshod over local opponents of its expansionary infrastructure.

... Currently presiding over the FCC is Tom Wheeler, a man who has led the two most powerful industry lobbying groups: CTIA and NCTA. It is Wheeler who once supervised a \$25 million industry-funded research effort on wireless health effects. But when handpicked research leader George Carlo concluded that wireless radiation did raise the risk of brain tumors, Wheeler's CTIA allegedly rushed to muffle the message. "You do the science. I'll take care of the politics," Carlo recalls Wheeler saying.

Graphic: The revolving door between the FCC and industry

Tom Wheeler, former Head of CTIA & NCTA, is now FCC Chair.
Meredith Atwell Baker, former FCC Commissioner, is now head of CTIA.
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Graphics: Top House and Senate recipients of cellular industry campaign contributions

It all begins with passage of the Telecommunications Act of 1996, legislation once described ... as "the most lobbied bill in history." Late lobbying won the wireless industry enormous concessions from lawmakers, many of them major recipients of industry hard and soft dollar contributions. Congressional staffers who helped lobbyists write the new law did not go unrewarded. Thirteen of fifteen staffers later became lobbyists themselves.

In preempting local zoning authority—along with the public's right to guard its own safety and health—Congress unleashed an orgy of infrastructure build-out. Emboldened by the government green light and the vast consumer appetite for wireless technology, industry has had a free hand in installing more than 300,000 sites. Church steeples, schoolyards, school rooftops, even trees can house these facilities.

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Indeed, one RF engineer who has worked on more than 3,000 rooftop sites found vast evidence of non-compliance. Marvin Wessel estimates that "10 to 20% exceed allowed radiation standards." With 30,000 rooftop antenna sites across the U.S. that would mean that as many as 6,000 are emitting radiation in violation of FCC standards. Often, these emissions can be 600% or more of allowed exposure levels, according to Wessel.

The best ally of industry and the FCC on this (and other) issues may be public ignorance.

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Though this is a stone cold fact that the wireless industry, the FCC and the courts have all turned into hard and inescapable reality for local authorities, just 1.5% of all poll respondents replied that it was "definitely true."

What You Need To Know About 5G Wireless and "Small" Cells

"We recommend a moratorium on the roll-out of the fifth generation, 5G, for telecommunication until potential hazards for human health and the environment have been fully investigated by scientists independent from industry. RF-EMF has been proven to be harmful for humans and the environment."

— 2017 5G Scientific Appeal (signed by more than 200 scientists and doctors from 35 countries)

Nationwide, communities are being told by wireless companies that it is necessary to build "small cell" wireless facilities in neighborhoods on streetlight and utility poles in order to offer 5G, a new technology that will connect the Internet of Things (IoT). At the local, state, and federal level, new legislation and new zoning aim to streamline the installation of these 5G "small cell" antennas in public rights-of-way.

The radiation from small cells is not small: Wireless antennas emit microwaves — non-ionizing radiofrequency radiation — and essentially function as cell towers. Each installation can have over a thousand antennas that are transmitting simultaneously.

Millions of small cells to be built in front yards: The Federal Communications Commission estimates that millions of these wireless transmitters will be built in our rights-of-way, directly in front of our homes.

5G will add to — not replace — our current wireless technology: 5G will not only utilize current 3G and 4G wireless frequencies already in use but also add higher frequency — submillimeter and millimeter waves — in order to transmit data at superfast speeds.

Community authority is overruled: Communities are being stripped of their right to make decisions about this new technology. "Streamlining" means almost automatic approval. Public notice and public hearings are being eliminated. Even if every homeowner on the block opposes the antennas on their street, the opposition will be disregarded.

Scientists worldwide are calling for a halt to the 5G roll-out: Over 200 scientists and doctors issued a declaration calling for a moratorium on the increase of 5G cell antennas citing human health effects and impacts to wildlife.

[Read the 2017 Scientific Appeal on 5G To the European Commission](#)
[Read the 2015 EMF Scientist Appeal to the United Nations](#)
[Read Letters From Dozens of Scientists on Health Risks of 5G](#)

Cumulative daily radiation exposure poses serious public health risks: Peer reviewed, published science indicates that exposures to wireless radiation can increase cancer risk, alter brain development and damage sperm. Most people are unaware that wireless technology was never tested for long-term safety, that children are more vulnerable and that the accumulated scientific evidence shows harm.

Decreased property values: Studies show property values drop up to 20% on homes near cell towers. Would you buy a home with a mini cell tower in the yard? [Read research showing decreased property value from cell towers near homes.](#)

Microwave antennas in front yards present several worker and public safety issues: Unions have already filed comments that workers were injured, unaware they were working near transmitting antennas. How will HVAC workers, window washers, and tree cutters be protected? The heavy large equipment cabinets mounted on poles along our sidewalks also present new hazards. Cars run into utility poles, often, what then? [US Dept of Labor letters on cell tower safety](#)

Fiber is the safe alternative: Worldwide, many regions are investing in wired fiberoptic connections which are safer, faster, more reliable, provide greater capacity, and are more cyber-secure. Read ["Re-Inventing Wired: The Future of Landlines and Networks,"](#) by the National Institute for Science, Law & Public Policy

www.ehtrust.org

All text in this document in blue is hyperlinked to resources for more information.

5G Frequencies Are Absorbed Into the Skin

Physicists found that the higher millimeter frequencies intended for 5G use are preferentially absorbed into the sweat duct at much higher rates than other organ tissues. Read two published studies "The Modeling of the Absorption of the Sub-MHz Radiation by Human Skin" The London Skin as a Sub-MHz absorber - Does 5G pose a danger to it or not? Paul Ben-Ishai, PhD Lecture

5G Frequencies Are Used As Weapons

Millimeter frequencies have the capacity to cause a severe burning sensation in the skin and are used by the U.S. Department of Defense in crowd control guns called Active Denial Systems.

Landmark US National Toxicology Program (NTP) Study Finds "Clear Evidence of Cancer" and DNA Damage

The NTP studies found male rats exposed for two years to cell phone radiation developed significantly increased gliomas (brain cancer) and schwann cell tumors, the very same types of tumors increased in long-term human cell phone users. NIH/NTP presentation on DNA results states "exposure to RFR has the potential to induce measurable DNA damage under certain exposure conditions." Press Coverage, Peer Review Report

Cell Tower Radiation Is Linked To Damage to Human Blood

A published study compared people living close and far from cell antennas and found people living closer to cellular antennas had changes in blood that predicts cancer development. Read Antousiana et al. 2017. Read a Critique of Research on Cell Tower Radiation

Published Scientific Review on 5G Finds Adverse Effects

Scientific literature documents evidence of nonthermal cellular damage from wireless radiation used in telecommunications to DNA integrity, cellular membranes, gene expression, protein synthesis, neuronal function, the blood brain barrier, melatonin production, sperm damage and immune dysfunction. Russell 2019

Cellular Radiation Negatively Impacts Birds and Bees

Published research finds the frequencies alter bird navigation and disturb honeybee colonies. Research on EMF and Bees. Research on Wildlife

RESOURCES

Research on 5G and Cell Tower Radiation

A 5G Wireless Future: Will it give us a smart nation or contribute to an unhealthy one? Santa Clara Medical Association Bulletin. Cindy Russell MD, 2017

Letters by Scientists in Opposition To 5G Research on Cell Tower Radiation, 2017

Biological Effects from Exposure to Electromagnetic Radiation Emitted by Cell Tower Base Stations and Other Antenna Arrays, Levitt and Lai, 2010

Radiofrequency radiation injures trees around mobile phone base stations, Waldmann-Selzer et al., 2016

Department of Interior Letter on the Impact of Cell Towers on Migratory Birds, Willie R. Taylor Director, Office of Environmental Policy and Compliance, 2014

Anthropogenic radiofrequency electromagnetic fields as an emerging threat to wildlife orientation, Balmori, 2015

briefing Memorandum On The Impacts from Thermal and Non-thermal Non-ionizing Radiation to Birds and Other Wildlife, Manville, 2016

Database of Worldwide International Policy To Reduce EMF

YouTube Scientific Videos on 5G

TAKE ACTION

Contact local, state and federal elected officials in person.

Share this information with your friends, family and community.

Ask for government policy that reduces RFR exposure to the public.

Citizens in all states must organize and take action to halt legislation that increases cell antennas in neighborhoods.

LEARN MORE

Redmond Legislation To Know

- Street lights
- Trashcans
- Utility poles
- Bus stops
- Sides of buildings

5 Reasons Why Small Cells Are Not Small

- Increased radiation near homes
- Refrigerator-sized equipment cabinet
- Drop in property values
- Taller poles
- Fixtures weigh hundreds of pounds

Crown Castle's 2016 10-K Annual Report Says:

"If radio frequency emissions from wireless handsets or equipment on our wireless infrastructure are demonstrated to cause negative health effects, potential future claims could adversely affect our operations, costs or revenues... We currently do not maintain any significant insurance with respect to these matters."

Read more [here](#) from Crown Castle, Verizon and other wireless companies.

The American Academy of Pediatrics says:

"An Egyptian study confirmed concerns that living nearby mobile phone base stations increased the risk for developing:

- Headaches
- Memory problems
- Dizziness
- Depression
- Sleep problems"

AAP on Cell Towers

Letter from ecologist Lennart Hardell MD &

Colleagues: "There is a substantial body of evidence that this technology is harmful to humans and the environment. The 5G millimeter wave is known to heat the eyes, skin and testes... Of particular concern are the most vulnerable among us — the unborn, children, the infirm, the elderly and the disabled. It is also expected that populations of bees and birds will drastically decline."

2017 Scientific Letter

Peer Reviewed Research Studies on Radiofrequency Radiation Have Found:

- Headaches
- Sperm damage
- Altered brain development
- Depression
- Neurological symptoms
- Hormone changes
- Memory problems
- Sleep problems
- Cancer

Scientists

BioInitiative 2012 Report by Independent Scientists

Dr. Meskowitz, University of California at Berkeley

Dr. Lennart Hardell Örebro University Sweden

The Baby Safe Project

WhatIs5g.info

Physicians for Safe Technology

Environmental Health Trust 5G Resources

Electromagnetic Radiation Safety

Scientific and policy developments regarding the health effects of electromagnetic radiation exposure from cell phones, cell towers, Wi-Fi, Smart Meters, and other wireless technology

Sunday, November 12, 2017

An Exposé of the FCC: An Agency Captured by the Industries it Regulates



Click on graphic to enlarge. Posted with permission of Einar Flydal.

The Corporate Takeover of the Trump-FCC Is in Full Attack Mode

Bruce Kushnick, HuffPost, Nov 9, 2017 (Part 1 of 2)

https://www.huffingtonpost.com/entry/the-corporate-takeover-of-the-trump-fcc-is-in-full_us_5a041fb3e4b055de8d096ab0

The Trump-FCC-AT&T-Et Al. Plan: The Insidious "Wheel of Mis-Fortune"

Bruce Kushnick, HuffPost, Nov 10, 2017 (Part 2 of 2)

https://www.huffingtonpost.com/entry/the-trump-fcc-att-et-al-plan-the-insidious-wheel_us_5a055a13e4b0ee8ec3694081

Bruce Kushnick is the Executive Director of New Networks Institute (NNI), which was established in 1992, and a founding member of the IRREGULATORS, and has been a telecommunications analyst and visionary for over 35 years. During his career he has predicted that the addition of new technologies and networks would change the way we used the phone networks and he helped launch numerous interactive information markets and services that have now become commonplace.
<http://newnetworks.com/about-bruce-kushnick/>

June 26, 2015

Captured agency: How the Federal Communications Commission is dominated by the industries it presumably regulates

Alster, Norm. *Captured agency: How the Federal Communications Commission is dominated by the industries it presumably regulates*. Cambridge, MA: Edmund J. Safra Center for Ethics, Harvard University. 2015.

PDF: <http://bit.ly/FCCcaptured> (free)
Kindle: <http://amzn.to/1SQThCU> (\$0.99 -- check out the book reviews)
FCC filing: <http://bit.ly/FCCcaptureagency>

Introduction

This exposé provides insight into how the FCC became a victim of regulatory capture by industry and the implications of these corrupting influences for our health and safety, our privacy, and our wallets.

This book concludes with a series of recommendations by its author, Norm Alster, an investigative journalist, who has written for the *New York Times*, *Forbes*, *Business Week*, and *Investor's Business Daily*. He wrote this book while serving as a journalism fellow with the Investigative Journalism Project at Harvard University.

Following are some excerpts that pertain to the wireless radiation industry and its corrupting influences on the FCC. I encourage you to read Mr. Alster's entire treatise.



Joel M. Moskowitz, Ph.D.
Director
Center for Family and Community Health
School of Public Health
University of California, Berkeley

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A detailed look at FCC actions—and non-actions—shows that over the years the FCC has granted the wireless industry pretty much what it has wanted.

Money—and lots of it—has played a part ... In all, CTIA, Verizon, AT&T, T-Mobile USA, and Sprint spent roughly \$45 million lobbying in 2013. Overall, the Communications/Electronics sector is one of Washington's super heavyweight lobbyists, spending nearly \$800 million in 2013-2014, according to CRP data.

As a result, consumer safety, health, and privacy, along with consumer wallets, have all been overlooked, sacrificed, or raided due to unchecked industry influence Most insidious of all, the wireless industry has been allowed to grow unchecked and virtually unregulated, with fundamental questions on public health impact routinely ignored. Industry control, in the case of wireless health issues, extends beyond Congress and regulators to basic scientific research. And in an obvious echo of the hardball tactics of the tobacco industry, the wireless industry has backed up its economic and political power by stonewalling on public relations and bullying potential threats into submission with its huge standing army of lawyers. In this way, a coddled wireless industry intimidated and silenced the City of San Francisco, while running roughshod over local opponents of its expansionary infrastructure.

... Currently presiding over the FCC is Tom Wheeler, a man who has led the two most powerful industry lobbying groups: CTIA and NCTA. It is Wheeler who once supervised a \$25 million industry-funded research effort on wireless health effects. But when handpicked research leader George Carlo concluded that wireless radiation did raise the risk of brain tumors, Wheeler's CTIA allegedly rushed to muffle the message. "You do the science. I'll take care of the politics," Carlo recalls Wheeler saying.

Graphic: The revolving door between the FCC and industry

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Indeed, one RF engineer who has worked on more than 3,000 rooftop sites found vast evidence of non-compliance. Marvin Wessel estimates that "10 to 20% exceed allowed radiation standards." With 30,000 rooftop antenna sites across the U.S. that would mean that as many as 6,000 are emitting radiation in violation of FCC standards. Often, these emissions can be 600% or more of allowed exposure levels, according to Wessel.

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Though this is a stone cold fact that the wireless industry, the FCC and the courts have all turned into hard and inescapable reality for local authorities, just 1.5% of all poll respondents replied that it was "definitely true."

... many respondents claim they would change behavior—reduce wireless use, restore landline service, protect their children—if claims on health dangers of wireless are true.

... in May 2015, more than 200 scientists boasting over 2,000 publications on wireless effects called on global institutions to address the health risks posed by this technology.

Some have suggested that the health situation with wireless is analogous to that of tobacco before court decisions finally forced Big Tobacco to admit guilt and pay up.

It seems significant that the responses of wireless and its captured agency—the FCC—feature the same obtuse refusal to examine the evidence. The wireless industry reaction features stonewalling public relations and hyper aggressive legal action. It can also involve undermining the credibility and cutting off the funding for researchers who do not endorse cellular safety. It is these hardball tactics that look a lot like 20th century Big Tobacco tactics. It is these hardball tactics—along with consistently supportive FCC policies—that heighten suspicion the wireless industry does indeed have something to hide.

So how does the FCC handle a scientific split that seems to suggest bias in industry-sponsored research?

In a posting on its Web site that reads like it was written by wireless lobbyists, the FCC chooses strikingly patronizing language to slight and trivialize the many scientists and health and safety experts who've found cause for concern. In a two page Web post titled "Wireless Devices and Health Concerns," the FCC four times refers to either "some health and safety interest groups," "some parties," or "some consumers" before in each case rebutting their presumably groundless concerns about wireless risk. Additionally, the FCC site references the World Health Organization as among those organizations who've found that "the weight of scientific evidence" has not linked exposure to radiofrequency from mobile devices with "any known health problems."

Yes, it's true that the World Health organization remains bitterly divided on the subject. But it's also true that a 30 member unit of the WHO called the International Agency for Research on Cancer (IARC) was near unanimous in pronouncing cell phones "possibly carcinogenic" in 2011. How can the FCC omit any reference to such a pronouncement? Even if it finds reason to side with pro-industry scientists, shouldn't this government agency also mention that cell phones are currently in the same potential carcinogen class as lead paint?

Cell phones are not the only wireless suspects. Asked what he would do if he had policy-making authority, Dr. Hardell swiftly replied that he would "ban wireless use in schools and pre-schools. You don't need Wi-Fi," he noted.

So what is the FCC doing in response to what at the very least is a troubling chain of clues to cellular danger? As it has done with wireless infrastructure, the FCC has to this point largely relied on industry "self-regulation." Though it set standards for device radiation emissions back in 1996, the agency doesn't generally test devices itself. Despite its responsibility for the safety of cell phones, the FCC relies on manufacturers' good-faith efforts to test them. Critics contend that this has allowed manufacturers undue latitude in testing their devices.

The EPA, notably, was once a hub of research on RF effects, employing as many as 35 scientists. However, the research program was cut off in the late 80s during the Regan presidency. [Former EPA Scientist, Carl] Blackman says he was personally "forbidden" to study health effects by his "supervisory structure."

Blackman is cautious in imputing motives to the high government officials who wanted his work at EPA stopped. But he does say that political pressure has been a factor at both the EPA and FCC: "The FCC people were quite responsive to the biological point of view. But there are also pressures on the FCC from industry." The FCC, he suggests, may not just be looking at the scientific evidence, "The FCC's position—like the EPA's—is influenced by political considerations as well."

Still, the FCC has ultimate regulatory responsibility and cannot indefinitely pass the buck on an issue of fundamental public health. Remarkably, it has not changed course despite the IARC classification of cell phones as possibly carcinogenic, despite the recent studies showing triple the glioma risk for heavy users, despite the floodtide of research showing biological effects, and despite even the recent defection of core industry booster Alex Lerchl. It is the refusal of both industry and the FCC to even acknowledge this cascade of warning signs that seems most incriminating.

This is a very rich industry that does not hesitate to outspend and bully challengers into submission. Meanwhile, amidst the legal smoke and medical confusion, the industry has managed to make the entire world dependent on its products. Even tobacco never had so many hooked users.

Such sustained success in the face of medical doubt has required industry to keep a lid on critics and detractors. Many scientists who've found real or potential risk from the sort of microwave radiation emanating from wireless devices have learned there is a price to be paid for standing up to the industry juggernaut. A few prominent examples ...

The FCC's network of corruption doesn't just shield industry from needed scrutiny and regulation on matters of public health and safety. Sometimes it just puts its hand directly into the public pocket and redistributes that cash to industry supplicants ...

The General Accounting Office (GAO) has issued several reports citing fraud, waste and mismanagement, along with inadequate FCC oversight of the subsidy program. Bribery, kickbacks and false documentation can perhaps be expected in a handout program mandated by Congress and only indirectly supervised by the FCC.

[The "subsidy program," the Universal Service Fund, subsidizes various technology programs at public cost.]

Fraud—as pervasive and troubling as it has been—is just one of the problems with the programs of universal service. It may not even be the fundamental problem. More fundamental issues concern the very aim, logic and efficiency of programs to extend broadband and wireless technology at public expense. Though the aims of extending service to distant impoverished areas seem worthy on the surface, there are many reasons to think the major beneficiaries of these programs are the technology companies that win the contracts.

... the FCC, prodded by an industry ever on the lookout for incremental growth opportunities, is ignoring the health of youngsters to promote expanded Wi-Fi subsidies in schools across the U.S.

As a captured agency, the FCC is a prime example of institutional corruption. Officials in such institutions do not need to receive envelopes bulging with cash. But even their most well-intentioned efforts are often overwhelmed by a system that favors powerful private influences, typically at the expense of public interest.

... the auctions of electromagnetic spectrum, used by all wireless communications companies to send their signals, have yielded nearly \$100 billion in recent years. The most recent auction to wireless providers produced the unexpectedly high total of \$43 billion. No matter that the sale of spectrum is contributing to a pea soup of electromagnetic "smog" whose health consequences are largely unknown. The government needs money and Congress shows its appreciation with consistently pro-wireless policies.

Science is often the catalyst for meaningful regulation. But what happens when scientists are dependent on industry for research funding? Under pressure from budget cutters and deregulators, government funding for research on RF health effects has dried up. The EPA, which once had 35 investigators in the area, has long since abandoned its efforts.⁸⁵ Numerous scientists have told me there's simply no independent research funding in the U.S. They are left with a simple choice: work on industry-sponsored research or abandon the field.

... an FCC with public interest commissioners is an idea worth consideration. It would at least require party apologists to defend how they so consistently champion the moneyed interests that have purchased disproportionate access and power in Washington.

Labels: cancer, cell phone tower, cta, FCC, Federal Communications Commission, health effects, legislation, lobbying, money, preemption, regulatory capture, Telecom Act, wifi schools, wireless

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What You Need To Know About 5G Wireless And "Small" Cells 20 Facts About 5G

Download a PDF of this information on a two page [EHT Factsheet on 5G and Health](#). The factsheet is hyperlinked (blue text) to research and sources. It is a great resource for policymakers.

Nationwide, communities are being told by wireless companies that it is necessary to build "small cell" wireless facilities in neighborhoods on streetlight and utility poles in order to offer 5G, a new technology that will connect the Internet of Things (IoT). At the local, state, and federal level, new legislation and new zoning aim to streamline the installation of these 5G "small cell" antennas in public rights-of-way.

1. 5G "small cell antennas are to be placed in neighborhoods everywhere.

- Street lights
- Trashcans
- Utility poles
- Bus stops
- Sides of buildings

2. The radiation from small cells is not small.

Wireless antennas emit microwaves — non-ionizing radiofrequency radiation — and essentially function as cell towers. Each installation can have over a thousand antennas that are transmitting simultaneously. Examples of how small cells are not small include:

- They increase electromagnetic radiation near homes.

- They have refrigerator-sized (and larger) equipment cabinets.
- Property values drop after a cell tower is built near homes.
- Taller and wider poles are needed for the antennas.
- Fixtures weigh hundreds of pounds.

3. Millions of small cells are to be built in front yards in the name of 5G.

The Federal Communications Commission (FCC) estimates and is supporting that millions of these wireless transmitters will be built in our rights-of-way, directly in front of our homes.

4. 5G will add an extra layer — not replace — our current wireless technology.

5G will utilize current 3G and 4G wireless frequencies already in use and also add even more radiation. Higher frequency — submillimeter and millimeter waves — will be used in 5G in order to transmit data at superfast speeds.

5. Community authority is being overruled at every level.

Communities are being stripped of their right to make decisions about this new technology. "Streamlining" means almost automatic approval. Public notice and public hearings are being eliminated. Even if every homeowner on the block opposes the antennas on their street, the opposition will be disregarded with new regulations moving forward at the federal and state level. .

6. Cell phone companies have confirmed that 5G "small" cell towers *do not* need to be placed every hundred feet (despite industry statements that densely placed small cells *are needed* in close vicinity to homes).

Verizon's CEO, Lowell McAdam stated on camera that 4G and 5G antennas will work from 3,000 feet away on Macro Towers. This statement proves that Verizon DOES NOT need to place 5G small cells in residential areas every 500 to 1,000 feet.

"When [Verizon] went out in these 11 [5G test] markets, we tested for well over a year, so we could see every part of foliage and every storm that went through. We have now busted the myth that [5G frequencies] have to be line-of-sight — they do not. We busted the myth that foliage will shut [5G] down . . . that does not happen. And the 200 feet from a home? We are now designing the network for over 2,000 feet from transmitter to receiver, which has a huge impact on our capital need going forward. Those myths have disappeared."

-Lowell McAdam, CEO of Verizon

"[Verizon 5G] is really high frequency [28,000 MHz and 39,000 MHz], so everybody thinks it doesn't go very far, but it's a really big pipe and so that's what allows you to gain the super fast speeds . . . We're 3,000 feet away from our radio node. the cool thing about this is that we did not move the radio node. . . here even 3,000 feet away, we're still getting 1,000 [Megabits per second] speeds . . . So now we've driven about 1/3 of a mile away [1,760 feet] from the

radio node. we are still getting very good speeds even though we have foliage in between [800 Megabits per second].”

-Jason L., Verizon Field Engineer

7. Scientists worldwide are calling for a halt to the 5G Roll-out.

Scientists from all over the world have issued a declaration calling for a moratorium on the increase of 5G cell antennas citing human health effects and impacts to wildlife.

“We recommend a moratorium on the roll-out of the fifth generation, 5G, for telecommunication until potential hazards for human health and the environment have been fully investigated by scientists independent from industry..RF-EMF has been proven to be harmful for humans and the environment.”

— The 5G Scientific Appeal (An Appeal signed by more than 250 scientists and doctors from 35 countries)

- Read the 2017 Scientific Appeal on 5G To the European Commission
- Read the EMF Scientist Appeal published in the International Journal of Oncology.
- Read Letters From Dozens of Scientists on Health Risks of 5G

8. Cumulative daily radiation exposure is associated with serious health effects.

“Effects include increased cancer risk, cellular stress, increase in harmful free radicals, genetic damages, structural and functional changes of the reproductive system, learning and memory deficits, neurological disorders, and negative impacts on general well-being.” – EMF Scientific Appeal

The public is unaware that peer reviewed, published science indicates that exposures to wireless radiation can increase cancer risk, alter brain development and damage sperm. This radiation is also associated with headaches, hormone changes, memory problems and sleep problems.

Most people are also unaware that wireless technology was never tested for long-term safety decades ago when the technology was first introduced. Children are more vulnerable to this radiation and that the accumulated scientific evidence shows harmful effects.

“There is a substantial body of evidence that this technology is harmful to humans and the environment. The 5G millimeter wave is known to heat the eyes, skin and testes... Of particular concern are the most vulnerable among us — the unborn, children, the infirm, the elderly and the disabled. It is also expected that populations of bees and birds will drastically decline.”

-Letter from oncologist Lennart Hardell MD & Colleagues

"A growing body of scientific literature documents evidence of nonthermal cellular damage from non-ionizing wireless radiation used in telecommunications. This RF EMR has been shown to cause an array of adverse effects on DNA integrity, cellular membranes, gene expression, protein synthesis, neuronal function, the blood brain barrier, melatonin production, sperm damage and immune dysfunction". —Cindy Russell MD 2018 paper entitled "*5 G wireless telecommunications expansion: Public health and environmental implications.*"

Read more published research studies.

9. Scientists state that wireless radiation is a human carcinogen.

Several researchers have published their opinion in multiple papers that cellular radiation- radiofrequency radiation (the type that cell towers emit) is a human carcinogen based on the current body of science. In 2018, the US National Toxicology Program study peer review scientists concluded "clear evidence of cancer" from cellular radiation exposure in the largest US animal study ever done on the issue. Examples of this published research includes:

- Miller et al., "Cancer Epidemiology Update, following the 2011 IARC Evaluation of Radiofrequency Electromagnetic Fields (Monograph 102)" Environmental Research
- Peleg M, Nativ O, Richter ED. Radio frequency radiation-related cancer: assessing causation in the occupational/military setting. Environmental Research Vol 163, 2018, pp 123–133.
- Hardell, L. and M. Carlberg. Using the Hill viewpoints from 1965 for evaluating strengths of evidence of the risk for brain tumors associated with use of mobile and cordless phones. Rev Environ Health 28:97-106, 2013.
- Evaluation of Mobile Phone and Cordless Phone Use and Glioma Risk Using the Bradford Hill Viewpoints from 1965 on Association or Causation. Carlberg M et al. Biomed Res Int. (2017)

10. Antennas near homes decrease property values.

Studies show property values drop up to 20% on homes near cell towers. Would you buy a home with a mini cell tower in the yard?

Read research studies that show decreased property value from cell towers near homes.

11. Experts state that 5G Small Cell Wireless streaming bills do not make financial sense.

The California Department of Finance rejected California's 5G small cell wireless infrastructure bill S. 649 stating that, "Finance opposes this bill... this bill goes too far by usurping city and county zoning authority for infrastructure development, and it potentially imposes reimbursable, state-mandated costs on

cities and counties.”

12. Microwave antennas in front yards present several worker and public safety issues.

Unions have already filed comments that workers were injured, unaware they were working near transmitting antennas. How will HVAC workers, window washers, and tree cutters be protected? The heavy large equipment cabinets mounted on poles along our sidewalks also present new hazards. Cars run into utility poles, often, what then? US Department of Labor letters and reports of cell tower health and safety issues.

13. Fiber is the solution and the safe alternative.

Worldwide, many regions are investing in wired fiber optic connections which are safer, faster, more reliable, provide greater capacity, and are more cyber-secure. Read “Re-Inventing Wires: The Future of Landlines and Networks,” by the National Institute for Science, Law & Public Policy

14. Wireless Companies warn investors of risks but neglect to inform consumers and neighbors living near towers.

Crown Castle (a company building small cell infrastructure throughout the USA) has a statement in their 2016 10-K Annual Report that says: “If radio frequency emissions from wireless handsets or equipment on our wireless infrastructure are demonstrated to cause negative health effects, potential future claims could adversely affect our operations, costs or revenues... We currently do not maintain any significant insurance with respect to these matters.”

Read similar warnings from Crown Castle, Verizon and other wireless companies in their Annual Reports.

15. Antennas near our homes will affect our sleep.

Wireless radiation alters sleep patterns in replicated research in both animals and humans. For example, an animal study found an hour of exposure to RFR caused a one-hour delay for rats to drift into REM or deep sleep. Human studies have found exposure reduces REM sleep, alters the EEG signal and results in altered performance.

16. Cellular Radiation Negatively Impacts Birds and Bees

Published research finds the frequencies impact wildlife. For example studies have found that the radiation alter bird navigation and disturb honeybee colonies. Research on EMF and Bees. Research on Wildlife

17. US Cities and Entire Countries are voting to halt 5G

Petaluma and Mill Valley California have voted on policies to halt 5G. Petaluma City Council voted to prohibited small cell installation on city-owned light poles and other city-owned street furniture and established a 500-foot

setback from a small cell to any residence.

6

- Read "California City blocks 5G deployments over cancer concerns"
- Read "Petaluma 360: Petaluma sets cell phone tower policy"

Many countries such as China, India, Poland, Russia, Italy and Switzerland have far more protective and stricter radiation limits than do we in the United States. These more protective radiation limits will not allow the full deployment of 5G because the increased 5G radiation would exceed these governments allowable levels of radiation. These countries are causing a lot of headaches for the global telecommunications industry, which has in response launched large-scale public relations efforts to do away with these restrictions. However many countries are holding firm to their limits. For example, in 2018, the Swiss Parliament rejected (22 to 21 votes) loosening the limits for non-ionizing radiation.

18. The FCC is not monitoring radiation exposures from cell installations and many cell towers are in violation of the radiation limits.

The Wall Street Journal did an investigative report in 2014 examining over 5,000 cell antennas sites and found that 1 in 10 sites violated the rules during safety audits for carriers and local municipalities "underscoring a safety lapse," yet the FCC has issued just two citations to cell carriers since 1996 because "the FCC says it lacks resources to monitor each antenna." A CBS Atlanta investigation also found radiation excesses up to 400 percent of the limit close up to the antennas on rooftop posing serious health risks especially to any worker coming on the roof.

- Read "Cellphone Boom Spurs Antenna-Safety Worries: Many Sites Violate Rules Aimed at Protecting Workers From Excessive Radio-Frequency Radiation." Wall Street Journal
- "Failure to follow cellular antenna regulations raises safety issues" CBS ATLANTA, Nov 17, 2014

19. The American Academy of Pediatrics is one of many medical organizations that is calling for federal action to protect children. For example, the American Academy of Pediatrics webpage on Cell Towers states:

"An Egyptian study confirmed concerns that living nearby mobile phone base stations increased the risk for developing:

- Headaches
- Memory problems
- Dizziness
- Depression
- Sleep problems"

In fact, the American Academy of Pediatrics (AAP), our largest organization of children's doctors, has repeatedly written the US government that current regulations on cellular radiation are outdated and non protective for children

and pregnant women.

“Children are not little adults and are disproportionately impacted by all environmental exposures, including cell phone radiation. Current FCC standards do not account for the unique vulnerability and use patterns specific to pregnant women and children. It is essential that any new standard for cell phones or other wireless devices be based on protecting the youngest and most vulnerable populations to ensure they are safeguarded throughout their lifetimes.”

–2013 AAP Letter to the FCC and FDA calling for a review of RF guidelines 8/29/2013

See a list of action and statements by medical organizations [here](#).

20. Firefighters fought hard to oppose 5G small cells in California

The International Association of Firefighters has officially opposed cell towers on their stations since 2004 after a study found neurological damage in firefighters with antennas on their station.

In 2017, when 5G “small cells were coming to California via a 5G streamlining bill (SB649), firefighter organizations came out in strong opposition to the bill and cited the many peer-reviewed studies. They requested that 5G towers not be installed on firehouses. They were successful and SB649 was amended to exempt their stations from the deployment due to their health concerns.

KEY RESEARCH AND REPORTS

5G Frequencies Are Absorbed Into the Skin

Physicists found that the higher millimeter frequencies intended for 5G use are preferentially absorbed into the sweat duct at much higher rates than other organ tissues. Read two published studies “The Modeling of the Absorbance of the Sub-THz Radiation by Human Skin.” The human skin as a sub-THz receiver – Does 5G pose a danger to it or not? Paul Ben-Ishai, PhD Lecture.

5G Frequencies Are Used As Weapons

Millimeter frequencies – used in 5G applications- have the capacity to cause a severe burning sensation in the skin and are used by the U.S. Department of Defense in crowd control guns called Active Denial Systems. The frequencies are able to cause this burning sensation due to the way the radiation frequencies are absorbed into the sweat gland.

Landmark US National Toxicology Program (NTP) Study Finds “Clear

Evidence of Cancer" and DNA Damage

The NTP studies found male rats exposed for two years to cell phone radiation developed significantly increased gliomas (brain cancer) and schwann cell tumors, the very same types of tumors increased in long-term human cell phone users. NIH/ NTP presentation on DNA results states "exposure to RFR has the potential to induce measurable DNA damage under certain exposure conditions." Press Coverage, on Peer Review Report

Cell Tower Radiation is Linked To Damage in Human Blood

A published study compared people living close and far from cell antennas and found people living closer to cellular antennas had changes in blood that predicts cancer development. Read Zothanslama et al, 2017. Read a Compilation of Research on Cell Tower Radiation

TAKE ACTION

Contact local, state and federal elected officials in person.

Share this information with your friends, family and community.

Ask for government policy that reduces RFR exposure to the public.

Citizens in all states must organize and take action to halt legislation that increases cell antennas in neighborhoods.

This EHT fact sheet has links to scientific resources and key facts from this page. Please download it and send it to your elected officials and community.

5G Fact sheet in Color

RESOURCES ON US POLICY

[Link to Federal Legislation You Can Take Action On](#)

[Link to US States With Streamlining Bills You Can Take Action On](#)

CRITICAL LINKS TO INFORMATION ON 5G

[Whatis5g.info](#) on the human and environmental impact of 5G

[Physicians for Safe Technology](#)

[Win19.org](#) Resources on Small Cells and 5G

[My Street My Choice](#): Critical information and links to help residents fight 5G Small Cells.

KEY RESEARCH AND REPORTS

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- [Link to 5G Frequencies Are Absorbed Into the Skin](#)
- [Link to review study that states radiofrequency is a human carcinogen.](#)
- [Link to 5G Frequencies Are Used As Weapons](#)
- [Link to Landmark US National Toxicology Program \(NTP\) Study Finds "Clear Evidence of Cancer" and DNA Damage](#)
- [Link to Cell Tower Radiation is Linked To Damage in Human Blood](#)
- [Link to Published Scientific Review on 5G Finds Adverse Effects](#)
- [Link to Cellular Radiation Negatively Impacts Birds](#)
- [Link to Cellular Radiation Negatively Impacts Bees](#)

CELL TOWERS

- [Link to Overview of Cell Tower Health Effects](#)
- [Link to Research on Cell Towers and Health Effects](#)
- [Link to Bees, Butterflies and Wildlife](#)
- [Link to Impact of Cell Towers on Property Values](#)
- [Link to American Academy of Pediatrics on Cell Towers](#)
- [Link to Letters from Doctors on Small Cell 5G in Neighborhoods](#)
- [Link to Firefighters Oppose Cell Towers on Fire Stations](#)
- [Link to Insurance White Papers on Impact of Wireless on Health](#)
- [Link to Cell Towers at Schools](#)
- [Link to Cell Tower Companies Warn Shareholders of Risk but not People Living Near Their Towers or Using Their Products](#)
- [Link to Insurance Company Exclude Electromagnetic Fields as a Standard](#)
- [Link to Study Found Damage in Human Blood](#)
- [Link to FCC Limits are Non Protective](#)
- [Link to 5G Technology](#)
- [Link to Cell Tower Worker Safety Issues](#)

SCIENTIFIC STUDIES

- [Link to Research on 5G and Cell Tower Radiation](#)
- [Link to A 5G Wireless Future: Will it give us a smart nation or contribute to an unhealthy one?" Santa Clara Medical Association Bulletin, Cindy Russell MD, 2017](#)
- [Link to Letters by Scientists in Opposition To 5G Research on Cell Tower Radiation, 2017](#)
- [Link to Biological Effects from Exposure to Electromagnetic Radiation Emitted by Cell Tower Base Stations and Other Antenna Arrays, Levitt and Lai, 2010](#)
- [Link to Radiofrequency radiation injures trees around mobile phone base stations, Waldmann-Selsam et al., 2016](#)

- Link to Department of Interior Letter on the Impact of Cell Towers on Migratory Birds, Willie R. Taylor Director, Office of Environmental Policy and Compliance, 2014
- Link to Anthropogenic radiofrequency electromagnetic fields as an emerging threat to wildlife orientation, Balmori, 2015
- Link to Briefing Memorandum On The Impacts from Thermal and Non-thermal Non-ionizing Radiation to Birds and Other Wildlife, Manville, 2016
- Link to Database of Worldwide International Policy To Reduce EMF
- Link to Youtube Scientific Videos on 5G

BioInitiative 2012: A Comprehensive Report by Independent Scientists on the Science of Electromagnetic Radiation

Dr. Moskowitz, University of California at Berkeley

Dr. Lennart Hardell of Örebro University Sweden

The Baby Safe Project: EPA Recognized Awareness Program on Pregnancy and Wireless

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☆ Cheryl Hogan <clhogan3@gmail.com>
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Thank you. Thank you. May I print this out as you have written it and add it to my list of reference material in my written speech that I am writing to the Board of Supervisors and planning department. I know they will cut me off so I will be delivering the speech in written form. I am absolutely exhausted from writing this speech. I must say that some of my sentences in the speech are a bit confrontational. I doubt there is one politician in City Hall who has studied anything about science! Cheryl Hogan

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WSJ Reports One in 10 Cell Phone Towers Violate RF Radiation Safety Rules [inbox](#)

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WSJ Reports One in 10 Cell Phone Towers Violate RF Radiation Safety Rules


[Cell Phone Radiation](#)



Cell Phone Tower Radiation

Parents that are concerned about the surge in school districts in America

which lease-out rooftops directly above their children's heads for the placement of high power microwave transmitters — have something new to worry about according to the Wall Street Journal.

 Turns out that there is somewhere around 30,000 non-compliant cell phone towers in the USA that expose unsuspecting residents, school children and even their maintenance workers to dangerous levels of microwave radiation.

On Oct. 2, 2014. Ianthe Jeanne Dugan and Ryan Knutson did a story for the WSJ, *Cellphone Boom Spurs Antenna-Safety Worries*.

They found of the more than 300,000 cell phone tower locations—rooftops, parks, stadiums and schools—(which is nearly double the number from 10 years ago), that “One in 10 sites violates the rules”. This is according to six engineers who examined more than 5,000 sites during safety audits for carriers and local municipalities, underscoring a major safety lapse in the wireless tower network that transmits microwave radiation to your cell phone.

At a time when the health effects of cell phone radiation are being debated world-wide, the WSJ uncovers that cell tower carriers are not being held accountable for the health risk caused by unsafe cell phone tower installation. The FCC has issued just two citations for safety violations since adopting the rules in 1996. The FCC says it lacks resources to monitor each antenna.

“It’s like having a speed limit and no police,” said Marvin Wessel, an engineer who has audited more than 3,000 sites and found one in 10 out of compliance.

The engineer went as far as showing the journalist first hand how commonplace it is to find cell phone towers putting nearby residents at risk from wireless radiation.

Mr. Wessel strolled through a residential area near Echo Canyon Park and spotted lawn chairs near a T-Mobile cell phone antenna painted brown to match a fence. His radiation meter showed emissions were well above radio frequency radiation safety limits.

After being alerted by The Wall Street Journal, T-Mobile added warning signs and roped off a patch in front of the antenna with a chain. “The

safety of the public, our customers and our employees is a responsibility that all of us here at T-Mobile take very seriously," said a T-Mobile spokeswoman.

At high levels, microwave-frequency radiation can cook human tissue, the FCC said, potentially causing cataracts and temporary sterility and other health issues.

The National Institute for Occupational Safety and Health began studying that question after the World Health Organization in 2011 categorized RF radiation as a possible carcinogen, based on research by over 30 scientists, said Gregory Lotz, the top RF expert for Niosh. And the National Toxicology Program at the National Institutes of Health is exploring lower-level RF exposure.

An FCC guideline written after the rules were adopted notes studies showing "relatively low levels" of RF radiation can cause "certain changes in the immune system, neurological effects, behavioral effects," and other health issues, including cancer.

Insurers are becoming concerned, and many will not insure against health risk from cell phone radiation. Hartford Financial Services Group Inc. and A.M. Best Co., the insurance-rating agencies, have flagged RF Radiation as an emerging risk. They wrote in a 2013 report that if RF radiation is linked to health problems it "could ultimately lead to large losses."

What are the chances that one of these unsafe cell phone towers is exposing your children to hazardous levels of radiation?

More probable than you think according to Dallas Independent School District. The Dallas ISD currently has 17 leases with cellular communication companies who pay to use the property. Fifteen of those antennas are currently on campuses where school children spend much of their day.

Some of the school campuses already exposing the children to cell tower radiation include Lincoln High School (just outside the building), and the football field light tower at Hillcrest High School. W.T. White High School will also be getting an antennae in the near future. The contracts bring in revenue for DISD — nearly \$400,000 per year.

But is it worth risking the health of our children knowing 1 in 10 aren't

even in compliance with safety guidelines?

Parents at one Dallas ISD elementary school don't think so, and squashed a plan to put a cell phone tower on top of a school building.

Approximately 50 moms and dads attended, listening to a presentation from a Verizon representative.

Verizon proposed camouflaging the cell phone equipment on the school, installing it on the outside of a smoke stack and then wrapping the smoke stack in a faux brick façade. But most of the objections had nothing to do with looks.

"I have two children here, and I just don't want a cell phone tower near children. I don't see any reason," said parent Julie Graves. "It's about radiation exposure and brains development. They really just don't have any data on safety."

Graves was one of several parents in attendance who voiced objection.

In the end, the DISD representative in attendance — the district's property manager — asked for a vote.

When nearly everyone raised a hand in opposition, the Verizon and DISD representative said it was over.

For the safety of your children, RF Safe pleads that all parents do the same whenever a cell phone tower is being placed on your child's school grounds!

Next article [Best iPhone 6 Radiation Case For Protection From Almost Illegal iPhone 6s Plus](#)

Previous article [Galaxy Note 3 and Note 4 Are Twice as Strong, 300% Safer Than iPhone 6 Plus](#)

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Electromagnetic Radiation Safety

Scientific and policy developments regarding the health effects of electromagnetic radiation exposure from cell phones, cell towers, Wi-Fi, Smart Meters, and other wireless technology

Friday, March 9, 2018

Cell Phone Towers are Largest Contributor to Environmental Radiofrequency Radiation

Swiss TPH

Swiss Tropical and Public Health Institute
Schweizerisches Tropen- und Public Health Institut
Institut Tropical et de Santé Publique Suisse

Associated Institution of the University of Basel

New Study Shows that Cell Phone Towers are Largest Contributor to Environmental Radiofrequency Radiation Exposure

A new study measuring radiofrequency electromagnetic fields shows considerable variability in exposure in six countries. Cell phone towers are the most dominant contributor.

(Los Angeles, CA, March 9, 2018) Today the journal, *Environment International*, published online a six-nation study of outdoor exposures to radiofrequency electromagnetic fields (RF-EMF).

Wireless devices and infrastructure emit RF-EMF. However, little is known about how this affects environmental exposures around the world. In the present study, RF-EMF measurements were taken in locations in Australia, Ethiopia, Nepal, South Africa, Switzerland and the United States by means of portable measurement devices. The devices considered exposure from cell phone towers, TV and FM radio broadcast antennas, cell phone handsets and Wi-Fi.

According to Dr. Martin Röösli, Associate Professor at the Swiss Tropical and Public Health Institute and senior author of the paper, "The study demonstrates that total RF-EMF exposure levels in the environment vary widely between different areas. Cell phone tower radiation is the dominant contributor in most outdoor areas."

Los Angeles was the study site in the United States.

Compared to the other five countries, the US had high exposure levels ranging from 1.4 milliwatts per square meter (mW/m²) in a non-central residential area of Los Angeles to 6.8 mW/m² in a rural center of the city. The median total exposure to RF-EMF across all eight outdoor microenvironments in Los Angeles was 3.4 mW/m².

Today's outdoor RF-EMF levels in Los Angeles are about 70 times greater than what the EPA estimated forty years ago.

The last time RF-EMF exposure was systematically measured in Los Angeles was in the late 1970's as part of a 12-city study conducted by the Environmental Protection Agency (EPA) (Tell and Mantiply, 1982). The EPA assessed RF-EMF in 38 outdoor locations in Los Angeles and found that the median population-weighted exposure was 0.05 mW/m². At that time television and FM radio broadcast antennas were the most important contributors. Hence, since the 1990's, the implementation of cell phone tower networks has resulted in substantial increase in RF-EMF.

Although this measurement study demonstrates that environmental exposure levels are substantially below regulatory limits, there are still uncertainties about whether the strong increase of RF-EMF in the environment in recent years poses a health risk. Switzerland has implemented precautionary limits for RF-EMF and indeed exposure levels were lowest among all countries participating in the study.

Röösli and his colleagues emphasize that this measurement study contributes to a better understanding of the exposure situation of the general population all over the world and foster the design of future health studies.

Sanjay Sagar, the first author of the paper, and Martin Röösli, are with the Swiss Tropical and Public Health Institute in Basel, Switzerland. Co-authors from the U.S. include Michael Jerrett and Tony Kuo with the UCLA Fielding School of Public Health, Michael Brunjes and Lisa Arangua with the Los Angeles County Health Department, and Joel Moskowitz with the UC Berkeley School of Public Health.



Joel M. Moskowitz, Ph.D.
Director
Center for Family and Community Health
School of Public Health
University of California, Berkeley

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Sagar S, Adem SM, Struchen B, Loughran SP, Brunjes ME, Arangua L, Dalvie MA, Croft RJ, Jerrett M, Moskowitz JM, Kuo T, Röösli M. Comparison of radiofrequency electromagnetic field exposure levels in different everyday microenvironments in an international context. *Environment International*, 114: 297-306. Published online ahead of print, March 9, 2018.

Highlights

- We measured RF-EMF in 94 matched microenvironments in six countries.
- We applied a common protocol for direct comparison of RF-EMF.
- Downlink and broadcasting exposure was most relevant in outdoor microenvironments.
- Uplink is only relevant in public transport with the highest in Switzerland.
- Exposure in urban areas tended to be higher.

Abstract

Background: The aim of this study was to quantify RF-EMF exposure applying a tested protocol of RF-EMF exposure measurements using portable devices with a high sampling rate in different microenvironments of Switzerland, Ethiopia, Nepal, South Africa, Australia and the United States of America.

Method: We used portable measurement devices for assessing RF-EMF exposure in 94 outdoor microenvironments and 18 public transport vehicles. The measurements were taken either by walking with a backpack with the devices at the height of the head and a distance of 20–30 cm from the body, or driving a car with the devices mounted on its roof, which was 170–180 cm above the ground. The measurements were taken for about 30 min while walking and about 15–20 min while driving in each microenvironment, with a sampling rate of once every 4 s (ExpoM-RF) and 5 s (EME Spy 201).

Results: Mean total RF-EMF exposure in various outdoor microenvironments varied between 0.23 V/m (noncentral residential area in Switzerland) and 1.85 V/m (university area in Australia), and across modes of public transport between 0.32 V/m (bus in rural area in Switzerland) and 0.86 V/m (Auto rickshaw in urban area in Nepal). For most outdoor areas the major exposure contribution was from mobile phone base stations. Otherwise broadcasting was dominant. Uplink from mobile phone handsets was generally very small, except in Swiss trains and some Swiss buses.

Conclusions: This study demonstrates high RF-EMF variability between the 94 selected microenvironments from all over the world. Exposure levels tended to increase with increasing urbanity.

Open Access Paper (available until April 27, 2018): <http://bit.ly/6nationRFstudy>

Supplemental Material: <http://bit.ly/6nationsupplement>

Tell and Mantiply. Population exposure to VHF and UHF broadcast radiation in the United States. *Radio Science*. 17(5S):39S-47S. 1982. <http://onlinelibrary.wiley.com/doi/10.1029/RS017i05Sp0039S/epdf>

Available for interview:

Joel Moskowitz, Ph.D., School of Public Health, University of California, Berkeley; jmm@berkeley.edu

Prof. Martin Röösli, Ph.D., Swiss Tropical and Public Health Institute, Basel; martin.roosli@swisstph.ch, <https://www.swisstph.ch/en/staff/profile/people/martin-rooesli/>

Sanjay Sagar, Ph.D., Swiss Tropical and Public Health Institute, Basel; sanjay.sagar@swisstph.ch



Labels: 6 nation, cell tower, environmental exposure, Los Angeles, mobile base station, moskowitz, radiation, radiofrequency, RF, Roosli, Sagar, Six nation

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Electromagnetic Radiation Safety

Scientific and policy developments regarding the health effects of electromagnetic radiation exposure from cell phones, cell towers, Wi-Fi, Smart Meters, and other wireless technology

Wednesday, September 5, 2018

Berkeley Cell Phone "Right to Know" Ordinance: Media Coverage

Updates on the
Berkeley cell phone "right to know" ordinance:
<http://bit.ly/berkeleycellordinance>.

Since July, 2014, more than 200 news stories have been published regarding the cell phone "right to know" ordinance that the Berkeley City Council unanimously adopted on May 12, 2015.

An Associated Press (AP) story published on June 11, 2015 appeared on more than 100 web sites throughout the U.S. including the *New York Times*, the *Washington Post*, and *ABC News*. An AP story published on September 22, 2015 appeared on more than 155 new sites in the U.S. and Canada.

News stories about the ordinance have appeared in thirteen other nations: Australia, Canada, China, India, Indonesia, Iran, Kenya, Lithuania, New Zealand, Switzerland, Taiwan, United Kingdom, and Vietnam.

For regular updates about the status of the ordinance and the lawsuit filed by the CTIA--The Wireless Association in the industry's effort to kill this landmark consumer disclosure law see <http://bit.ly/berkeleycellordinance>.

Following are links to news media coverage (Updated 9/5/2018)

ABA Journal (Sep 22, 2015)
ABC 7 News (San Francisco) (Jul 15, 2014)
ABC 7 News (San Francisco) (Aug 20, 2015)
ABC 7 News (San Francisco) (Sep 13, 2016)
Apple Daily (Taiwan) (Mar 23, 2016)
Apple Daily (Taiwan) (Mar 23, 2016)
Ars Technica (Jun 9, 2015)
Ars Technica (Aug 20, 2015)
Ars Technica (Sep 21, 2015)
Ars Technica (Jan 28, 2016)
Ars Technica (Sep 13, 2016)
Ars Technica (Apr 21, 2017)
Associated Press (Jun 11, 2015) - published on more than 100 news sites
Associated Press (Sep 22, 2015) - published on more than 155 news sites in US & Canada
Associated Press (Jan 28, 2016)
Australian Mobile Telecommunications Association (Nov 13, 2014)
BannedBook.org (in Mandarin) (July 15, 2014)
Bay City News (Sep 22, 2015)
Bayvoice.net (in Mandarin) (July 14, 2014)
Berkeley Daily Planet (Sep 21, 2015)
Berkeley Daily Planet (Sep 13, 2016)
Berkeley Daily Planet (Oct 11, 2017)
Berkeley High Jacket (Dec 20, 2014)
Berkeley Patch (Bay City News) (Sep 13, 2016)
Berkeleyside Op-Ed (Oct 17, 2014)
Berkeleyside (Nov 18, 2014)
Berkeleyside (Nov 26, 2014)
Berkeleyside Op-Ed (May 5, 2015)
Berkeleyside (May 13, 2015)
Berkeleyside (Jun 8, 2015)
Berkeleyside (Aug 21, 2015)
Berkeleyside (Sep 22, 2015)
Berkeleyside (Jan 29, 2016)
Bloomberg News Radio (mp3: 0:06:55 - 0:08:35) (Jul 15, 2014)
Bloomberg Politics (Nov 26, 2014)
Bloomberg BNA (Sep 22, 2015)
Bloomberg BNA (Oct 20, 2016)
Breitbart News (Jul 15, 2014)
Breitbart News (Jun 10, 2015)
Business Insider (Jul 15, 2014)
Business Insider Australia (Jul 16, 2014)
Business Insider India (Jul 15, 2014)



Joel M. Moskowitz, Ph.D.
Director
Center for Family and Community Health
School of Public Health
University of California, Berkeley

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California City News (Dec 1, 2014)
 California Healthline (Jul 16, 2014)
 California Healthline (Sep 23, 2015)
 California Magazine (Aug 19, 2014)
 Canadian Broadcasting Corporation (CBC)–The National (Mar 23, 2017)
 CBC Marketplace (Mar 24, 2017) (22 minute video)
 CBS News (May 12, 2015)
 CBS News (May 13, 2015)
 CBS News (Jun 8, 2015)
 CBS Sacramento (Jan 28, 2016)
 CBS SF Bay Area (Aug 22, 2014)
 CBS SF Bay Area (Jul 16, 2014)
 CBS SF Bay Area (May 13, 2015)
 CBS SF Bay Area (May 20, 2015)
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 CBS SF Bay Area (Jul 27, 2015)
 CBS This Morning (Jul 27, 2015)
 CBS SF Bay Area (Sep 13, 2016)
 CBS SF Bay Area (Oct 11, 2017)
 Channel One News (May 17, 2017)
 Chico Enterprise-Record (Nov 21, 2014)
 c|net (Jun 28, 2018)
 CNN (Jul 28, 2015)
 CIO India (Jun 9, 2015)
 Computerworld (Jun 8, 2015)
 Computerworld Australia (Jun 8, 2015)
 Computerworld New Zealand (Jun 8, 2015)
 Consumer Reports (Sep 24, 2015)
 Contra Costa Times (Nov 21, 2014) (Oakland Tribune, Nov 24, 2014)
 Contra Costa Times (Oct 7, 2015)
 Contra Costa Times (Jan 28, 2016)
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 Courthouse News Service (Jun 9, 2015)
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 Courthouse News Service (Oct 11, 2017)
 CTV News video (Canada) (May 17, 2015)
 CTV News story (Canada) May 17, 2015)
 Daily Beast (May 13, 2015)
 Daily Californian (Jul 16, 2014)
 Daily Californian (Nov 19, 2014)
 Daily Californian (Jun 9, 2015)
 Daily Californian (Sep 22, 2015)
 Daily Californian (Feb 1, 2016)
 Daily Californian (Sep 14, 2016)
 Daily Californian (Apr 25, 2017)
 Daily Online Examiner (May 12, 2017)
 Davis Enterprise (Jul 22, 2014)
 Delfi Sveikata (Lithuania) (May 21, 2015)
 Digital News Daily (Oct 11, 2017)
 Digital Trends (Aug 1, 2015)
 Discovery News (May 20, 2015)
 East Bay Express (Jul 15, 2014)
 East Bay Times (Apr 22, 2017)
 East Bay Times (Oct 12, 2017)
 East Bay Times (Jan 17, 2018)
 ECN Magazine (Jun 10, 2015)
 Ecosalon (Jul 18, 2014)
 Epoch Times (May 12, 2015)
 FairWarning (Jul 11, 2018)
 FairWarning (Sep 4, 2018)
 Fierce Wireless (Jun 9, 2015)
 Fierce Wireless (Sep 22, 2015)
 FindLaw (Apr 26, 2017)
 First World News Channel (Sep 13, 2016)
 Forbes (Oct 13, 2015)
 Fox Business (Sep 22, 2015)
 Fusion (May 3, 2016)
 GSMA (wireless industry assn.) (Nov 24, 2014)
 GSMA (May 25, 2015)
 GSMA (Jul 13, 2015)
 GSMA (Oct 29, 2015)
 The Guardian (London, UK) May 15, 2015)
 Headlines and Global News (Jul 17, 2014)
 Healthcare Global (Dec 1, 2014)
 The Hill (Jun 5, 2015)
 The Hill (Sep 22, 2015)

Huffington Post (Paul Brodeur), (Jul 27, 2015)
Inside Towers (Sep 30, 2016)
International Business Times UK (Jun 10, 2015)
Journal of the American Medical Association (Aug 1, 2016)
Journal of the American Medical Association (Oct 18, 2016)
Justia US Law (Apr 21, 2017)
Kachwanya (Kenya) (Aug 6, 2015)
KALW Crosscurrents (audio - Sep 24, 2014)
KALW (audio) (Oct 8, 2015)
KFMB (CBS8, San Diego), Sep 27, 2016
KGO 810 Radio News (San Francisco) (Jul 15, 2014)
Kim Komando podcast (Apr 6, 2017)
KIMT (Iowa, Minnesota) (May 18, 2015)
The Kirk Show
KKSF AM Talk 919 (San Francisco) (audio) (Jul 15, 2014)
KPAX (Missoula, MT, CBS News8) (May 12, 2015)
KPFA Radio (May 13, 2015)
KPFA Pacifica Evening News (42:13 - 44:30)(Sep 30, 2016)
KOED Forum (Lawrence Lessig interview: 48:00 - 50:00) (Jan 8, 2015)
KOED Forum (Joel Moskowitz & Allan Balmain, 9:30 - 10 AM) (May 18, 2015)
KRON4 (Sep 22, 2015)
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KTVU (Fox News) (May 13, 2015)
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Law 360 (Jun 9, 2015)
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Law 360 (Aug 12, 2016)
Law 360 (Aug 29, 2016)
Law 360 (Sep 13, 2016)
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Litigation Update - State Bar of California (Nov, 2017)
Los Angeles Times (Jun 9, 2015)
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Newsweek (Nov 3, 2016)
Newsweek en Espanol (Nov 4, 2016)
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New York Times (Jun 11, 2015) - AP article
New York Times (Jul 21, 2015) (my comments on NYT article)
Northern California Record (Oct 22, 2016)
PAN Swiss Newsroom
PC Advisor (UK) (Jun 8, 2015)
PC World (Jun 8, 2015)
PC World (Jul 10, 2015)
Public Health Watchdog (Jul 17, 2014)
Public Knowledge (May 25, 2016)
Public News Service (Aug 20, 2015)
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RCR Wireless News (Jun 9, 2015)
RCR Wireless News (Jun 11, 2015)
The Recorder (Jun 8, 2015)
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Reuters (Apr 24, 2017)
RT (May 12, 2015)
RT (Jul 31, 2015)
RYOT News (May 14, 2015)

Sacramento Bee (Apr 6, 2017)
San Francisco Appeal (Sep 21, 2015)
San Francisco Chronicle (Jul 15, 2014)
San Francisco Chronicle (Sep 25, 2015)
San Francisco Chronicle (Mar 2, 2017)
San Francisco Chronicle (Jun 28, 2018)
San Jose Mercury News (May 13, 2015)
San Jose Mercury News (Jun 9, 2015)
San Jose Mercury News (Sep 22, 2015)
San Jose Mercury News (Oct 7, 2015)
San Jose Mercury News (Jan 17, 2018)
Science Times (May 13, 2015)
Seattle Times (Jul 14, 2014)
SF Gate / SF Chronicle (Jun 8, 2015)
SF Gate (Aug 20, 2015)
SF Gate (Sep 21, 2015)
SF Gate (Jan 28, 2016)
SF Gate (Mar 23, 2016)
SF Gate (Sep 13, 2016)
SF Gate (Apr 21, 2017)
SoundofHope.org (Beijing; in Mandarin) (Jul 15, 2014)
Sputnik International (Jul 31, 2015)
Sputnik News (May 17, 2015)
Telecommunications Reports (Jul 13, 2018)
ThinkProgress (Jul 22, 2015)
TIME Magazine (May 12, 2015)
TreeAngle (Indonesia) (Sep 23, 2015)
Tuoi Tre (Vietnam) (Mar 23, 2016)
UK Progressive Magazine (May 19, 2015)
Voice of America (Jun 5, 2015)
Wall Street Journal (Sep 22, 2015)
WCTV News (CBS2, Tallahassee, FL) (May 12, 2015)
WCVB News (ABC5, Boston) (Jul 15, 2014)
WDTV News (CBS5, West Virginia) (May 12, 2015)
WFMY News (CBS2, Greensboro, NC) (May 12, 2015)
WIVB News (CBS4, Buffalo, NY) (May 13, 2015)
WKBN News (Youngstown, OH) (May 12, 2015)
WREQ News (CBS3 Memphis, TN) (May 12, 2015)
WTSP News (CBS10, Tampa Bay, FL) (May 12, 2015)
Yahoo! Finance (Sep 27, 2016)
Yahoo! News (CBS) (Jul 16, 2014)
Yahoo! News (CBS) (May 12, 2015)
YourLawyer.com (Jul 17, 2014)



Labels: Associated Press, Berkeley, cell phone ordinance, CNN, consumer disclosure, ctia, Guardian, law, lawsuit, media coverage, New York Times, right to know

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Electromagnetic Radiation Safety

Scientific and policy developments regarding the health effects of electromagnetic radiation exposure from cell phones, cell towers, Wi-Fi, Smart Meters, and other wireless technology

Thursday, March 29, 2018

Industry-funded Scientists Undermine Cell Phone Radiation Science

"How Big Wireless Made Us Think That Cell Phones Are Safe: A Special Investigation"

The disinformation campaign—and massive radiation increase—behind the 5G rollout.

Mark Hertsgaard and Mark Dowie, THE NATION, March 29, 2018

<http://bit.ly/BigWireless>

January 30, 2017

In the following post, Dr. Leszczynski, one of the world's leading EMF scientists, was censored by STUK, the Finnish government radiation research agency whom he worked for, when he wrote about scientific misconduct in the WHO-sponsored Interphone study in 2011.

Uncensored version of blog post on Interphone, first published in 2011 and re-published for the first time now...Dariusz Leszczynski, Between a Rock and a Hard Place, Jan 30, 2017. <http://bit.ly/2jMBgwa>

March 7, 2015

In his February 12 blog post, Dr. Dariusz Leszczynski discussed how industry-funded scientists undermined his cutting-edge research on cell phone radiation biologic effects which he conducted for the Finnish government for more than a decade. The Wireless Industry, following Big Tobacco's playbook, co-opts scientists to do low quality research and uses them to manufacture doubt about high quality science. Dr. Leszczynski provides some insight about how industry-funded scientists undermined his government-funded, state-of-the-art scientific research.

Dr. Leszczynski was one of 31 experts selected to review the cancer risks of radio frequency (RF) radiation in 2011 by the WHO's International Agency for Research on Cancer. The panel declared that RF radiation is "possibly carcinogenic to humans" (Group 2B). Dr. Leszczynski reported in a subsequent blog post that he and several other experts wanted RF radiation to be classified as "probably carcinogenic to humans" (Group 2A), but a majority of the panel would not support this designation.

Since 2011, we have considerably more biologic and epidemiologic data to support the Group 2A classification for RF radiation.

Science and Conflict of Interest in Bioelectromagnetics

Dariusz Leszczynski, Between a Rock and a Hard Place, March 7, 2015

Key-note presentation of Dariusz Leszczynski at the Jubiläums-Generalsversammlung of the Swiss association Gigahertz, celebrating its 15th anniversary, Thalwil (near Zurich) on March 7, 2015.

Video recording of the presentation will be made available shortly.

<http://bit.ly/1CMWkHq>

The GameChanger: revision of dosimetry by Schmid & Kuster

Dariusz Leszczynski, Between a Rock and a Hard Place, Feb 12, 2015

<SNIP>



Joel M. Moskowitz, Ph.D.
Director
Center for Family and Community Health
School of Public Health
University of California, Berkeley

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"The general trend of exposing cells at 2.0 SAR was strongly advocated and propagated by the scientists from the telecom industry. It was a strong peer pressure from, among others, Mays Swicord, Joe Elder and C-K Chou of Motorola, USA, and Sakari Lang and Jafar Keshvari of Nokia, Finland, that caused lack of in vitro studies at SAR higher than 2.0. These five scientists mentioned above were the most active in exercising peer pressure. It was a

normal occurrence at the scientific meetings, and I attended really a lot of them, that whenever scientist reported biological effects at SAR over 2.0, the above mentioned industry scientists, singularly or as a group, jumped up to the microphone to condemn and to discredit the results. The argument was always the same – safety standards are set at 2.0 and examining effects above it is futile. Furthermore, any study with SAR above 2.0 was suggested to be caused by thermal effect. It meant, according to these industry scientists that the obtained biological data were irrelevant. It was the continuous and relentlessly executed peer pressure from the industry scientists that discouraged, and in the end prevented, scientists from the academia to do freely research at SAR higher than 2.0, even when the exposure chamber had cooling system."

<SNIP>

"Therefore, with the extreme delight I read the recent paper in Bioelectromagnetics "The Discrepancy Between Maximum In Vitro Exposure Levels and Realistic Conservative Exposure Levels of Mobile Phones Operating at 900/1800 MHz" by Gernot Schmid and Niels Kuster.

Here are a few quotes from this game-changing paper by Schmid and Kuster."

<SNIP>

<http://bit.ly/1FDwkW6>

In vitro studies of GSM cell phone radiation should be redone using higher SAR levels to better simulate real-world conditions

Here is the abstract for the "game-changing" paper by Schmid and Kuster. The results of this analysis suggest that most in vitro studies of GSM cell phone bioeffects tested exposures that are too low to simulate real-world exposures, especially to cells contained in skin and blood. According to the authors, these studies should be redone using SAR's that greatly exceed 2 watts per kilogram so the results can be generalized to real-world exposures.

Gernot Schmid, Niels Kuster. The discrepancy between maximum in vitro exposure levels and realistic conservative exposure levels of mobile phones operating at 900/1800 MHz. Bioelectromagnetics. 36(2):133-148. 2015. <https://www.ncbi.nlm.nih.gov/pubmed/25644546>

Abstract

The objective of this paper is to compare realistic maximum electromagnetic exposure of human tissues generated by mobile phones with electromagnetic exposures applied during in vitro experiments to assess potentially adverse effects of electromagnetic exposure in the radiofrequency range.

We reviewed 80 in vitro studies published between 2002 and present that concern possible adverse effects of exposure to mobile phones operating in the 900 and 1800 MHz bands. We found that the highest exposure level averaged over the cell medium that includes evaluated cells (monolayer or suspension) used in 51 of the 80 studies corresponds to 2 W/kg or less, a level below the limit defined for the general public. That does not take into account any exposure non-uniformity. For comparison, we estimated, by numerical means using dipoles and a commercial mobile phone model, the maximum conservative exposure of superficial tissues from sources operated in the 900 and 1800 MHz bands.

The analysis demonstrated that exposure of skin, blood, and muscle tissues may well exceed 40 W/kg at the cell level. Consequently, in vitro studies reporting minimal or no effects in response to maximum exposure of 2 W/kg or less averaged over the cell media, which includes the cells, may be of only limited value for analyzing risk from realistic mobile phone exposure.

We, therefore, recommend future in vitro experiments use specific absorption rate levels that reflect maximum exposures and that additional temperature control groups be included to account for sample heating.

Keywords: SAR; GSM; cell; compliance; radiofrequency

<http://bit.ly/1BTqtz3>

Labels: biologic effects, cancer, cell phone radiation, industry influence, Leszczynski, Mark Dowling, oxidative stress, SAR, stress proteins, The Nation

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Epidemiological Evidence for a Health Risk from Mobile Phone Base Stations: International Journal of Occupational and Environmental Health: Vol 16, No 3 [Inbox](#)

☆ [Cheryl Hogan](#) <clhogan3@gmail.com>

Tue, Sep 11, 2018 at 12:14 PM

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<https://www.tandfonline.com/doi/abs/10.1179/107735210799160192?src=recsys>

Epidemiological Evidence for a Health Risk from Mobile Phone Base Stations

Human populations are increasingly exposed to microwave/radiofrequency (RF) emissions from wireless communication technology, including mobile phones and their base stations. By searching PubMed, we identified a total of 10 epidemiological studies that assessed for putative health effects of mobile phone base stations. Seven of these studies explored the association between base station proximity and neurobehavioral effects and three investigated cancer. We found that eight of the 10 studies reported increased prevalence of adverse neurobehavioral symptoms or cancer in populations living at distances < 500 meters from base stations. None of the studies reported exposure above accepted international guidelines, suggesting that current guidelines may be inadequate in protecting the health of human populations. We believe that comprehensive epidemiological studies of longterm mobile phone base station exposure are urgently required to more definitively understand its health impact.

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Health effects of living near mobile phone base transceiver station (BTS) antennae: a report from Isfahan, Iran: Electromagnetic Biology and Medicine: Vol 33, No 3 [Inbox](#)

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<https://www.tandfonline.com/doi/full/10.3109/15388378.2013.801352?scroll=top&needAccess=true>

Health effects of living near mobile phone base transceiver station (BTS) antennae: a report from Isfahan, Iran

Background: In recent years, by tremendous use of mobile phone telecommunication, a growing concern about the possible health hazards has increased greatly among public and scientists. The mobile phone exposure has been shown to have many effects upon the immune functions, stimulating hormones, mammalian brain, sperm motility and morphology, and neurological pathologies syndrome. The aim of this study was to find out the psychological and psychobiological reactions of the people who are living near mobile phone base transceiver stations (BTS) antenna, in Isfahan, Iran. **Materials and methods:** A cross-sectional study on 250 randomly selected inhabitants (133 women and 117 men) was performed in October 2012 till November 2012. The inhabitants were requested to complete a standardized questionnaire that focused on the relevant psychological and psychobiological reactions parameters. A computer program (SPSS version 16.0, Chicago, IL) was used for statistical

analysis using the Chi-square test with Yates correction. All the data were tested using a criterion level of $p = 0.05$. *Results:* The results showed that most of the symptoms such as nausea, headache, dizziness, irritability, discomfort, nervousness, depression, sleep disturbance, memory loss and lowering of libido were statistically significant in the inhabitants living near the BTS antenna (<300 m distances) compared to those living far from the BTS antenna (>300 m). *Conclusion:* It is suggested that cellular phone BTS antenna should not be sited closer than 300 m to populations to minimize exposure of neighbors.

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Electromagnetic Radiation Safety

Scientific and policy developments regarding the health effects of electromagnetic radiation exposure from cell phones, cell towers, Wi-Fi, Smart Meters, and other wireless technology

Wednesday, August 3, 2016

Part I: Why We Need Stronger Cell Phone Radiation Regulations--Key Testimony Submitted to the FCC

Selected FCC Submissions re:

"Reassessment of Federal Communications Commission Radiofrequency Exposure Limits and Policies" (Proceeding Number 13-84)

Part I: Key Testimony Submitted to the FCC

Last revision: Aug 3, 2016

The FCC received more than 900 submissions regarding its cell phone radiation regulations. These documents reveal what we know about wireless radiation health effects, and why we need to strengthen regulations and provide precautionary warnings to the public.

In response to the Federal Communications Commission's (FCC) request for input regarding its radiofrequency radiation regulations adopted in 1996, individuals and organizations submitted thousands of documents, testimonials, research papers and scientific publications that are now available to the public.

These documents reveal what we know about wireless radiation health effects, and why we need to strengthen regulations and provide precautionary warnings to consumers.

Although fifteen countries have issued precautionary health warnings about cell phone radiation and recommendations about how to reduce risks, the wireless industry in the U.S. has opposed precautionary warnings and wants to weaken cell phone radiation standards.

In all, the FCC received 928 submissions between June 25, 2012 and August 3, 2016. Many submissions include multiple documents. To view or download the submissions go to **Proceeding Number 13-84** on the FCC web site.

The FCC's obsolete RF exposure limits are twenty years old. The current request for public input is four years old. The FCC is not likely to act on the current submissions until it addresses a similar request issued in 2003.

Obviously, updating RF regulations and testing procedures is not a priority for the FCC even though the U.S. General Accountability Office recommended this four years ago.

Last year a Harvard publication exposed how industry captured the FCC, "As a captured agency, the FCC is a prime example of institutional corruption. Officials in such institutions do not need to receive envelopes bulging with cash. But even their most well-intentioned efforts are often overwhelmed by a system that favors powerful private influences, typically at the expense of public interest."

Although there is a search engine on the FCC web site, one cannot easily find important documents. Hence, I constructed several indices.

Part I which appears below contains key submissions to the FCC regarding cell phone radiation and its health effects, and cell phone testing procedures and regulatory standards.

The submissions are organized under the following categories:

- (1) Scientific Expert Resolutions Calling for Stronger Regulations
- (2) Expert Comments in Support of Stronger Regulations
- (3) Expert Comments that Support Weaker Regulations
- (4) Consumer, Environmental and Health Organizations
- (5) Government Agencies
- (6) Wireless Industry Corporations and Associations
- (7) Miscellaneous Other

Not indexed below are submissions from individuals without organizational or institutional affiliations. Many of these submissions discuss electromagnetic hypersensitivity (EHS).

Part II contains a list of key research papers that can be downloaded from the FCC web site.



Joel M. Moskowitz, Ph.D.
Director
Center for Family and Community Health
School of Public Health
University of California, Berkeley

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 - Part II: Why We Need Stronger Cell Phone Radiation...
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<https://ecfsapi.fcc.gov/file/1070766836035/MarthaHerbert/MCPG2015.pdf>

Toril Jeter, MD, FAACP

<http://apps.fcc.gov/ecfs/document/view?id=752093897>

Olle Johansson, PhD

<https://ecfsapi.fcc.gov/file/7022311370.pdf>

Suleyman Kaplan, PhD

<http://apps.fcc.gov/ecfs/document/view?id=7520941388>

Henry C. Lai, PhD

<http://apps.fcc.gov/ecfs/document/view?id=7022311466>

<http://apps.fcc.gov/ecfs/document/view?id=7520941777>

Victor Leach / Simon Turner

<http://apps.fcc.gov/ecfs/document/view?id=7520911511>

Dariusz Leszczynski, PhD

<http://apps.fcc.gov/ecfs/document/view?id=7520940846>

B. Blake Levitt

<http://apps.fcc.gov/ecfs/document/view?id=7022311463>

De-Kun Li, MD, PhD, MPH

<http://apps.fcc.gov/ecfs/document/view?id=7520940915>

<http://apps.fcc.gov/ecfs/document/view?id=7022311506>

James C. Lin, PhD

<http://apps.fcc.gov/ecfs/document/view?id=7520938860>

Richard Meltzer, PhD

<http://apps.fcc.gov/ecfs/document/view?id=7520942045>

Don Maisch, PhD<https://ecfsapi.fcc.gov/file/7022311348.pdf>

Lloyd Morgan, BSEE

<http://apps.fcc.gov/ecfs/document/view?id=7520940949>

Joel M. Moskowitz, PhD

<http://apps.fcc.gov/ecfs/document/view?id=7022311233>

<http://apps.fcc.gov/ecfs/document/view?id=60002030879>

<http://apps.fcc.gov/ecfs/document/view?id=60002031262>

<https://ecfsapi.fcc.gov/file/60602031262.pdf>

Jerry L. Phillips, PhD

<http://apps.fcc.gov/ecfs/document/view?id=7520940948>

Ronald M. Powell, PhD

<https://ecfsapi.fcc.gov/file/1070766836035/Message%20to%20Public%20Schools%20about%20Wireless%20Devices.pdf>

William J. Rea, MD

<http://apps.fcc.gov/ecfs/document/view?id=7520940950>

Cindy Sage, Lennart Hardeil, MD & Martha Herbert, MD, PhD

<http://apps.fcc.gov/ecfs/document/view?id=7520940054>

Cindy Sage & David O. Carpenter, MD

<http://apps.fcc.gov/ecfs/document/view?id=7520939954>

J. Bertel Schou, PhD & Diane Schou, PhD

<http://apps.fcc.gov/ecfs/document/view?id=7520941741>

<http://apps.fcc.gov/ecfs/document/view?id=7520941739>

Miriam D. Weber, MD

<http://apps.fcc.gov/ecfs/document/view?id=7520941798>

Grace Ziem, MD, MPH, DrPH

<http://apps.fcc.gov/ecfs/document/view?id=7520943726>

Expert Comments that Support Weaker Regulations

Joe A. Elder, PhD

<http://apps.fcc.gov/ecfs/document/view?id=7520940630>

Consumer, Environmental and Health Organizations

American Academy of Pediatrics

<http://apps.fcc.gov/ecfs/document/view?id=7520941318>

American Academy of Environmental Medicine

Part III lists 98 scientific experts from 23 nations who have signed resolutions between 2002 and 2014 that call for stronger regulations on wireless radiation, especially cell phone radiation.

In 2015, scientists who published peer-reviewed research on the health effects of electromagnetic fields (EMF) submitted a petition to the United Nations, the World Health Organization, and all world leaders calling for stronger EMF regulations. The International EMF Scientist Appeal has also been submitted to the FCC. The Appeal has now been signed by 235 scientists from 41 nations. All have published peer-reviewed research on electromagnetic fields and biology or health.

Scientific Expert Resolutions Calling for Stronger Regulations

Catania Resolution (2002; 16 signees)

<http://apps.fcc.gov/ecfs/document/view?id=7520940474>

Benevento Resolution (2006; 52 signees)

<http://apps.fcc.gov/ecfs/document/view?id=7520941320>

Seletun Scientific Panel (2009); 7 signees)

<http://apps.fcc.gov/ecfs/document/view?id=7520940752>

Health Canada Safety Code 6 Declaration (Jul 9, 2014); 54 signees)

<http://apps.fcc.gov/ecfs/document/view?id=7521745425>

International EMF Scientist Appeal (May 11, 2015; 200 signees)

<http://bit.ly/FCCappeal>

Expert Comments in Support of Stronger Regulations

Omer Abid, MD, MPH

<http://apps.fcc.gov/ecfs/document/view?id=7520943005>

David Adams, PhD

<http://apps.fcc.gov/ecfs/comment/view?id=6017467594>

Norm Alster ("FCC captured agency")

<http://bit.ly/FCCcapturedagency>

Frank Barnes, PhD

<http://apps.fcc.gov/ecfs/document/view?id=7520922935>

Igor Belyaev, DrSc

<http://apps.fcc.gov/ecfs/document/view?id=7521098239>

BioInitiative Working Group (29 contributing authors)

<http://apps.fcc.gov/ecfs/document/view?id=7521097953>

Martin Blank, PhD

<http://apps.fcc.gov/ecfs/document/view?id=7520940937>

David O. Carpenter, MD

<http://apps.fcc.gov/ecfs/document/view?id=7520940947>

<http://apps.fcc.gov/ecfs/document/view?id=7022311622>

Richard H. Conrad, PhD

<http://apps.fcc.gov/ecfs/document/view?id=7520940952>

<http://apps.fcc.gov/ecfs/document/view?id=7520958177>

<http://apps.fcc.gov/ecfs/comment/view?id=6017468873>

Devra L. Davis, PhD, MPH

<http://apps.fcc.gov/ecfs/document/view?id=7520943931>

Devra Davis PhD MPH, Alvaro de Salles PhD, Susan Downs MD, Gunnar Heuser MD PhD, Anthony Miller MD.

Lloyd Morgan BSEE, Yael Stein MD, Elihu Richter MD MPH (rebuttal of CTIA's claims)

<http://apps.fcc.gov/ecfs/document/view?id=7520958286>

Alan H. Frey

<http://apps.fcc.gov/ecfs/document/view?id=7022311549>

Om Gandhi, PhD

<http://apps.fcc.gov/ecfs/document/view?id=7022311471>

<http://apps.fcc.gov/ecfs/document/view?id=7520941429>

<http://apps.fcc.gov/ecfs/document/view?id=7520945322>

Livio Giuliani, PhD

<http://apps.fcc.gov/ecfs/document/view?id=7520941522>

Lennart Hardell, MD, PhD

<http://apps.fcc.gov/ecfs/document/view?id=7520940944>

<http://apps.fcc.gov/ecfs/document/view?id=7521098235>

Martha Herbert, MD, PhD

<http://apps.fcc.gov/ecfs/document/view?id=7520940748>

<http://apps.fcc.gov/ecfs/document/view?id=7022311435>
<http://apps.fcc.gov/ecfs/document/view?id=7022311613>

California Brain Tumor Association

<http://apps.fcc.gov/ecfs/document/view?id=7022311188>
<http://apps.fcc.gov/ecfs/document/view?id=7022311613>

Center for Electrosmog Prevention

<http://apps.fcc.gov/ecfs/document/view?id=7022311617>

Consumers for Safe Cell Phones

<http://apps.fcc.gov/ecfs/document/view?id=7520941456>

Electromagnetic Safety Alliance, Inc.

<http://apps.fcc.gov/ecfs/document/view?id=7520941597>
<http://apps.fcc.gov/ecfs/document/view?id=7520941599>
<http://apps.fcc.gov/ecfs/document/view?id=7520941600>
<http://apps.fcc.gov/ecfs/document/view?id=7520941601>
<http://apps.fcc.gov/ecfs/document/view?id=7520941602>
<http://apps.fcc.gov/ecfs/document/view?id=7022311420>
<http://apps.fcc.gov/ecfs/document/view?id=7520941598>

EMF Safety Network

<http://apps.fcc.gov/ecfs/document/view?id=7520940657>
<http://apps.fcc.gov/ecfs/document/view?id=7520940657>

EMRadiation Policy Institute

<http://apps.fcc.gov/ecfs/document/view?id=7520940746>
<http://apps.fcc.gov/ecfs/document/view?id=7520940765>
<http://apps.fcc.gov/ecfs/document/view?id=7520940766>
<http://apps.fcc.gov/ecfs/document/view?id=7520940775>
<http://apps.fcc.gov/ecfs/document/view?id=7520940788>
<http://apps.fcc.gov/ecfs/document/view?id=7520940751>
<http://apps.fcc.gov/ecfs/document/view?id=7022311266>

Environmental Health Trust

<http://apps.fcc.gov/ecfs/document/view?id=7022311561>

Environmental Working Group

<http://apps.fcc.gov/ecfs/document/view?id=7520958411>
<http://apps.fcc.gov/ecfs/document/view?id=7520941812>
<http://apps.fcc.gov/ecfs/document/view?id=752094148>
<http://apps.fcc.gov/ecfs/document/view?id=60001040810>
<http://apps.fcc.gov/ecfs/document/view?id=60001040811>
<http://apps.fcc.gov/ecfs/document/view?id=60001040813>

Environmental Working Group (petition w/ 26,000 signatures):

<http://apps.fcc.gov/ecfs/document/view?id=7520941684>

Global Union Against Radiation Deployment from Space <http://apps.fcc.gov/ecfs/comment/view?id=60001390848>

Gust Environmental

<http://apps.fcc.gov/ecfs/document/view?id=7520939117>

Pharmacists Planning Service Inc (PPSI)

<http://apps.fcc.gov/ecfs/document/view?id=7520958027>
<http://apps.fcc.gov/ecfs/document/view?id=7520958028>

Stop Smart Meters

<http://apps.fcc.gov/ecfs/document/view?id=7022311496>
<http://apps.fcc.gov/ecfs/document/view?id=7520940953>
<http://apps.fcc.gov/ecfs/document/view?id=7520941863>

Smart Meters Irvine

<http://apps.fcc.gov/ecfs/document/view?id=7022125039>

Stop Smart Meters New York

<http://apps.fcc.gov/ecfs/document/view?id=7520941985>

Wireless Education Action

<http://apps.fcc.gov/ecfs/document/view?id=7022311599>

Government Agencies

Cities of Boston, Massachusetts and Philadelphia, Pennsylvania

<http://bit.ly/1kAYSu7>

Environmental Protection Agency <https://ecfsapi.fcc.gov/file/7520941527.pdf>

FCC Office of the Chairman (Response to Sen. Blumenthal & Rep. Eshoo) <http://apps.fcc.gov/ecfs/document/view?id=60001353996>

FCC Office of Engineering Technology Bureau

<http://apps.fcc.gov/ecfs/document/view?id=7520911620>
<http://apps.fcc.gov/ecfs/document/view?id=7520940749>

International Agency for Research on Cancer, World Health Organization
<http://apps.fcc.gov/ecfs/document/view?id=7022311620>

Los Angeles Unified School District
<http://apps.fcc.gov/ecfs/document/view?id=7520940749>

Town of Hillsborough, California
<http://apps.fcc.gov/ecfs/document/view?id=7520941733>

National Cancer Institute & National Institute of Environmental Health Sciences <https://ecfsapi.fcc.gov/file/7521123438.pdf>

National Institute for Occupational Safety and Health
<http://apps.fcc.gov/ecfs/document/view?id=7520941598>

City of Portland, Oregon
<http://apps.fcc.gov/ecfs/document/view?id=7520940265>
<http://apps.fcc.gov/ecfs/document/view?id=7520958232>

City and County of San Francisco
<http://apps.fcc.gov/ecfs/document/view.action?id=7520955358>
<http://apps.fcc.gov/ecfs/document/view.action?id=7520955359>

Radiation Protection Division, Environmental Protection Agency
<http://apps.fcc.gov/ecfs/document/view?id=7520941527>

Radiofrequency Interagency Working Group(Federal)
<http://apps.fcc.gov/ecfs/document/view?id=7520941598>

City of Tucson and County of Pima, Arizona Resolution
<http://apps.fcc.gov/ecfs/document/view?id=7520941603>

Wireless Industry Corporations and Associations

Alarm Industry Communications Committee
<http://apps.fcc.gov/ecfs/document/view?id=7520958408>

ARRL, the National Association for Amateur Radio
<http://apps.fcc.gov/ecfs/document/view?id=7520941424>

Art-Fi
<http://apps.fcc.gov/ecfs/document/view?id=7520925904>
<http://apps.fcc.gov/ecfs/document/view?id=7520925905>

Association for Advancement of Medical Instrumentation
<http://apps.fcc.gov/ecfs/document/view?id=7520941926>

AT&T Services
<http://apps.fcc.gov/ecfs/document/view?id=7520958353>

Blooston Private Users
<http://apps.fcc.gov/ecfs/document/view?id=7520941789>

Cohen, Dippell and Everist, P.C
<http://apps.fcc.gov/ecfs/document/view?id=7520941555>

Consumer Electronics Association
<http://apps.fcc.gov/ecfs/document/view?id=7520941397>

CTIA—The Wireless Association
<http://apps.fcc.gov/ecfs/document/view?id=7520941701>
<http://apps.fcc.gov/ecfs/document/view?id=7520943091>
<http://apps.fcc.gov/ecfs/document/view?id=7520958337>
<http://apps.fcc.gov/ecfs/document/view?id=60001040407> (290 pp. SCENIHR Report)

Fixed Wireless Communications Coalition
<http://apps.fcc.gov/ecfs/document/view?id=7520941477>

GSM Association
<http://apps.fcc.gov/ecfs/document/view?id=7520940433>

IEEE International Committee on Electromagnetic Safety (ICES)
<http://apps.fcc.gov/ecfs/document/view?id=7520940730>
<http://apps.fcc.gov/ecfs/document/view?id=7520958056>

Medtronic Inc
<http://apps.fcc.gov/ecfs/document/view?id=7520941474>

Mobile Manufacturers Forum

<http://apps.fcc.gov/ecfs/document/view?id=7520941304>
<http://apps.fcc.gov/ecfs/document/view?id=7520953167>

Momentum Dynamics Corporation and Oak Ridge National Laboratory

<http://apps.fcc.gov/ecfs/document/view?id=7520941370>
<http://apps.fcc.gov/ecfs/document/view?id=7520958491>

Motorola Solutions

<http://apps.fcc.gov/ecfs/document/view?id=7520941479>

National Association of Broadcasters

<http://apps.fcc.gov/ecfs/document/view?id=7520941561>

National Association of Telecommunications Officers and Advisors

<http://apps.fcc.gov/ecfs/document/view?id=7520941659>
<http://apps.fcc.gov/ecfs/document/view?id=7520958184>

Nokia

<http://apps.fcc.gov/ecfs/document/view?id=7520940886>

PCIA-The Wireless Infrastructure Association and The HetNet Forum

<http://apps.fcc.gov/ecfs/document/view?id=7520941685>
<http://apps.fcc.gov/ecfs/document/view?id=7520958115>

Qualcomm, Inc.

<http://apps.fcc.gov/ecfs/document/view?id=7520961187>
<http://apps.fcc.gov/ecfs/document/view?id=7520958390>

RF Check Inc.

<http://apps.fcc.gov/ecfs/document/view?id=7521092619>
<http://apps.fcc.gov/ecfs/document/view?id=60000971924>

Sensormatic Electronics, LLC

<http://apps.fcc.gov/ecfs/document/view?id=7520958377>
<http://apps.fcc.gov/ecfs/document/view?id=7520941715>

Telecommunications Industry Association

<http://apps.fcc.gov/ecfs/document/view?id=7520941840>
<http://apps.fcc.gov/ecfs/document/view?id=7520958447>
<http://apps.fcc.gov/ecfs/document/view?id=60000974727>

Richard Tell Associates

<http://apps.fcc.gov/ecfs/document/view?id=7520940058>

Verizon and Verizon Wireless

<http://apps.fcc.gov/ecfs/document/view?id=7520941587>
<http://apps.fcc.gov/ecfs/document/view?id=7520958354>

Wi-Fi Alliance

<http://apps.fcc.gov/ecfs/document/view?id=7520941621>
<http://apps.fcc.gov/ecfs/document/view?id=7520958320>

Miscellaneous Other

American Association for Justice

<http://apps.fcc.gov/ecfs/document/view?id=6017466603>
<http://apps.fcc.gov/ecfs/document/view?id=7520942173>

Senator Bill Galvano (Florida)

<http://apps.fcc.gov/ecfs/document/view?id=7520940383>

Green Swan, Inc.

<http://apps.fcc.gov/ecfs/document/view?id=7520941846>

International Brotherhood of Electrical Workers

<http://apps.fcc.gov/ecfs/document/view?id=7520944275>
<http://apps.fcc.gov/ecfs/document/view?id=7521097088>

Intergovernmental Advisory Committee

<http://apps.fcc.gov/ecfs/document/view?id=7520959437>

Mechanical Contractors Association

<http://apps.fcc.gov/ecfs/document/view?id=7521824457>
<http://apps.fcc.gov/ecfs/document/view?id=60001356256>

North America's Building Trade Unions

<http://apps.fcc.gov/ecfs/document/view?id=60001483296>
<http://apps.fcc.gov/ecfs/document/view?id=60001328468>
<https://ecfsapi.fcc.gov/file/60001514689.pdf>

Operative Plasters' & Cement Masons International Association

<http://apps.fcc.gov/ecfs/document/view?id=60001329085>

Pong Research Corporation

<http://apps.fcc.gov/ecfs/document/view?id=7522311137>

<http://apps.fcc.gov/ecfs/document/view?id=7530040737>

<http://apps.fcc.gov/ecfs/document/view?id=7520838137>

<http://apps.fcc.gov/ecfs/document/view?id=7531106279>

Skyvision Solutions

<http://apps.fcc.gov/ecfs/document/view?id=7520940626>

United Union of Roofers, Waterproofers & Allied Workers

<http://apps.fcc.gov/ecfs/comment/view?id=60001329121><https://ecfsapi.fcc.gov/file/60001356970.pdf>



Labels: cancer, cell phone, electromagnetic hypersensitivity, FCC, Federal Communications Commission, ICNIRP, industry, mobile phone, neurodegenerative, radiofrequency, regulations, SAR

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Electromagnetic Radiation Safety

Scientific and policy developments regarding the health effects of electromagnetic radiation exposure from cell phones, cell towers, Wi-Fi, Smart Meters, and other wireless technology

Friday, March 9, 2018

Cell Phone Towers are Largest Contributor to Environmental Radiofrequency Radiation

Swiss TPH

Swiss Tropical and Public Health Institute
Schmidhaefenweg 101, CH-8600 Dübendorf, Switzerland
Institute for Environmental and Occupational Health

Photo credit: iStockphoto.com/Andreas G. G. G.

New Study Shows that Cell Phone Towers are Largest Contributor to Environmental Radiofrequency Radiation Exposure

A new study measuring radiofrequency electromagnetic fields shows considerable variability in exposure in six countries. Cell phone towers are the most dominant contributor.

(Los Angeles, CA, March 9, 2018) Today the journal, *Environment International*, published online a six-nation study of outdoor exposures to radiofrequency electromagnetic fields (RF-EMF).

Wireless devices and infrastructure emit RF-EMF. However, little is known about how this affects environmental exposures around the world. In the present study, RF-EMF measurements were taken in locations in Australia, Ethiopia, Nepal, South Africa, Switzerland and the United States by means of portable measurement devices. The devices considered exposure from cell phone towers, TV and FM radio broadcast antennas, cell phone handsets and Wi-Fi.

According to Dr. Martin Röösli, Associate Professor at the Swiss Tropical and Public Health Institute and senior author of the paper, "The study demonstrates that total RF-EMF exposure levels in the environment vary widely between different areas. Cell phone tower radiation is the dominant contributor in most outdoor areas."

Los Angeles was the study site in the United States.

Compared to the other five countries, the US had high exposure levels ranging from 1.4 milliwatts per square meter (mW/m²) in a non-central residential area of Los Angeles to 6.8 mW/m² in a rural center of the city. The median total exposure to RF-EMF across all eight outdoor microenvironments in Los Angeles was 3.4 mW/m².

Today's outdoor RF-EMF levels in Los Angeles are about 70 times greater than what the EPA estimated forty years ago.

The last time RF-EMF exposure was systematically measured in Los Angeles was in the late 1970's as part of a 12-city study conducted by the Environmental Protection Agency (EPA) (Tell and Mantiply, 1982). The EPA assessed RF-EMF in 38 outdoor locations in Los Angeles and found that the median population-weighted exposure was 0.05 mW/m². At that time television and FM radio broadcast antennas were the most important contributors. Hence, since the 1990's, the implementation of cell phone tower networks has resulted in substantial increase in RF-EMF.

Although this measurement study demonstrates that environmental exposure levels are substantially below regulatory limits, there are still uncertainties about whether the strong increase of RF-EMF in the environment in recent years poses a health risk. Switzerland has implemented precautionary limits for RF-EMF and indeed exposure levels were lowest among all countries participating in the study.

Röösli and his colleagues emphasize that this measurement study contributes to a better understanding of the exposure situation of the general population all over the world and foster the design of future health studies.

Sanjay Sagar, the first author of the paper, and Martin Röösli, are with the Swiss Tropical and Public Health Institute in Basel, Switzerland. Co-authors from the U.S. include Michael Jerrett and Tony Kuo with the UCLA Fielding School of Public Health, Michael Brunjes and Lisa Arangua with the Los Angeles County Health Department, and Joel Moskowitz with the UC Berkeley School of Public Health.

Sagar S, Adem SM, Struchen B, Loughran SP, Brunjes ME, Arangua L, Dalvie MA, Croft RJ, Jerrett M, Moskowitz JM, Kuo T, Röösli M. Comparison of radiofrequency electromagnetic field exposure levels in different everyday microenvironments in an international context. *Environment International*, 114: 297-306. Published online ahead of print, March 9, 2018.



Joel M. Moskowitz, Ph.D.
Director
Center for Family and Community Health
School of Public Health
University of California, Berkeley

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Highlights

- We measured RF-EMF in 94 matched microenvironments in six countries.
- We applied a common protocol for direct comparison of RF-EMF.
- Downlink and broadcasting exposure was most relevant in outdoor microenvironments.
- Uplink is only relevant in public transport with the highest in Switzerland.
- Exposure in urban areas tended to be higher.

Abstract

Background: The aim of this study was to quantify RF-EMF exposure applying a tested protocol of RF-EMF exposure measurements using portable devices with a high sampling rate in different microenvironments of Switzerland, Ethiopia, Nepal, South Africa, Australia and the United States of America.

Method: We used portable measurement devices for assessing RF-EMF exposure in 94 outdoor microenvironments and 18 public transport vehicles. The measurements were taken either by walking with a backpack with the devices at the height of the head and a distance of 20–30 cm from the body, or driving a car with the devices mounted on its roof, which was 170–180 cm above the ground. The measurements were taken for about 30 min while walking and about 15–20 min while driving in each microenvironment, with a sampling rate of once every 4 s (ExpoM-RF) and 5 s (EME Spy 201).

Results: Mean total RF-EMF exposure in various outdoor microenvironments varied between 0.23 V/m (noncentral residential area in Switzerland) and 1.85 V/m (university area in Australia), and across modes of public transport between 0.32 V/m (bus in rural area in Switzerland) and 0.86 V/m (Auto rickshaw in urban area in Nepal). For most outdoor areas the major exposure contribution was from mobile phone base stations. Otherwise broadcasting was dominant. Uplink from mobile phone handsets was generally very small, except in Swiss trains and some Swiss buses.

Conclusions: This study demonstrates high RF-EMF variability between the 94 selected microenvironments from all over the world. Exposure levels tended to increase with increasing urbanity.

Open Access Paper (available until April 27, 2018): <http://bit.ly/6nationRFstudy>

Supplemental Material: <http://bit.ly/6nationsupplement>

Tell and Mantiply. Population exposure to VHF and UHF broadcast radiation in the United States. *Radio Science*. 17(5S):39S-47S. 1982. <http://onlinelibrary.wiley.com/doi/10.1029/RS017i05Sp0039S/epdf>

Available for interview:

Joel Moskowitz, Ph.D., School of Public Health, University of California, Berkeley; jmm@berkeley.edu

Prof. Martin Röösli, Ph.D., Swiss Tropical and Public Health Institute, Basel; martin.roosli@swisstph.ch, <https://www.swisstph.ch/en/staff/profile/people/martin-rooesli/>

Sanjay Sagar, Ph.D., Swiss Tropical and Public Health Institute, Basel; sanjay.sagar@swisstph.ch



Labels: 6 nation, cell tower, environmental exposure, Los Angeles, mobile base station, moskowitz, radiation, radiofrequency, RF, Roosli, Sagar, Switzerland

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Electromagnetic Radiation Safety

Scientific and policy developments regarding the health effects of electromagnetic radiation exposure from cell phones, cell towers, Wi-Fi, Smart Meters, and other wireless technology

Monday, April 30, 2018

Cell Tower Health Effects

Federal regulations protect the public only from the thermal (i.e., heating) risk due to short-term exposure to high intensity, cell tower radiation. The Federal regulations ignore the hundreds of studies that find harmful bio-effects from long-term exposure to non-thermal levels of cell phone radiation.

The Telecommunications Act of 1996 does not allow communities to stop the siting of cell towers for health reasons. Nevertheless, landlords may be liable for any harm caused by cell phone radiation emitted by towers situated on their property.

Localities need to organize and change the Federal law to protect public health and wildlife from exposure to microwave radiation emitted by mobile phone base stations.

Following are some resources regarding the health effects of exposure to cell tower radiation. I will occasionally update this page.

Related posts

Major newspaper editorials oppose 5G "small cell antennas"
Is 5G Cellular Technology Harmful to Our Health?
Electromagnetic Hypersensitivity
Wireless Radiation TV News

Impact of radiofrequency radiation on DNA damage and antioxidants in peripheral blood lymphocytes of humans residing in the vicinity of mobile phone base stations

Zothansiana, Zosangzuali M, Laimdinpui M, Jagetia GC. Impact of radiofrequency radiation on DNA damage and antioxidants in peripheral blood lymphocytes of humans residing in the vicinity of mobile phone base stations. *Electromagn Biol Med*. 2017 Aug 4;1-11. doi: 10.1080/15368378.2017.1350584.

Abstract

Radiofrequency radiations (RFRs) emitted by mobile phone base stations have raised concerns on its adverse impact on humans residing in the vicinity of mobile phone base stations. Therefore, the present study was envisaged to evaluate the effect of RFR on the DNA damage and antioxidant status in cultured human peripheral blood lymphocytes (HPBLs) of individuals residing in the vicinity of mobile phone base stations and comparing it with healthy controls. The study groups matched for various demographic data including age, gender, dietary pattern, smoking habit, alcohol consumption, duration of mobile phone use and average daily mobile phone use.

The RF power density of the exposed individuals was significantly higher ($p < 0.0001$) when compared to the control group. The HPBLs were cultured and the DNA damage was assessed by cytokinesis blocked micronucleus (MN) assay in the binucleate lymphocytes. The analyses of data from the exposed group ($n = 40$), residing within a perimeter of 80 meters of mobile base stations, showed significantly ($p < 0.0001$) higher frequency of micronuclei (MN) when compared to the control group, residing 300 meters away from the mobile base station/s.

The analysis of various antioxidants in the plasma of exposed individuals revealed a significant attrition in glutathione (GSH) concentration ($p < 0.01$), activities of catalase (CAT) ($p < 0.001$) and superoxide dismutase (SOD) ($p < 0.001$) and rise in lipid peroxidation (LOO) when compared to controls. Multiple linear regression analyses revealed a significant association among reduced GSH concentration ($p < 0.05$), CAT ($p < 0.001$) and SOD ($p < 0.001$) activities and elevated MN frequency ($p < 0.001$) and LOO ($p < 0.001$) with increasing RF power density.

<https://www.ncbi.nlm.nih.gov/pubmed/28777669>

My note

All of the recorded RFR power density values in this study were well below the Federal Communication Commission's maximum permissible exposure limits in the U.S. for the general population. These limits are 6,000 mW/m² [milliwatts per square meter] for 900 MHz and 10,000 mW/m² for 1800 MHz radiofrequency radiation. In contrast, the highest recorded value in this study was 7.52 mW/m² of RFR. The "exposed individuals" who resided within 80 meters of a cell antenna received an average of 5.00 mW/m² of RFR in their bedrooms.

Excerpts

RFR may change the fidelity of DNA as the increased incidence of cancer has been reported among those residing near mobile



Joel M. Moskowitz, Ph.D.
Director
Center for Family and Community Health
School of Public Health
University of California, Berkeley

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phone base stations (Abdel-Rassoul et al., 2007; Bortkiewicz et al., 2004; Cherry, 2000; Eger et al., 2004; Hardell et al., 1999; Hutter et al., 2006; Wolf and Wolf, 2004). RFR emitted from mobile base stations is also reported to increase the DNA strand breaks in lymphocytes of mobile phone users and individuals residing in the vicinity of a mobile base station/s (Gandhi and Anita, 2005; Gandhi et al., 2014). Exposure of human fibroblasts and rat granulosa cells to RFR (1800 MHz, SAR 1.2 or 2 W/kg) has been reported to induce DNA single- and double-strand breaks (Diem et al., 2005). Irreversible DNA damage was also reported in cultured human lens epithelial cells exposed to microwave generated by mobile phones (Sun et al., 2006). The adverse health effects of RFR are still debatable as many studies indicated above have found a positive correlation between the DNA damage and RFR exposure; however, several studies reported no significant effect of RFR on DNA strand breaks and micronuclei formation in different study systems (Li et al., 2001; Tice et al., 2002; McNamee et al., 2003; Maes et al., 2006). The potential genotoxicity of RFR emitted by mobile phone base stations can be determined by micronucleus (MN) assay, which is an effective tool to evaluate the genotoxic or clastogenic effects of physical and chemical agents. This technique has also been used to quantify the frequencies of radiation-induced MN in human peripheral blood lymphocytes (HPBLs) (Fenech and Morley, 1985; Jagetiia and Venkatesha, 2005; Prosser et al., 1988; Yildirim et al., 2010).

Six mobile phone base stations, operating in the frequency range of 900 MHz (N = 2) and 1800 MHz (N = 4), erected in the thickly populated areas of Aizawl city were selected for the present study... The power output of all the base stations is 20 W, with their primary beam emitting radiation at an angle of 20°. Power density measurements (using HF-60105V4, Germany) were carried out in the bedroom of each participant where they spent most of the time and hence have the longest constant level of electromagnetic field exposure. Power density measurement was carried out three times (morning, midday and evening), and the average was calculated for each residence around each base station. The main purpose of the measurement of power density was to ensure that RFR emission from each site did not exceed the safe public limits and to determine any difference in power density between selected households that were close to (within 80 m) and far (>300 m) from the mobile phone base stations. The safety limits for public exposure from mobile phone base stations are 0.45 W/m² for 900 MHz and 0.92 W/m² for 1800 MHz frequency as per Department of Telecommunications, Ministry of Communications, Government of India, New Delhi guidelines (DoT, 2012).

... some residences are located horizontally with the top of the towers from which RFR are emitted, making it possible to get an exposure at a short distance of 1–20 m, despite being erected on the rooftop or in the ground. A minimum of two individuals were sampled from each household and at least five individuals were sampled around each mobile base station. Individuals sampled around each base station were matched for their age and gender (Table 1). The exposed group consisted of 40 healthy individuals who fulfilled the inclusion criteria of being above 18 years of age and residing in the vicinity of mobile phone base stations (within 80 m radius). The control group comprised of 40 healthy individuals matched for age and gender who had been living at least 300 m away from any mobile phone base stations.... Sampling was also done only from those residences who did not use microwave oven for cooking, Wifi devices and any other major source of electromagnetic field as they are known to cause adverse effects (Atasoy et al., 2013; Ayendaño et al., 2012).

The groups matched for most of the demographic data such as age, gender, dietary pattern, smoking habit, alcohol consumption, mobile phone usage, duration of mobile phone use and average daily mobile phone use (Table 2). A highly significant variation ($p < 0.0001$) was observed for the distance of household from the base station (40.10 ± 3.02 vs. 403.17 ± 7.98 m) between exposed and control groups.

The RF power density of the exposed group ($2.80\text{--}7.52$ mW/m²; average 5.002 ± 0.182 mW/m²) was significantly higher ($p < 0.0001$) when compared to the control group ($0.014\text{--}0.065$ mW/m²; average 0.035 ± 0.002 mW/m²). The highest power density was recorded at a distance of 1–20 m (6.44 ± 0.31 mW/m²), which is significantly higher ($p < 0.0001$) than those at a distance of 21–40 m (4.79 ± 0.33), 41–60 m (4.48 ± 0.22) and 61–80 m (4.61 ± 0.10).

The highest measured power density was 7.52 mW/m². Most of the measured values close to base stations (Table 1) are higher than that of the safe limits recommended by Bioinitiative Report 2012 (0.5 mW/m²), Salzburg resolution 2000 (1 mW/m²) and EU (STOA) 2001 (0.1 mW/m²). However, all the recorded values were well below the current ICNIRP safe level (4700 mW/m²) and the current Indian Standard (450 mW/m²).

The exact mechanism of action of RFR in micronuclei induction and reduced antioxidant status is not apparent. The possible putative mechanism of generation of DNA damage may be the production of endogenous free radicals due to continuous exposure. RFR has been reported to produce different free radicals earlier (Avci et al., 2009; Burlaka et al., 2013; Barcal et al., 2014; Kazemi et al., 2015). Cells possess a number of compensatory mechanisms to deal with ROS and its effects. Among these are the induction of antioxidant proteins such as GSH, SOD and CAT. Enzymatic antioxidant systems function by direct or sequential removal of ROS, thereby terminating their activities. An imbalance between the oxidative forces and antioxidant defense systems causes oxidative injury, which has been implicated in various diseases, such as cancer, neurological disorders, atherosclerosis, diabetes, liver cirrhosis, asthma, hypertension and ischemia (Andreadis et al., 2003; Comhair et al., 2005; Dhalla et al., 2000; Finkel and Holbrook, 2000; Kasparova et al., 2005; Sayre et al., 2001; Sohal et al., 2002). Because of the significant decrease in endogenous antioxidants and increased LOO among the exposed group, the extra burden of free radicals is unlikely to get neutralized, and these surplus ROS may react with important cellular macromolecules including DNA forming either DNA adducts or strand breaks, which may be later expressed as micronuclei once the cell decides to divide. The decline in the antioxidant status may be also due to the suppressed activity of Nrf2 transcription factor which is involved in maintaining the antioxidant status in the cells.

The present study has reported that [radiofrequency radiation] increased the frequency of [micronuclei] and [lipid peroxidation] and reduced [glutathione] contents, [catalase] and [superoxide dismutase] activities in the plasma of the exposed individuals. The induction of [micronuclei] may be due to the increase in free-radical production. The present study demonstrated that staying near the mobile base stations and continuous use of mobile phones damage the DNA, and it may have an adverse effect in the long run. The persistence of DNA unrepaired damage leads to genomic instability which may lead to several health disorders including the induction of cancer.

Biological effects from exposure to electromagnetic radiation emitted by cell tower base stations and other antenna arrays

Levitt BB, Lai H. Biological effects from exposure to electromagnetic radiation emitted by cell tower base stations and other antenna arrays. *Environmental Reviews*.18: 369–395 (2010) doi:10.1139/A10-018.

Open Access Paper:
<http://www.nrcresearchpress.com/doi/pdfplus/10.1139/A10-018?src=recsys>

Abstract

The siting of cellular phone base stations and other cellular infrastructure such as roof-mounted antenna arrays, especially in residential neighborhoods, is a contentious subject in land-use regulation. Local resistance from nearby residents and landowners is often based on fears of adverse health effects despite reassurances from telecommunications service providers that international exposure standards will be followed.

Both anecdotal reports and some epidemiology studies have found headaches, skin rashes, sleep disturbances, depression, decreased libido, increased rates of suicide, concentration problems, dizziness, memory changes, increased risk of cancer, tremors, and other neurophysiological effects in populations near base stations.

The objective of this paper is to review the existing studies of people living or working near cellular infrastructure and other pertinent studies that could apply to long-term, low-level radiofrequency radiation (RFR) exposures. While specific epidemiological research in this area is sparse and contradictory, and such exposures are difficult to quantify given the increasing background levels of RFR from myriad personal consumer products, some research does exist to warrant caution in infrastructure siting. Further epidemiology research that takes total ambient RFR exposures into consideration is warranted.

Symptoms reported today may be classic microwave sickness, first described in 1978. Nonionizing electromagnetic fields are among the fastest growing forms of environmental pollution. Some extrapolations can be made from research other than epidemiology regarding biological effects from exposures at levels far below current exposure guidelines.

Excerpts

[Note: As of July 9, 2017, www.antennasearch.com, an industry website, reports 646,000 towers and 1.89 million cell antennas in the U.S.]

In lieu of building new cell towers, some municipalities are licensing public utility poles throughout urban areas for Wi-Fi antennas that allow wireless Internet access. These systems can require hundreds of antennas in close proximity to the population with some exposures at a lateral height where second- and third-story windows face antennas. Most of these systems are categorically excluded from regulation by the U.S. Federal Communications Commission (FCC) or oversight by government agencies because they operate below a certain power density threshold. However, power density is not the only factor determining biological effects from radiofrequency radiation (RFR).

An aesthetic emphasis is often the only perceived control of a municipality, particularly in countries like America where there is an overriding federal preemption that precludes taking the "environmental effects" of RFR into consideration in cell tower siting as stipulated in Section 704 of *The Telecommunications Act of 1996* (USFCC 1996). Citizen resistance, however, is most often based on health concerns regarding the safety of RFR exposures to those who live near the infrastructure. Many citizens, especially those who claim to be hypersensitive to electromagnetic fields, state they would rather know where the antennas are and that hiding them greatly complicates society's ability to monitor for safety.

Industry representatives try to reassure communities that facilities are many orders of magnitude below what is allowed for exposure by standards-setting boards and studies bear that out (Cooper et al. 2006; Henderson and Bangay 2006; Bornkessel et al. 2007). These include standards by the International Commission on Non-Ionizing Radiation Protection (ICNIRP) used throughout Europe, Canada, and elsewhere (ICNIRP 1998). The standards currently adopted by the U.S. FCC, which uses a two-tiered system of recommendations put out by the National Council on Radiation Protection (NCRP) for civilian exposures (referred to as uncontrolled environments), and the International Electricians and Electronics Engineers (IEEE) for professional exposures (referred to as controlled environments) (U.S. FCC 1997). The U.S. may eventually adopt standards closer to ICNIRP. The current U.S. standards are more protective than ICNIRP's in some frequency ranges so any harmonization toward the ICNIRP standards will make the U.S. limits more lenient.

All of the standards currently in place are based on RFR's ability to heat tissue, called thermal effects. A longstanding criticism, going back to the 1950s (Levitt 1995), is that such acute heating effects do not take potentially more subtle non-thermal effects into consideration. And based on the number of citizens who have tried to stop cell towers from being installed in their neighborhoods, laypeople in many countries do not find adherence to existing standards valid in addressing health concerns. Therefore, infrastructure siting does not have the confidence of the public (Levitt 1998).

The intensity of RFR decreases rapidly with the distance from the emitting source; therefore, exposure to RFR from transmission towers is often of low intensity depending on one's proximity. But intensity is not the only factor. Living near a facility will involve long-duration exposures, sometimes for years, at many hours per day. People working at home or the infirm can experience low-level 24 h exposures. Nighttimes alone will create 8 hour continuous exposures. The current standards for both ICNIRP, IEEE and the NCRP (adopted by the U.S. FCC) are for whole-body exposures averaged over a short duration (minutes) and are based on results from short-term exposure studies, not for long-term, low-level exposures such as those experienced by people living or working near transmitting facilities. For such populations, these can be involuntary exposures, unlike cell phones where user choice is involved.

The U.S. FCC has issued guidelines for both power density and SARs. For power density, the U.S. guidelines are between 0.2–1.0 mW/cm²....

At 100–200 ft (about 30–60 meters) from a cell phone base station, a person can be exposed to a power density of 0.001 mW/cm² (i.e., 1.0 µW/cm²)....

For the purposes of this paper, we will define low-intensity exposure to RFR of power density of 0.001 mW/cm²

Many biological effects have been documented at very low intensities comparable to what the population experiences within 200 to 500 ft (~60–150 m) of a cell tower, including effects that occurred in studies of cell cultures and animals after exposures to low-intensity RFR. Effects reported include: genetic, growth, and reproductive; increases in permeability of the blood-brain barrier; behavioral; molecular, cellular, and metabolic; and increases in cancer risk....

Ten years ago, there were only about a dozen studies reporting such low-intensity effects; currently, there are more than 60. This body of work cannot be ignored. These are important findings with implications for anyone living or working near a transmitting facility. However, again, most of the studies in the list are on short-term (minutes to hours) exposure to low-intensity RFR. Long-term exposure studies are sparse. In addition, we do not know if all of these reported effects occur in humans exposed to low-intensity RFR, or whether the reported effects are health hazards. Biological effects do not automatically mean

Reference	Frequency	Form of EMF	Exposure duration	SAR (W/kg)	Power density (W/m ²)	Effects reported
Chen et al. (2010) review	0.5–1, 1.745 MHz	Cell phone base station radio	2 min. hrs		0.25	Retarded development
Dejager et al. (2010) review	915 MHz	GSM	24–40 hrs	0.037		Genetic changes in human fibroblast cells
Dejager et al. (2010) review	915 MHz, 1937 MHz	GSM, UMTS	24–72 hr	0.037		DNA repair in human fibroblast cells
El-Ghundi et al. (2010) review	50 MHz	AM, 16 Hz		0.0104		Calcium in the nucleus of blood cells
Harada et al. (2010) review	50 MHz, 60 Hz	TV, 50 Hz		0.5		Chromosomal aberrations in lymphocytes
Harada et al. (2010) review	50 MHz	CW (CW = non-pulsed)	1–5 yrs, 5–10, 20 yrs per day		2b	DNA damage in human glioblastoma cells
Harada et al. (2010) review	50 MHz	AM, 50 Hz				
Harada et al. (2010) review	50 MHz	GSM	1–10 days, 3 days	0.07		Affects proliferation of human fibroblast cells, genetic changes in fibroblast cells, altered distribution of chromatin in fibroblasts

[illegible]

1. $\mathcal{M} = \{M_1, M_2, \dots, M_n\}$ is a set of n matrices, where M_i is an $n \times n$ matrix.

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Levitt B, Lai H. Biological effects from exposure to electromagnetic radiation emitted by cell tower base stations and other antenna arrays. *Environ. Rev.* 18: 369–395 (2010). doi:10.1139/A10-018. <http://www.nrcresearchpress.com/doi/pdfplus/10.1139/A10-018?src=recsys>

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Resources

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Campanelli & Associates, P.C. Cell tower lawyers. <http://www.anticelltowerlawyers.com/>

Center for Municipal Solutions. Excellent resource re: regulation of cell towers & wireless facilities. <http://bit.ly/1GX4mPY>

Karish G, Barket E (Best Best & Krieger). Issues of Local Control and Wireless Telecommunication Facilities. Presented at League of California Cities City Attorneys' Spring Conference, May 3, 2018. 22 pp. <http://bit.ly/wirelesscontrol>

League of Minnesota Cities. Cell Towers, Small Cell Technologies & Distributed Antenna Systems. Nov 4, 2016. <http://bit.ly/2k5PQz0>

San Francisco Neighborhood Antenna-Free Union (SNAFU)
<http://www.antennafreeunion.org/neighborhoodaction.htm>



News

RCR Wireless News. Appeals Court rules that California cities have the right to block small cell based on aesthetic concerns. Sep 16, 2016. <http://bit.ly/2cE9GhN>

Rouhan Sharma. A Towering Problem. *Infrastructure Today*, Feb 2016. <http://bit.ly/1QcHSxO>

Special Correspondent. "Radiation levels of mobile towers should be cut." *The Hindu*. Feb 7, 2016. <http://bit.ly/1Pt5Sck>

"Stating that the current level of radiation (electromagnetic field, EMF) emitted by mobile phone towers was still high, Girish Kumar, Professor, Department of Electrical Engineering, IIT Bombay, on Saturday, urged the Centre to reduce the radiation level further.

The mobile tower radiation had been reduced [in India] from 45,000 milliwatt per square metre to 450 milliwatt a few years ago. It should be reduced to 10 milliwatt, he said"

Note: The FCC allows the American general public to be exposed to up to 5,800 milliwatts per square meter.



Lydia Beyoud. Not All 'Small Cells' Created Equal, Say Municipalities in Wireless Siting Rules Suit. *Bloomberg BNA*. Apr 27, 2015.

<http://www.bna.com/not-small-cells-n17179925917/>

"... the number of small cell and DAS installations is expected to grow exponentially in the next few years. As many as 37 million small cell installations could be in place by 2017, and up to 16 million distributed antenna system (DAS) nodes could be deployed by 2018, according to the FCC."

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Labels: antenna, base station, cell tower, FCC, health effects, ICNIRP, Kumar, mobile phone, regulations, research, SB 649, Telecom Act

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Electromagnetic Radiation Safety

Scientific and policy developments regarding the health effects of electromagnetic radiation exposure from cell phones, cell towers, Wi-Fi, Smart Meters, and other wireless technology

Thursday, April 26, 2018

Scientists and Doctors Demand Moratorium on 5G

Apr 26, 2018

International Society of Doctors for the Environment Support 5G Moratorium



In April, 2018, the International Society of Doctors for the Environment (ISDE) and its member organizations in 27 countries, adopted a declaration calling for a moratorium on the deployment of 5G (fifth generation cellular technology) in the European Union.

The declaration is entitled, "5G networks in European Countries: appeal for a standstill in the respect of the precautionary principle."

"We believe it should be unethical to ignore the available evidence waiting a possible "a posteriori" demonstration of health damages in the presence of a present and potentially manageable risk for public health.

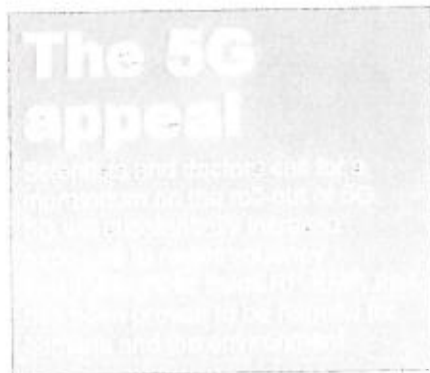
Thus, in the respect of the precautionary principle and of the WHO principle "health in all policies", we believe suitable the request of a standstill for the "5G experimentations" throughout Europe until an adequate and active involvement of public institutions operating in the field of environmental health (health ministry, environmental ministry, national environmental and health agencies) will be effectively planned."

In the United States, the ISDE member organization is Physicians for Social Responsibility (PSR).



Apr 16, 2018

Official 5G Appeal Website Launched



The official website, www.5gappeal.eu, for the 5G Appeal has been launched. The website contains the text of the Appeal, the



Joel M. Moskowitz, Ph.D.
Director
Center for Family and Community Health
School of Public Health
University of California, Berkeley

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current list of signatories, an explanation of 5G, and related news stories.

The Appeal asserts that, "5G will substantially increase exposure to radiofrequency electromagnetic fields (RF-EMF) on top of the 2G, 3G, 4G, Wi-Fi, etc. for telecommunications already in place. RF-EMF has been proven to be harmful for humans and the environment."

More than 200 scientists and doctors from 38 nations have signed the declaration calling for a moratorium on the deployment of 5G (fifth generation) cellular technology.

Oct 25, 2017

European Commission Responds with Denial and Empty Promises to Call for 5G Moratorium

On October 12, the European Commission (EC) issued its ~~response~~ to a September 13 ~~declaration~~ that demands a moratorium on planned 5G expansion, the fifth generation of mobile communication technology. To date, the declaration has been signed by over 180 scientists and doctors from 35 nations.

The Commission's response contradicts the basic assertion of the declaration. The EC claims that current limits on electromagnetic field (EMF) exposure established by the International Commission on Non-Ionizing Radiation Protection (ICNIRP) are adequate to protect the population, and that these limits apply to the frequencies to be deployed for 5G.

Signers of the declaration argue that these limits were designed to protect the population from the effects of heating attributable to brief EMF exposures but were not intended to protect people from chronic exposure to low intensity EMF.

The declaration cites language from the 2015 ~~International EMF Scientific Appeal~~ which has now been signed by more than 230 scientists who have published peer-reviewed research on EMF and biology or health. Prior to the current controversy about 5G, these experts reported "serious concerns" regarding the ubiquitous and increasing exposure to EMF. Their appeal refers to numerous scientific publications which have shown that EMF "affects living organisms at levels well below most international and national guidelines." These effects include increased cancer risk, neurological disorders, and reproductive harm. The Appeal calls for the strengthening of EMF guidelines and regulatory standards.

In addition, the September declaration cites the International Agency for Research on Cancer's classification of radio frequency radiation as "possibly carcinogenic" in 2011; recommendations of the 2015 Brussels Congress on multiple chemical sensitivity and electromagnetic hypersensitivity; results from the U.S. National Toxicology Program study in 2016 finding cell phone radiation causes DNA damage and cancer in rats; and the Europa EM-EMF 2016 Guideline that long-term EMF exposure is a risk factor for chronic disease and infertility.

The declaration for a 5G moratorium argues that ...

"current ICNIRP 'safety guidelines' are obsolete. All proofs of harm mentioned above arise although the radiation is below the ICNIRP safety guidelines. Therefore new safety standards are necessary. The reason for the misleading guidelines is that conflict of interest of ICNIRP members due to their relationships with telecommunications or electric companies undermine the impartiality that should govern the regulation of Public Exposure Standards for non-ionizing radiation...."

The EC claims that it "is not aware of any conflicts of interests of members of international bodies such as ICNIRP...."

The EC maintains that "Digital technologies and mobile communication technologies, including high speed internet, will be the backbone of Europe's future economy."

The EC letter acknowledges that citizens deserve appropriate protection against EMF from wireless devices, and concludes with the following empty promise,

"Please be assured that the Commission will pursue scrutiny of the independent scientific evidence available to ensure the highest health protection of our citizens."

The EC response letter was sent electronically to the authors of the declaration, Professors Rainer Nyberg and Lennart Hardell. The letter was signed by John F. Ryan, the director of public health, country knowledge, crisis management in the EC Directorate—General Health and Food Safety.

September 13, 2017

Scientists and Doctors Say Increased Radiation from Cell Towers Poses Potential Risks

(Örebro, Sweden) Over 180 scientists and doctors from 35 countries sent a declaration to officials of the European Commission today demanding a moratorium on the increase of cell antennas for planned 5G expansion. Concerns over health effects from higher radiation exposure include potential neurological impacts, infertility, and cancer.

"The wireless industry is trying to deploy technology that may have some very real unintended harmful consequences," explains one of the organizers of the letter, Lennart Hardell, MD, PhD, Associate Professor, Department of Oncology, Faculty of Medicine and Health, Örebro University, Örebro, Sweden. "Scientific studies from years ago along with many new studies are consistently identifying harmful human health impacts when wireless products are tested properly using conditions that reflect actual exposures. With hazards at those exposures, we are very concerned that the added exposure to 5G radiation could result in tragic, irreversible harm."

5G expansion, which is designed to carry higher loads of data more rapidly through wireless transmission, will require the construction of cell towers every 10-20 houses in urban areas.

In their letter to the European Commission, the scientists write:

"We, the undersigned, more than 180 scientists and doctors from 35 nations, recommend a moratorium on the roll-out of the fifth generation, 5G, for telecommunication until potential hazards for human health and the environment have been fully investigated by scientists independent from industry."

University of California, Berkeley public health researcher Joel Moskowitz, PhD, explains:

"Peer-reviewed research has documented industry influence on studies of the health impacts of wireless radiation. We are insisting on a moratorium on 5G until non-industry research can be conducted to ensure the safety of the public."

Moskowitz is one of the advisors to an earlier effort, the **International EMF Scientist Appeal**, a petition submitted to the United Nations and World Health Organization in 2015. The Appeal has now been signed by more than 230 scientists from 41 nations—all have published peer-reviewed research on the biologic or health effects of electromagnetic fields (EMF).

Since the Appeal was published, the world's largest \$25 million study, conducted by the **National Toxicology Program** in the US, shows statistically significant increases in the incidence of brain and heart cancer in animals exposed to cellphone radiation at levels below international guidelines. This supports human studies on cellphone radiation and brain tumour risk, as demonstrated in many peer-reviewed scientific studies.

The Appeal and this week's declaration identify health concerns from exposure to radiofrequency radiation including ...

"... increased cancer risk, cellular stress, increase in harmful free radicals, genetic damages, structural and functional changes of the reproductive system, learning and memory deficits, neurological disorders, and negative impacts on general well-being in humans. Damage goes well beyond the human race, as there is growing evidence of harmful effects to both plant and animal life."

Roll-out of 5G in the US

In the US, the wireless industry is promoting legislation in at least 20 states to facilitate the roll-out of 5G in addition to sponsoring legislation at the federal level.

In California, city and county governments are opposing **SB 649**, an industry-sponsored bill which overrides local control over the wireless industry's access to utility poles and public buildings for 5G deployment. Environmental health advocates fear that exposure to the added radiation from 5G infrastructure will contribute to increased health problems.

"If this bill passes, many people will suffer greatly, and needlessly, as a direct result. This sounds like hyperbole. It is not," according to **Beatrice Golomb, MD, PhD**, Professor of Medicine in the medical school at the University of California, San Diego. In her **open letter** which summarizes the research on the effects of radio frequency radiation, she concludes, "Let our focus be on safer, wired and well shielded technology—not more wireless."

The declaration and list of signatories can be found here:
<http://bit.ly/5Gappeal170913a>

Media Inquiries:

Finland: Rainer Nyberg, EdD
Sweden: Lennart Hardell, MD, PhD
UK: Alasdair Philips, BSc, DAgE, MIEEE
USA: Joel Moskowitz, PhD
USA: Beatrice Golomb, MD, PhD

Related Posts:

International EMF Scientist Appeal - also see <https://emfscientist.org/>
5G Wireless Technology: Is 5G Harmful to Our Health?
5G Wireless Technology: Millimeter Wave Health Effects
Cell Tower Health Effects
Electromagnetic Hypersensitivity (EHS)
5G Wireless Technology: Major newspaper editorials oppose "small cell" antenna bills

Industry-funded Scientists Undermine Cell Phone Radiation Science
Government Failure to Address Wireless Radiation Risks
FCC Open Letter: Moratorium on New Commercial Applications of RF Radiation
An Exposé of the FCC: An Agency Captured by the Industries it Regulates
WHO Radiofrequency Radiation Policy



Labels: 5G, 5G moratorium, 5th generation, appeal, declaration, EU, Golomb, Hardell, Orebro, roll-out, SB 649, scientist declaration, small cell

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Electromagnetic Radiation Safety

Scientific and policy developments regarding the health effects of electromagnetic radiation exposure from cell phones, cell towers, Wi-Fi, Smart Meters, and other wireless technology

Tuesday, September 11, 2018

Recent Research on Wireless Radiation and Electromagnetic Fields

I have been circulating abstracts of newly-published scientific papers on wireless radiation and electromagnetic fields (EMF) about once a month since August, 2016. These updates are sent to several hundred EMF scientists around the world.

Since I have received numerous requests to post the abstracts on this website, I have compiled the collection into a document. The complete collection of abstracts from more than 400 papers can be downloaded by clicking on the following link:

<http://bit.ly/EMF180911>

Note: This link will change when new abstracts are added to the compilation.

See EMF-Portal for a searchable database of EMF studies. The Portal contains over 26,000 publications and 6,000 summaries of scientific studies on the effects of EMF. The Portal is a project of RWTH University Hospital in Aachen, Germany.

Latest edition

Diplomats' mystery illness and pulsed radiofrequency/microwave radiation

Golomb B. Diplomats' mystery illness and pulsed radiofrequency/microwave radiation. Neural Comput. 2018 Sep 5. doi: 10.1162/neco_a_01133.

Abstract

IMPORTANCE: A "mystery" illness striking US and Canadian diplomats to Cuba (and now China) "has confounded the FBI, the State Department and US intelligence agencies." Sonic explanations for the so-called "health attacks" have long dominated media reports, propelled by peculiar sounds heard and auditory symptoms experienced. Sonic mediation was justly rejected by experts. We assessed whether pulsed radiofrequency/microwave radiation (RF/MW) exposure can accommodate reported facts in diplomats, including unusual ones.

OBSERVATIONS: 1. Noises: Chirping, ringing or grinding noises were heard at night, during episodes reportedly triggering health problems, by many diplomats. Pulsed RF/MW engenders just these "sounds" via the "Frey effect." Ability to hear the sounds depends on high frequency hearing and low ambient noise. "Sounds" differ by head dimensions. 2. Signs/symptoms: Hearing loss and tinnitus are prominent in affected diplomats - and in RF/MW-affected individuals. Each of protean symptoms that diplomats report, also affect persons reporting symptoms from RF/MW: Sleep problems, headaches, and cognitive problems dominate in both groups. Sensations of pressure or vibration figure in each. Both encompass vision, balance and speech problems, and nosebleeds. Brain injury and brain swelling are reported in both. 3. Mechanisms: Oxidative stress provides a documented mechanism of RF/MW injury compatible with reported signs and symptoms; sequelae of endothelial dysfunction (yielding blood flow compromise), membrane damage, blood brain barrier disruption, mitochondrial injury, apoptosis, and autoimmune triggering afford downstream mechanisms, of varying persistence, that merit investigation. 4. Of note, microwaving of the US embassy in Moscow is historically documented.

CONCLUSIONS AND RELEVANCE: Reported facts appear consistent with RF/MW as the source of injury in Cuba diplomats. Non-diplomats citing symptoms from RF/MW, often with an inciting pulsed-RF/MW exposure, report compatible health conditions. Under the RF/MW hypothesis, lessons learned for diplomats and for RF/MW-affected "civilians" may each aid the other.

<https://www.ncbi.nlm.nih.gov/pubmed/30183509>

Selected Health and Law Issues Regarding Mobile Communications with Respect to 5G

Mandi P, Pezzer P, Leitgeb E. Selected Health and Law Issues Regarding Mobile Communications with Respect to 5G. Presented at 2018 International Conference on Broadband Communications for Next Generation Networks and Multimedia Applications (CoBCom). Graz, Austria. July 11-13, 2018.

Abstract

Over the next years the demand of wireless communication will increase tremendously. More and more mobile end devices require a high data rate connection e.g. to a smart home (Internet of Things, IoT) or to the internet. The radiation power pattern of base stations and mobile end devices will completely change for the 5G Next Generation Mobile Network technology which will use frequency bands up to 100 GHz. Therefore the electromagnetic exposure especially to human body will increase in the



Joel M. Moskowitz, Ph.D.
Director
Center for Family and Community Health
School of Public Health
University of California, Berkeley

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future, because most of the wireless connections are realized in RF technology. In this contribution two different measurement setups are presented. The first shows the electromagnetic radiation regarding a base station powered by a mobile phone provider over a timespan of a number of days. The second figures out the electromagnetic radiation of a handheld mobile end device to a human head in an area with very poor reception values. The results of those measurements were compared with legal and health limits. All measured and calculated results regarding the base stations were within the legal exposure limits. The calculated legal exposure limits of mobile devices were exceeded twice in areas within very poor reception values. Regarding the expected higher bandwidth and corresponding higher electromagnetic exposure to human bodies in future there have to be periodic measurements to comply with radiation limits.

Conclusions

It has been shown that there is currently no overshooting of legal limits in the transmission of base stations. The presented measurement campaign regarding the base station showed that the E-Field reached a maximum of 0.673 V/m (legal limit: 47.631 V/m) and the H-Field a maximum of 2 mA/m (legal limit: 128 mA/m). However, the coming mobile radio standards like 5G is expected to use frequency bands up to 100 GHz, a much higher density of base stations and 100 times higher bandwidths than nowadays which subsequently causes higher transmission power of base stations. Regarding the above mentioned circumstances it will be necessary to measure the radiation exposure of base stations in the future on a regular basis in order to ensure the legal limits and to reduce possible health hazards. It also will be necessary to develop new measurement strategies and/or technologies regarding the large frequency spectrum 5G will use up to 100 GHz.

When measuring directly on a mobile phone (simulating the use of an end device directly on the human head), it was found that the calculated SAR of 3.834 W/kg exceeds the legal limit of 2 W/kg. This shows clearly that the legal limit values can be exceeded significantly in areas with very poor reception values ...

Increasing the distance between a mobile end device and the head, e.g. by using a hands-free set or a headset can significantly reduce the human exposure to electromagnetic radiation when such a device is used in badly supplied areas and transmits with maximum power.

<https://ieeexplore.ieee.org/document/8443980/>

Cancer epidemiology update, following the 2011 IARC evaluation of radiofrequency electromagnetic fields (Monograph 102)

Miller AB, Morgan LL, Udasin I, Davis DL. Cancer epidemiology update, following the 2011 IARC evaluation of radiofrequency electromagnetic fields (Monograph 102). Available online Sep 6, 2018. <https://doi.org/10.1016/j.envres.2018.06.043>

Highlights

- Increased risk of brain, vestibular nerve and salivary gland tumors are associated with mobile phone use.
- Nine studies (2011–2017) report increased risk of brain cancer from mobile phone use.
- Four case-control studies (3 in 2013, 1 in 2014) report increased risk of vestibular nerve tumors.
- Concern for other cancers: breast (male & female), testis, leukemia, and thyroid.
- Based on the evidence reviewed it is our opinion that IARC's current categorization of RFR as a possible human carcinogen (Group 2B) should be upgraded to Carcinogenic to Humans (Group 1).

Abstract

Epidemiology studies (case-control, cohort, time trend and case studies) published since the International Agency for Research on Cancer (IARC) 2011 categorization of radiofrequency radiation (RFR) from mobile phones and other wireless devices as a possible human carcinogen (Group 2B) are reviewed and summarized. Glioma is an important human cancer found to be associated with RFR in 9 case-control studies conducted in Sweden and France, as well as in some other countries. Increasing glioma incidence trends have been reported in the UK and other countries. Non-malignant endpoints linked include acoustic neuroma (vestibular Schwannoma) and meningioma. Because they allow more detailed consideration of exposure, case-control studies can be superior to cohort studies or other methods in evaluating potential risks for brain cancer. When considered with recent animal experimental evidence, the recent epidemiological studies strengthen and support the conclusion that RFR should be categorized as carcinogenic to humans (IARC Group 1). Opportunistic epidemiological studies are proposed that can be carried out through cross-sectional analyses of high, medium, and low mobile phone users with respect to hearing, vision, memory, reaction time, and other indicators that can easily be assessed through standardized computer-based tests. As exposure data are not uniformly available, billing records should be used whenever available to corroborate reported exposures.

Synthesis and conclusions

The Epidemiological studies reported since the 2011 IARC Working Group meeting are adequate to consider RFR as a probable human carcinogen (Group 2 A). However, they must be supplemented with the recently reported animal data as performed at the Ramazzini Institute and the US National Toxicology Program as well as by mechanistic studies. These experimental findings together with the epidemiology reviewed here are sufficient in our opinion, to upgrade the IARC categorization of RFR to Group 1, carcinogenic to humans.

It would be useful to know more about the association of additional tumor types such as parotid gland, testicular, breast, hematopoietic malignancies and multiple primaries with RFR. Case studies should continue to be conducted in the absence of a better exposure assessment system to increase awareness and understand the relationship between exposure to RFR and disease causation, as well as trial-error experiments and interventions.

In light of the evolving science concerning mobile phone and screen time exposures and the longer-term risk of cancer established by both epidemiological and toxicological studies, current evidence is strong enough to go from precaution concerning possible risk to prevention of known risks. Although the benefits of connectivity are extremely important, safety considerations demand reconciling use of information vs. risk of perceived rare outcomes. Thus, a concerted program of public and health professional education should be undertaken throughout society explaining current knowledge and devising policies to promote safer technology in partnership with designers of software and hardware. In addition, methods should be developed

and validated to reduce exposures in schools, workplaces, hospitals and other workplaces. The precautionary principle should be applied now and suitable warning messages provided to adults and critically to children and their parents. Until technology has been devised that substantially lowers exposures, special efforts should be advanced to ensure that the exposures of children are limited to those deemed essential. Children should be encouraged to text to reduce their exposure to RFR, while every attempt should be made to reduce exposure to RFR in schools, as well as homes.

Research has so far been performed on technologies that have already been introduced, but is critically needed on new, untested technology prior to its use. Epidemiological studies necessarily confirm the impact of past exposures, while experimental studies provide indications of future risk. Thus, experimental evaluations and modeling are essential before distributing newer systems (e.g. 5 G) for which no safety data have been obtained. The absence of systematic testing of such technologies should not be confused with proof of safety. Better modeling through anatomically based systems, such as the Virtual Family, should be encouraged.

In the meantime, the evidence amassed thus far from epidemiology strengthens the case for instituting the precautionary principle with respect to exposures to RFR, especially to young children and men and women that wish to reproduce. The lack of detailed studies at this point reflects a myopic attitude toward the technology that may well prove to be wishful and dangerous thinking. Where studies have been carried out on human sperm quantity and quality there are increasing indications of serious human health impacts. To ignore those findings and subject humans to unevaluated novel RFR frequencies places current and future generations at risk.

<https://www.sciencedirect.com/science/article/pii/S0013935118303475>

Clear evidence of cell-phone RF radiation cancer risk

Lin JC. Clear evidence of cell-phone RF radiation cancer risk. *IEEE Microwave Magazine*. 19(6):16-24. Sep/Oct 2018. DOI: 10.1109/MMM.2018.2844058.

Abstract

During 26-28 March 2018, the National Institute of Environmental Health Sciences (NIEHS) National Toxicology Program (NTP), a part of the U.S. National Institutes of Health, convened a three-day technical reports peer-review panel meeting in Research Triangle Park, North Carolina, to review the NTP's draft reports on its carcinogenesis studies of cell-phone RF radiation in mice and rats.

<https://ieeexplore.ieee.org/document/8425056/>

A summary and excerpts from the paper: <http://bit.ly/NTPcellphonestudies>

In a new paper, "Clear evidence of cell-phone RF radiation cancer risk" published in the journal *IEEE Microwave Magazine*, Dr. James C. Lin states that the results of the National Toxicology Program (NTP) cell phone radiation study suggest that current radio frequency (RF) exposure guidelines are inadequate to protect human health (1). Furthermore, the paper recommends that the International Agency for Research on Cancer (IARC) re-assess the research and consider upgrading the classification of RF radiation from "possibly carcinogenic to humans" (Group 2B) to probably carcinogenic (i.e., Group 2A).

Peer Review of the Draft NTP Technical Reports on Cell Phone Radiofrequency Radiation

National Toxicology Program (NTP). Peer Review of the Draft NTP Technical Reports on Cell Phone Radiofrequency Radiation. National Institute of Environmental Health Sciences. 2018. pp. 1-51.

No abstract.

Open access paper: https://ntp.niehs.nih.gov/ntp/about_ntp/tpanel/2018/march/peerreview20180328_508.pdf

Editorial: Effects of Combined EMF Exposures and Co-exposures

Mattsson M-O, Zeni O, Simkó M, Scarfi MR. Editorial: Effects of Combined EMF Exposures and Co-exposures. *Frontiers in Public Health*. 20 August 2018. <https://doi.org/10.3389/fpubh.2018.00230>.

No Abstract

Excerpt

The very complex exposure situation in real-life environments has been well illustrated in this Research Topic, and the need for better understanding of basic biological interaction mechanisms is obvious from the analyses presented here. The area is very much under-investigated, and the full impact and potential of EMF exposures for both possible adverse and beneficial effects cannot be realized without substantial additional research efforts.

Open access: <https://www.frontiersin.org/articles/10.3389/fpubh.2018.00230/full>

Effects of mobile phone exposure on biochemical parameters of cord blood: A preliminary study

Bektas H, Bektas MS, Dasdag S. Effects of mobile phone exposure on biochemical parameters of cord blood: A preliminary study. *Electromagn Biol Med*. 2018 Aug 29:1-8. doi: 10.1080/15368378.2018.1499033.

Abstract

The purpose of this study is to investigate foetal impact of radiofrequencies (RFs) emitted from mobile phones in postnatal cord blood. The study carried on 149 pregnant women divided into four groups such as nonusers of mobile phone (n: 37; control group), 2-15 min/d (n: 39; group 1), 15-60 min/d (n: 37; group 2) and participants using mobile phone for more than 60 min/d (n: 36; group 3). Cord blood of the infants was taken in all groups for biochemical analyses immediately after birth. The results of the study showed that the biggest foetal impact was observed in the third study group which was pregnant exposed RFRs (RF radiation) more than 1 h/d (1 hour per day). AST (aspartat aminotransferaz), ALT (alanine aminotransferase), LDH (lactate dehydrogenase), CK (creatine kinase), CK-MB (creatine kinase-miyocardial band), CRP (c-reactive protein), PCT (procalcitonin), TnT (troponin T), uric acid and lactate levels of third group were found higher than the other groups ($p < 0.001$). However, Mean platelet volume values of third group were found lower than the other groups ($p < 0.001$). Finally, this is the first human study which was performed on pregnant and infants because there is no previous work in this area. However, the results of this study revealed that long-term RFR exposure of pregnant may result in some biochemical changes in the infants. Therefore, our suggestion to pregnant is to avoid from RFR exposure emitted from mobile phones at least during pregnancy.

<https://www.ncbi.nlm.nih.gov/pubmed/30156944>

Comments regarding: "Occupational exposure to high-frequency EMF & brain tumor risk in INTEROCC study: An individualized assessment approach"

Mortazavi SMJ. Comments regarding: "Occupational exposure to high-frequency electromagnetic fields and brain tumor risk in the INTEROCC study: An individualized assessment approach". *Environ Int.* 2018 Aug 24. pii: S0160-4120(18)31561-7. doi: 10.1016/j.envint.2018.08.008.

Abstract

This commentary addresses the paper by Vila et al. entitled "Occupational exposure to high-frequency electromagnetic fields and brain tumor risk in the INTEROCC study: An individualized assessment approach" that is published in *Environment International*. The authors have examined the link between occupational exposures to radiofrequency (RF) and intermediate frequency (IF) electromagnetic fields (EMF) and glioma and meningioma brain tumor risk in the INTEROCC multinational population-based case-control study. This study showed no clear association with exposure to RF or IF EMFs and the risk of glioma or meningioma brain tumors. Recent studies show that in many cases there are large errors and/or major shortcomings in the studies claiming no link between mobile phone and brain cancer. Although the paper by Vila et al. is well-structured and can be considered as a significant contribution to this field, there are several items that merit further attention and are not fully addressed. These include the selection bias, confounding factors other than age, sex, region and country, and criteria used in this study for considering exposures as occupational.

<https://www.ncbi.nlm.nih.gov/pubmed/30146273>

Statistical approach for human EMF exposure assessment in future wireless ATTO-cell networks

Shikhantsov S, Thielens A, Vermeeren G, Demeester P, Martens L, Torfs G, Joseph W. Statistical approach for human electromagnetic exposure assessment in future wireless ATTO-cell networks. *Radiat Prot Dosimetry.* 2018 Jul 30. doi: 10.1093/rpd/ncy120.

Abstract

In this article, we study human electromagnetic exposure to the radiation of an ultra dense network of nodes integrated in a floor denoted as ATTO-cell floor, or ATTO-floor. ATTO-cells are a prospective 5 G wireless networking technology, in which humans are exposed by several interfering sources. To numerically estimate this exposure we propose a statistical approach based on a set of finite difference time domain simulations. It accounts for variations of antenna phases and makes use of a large number of exposure evaluations, based on a relatively low number of required simulations. The exposure was expressed in peak-spatial 10-g SAR average (psSAR10g). The results show an average exposure level of ~4.9 mW/kg and reaching 7.6 mW/kg in 5% of cases. The maximum psSAR10g value found in the studied numerical setup equals around 21.2 mW/kg. Influence of the simulated ATTO-floor size on the resulting exposure was examined. All obtained exposure levels are far below 4 W/kg ICNIRP basic restriction for general public in limbs (and 20 W/kg basic restriction for occupational exposure), which makes ATTO-floor a potential low-exposure 5 G candidate.

<https://www.ncbi.nlm.nih.gov/pubmed/30085262>

Excerpt

The ATTO-floor is a new concept for ultra-high capacity wireless networking, designed to provide wireless access to robots that can freely move around the floor surface. ATTO-cells are integrated into the floor and cover its entire area. According to the current design⁽¹⁾ (Figure 1) an ATTO-cell has dimensions of 15-by-15 cm² and an antenna is supplied with a maximum power of 1 mW. It operates at a center frequency of 3.5 GHz. Possible applications of the ATTO technology include industrial warehouses or factories of the future, where multitudes of mobile robots and human workers operate simultaneously. Robots, being equipped with an antenna featuring downward-pointing pattern, are the target users. Due to the provisioned fast handover system, at any time instance a robot is only connected to the closest antenna, thus, it is unlikely for humans to be exposed by the ATTO-floor directly. In other words, most of the time humans will be exposed to the scattered fields of antennas serving surrounding robots.

Highlights

- GSM 900 is the dominating source of exposure
- Exposure levels meet international recommendations and local legislation
- In absolute levels the outdoor field exposure is ca. the double of the indoor field exposure
- EM exposure levels are reproducible over a time span of ca. one month

Abstract

A measuring campaign for the assessment of electromagnetic radiation near base stations in the city center of Leuven, Belgium, has been carried out. The main objective of this assessment is to study the correlation between the outdoor and the indoor exposure produced by cellular base stations and to investigate the changes of electromagnetic exposure within a typical day and over 1 month in the vicinity of these base stations. The study was also carried out as a function of location and time using highly precise measurement equipment. The measurements were performed in both public and private areas in sixty (30 indoor and 30 outdoor) different locations in Leuven. The measurement was focused on mobile communication networks: GSM (Global System for Mobile Communication, 900 MHz and 1800 MHz) and UMTS (Universal Mobile Telecommunications System, 2110 MHz) were the frequency bands of interest. The data at these frequencies were extracted from raw measurements in the 824 MHz to 2170 MHz frequency band. The results show that all analyzed locations are in compliance with the exposure limits recommended by ICNIRP (International Commission on Non-Ionizing Radiation Protection) and that the (maximum) indoor exposure correlates to the outdoor exposure with a factor of about 0.5.

Conclusions

The electromagnetic radiation exposure of the general public generated by base stations in Leuven, Belgium, was duly assessed using spectrum analyzer measurements at 60 locations and at several moments during the day. All measured values are considerably below norm levels for Flanders, which means that they are far below the ICNIRP exposure limits for the general public. The average levels over time and over the whole city center are: outdoors about 0.64 V/m for GSM 900, 0.53 for GSM 1800, and 0.33 for UMTS, and indoors about 0.32 V/m for GSM 900, 0.26 for GSM 1800, and 0.17 for UMTS. To the average, the outdoor exposure levels are thus a factor of two higher than the indoor levels. In general, the dominating source of exposure is GSM 900. The maximum field value measured was equal to 1.80 V/m, due to the GSM 900 signal. In this study, the average effect of absorption and reflection, typically used to explain the lower values indoors, is in agreement with the average attenuation through walls used in propagation models.

<https://www.sciencedirect.com/science/article/pii/S0013935118304651>

On the effects of glasses on the SAR in human head resulting from wireless eyewear devices at phone call state

Lan JQ, Liang X, Hong T, Du GH. On the effects of glasses on the SAR in human head resulting from wireless eyewear devices at phone call state. *Progress in Biophysics and Molecular Biology*. 136:29-36. Aug 2018.

Abstract

This paper evaluates the effects of glasses on the specific absorption rates (SAR) in the human head resulting from wireless eyewear device at phone call state. We mainly concentrate on the SAR in the eyes since their sensitivity to electromagnetic fields (EMF). We find wearing glasses obviously alters the distribution and magnitude of the SAR. The maximal SAR in the ocular tissues with glasses is even 6 times more than that without glasses. Wearing glasses also induce the new hotspot in the eyes which may cause the biggest SAR increment in the ocular tissues. Moreover, calculated results indicate that the maximal SAR is sensitive to the size of glasses and radiation frequency. Because of this, we believe wearing glasses may possibly increase the risk of health hazard to eyes of wireless eyewear device user. These calculated results could be a valuable reference for the glasses designer to reduce the SAR in the eyes.

<https://www.sciencedirect.com/science/article/pii/S0079610717300622>

Subjective symptoms, onset/trigger factors, allergic diseases, & exposures in Japanese patients with multiple chemical sensitivity

Hojo S, Mizukoshi A, Azuma K, Okumura J, Ishikawa S, Miyata M, Mizuki M, Ogura H, Sakabe K. Survey on changes in subjective symptoms, onset/trigger factors, allergic diseases, and chemical exposures in the past decade of Japanese patients with multiple chemical sensitivity. *Int J Hyg Environ Health*. 2018 Aug 13. pii: S1438-4639(18)30271-2. doi: 10.1016/j.ijheh.2018.08.001.

Abstract

BACKGROUND: Recently, with rapid changes in the Japanese lifestyle, the clinical condition of patients with multiple chemical sensitivity (MCS) may also have undergone change. Thus, we conducted a new survey for subjective symptoms, ongoing chemical exposures, the prevalence of allergic diseases, and presumed onset/trigger factors in patients with MCS and compared results with those of an old survey from ten years ago.

METHODS: The new survey was conducted from 2012 to 2015 and the old survey was independently conducted from 1999 to 2003, meaning it was not a follow-up study. Patients were initially diagnosed by physicians at five medical institutions with MCS specialty outpatient services, with 111 and 103 patients participating in the new and old surveys, respectively. The controls were a general population living in Japan, with 1313 and 2382 participants in the new and old surveys, respectively. Subjective symptoms and ongoing chemical exposure were evaluated using a quick environmental exposure sensitivity inventory.

Additionally, from clinical findings recorded by an attending physician, the prevalence of allergic diseases and presumed onset/trigger factors were evaluated. Differences between new and old surveys were analyzed using logistic regression analyses and significance tests.

RESULTS: Compared with ten years ago: (1) Regarding factors affecting patients with ongoing chemical exposures, the proportion of patients affected decreased significantly for two items only (insecticides and second-hand smoke). The proportion of controls showing ongoing exposure to 8 out of 10 items changed significantly. (2) In patients, scores for chemical intolerances, other intolerances, and life impacts increased significantly. (3) In terms of the prevalence of allergic diseases among patients with MCS, bronchial asthma (adjusted odds ratio [AOR]: 5.19), atopic dermatitis (AOR: 3.77), allergic rhinitis (AOR: 5.34), and food allergies (AOR: 2.63) increased significantly, while hay fever (AOR: 0.38) and drug allergies (AOR: 0.40) decreased significantly. (4) With regard to construction and renovation, which was the presumed predominant onset/trigger factor for MCS 10 years ago, this decreased from 68.9% to 35.1%; in contrast, electromagnetic fields (0.0%-26.1%), perfume (0.0%-20.7%), and medical treatment (1.9%-7.2%) increased significantly, confirming the diversification of onset/trigger factors.

CONCLUSION: Compared to ten years ago, for patients with MCS, an increase in avoidance behavior toward chemical substance exposures, which were presumed to be aggravating factors for symptoms, was confirmed. It has been suggested that the ongoing chemical exposure of the general population in Japan has largely changed. In addition, for patients with MCS, chemical intolerances and life impacts have become severe, the prevalence of the main allergic diseases has increased, and onset/trigger factors have become diversified.

<https://www.ncbi.nlm.nih.gov/pubmed/30115513>

Design and Calibration of a mm-Wave Personal Exposure Meter for 5G Exposure Assessment in Indoor Diffuse Environments

Aminzadeh R, Khadir Fall A, Sol J, Thielens A, Besnier P, Zhadobov M, De Geeter N, Vasudevan PP, Dupré L, Van Hoven R, Martens L, Wout J. Design and Calibration of a mm-Wave Personal Exposure Meter for 5G Exposure Assessment in Indoor Diffuse Environments. *Journal of Infrared, Millimeter, and Terahertz Waves*. pp 1–19. Published Online: 23 August 2018.

Abstract

For the first time, a mm-wave personal exposure meter (mm-PEM) for the 5th generation of mobile networks (5G) exposure assessment in indoor diffuse fields is presented. The design is based on simulations and on-phantom calibration measurements in a mm-wave reverberation chamber (RC) at 60 GHz. The mm-PEM consists of an array of nine antennas on the body. Using the mm-PEM, the incident power density (IPD) is measured in the unloaded RC, for the antenna(s) on the phantom and RC loaded with phantom. The uncertainty of the mm-PEM is then determined in terms of its response, which is defined as the ratio of antenna aperture for the above measurement scenarios. Using nine antennas, the designed meter has a response of 1.043 (0.17 dB) at 60 GHz, which is very close to 1 (0 dB), the desired ideal response value. The mm-PEM measured an IPD of 96.6 W m^{-2} at 60 GHz in the RC, for an input power of 1 W. In addition, the average absorption cross-section of the phantom is determined as 225 cm^2 , which is an excellent agreement with its physical dimensions.

Conclusion

A mm-wave personal exposure meter (mm-PEM) is designed for assessment of personal exposure to 5G in indoor diffuse environments. The mm-PEM is calibrated on a skin-equivalent phantom in a reverberation chamber (RC) in the range of 59.5 to 60.5 GHz. We showed that increasing the number of antennas up to nine, a response of 1.043 at 60 GHz is obtained. This response is very close to 1, which is the desired response of the mm-PEM; so, the mm-PEM can measure the IPD in free space but in the presence of human body. The response of the mm-PEM in diffuse fields is also determined in terms of numerical simulations using the FDTD. Good agreement between measurements and simulations is achieved. According to the results, we recommend to calibrate the mm-PEM in the loaded RC. The average absorption cross-section of the skin phantom is determined as 225 cm^2 from the measurements, which is in excellent agreement with the physical geometry of the phantom. Future research includes design of acquisition nodes (antenna and receiver electronics) for the mm-PEM to measure the IPD directly. Additionally, the calibrations will be performed on a cylindrical or spherical phantom to study the effect of body shadowing on the response of the designed mm-PEM and to design a distributed exposure meter for the mm-waves.

<https://link.springer.com/article/10.1007/s10762-018-0533-z>

The Effect of a Single 30-Min Long Term Evolution Mobile Phone-Like Exposure on Thermal Pain Threshold of Young Healthy Volunteers

Vecsei Z, Thuróczy G, Hernádi I. The Effect of a Single 30-Min Long Term Evolution Mobile Phone-Like Exposure on Thermal Pain Threshold of Young Healthy Volunteers. *Int J Environ Res Public Health*. 2018 Aug 27;15(9). pii: E1849. doi: 10.3390/ijerph15091849.

Abstract

Although the majority of mobile phone (MP) users do not attribute adverse effects on health or well-being to MP-emitted radiofrequency (RF) electromagnetic fields (EMFs), the exponential increase in the number of RF devices necessitates continuing research aimed at the objective investigation of such concerns. Here we investigated the effects of acute exposure from Long Term Evolution (LTE) MP EMFs on thermal pain threshold in healthy young adults. We use a protocol that was validated in a previous study in a capsaicin-induced hyperalgesia model and was also successfully used to show that exposure from an RF source mimicking a Universal Mobile Telecommunications System (UMTS) MP led to mildly stronger desensitization to repeated noxious thermal stimulation relative to the sham condition. Using the same experimental design, we did not find any effects of LTE exposure on thermal pain threshold. The present results, contrary to previous evidence obtained with the UMTS modulation, are likely to originate from placebo/nocebo effects and are unrelated to the brief acute LTE EMF exposure itself. The fact that this is dissimilar to our previous results on UMTS exposure implies that RF modulations might differentially affect pain perception and points to the necessity of further research on the topic.

Exposure levels of ELF magnetic fields in the residential areas of Mangaung Metropolitan Municipality

Rathebe P, Weyers C, Raphela F. Exposure levels of ELF magnetic fields in the residential areas of Mangaung Metropolitan Municipality. *Environ Monit Assess.* 2018 Aug 23;190(9):544. doi: 10.1007/s10661-018-6916-8.

Abstract

The aim of this study was to evaluate the exposure levels of ELF magnetic fields in the residential areas of Mangaung metropolitan municipality. Fifteen residential sites were randomly selected in Bloemfontein, nine in Botshabelo and six in Thaba Nchu areas of Mangaung. Measurements were collected at the distances of 3 m, 6 m and 9 m outside electrical substations, near every corner, using a Trifield meter model XE 100. Measurements were also collected from four different corners inside substations, near barrier screening and were referred to as a distance of 0 m (reference point). The results indicated a non-significant difference among 15 residential areas; BRE1 to BRE15 and six areas; TNRE1 to TRNE6. The exposure levels were significantly high in one residential area BORE1 (0.55 μ T) as compared to other residential sites in Botshabelo ($p < 0.001$). The results obtained from the measurements also show a significant difference between the residential areas BORE4 and BORE8 ($p < 0.01$) as well as BORE4 and BORE9 ($p < 0.006$). The four distance interims also demonstrated a highly significant difference ($p < 0.0001$) when compared to one another. The t test showed a statistically significant difference for exposure levels recorded at 3 m, 6 m and 9 m in comparison to 0 m ($p < 0.01$). The exposure levels recorded at 3 m were also significantly different to those recorded at 6 m ($p < 0.05$) and 9 m ($p < 0.01$). The exposure levels measured at all distances are below the ICNIRP guidelines and the fields decrease rapidly with an increased distance from the source.

<https://www.ncbi.nlm.nih.gov/pubmed/30140855>

Labels: abstracts, compilation, electromagnetic fields, ELF, EMF research, new research, recent research, RF, wireless radiation

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Electromagnetic Radiation Safety

Scientific and policy developments regarding the health effects of electromagnetic radiation exposure from cell phones, cell towers, Wi-Fi, Smart Meters, and other wireless technology

Tuesday, September 11, 2018

Electromagnetic Radiation Safety

Recent News

Martin Röösli. Mobile phone radiation may affect memory performance in adolescents. Medical Xpress. July 20, 2018.
Radio frequency radiation may have adverse effects on memory performance of specific brain regions exposed during mobile phone use.

Ronnie Cohen. Do cellphones cause cancer? Government study reveals 'stunningly important findings'. Newsweek, July 19, 2018.
Current cellphone safety regulations are based on a premise that is now arguably false: that cellphone radiation can cause harm only by heating tissue.

Mark Hertsgaard and Mark Dowie. The inconvenient truth about cancer and mobile phones. The Guardian, July 14, 2018.
We dismiss claims about mobiles being bad for our health – but is that because studies showing a link to cancer have been cast into doubt by the industry?

Reynard Loki. Our cellphone addiction is turning wireless tech into an invisible weapon that's destroying wildlife. Salon, July 14, 2018.
Electromagnetic radiation from Wi-Fi and cell towers poses a "credible risk" to birds, mammals, insects and plants

Lynne Peeples. Should cell phone providers warn customers of health risks? Berkeley says yes. McClatchy News Washington Bureau, July 11, 2018.
Although the scientific community has not reached consensus, the California health department said research indicates long-term, extensive cellphone use may affect health.

Lynne Peeples. Wireless industry using First Amendment as a cudgel in its battle against safety warnings. FairWarning, July 11, 2018.
Complete version of the article. News websites published the McClatchy version.

Microwave News. "'Clear evidence' of cell phone cancer risk, say leading pathologists." April 9, 2018.
Why the peer review panel and NTP interpreted the same animal data differently.

Mark Hertsgaard and Mark Dowie. "How big wireless made us think that cell phones are safe: A special investigation." The Nation, March 29, 2018.
The disinformation campaign—and massive radiation increase—behind the 5G rollout.

Recent Posts on EMR Safety

Recent Research on Wireless Radiation and Electromagnetic Fields
Compilation of over 400 abstracts of scientific papers published since August, 2016.

National Toxicology Program: Peer & public review of cell phone radiation study
Experts convened by NTP found "clear evidence" of cancer from cell phone radiation. Official summary now available.

National Toxicology Program (NTP) Finds Cell Phone Radiation Causes Cancer
Expert reviewer suggests NTP findings call for stronger RF exposure guidelines; IARC should upgrade RF radiation cancer risk.

5G Wireless Technology: Cutting Through the Hype
News stories debunk exaggerated benefits of 5G cellular technology.

Brain Tumor Rates Are Rising in the US: Role of Cell Phone & Cordless Phone Use
The CDC reported that brain cancer incidence among youth 0-20 years of age increased between 2001 and 2014. Also thyroid cancer and lymphoma.

Scientific Evidence of Harm from Cell Phone Radiation: Two Years of Research
An annotated bibliography which contains 92 papers published in scientific journals during the last two years that report evidence of harm from cell phone radiation exposure.



Joel M. Moskowitz, Ph.D.
Director
Center for Family and Community Health
School of Public Health
University of California, Berkeley

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International Perspective on Health Effects of Low Intensity Non-Ionizing Radiation

There is an urgent need to recognize hazards associated with excessive exposure to non-thermal levels of electromagnetic fields.

ICNIRP's Exposure Guidelines for Radio Frequency Fields

ICNIRP requests public input on its radio frequency radiation exposure guidelines. Should the EMF scientific community cooperate?

Effects of Cell Phone Use on Adolescents

Research on adolescents suggests that cell phone use has adverse effects on cognitive processes and memory and the endocrine system and disturbs sleep.

International Scientist Appeal on Electromagnetic Fields & Wireless Technology

242 scientists from 41 nations including 38 from the U.S. have signed the Appeal.

Key Cell Phone Radiation Research Studies

Berkeley Cell Phone "Right to Know" Ordinance

Berkeley's landmark cell phone "right to know" ordinance is being contested by the wireless industry in the federal courts.

Recent Research on Wi-Fi Effects

Compilation of recent studies on biologic and health effects from exposure to Wi-Fi radiation.

Female Infertility and Cell Phone Radiation

Research that investigates the effects of wireless radiation on female fertility.

Effect of Mobile Phones on Sperm Quality

Research that examines the effects of wireless radiation on sperm.

Pregnancy & Wireless Radiation Risks

Compilation of studies that found harmful effects from fetal exposure to wireless radiation.

Wireless Radiation TV News

Links to over 150 televised news stories about wireless radiation health risks.

5G Wireless Technology: Is 5G Harmful to Our Health?

"Both oncologic and non-cancerous chronic effects have been suggested."

5G Moratorium Website Launched

Official website for 5G Appeal: Over 200 scientists doctors have signed Appeal.

Electromagnetic Fields Threaten Wildlife

Research review: EMF is potential risk to insect and bird orientation and plant health.

EMF Health Impacts and Policy Change Webinar

Drs. Frank Barnes, De-Kun Li, & Joel Moskowitz discuss EMF research and implications for policy change. Sponsored by Collaborative for Health & the Environment.

Electromagnetic Hypersensitivity

Recent research and policy developments regarding electromagnetic hypersensitivity.

Hybrid & Electric Cars: Electromagnetic Radiation Risks

Recent studies of automobile EMF make inconsistent claims re: cancer risk.

Ramazzini Institute Cell Phone Radiation Study Replicates NTP Study

Ramazzini Institute replicates heart cancer results from NTP cell phone radiation study.

G+

Labels: Electromagnetic Radiation Safety, home page, overview, recent news, recent posts

Recent Research on Wireless Radiation and Electromagnetic Fields

I have been circulating abstracts of newly-published scientific papers on wireless radiation and electromagnetic fields (EMF) about once a month since August, 2016. These updates are sent to several hundred EMF scientists around the world.

Since I have received numerous requests to post the abstracts on this website, I have compiled the collection into a document. The complete collection of abstracts from more than 400 papers can be downloaded by clicking on the following link:

<http://bit.ly/EMF180911>

Note: This link will change when new abstracts are added to the compilation.

See EMF-Portal for a searchable database of EMF studies. The Portal contains over 26,000 publications and 6,000 summaries of scientific studies on the effects of EMF. The Portal is a project of RWTH University Hospital in Aachen, Germany.

Latest edition

Golomb E. Diplomats' mystery illness and pulsed radiofrequency/microwave radiation. *Neural Comput.* 2018 Sep 5. doi: 10.1162/neco_a_01133.

Abstract

IMPORTANCE: A "mystery" illness striking US and Canadian diplomats to Cuba (and now China) "has confounded the FBI, the State Department and US intelligence agencies." Sonic explanations for the so-called "health attacks" have long dominated media reports, propelled by peculiar sounds heard and auditory symptoms experienced. Sonic mediation was justly rejected by experts. We assessed whether pulsed radiofrequency/microwave radiation (RF/MW) exposure can accommodate reported facts in diplomats, including unusual ones.

OBSERVATIONS: 1. Noises: Chirping, ringing or grinding noises were heard at night, during episodes reportedly triggering health problems, by many diplomats. Pulsed RF/MW engenders just these "sounds" via the "Frey effect." Ability to hear the sounds depends on high frequency hearing and low ambient noise. "Sounds" differ by head dimensions. 2. Signs/symptoms: Hearing loss and tinnitus are prominent in affected diplomats - and in RF/MW-affected individuals. Each of protean symptoms that diplomats report, also affect persons reporting symptoms from RF/MW: Sleep problems, headaches, and cognitive problems dominate in both groups. Sensations of pressure or vibration figure in each. Both encompass vision, balance and speech problems, and nosebleeds. Brain injury and brain swelling are reported in both. 3. Mechanisms: Oxidative stress provides a documented mechanism of RF/MW injury compatible with reported signs and symptoms; sequelae of endothelial dysfunction (yielding blood flow compromise), membrane damage, blood brain barrier disruption, mitochondrial injury, apoptosis, and autoimmune triggering afford downstream mechanisms, of varying persistence, that merit investigation. 4. Of note, microwaving of the US embassy in Moscow is historically documented.

CONCLUSIONS AND RELEVANCE: Reported facts appear consistent with RF/MW as the source of injury in Cuba diplomats. Non-diplomats citing symptoms from RF/MW, often with an inciting pulsed-RF/MW exposure, report compatible health conditions. Under the RF/MW hypothesis, lessons learned for diplomats and for RF/MW-affected "civilians" may each aid the other.

<https://www.ncbi.nlm.nih.gov/pubmed/30183509>

Selected Health and Law Issues Regarding Mobile Communications with Respect to 5G

Mandl P, Pezzei P, Leitgeb E. Selected Health and Law Issues Regarding Mobile Communications with Respect to 5G. Presented at 2018 International Conference on Broadband Communications for Next Generation Networks and Multimedia Applications (CoBCom). Graz, Austria. July 11-13, 2018.

Abstract

Over the next years the demand of wireless communication will increase tremendously. More and more mobile end devices require a high data rate connection e.g. to a smart home (Internet of Things, IoT) or to the internet. The radiation power pattern of base stations and mobile end devices will completely change for the 5G Next Generation Mobile Network technology which will use frequency bands up to 100 GHz. Therefore the electromagnetic exposure especially to human body will increase in the future, because most of the wireless connections are realized in RF technology. In this contribution two different measurement setups are presented. The first shows the electromagnetic radiation regarding a base station powered by a mobile phone provider over a timespan of a number of days. The second figures out the electromagnetic radiation of a handheld mobile end device to a human head in an area with very poor reception values. The results of those measurements were compared with legal and health limits. All measured and calculated results regarding the base stations were within the legal exposure limits. The calculated legal exposure limits of mobile devices were exceeded twice in areas within very poor reception values. Regarding the expected higher bandwidth and corresponding higher electromagnetic exposure to human bodies in future there have to be periodic measurements to comply with radiation limits.

Conclusions

It has been shown that there is currently no overshooting of legal limits in the transmission of base stations. The presented measurement campaign regarding the base station showed that the E-Field reached a maximum of 0.673 V/m (legal limit: 47.631 V/m) and the H-Field a maximum of 2 mA/m (legal limit: 128 mA/m). However, the coming mobile radio standards like 5G is expected to use frequency bands up to 100 GHz, a much higher density of base stations and 100 times higher bandwidths than nowadays which subsequently causes higher transmission power of base stations. Regarding the above mentioned circumstances it will be necessary to measure the radiation exposure of base stations in the future on a regular basis in order to ensure the legal limits and to reduce possible health hazards. It also will be necessary to develop new measurement strategies and/or technologies regarding the large frequency spectrum 5G will use up to 100 GHz.

When measuring directly on a mobile phone (simulating the use of an end device directly on the human head), it was found that the calculated SAR of 3.834 W/kg exceeds the legal limit of 2 W/kg. This shows clearly that the legal limit values can be exceeded significantly in areas with very poor reception values ...

Increasing the distance between a mobile end device and the head, e.g. by using a hands-free set or a headset can significantly reduce the human exposure to electromagnetic radiation when such a device is used in badly supplied areas and transmits with maximum power.

<https://ieeexplore.ieee.org/document/8443980/>

Highlights

- Increased risk of brain, vestibular nerve and salivary gland tumors are associated with mobile phone use.
- Nine studies (2011–2017) report increased risk of brain cancer from mobile phone use.
- Four case-control studies (3 in 2013, 1 in 2014) report increased risk of vestibular nerve tumors.
- Concern for other cancers: breast (male & female), testis, leukemia, and thyroid.
- Based on the evidence reviewed it is our opinion that IARC's current categorization of RFR as a possible human carcinogen (Group 2B) should be upgraded to Carcinogenic to Humans (Group 1).

Abstract

Epidemiology studies (case-control, cohort, time trend and case studies) published since the International Agency for Research on Cancer (IARC) 2011 categorization of radiofrequency radiation (RFR) from mobile phones and other wireless devices as a possible human carcinogen (Group 2B) are reviewed and summarized. Glioma is an important human cancer found to be associated with RFR in 9 case-control studies conducted in Sweden and France, as well as in some other countries. Increasing glioma incidence trends have been reported in the UK and other countries. Non-malignant endpoints linked include acoustic neuroma (vestibular Schwannoma) and meningioma. Because they allow more detailed consideration of exposure, case-control studies can be superior to cohort studies or other methods in evaluating potential risks for brain cancer. When considered with recent animal experimental evidence, the recent epidemiological studies strengthen and support the conclusion that RFR should be categorized as carcinogenic to humans (IARC Group 1). Opportunistic epidemiological studies are proposed that can be carried out through cross-sectional analyses of high, medium, and low mobile phone users with respect to hearing, vision, memory, reaction time, and other indicators that can easily be assessed through standardized computer-based tests. As exposure data are not uniformly available, billing records should be used whenever available to corroborate reported exposures.

Synthesis and conclusions

The Epidemiological studies reported since the 2011 IARC Working Group meeting are adequate to consider RFR as a probable human carcinogen (Group 2 A). However, they must be supplemented with the recently reported animal data as performed at the Ramazzini Institute and the US National Toxicology Program as well as by mechanistic studies. These experimental findings together with the epidemiology reviewed here are sufficient in our opinion, to upgrade the IARC categorization of RFR to Group 1, carcinogenic to humans.

It would be useful to know more about the association of additional tumor types such as parotid gland, testicular, breast, hematopoietic malignancies and multiple primaries with RFR. Case studies should continue to be conducted in the absence of a better exposure assessment system to increase awareness and understand the relationship between exposure to RFR and disease causation, as well as trial-error experiments and interventions.

In light of the evolving science concerning mobile phone and screen time exposures and the longer-term risk of cancer established by both epidemiological and toxicological studies, current evidence is strong enough to go from precaution concerning possible risk to prevention of known risks. Although the benefits of connectivity are extremely important, safety considerations demand reconciling use of information vs. risk of perceived rare outcomes. Thus, a concerted program of public and health professional education should be undertaken throughout society explaining current knowledge and devising policies to promote safer technology in partnership with designers of software and hardware. In addition, methods should be developed and validated to reduce exposures in schools, workplaces, hospitals and other workplaces. The precautionary principle should be applied now and suitable warning messages provided to adults and critically to children and their parents. Until technology has been devised that substantially lowers exposures, special efforts should be advanced to ensure that the exposures of children are limited to those deemed essential. Children should be encouraged to text to reduce their exposure to RFR, while every attempt should be made to reduce exposure to RFR in schools, as well as homes.

Research has so far been performed on technologies that have already been introduced, but is critically needed on new, untested technology prior to its use. Epidemiological studies necessarily confirm the impact of past exposures, while experimental studies provide indications of future risk. Thus, experimental evaluations and modeling are essential before distributing newer systems (e.g. 5 G) for which no safety data have been obtained. The absence of systematic testing of such technologies should not be confused with proof of safety. Better modeling through anatomically based systems, such as the Virtual Family, should be encouraged.

In the meantime, the evidence amassed thus far from epidemiology strengthens the case for instituting the precautionary principle with respect to exposures to RFR, especially to young children and men and women that wish to reproduce. The lack of detailed studies at this point reflects a myopic attitude toward the technology that may well prove to be wishful and dangerous thinking. Where studies have been carried out on human sperm quantity and quality there are increasing indications of serious human health impacts. To ignore those findings and subject humans to unevaluated novel RFR frequencies places current and future generations at risk.

<https://www.sciencedirect.com/science/article/pii/S0013935118303475>

Clear evidence of cell-phone RF radiation cancer risk

Lin JC. Clear evidence of cell-phone RF radiation cancer risk. IEEE Microwave Magazine. 19(6):16-24. Sep/Oct 2018. DOI: 10.1109/MMM.2018.2844058.

Abstract

During 26-28 March 2018, the National Institute of Environmental Health Sciences (NIEHS) National Toxicology Program (NTP), a part of the U.S. National Institutes of Health, convened a three-day technical reports peer-review panel meeting in Research Triangle Park, North Carolina, to review the NTP's draft reports on its carcinogenesis studies of cell-phone RF radiation in mice and rats.

A summary and excerpts from the paper: http://nntp.niehs.nih.gov/nntp/about_ntp/trpanel/2018/march/peerreview20180328_508.pdf

In a new paper, "Clear evidence of cell-phone RF radiation cancer risk" published in the journal *IEEE Microwave Magazine*, Dr. James C. Lin states that the results of the National Toxicology Program (NTP) cell phone radiation study suggest that current radio frequency (RF) exposure guidelines are inadequate to protect human health (1). Furthermore, the paper recommends that the International Agency for Research on Cancer (IARC) re-assess the research and consider upgrading the classification of RF radiation from "possibly carcinogenic to humans" (Group 2B) to probably carcinogenic (i.e., Group 2A).

Peer Review of the Draft NTP Technical Reports on Cell Phone Radiofrequency Radiation

National Toxicology Program (NTP). Peer Review of the Draft NTP Technical Reports on Cell Phone Radiofrequency Radiation. National Institute of Environmental Health Sciences. 2018. pp. 1-51.

No abstract.

Open access paper: https://ntp.niehs.nih.gov/nntp/about_ntp/trpanel/2018/march/peerreview20180328_508.pdf

Editorial: Effects of Combined EMF Exposures and Co-exposures

Mattsson M-O, Zeni O, Simkó M, Scarfi MR. Editorial: Effects of Combined EMF Exposures and Co-exposures. *Frontiers in Public Health*. 20 August 2018. <https://doi.org/10.3389/fpubh.2018.00230>.

No Abstract

Excerpt

The very complex exposure situation in real-life environments has been well illustrated in this Research Topic, and the need for better understanding of basic biological interaction mechanisms is obvious from the analyses presented here. The area is very much under-investigated, and the full impact and potential of EMF exposures for both possible adverse and beneficial effects cannot be realized without substantial additional research efforts.

Open access: <https://www.frontiersin.org/articles/10.3389/fpubh.2018.00230/full>

Effects of mobile phone exposure on biochemical parameters of cord blood: A preliminary study

Bektas H, Bektas MS, Dasdag S. Effects of mobile phone exposure on biochemical parameters of cord blood: A preliminary study. *Electromagn Biol Med*. 2018 Aug 29:1-8. doi: 10.1080/15368378.2018.1499033.

Abstract

The purpose of this study is to investigate foetal impact of radiofrequencies (RFs) emitted from mobile phones in postnatal cord blood. The study carried on 149 pregnant women divided into four groups such as nonusers of mobile phone (n: 37; control group), 2-15 min/d (n: 39; group 1), 15-60 min/d (n: 37; group 2) and participants using mobile phone for more than 60 min/d (n: 36; group 3). Cord blood of the infants was taken in all groups for biochemical analyses immediately after birth. The results of the study showed that the biggest foetal impact was observed in the third study group which was pregnant exposed RFRs (RF radiation) more than 1 h/d (1 hour per day). AST (aspartat aminotransferaz), ALT (alanine aminotransferase), LDH (lactate dehydrogenase), CK (creatine kinase), CK-MB (creatine kinase-miyocardial band), CRP (c-reactive protein), PCT (procalcitonin), TnT (troponin T), uric acid and lactate levels of third group were found higher than the other groups ($p < 0.001$). However, Mean platelet volume values of third group were found lower than the other groups ($p < 0.001$). Finally, this is the first human study which was performed on pregnant and infants because there is no previous work in this area. However, the results of this study revealed that long-term RFR exposure of pregnant may result in some biochemical changes in the infants. Therefore, our suggestion to pregnant is to avoid from RFR exposure emitted from mobile phones at least during pregnancy.

<https://www.ncbi.nlm.nih.gov/pubmed/30156944>

Comments regarding: "Occupational exposure to high-frequency EMF & brain tumor risk in INTEROCC study: An individualized assessment approach"

Mortazavi SMJ. Comments regarding: "Occupational exposure to high-frequency electromagnetic fields and brain tumor risk in the INTEROCC study: An individualized assessment approach". *Environ Int*. 2018 Aug 24. pii: S0160-4120(18)31561-7. doi: 10.1016/j.envint.2018.08.008.

Abstract

This commentary addresses the paper by Vila et al. entitled "Occupational exposure to high-frequency electromagnetic fields and brain tumor risk in the INTEROCC study: An individualized assessment approach" that is published in *Environment International*. The authors have examined the link between occupational exposures to radiofrequency (RF) and intermediate frequency (IF) electromagnetic fields (EMF) and glioma and meningioma brain tumor risk in the INTEROCC multinational population-based case-control study. This study showed no clear association with exposure to RF or IF EMFs and the risk of glioma or meningioma brain tumors. Recent studies show that in many cases there are large errors and/or major shortcomings in

the studies claiming no link between mobile phone and brain cancer. Although the paper by Vila et al. is well-structured and can be considered as a significant contribution to this field, there are several items that merit further attention and are not fully addressed. These include the selection bias, confounding factors other than age, sex, region and country, and criteria used in this study for considering exposures as occupational.

<https://www.ncbi.nlm.nih.gov/pubmed/30146273>

Statistical approach for human EMF exposure assessment in future wireless ATTO-cell networks

Shikhantsov S, Thielens A, Vermeeren G, Demeester P, Martens L, Toris G, Joseph W. Statistical approach for human electromagnetic exposure assessment in future wireless ATTO-cell networks. *Radiat Prot Dosimetry*. 2018 Jul 30; doi: 10.1093/rpd/ncy120.

Abstract

In this article, we study human electromagnetic exposure to the radiation of an ultra dense network of nodes integrated in a floor denoted as ATTO-cell floor, or ATTO-floor. ATTO-cells are a prospective 5 G wireless networking technology, in which humans are exposed by several interfering sources. To numerically estimate this exposure we propose a statistical approach based on a set of finite difference time domain simulations. It accounts for variations of antenna phases and makes use of a large number of exposure evaluations, based on a relatively low number of required simulations. The exposure was expressed in peak-spatial 10-g SAR average (psSAR10g). The results show an average exposure level of ~4.9 mW/kg and reaching 7.6 mW/kg in 5% of cases. The maximum psSAR10g value found in the studied numerical setup equals around 21.2 mW/kg. Influence of the simulated ATTO-floor size on the resulting exposure was examined. All obtained exposure levels are far below 4 W/kg ICNIRP basic restriction for general public in limbs (and 20 W/kg basic restriction for occupational exposure), which makes ATTO-floor a potential low-exposure 5 G candidate.

<https://www.ncbi.nlm.nih.gov/pubmed/30085262>

Excerpt

The ATTO-floor is a new concept for ultra-high capacity wireless networking, designed to provide wireless access to robots that can freely move around the floor surface. ATTO-cells are integrated into the floor and cover its entire area. According to the current design⁽¹⁾ (Figure 1) an ATTO-cell has dimensions of 15-by-15 cm² and an antenna is supplied with a maximum power of 1 mW. It operates at a center frequency of 3.5 GHz. Possible applications of the ATTO technology include industrial warehouses or factories of the future, where multitudes of mobile robots and human workers operate simultaneously. Robots, being equipped with an antenna featuring downward-pointing pattern, are the target users. Due to the provisioned fast handover system, at any time instance a robot is only connected to the closest antenna, thus, it is unlikely for humans to be exposed by the ATTO-floor directly. In other words, most of the time humans will be exposed to the scattered fields of antennas serving surrounding robots.

Study of the Correlation between Outdoor and Indoor Electromagnetic Exposure near Cellular Base Stations in Leuven, Belgium

Nkemlyare R, Volskiy V, Vandenbosch G. Study of the Correlation between Outdoor and Indoor Electromagnetic Exposure near Cellular Base Stations in Leuven, Belgium. *Environmental Research*. Publ online 22 Aug 2018. <https://doi.org/10.1016/j.envres.2018.08.025>

Highlights

- GSM 900 is the dominating source of exposure
- Exposure levels meet international recommendations and local legislation
- In absolute levels the outdoor field exposure is ca. the double of the indoor field exposure
- EM exposure levels are reproducible over a time span of ca. one month

Abstract

A measuring campaign for the assessment of electromagnetic radiation near base stations in the city center of Leuven, Belgium, has been carried out. The main objective of this assessment is to study the correlation between the outdoor and the indoor exposure produced by cellular base stations and to investigate the changes of electromagnetic exposure within a typical day and over 1 month in the vicinity of these base stations. The study was also carried out as a function of location and time using highly precise measurement equipment. The measurements were performed in both public and private areas in sixty (30 indoor and 30 outdoor) different locations in Leuven. The measurement was focused on mobile communication networks: GSM (Global System for Mobile Communication, 900 MHz and 1800 MHz) and UMTS (Universal Mobile Telecommunications System, 2110 MHz) were the frequency bands of interest. The data at these frequencies were extracted from raw measurements in the 824 MHz to 2170 MHz frequency band. The results show that all analyzed locations are in compliance with the exposure limits recommended by ICNIRP (International Commission on Non-Ionizing Radiation Protection) and that the (maximum) indoor exposure correlates to the outdoor exposure with a factor of about 0.5.

Conclusions

The electromagnetic radiation exposure of the general public generated by base stations in Leuven, Belgium, was duly assessed using spectrum analyzer measurements at 60 locations and at several moments during the day. All measured values are considerably below norm levels for Flanders, which means that they are far below the ICNIRP exposure limits for the general public. The average levels over time and over the whole city center are: outdoors about 0.64 V/m for GSM 900, 0.53 for GSM 1800, and 0.33 for UMTS, and indoors about 0.32 V/m for GSM 900, 0.26 for GSM 1800, and 0.17 for UMTS. To the average, the outdoor exposure levels are thus a factor of two higher than the indoor levels. In general, the dominating source of exposure is GSM 900. The maximum field value measured was equal to 1.80 V/m, due to the GSM 900 signal. In this study, the average effect of absorption and reflection, typically used to explain the lower values indoors, is in agreement with the average

attenuation through walls used in propagation models.

<https://www.sciencedirect.com/science/article/pii/S0013935118304651>

On the effects of glasses on the SAR in human head resulting from wireless eyewear devices at phone call state

Lan JQ, Liang X, Hong T, Du GH. On the effects of glasses on the SAR in human head resulting from wireless eyewear devices at phone call state. *Progress in Biophysics and Molecular Biology*. 136:29-36. Aug 2018.

Abstract

This paper evaluates the effects of glasses on the specific absorption rates (SAR) in the human head resulting from wireless eyewear device at phone call state. We mainly concentrate on the SAR in the eyes since their sensitivity to electromagnetic fields (EMF). We find wearing glasses obviously alters the distribution and magnitude of the SAR. The maximal SAR in the ocular tissues with glasses is even 6 times more than that without glasses. Wearing glasses also induce the new hotspot in the eyes which may cause the biggest SAR increment in the ocular tissues. Moreover, calculated results indicate that the maximal SAR is sensitive to the size of glasses and radiation frequency. Because of this, we believe wearing glasses may possibly increase the risk of health hazard to eyes of wireless eyewear device user. These calculated results could be a valuable reference for the glasses designer to reduce the SAR in the eyes.

<https://www.sciencedirect.com/science/article/pii/S0079610717300822>

Subjective symptoms, onset/trigger factors, allergic diseases, & exposures in Japanese patients with multiple chemical sensitivity

Hojo S, Mizukoshi A, Azuma K, Okumura J, Ishikawa S, Miyata M, Mizuki M, Ogura H, Sakabe K. Survey on changes in subjective symptoms, onset/trigger factors, allergic diseases, and chemical exposures in the past decade of Japanese patients with multiple chemical sensitivity. *Int J Hyg Environ Health*. 2018 Aug 13. pii: S1438-4639(18)30271-2. doi: 10.1016/j.ijheh.2018.08.001.

Abstract

BACKGROUND: Recently, with rapid changes in the Japanese lifestyle, the clinical condition of patients with multiple chemical sensitivity (MCS) may also have undergone change. Thus, we conducted a new survey for subjective symptoms, ongoing chemical exposures, the prevalence of allergic diseases, and presumed onset/trigger factors in patients with MCS and compared results with those of an old survey from ten years ago.

METHODS: The new survey was conducted from 2012 to 2015 and the old survey was independently conducted from 1999 to 2003, meaning it was not a follow-up study. Patients were initially diagnosed by physicians at five medical institutions with MCS specialty outpatient services, with 111 and 103 patients participating in the new and old surveys, respectively. The controls were a general population living in Japan, with 1313 and 2382 participants in the new and old surveys, respectively. Subjective symptoms and ongoing chemical exposure were evaluated using a quick environmental exposure sensitivity inventory. Additionally, from clinical findings recorded by an attending physician, the prevalence of allergic diseases and presumed onset/trigger factors were evaluated. Differences between new and old surveys were analyzed using logistic regression analyses and significance tests.

RESULTS: Compared with ten years ago: (1) Regarding factors affecting patients with ongoing chemical exposures, the proportion of patients affected decreased significantly for two items only (insecticides and second-hand smoke). The proportion of controls showing ongoing exposure to 8 out of 10 items changed significantly. (2) In patients, scores for chemical intolerances, other intolerances, and life impacts increased significantly. (3) In terms of the prevalence of allergic diseases among patients with MCS, bronchial asthma (adjusted odds ratio [AOR]: 5.19), atopic dermatitis (AOR: 3.77), allergic rhinitis (AOR: 5.34), and food allergies (AOR: 2.63) increased significantly, while hay fever (AOR: 0.38) and drug allergies (AOR: 0.40) decreased significantly. (4) With regard to construction and renovation, which was the presumed predominant onset/trigger factor for MCS 10 years ago, this decreased from 68.9% to 35.1%; in contrast, electromagnetic fields (0.0%-26.1%), perfume (0.0%-20.7%), and medical treatment (1.9%-7.2%) increased significantly, confirming the diversification of onset/trigger factors.

CONCLUSION: Compared to ten years ago, for patients with MCS, an increase in avoidance behavior toward chemical substance exposures, which were presumed to be aggravating factors for symptoms, was confirmed. It has been suggested that the ongoing chemical exposure of the general population in Japan has largely changed. In addition, for patients with MCS, chemical intolerances and life impacts have become severe, the prevalence of the main allergic diseases has increased, and onset/trigger factors have become diversified.

<https://www.ncbi.nlm.nih.gov/pubmed/30115513>

Design and Calibration of a mm-Wave Personal Exposure Meter for 5G Exposure Assessment in Indoor Diffuse Environments

Aminzadeh R, Khadir Fall A, Sol J, Thielens A, Besnier P, Zhadobov M, De Geeter N, Vasudevan PP, Dupré L, Van Hohen R, Martens L, Wout J. Design and Calibration of a mm-Wave Personal Exposure Meter for 5G Exposure Assessment in Indoor Diffuse Environments. *Journal of Infrared, Millimeter, and Terahertz Waves*. pp 1–19. Published Online: 23 August 2018.

Abstract

For the first time, a mm-wave personal exposure meter (mm-PEM) for the 5th generation of mobile networks (5G) exposure assessment in indoor diffuse fields is presented. The design is based on simulations and on-phantom calibration measurements in a mm-wave reverberation chamber (RC) at 60 GHz. The mm-PEM consists of an array of nine antennas on the body. Using

the mm-PEM, the incident power density (IPD) is measured in the unloaded RC, for the antenna(s) on the phantom and RC loaded with phantom. The uncertainty of the mm-PEM is then determined in terms of its response, which is defined as the ratio of antenna aperture for the above measurement scenarios. Using nine antennas, the designed meter has a response of 1.043 (0.17 dB) at 60 GHz, which is very close to 1 (0 dB), the desired ideal response value. The mm-PEM measured an IPD of 96.6 W m^{-2} at 60 GHz in the RC, for an input power of 1 W. In addition, the average absorption cross-section of the phantom is determined as 225 cm^2 , which is an excellent agreement with its physical dimensions.

Conclusion

A mm-wave personal exposure meter (mm-PEM) is designed for assessment of personal exposure to 5G in indoor diffuse environments. The mm-PEM is calibrated on a skin-equivalent phantom in a reverberation chamber (RC) in the range of 59.5 to 60.5 GHz. We showed that increasing the number of antennas up to nine, a response of 1.043 at 60 GHz is obtained. This response is very close to 1, which is the desired response of the mm-PEM; so, the mm-PEM can measure the IPD in free space but in the presence of human body. The response of the mm-PEM in diffuse fields is also determined in terms of numerical simulations using the FDTD. Good agreement between measurements and simulations is achieved. According to the results, we recommend to calibrate the mm-PEM in the loaded RC. The average absorption cross-section of the skin phantom is determined as 225 cm^2 from the measurements, which is in excellent agreement with the physical geometry of the phantom. Future research includes design of acquisition nodes (antenna and receiver electronics) for the mm-PEM to measure the IPD directly. Additionally, the calibrations will be performed on a cylindrical or spherical phantom to study the effect of body shadowing on the response of the designed mm-PEM and to design a distributed exposure meter for the mm-waves.

<https://link.springer.com/article/10.1007/s10762-018-0533-z>

The Effect of a Single 30-Min Long Term Evolution Mobile Phone-Like Exposure on Thermal Pain Threshold of Young Healthy Volunteers

Vecsei Z, Thuróczy G, Hemádi I. The Effect of a Single 30-Min Long Term Evolution Mobile Phone-Like Exposure on Thermal Pain Threshold of Young Healthy Volunteers. *Int J Environ Res Public Health*. 2018 Aug 27;15(9): pii: E1849. doi: 10.3390/ijerph15091849.

Abstract

Although the majority of mobile phone (MP) users do not attribute adverse effects on health or well-being to MP-emitted radiofrequency (RF) electromagnetic fields (EMFs), the exponential increase in the number of RF devices necessitates continuing research aimed at the objective investigation of such concerns. Here we investigated the effects of acute exposure from Long Term Evolution (LTE) MP EMFs on thermal pain threshold in healthy young adults. We use a protocol that was validated in a previous study in a capsaicin-induced hyperalgesia model and was also successfully used to show that exposure from an RF source mimicking a Universal Mobile Telecommunications System (UMTS) MP led to mildly stronger desensitization to repeated noxious thermal stimulation relative to the sham condition. Using the same experimental design, we did not find any effects of LTE exposure on thermal pain threshold. The present results, contrary to previous evidence obtained with the UMTS modulation, are likely to originate from placebo/nocebo effects and are unrelated to the brief acute LTE EMF exposure itself. The fact that this is dissimilar to our previous results on UMTS exposure implies that RF modulations might differentially affect pain perception and points to the necessity of further research on the topic.

Open access paper: <http://www.mdpi.com/1660-4601/15/9/1849>

Exposure levels of ELF magnetic fields in the residential areas of Mangaung Metropolitan Municipality

Rathebe P, Weyers C, Raphela F. Exposure levels of ELF magnetic fields in the residential areas of Mangaung Metropolitan Municipality. *Environ Monit Assess*. 2018 Aug 23;190(9):544. doi: 10.1007/s10661-018-6916-8.

Abstract

The aim of this study was to evaluate the exposure levels of ELF magnetic fields in the residential areas of Mangaung metropolitan municipality. Fifteen residential sites were randomly selected in Bloemfontein, nine in Botshabelo and six in Thaba Nchu areas of Mangaung. Measurements were collected at the distances of 3 m, 6 m and 9 m outside electrical substations, near every corner, using a Trifield meter model XE 100. Measurements were also collected from four different corners inside substations, near barrier screening and were referred to as a distance of 0 m (reference point). The results indicated a non-significant difference among 15 residential areas; BRE1 to BRE15 and six areas; TNRE1 to TRNE6. The exposure levels were significantly high in one residential area BORE1 (0.55 μT) as compared to other residential sites in Botshabelo ($p < 0.001$). The results obtained from the measurements also show a significant difference between the residential areas BORE4 and BORE8 ($p < 0.01$) as well as BORE4 and BORE9 ($p < 0.006$). The four distance interims also demonstrated a highly significant difference ($p < 0.0001$) when compared to one another. The t test showed a statistically significant difference for exposure levels recorded at 3 m, 6 m and 9 m in comparison to 0 m ($p < 0.01$). The exposure levels recorded at 3 m were also significantly different to those recorded at 6 m ($p < 0.05$) and 9 m ($p < 0.01$). The exposure levels measured at all distances are below the ICNIRP guidelines and the fields decrease rapidly with an increased distance from the source.

<https://www.ncbi.nlm.nih.gov/pubmed/30140955>



Labels: abstracts, compilation, electromagnetic fields, ELF, EMF research, new research, recent research, RF, wireless radiation

Thursday, September 6, 2018

National Toxicology Program: Peer & public review of cell phone

More Information:

National Toxicology Program (NTP) Finds Cell Phone Radiation Causes Cancer

Official Summary of Peer Review Meeting about the NTP's Cell Phone Radiofrequency Radiation Studies

The official summary of the three-day peer review meeting to discuss the draft technical reports about the cell phone radiation studies conducted by the National Toxicology Program is now available.

National Toxicology Program (NTP). Peer Review of the Draft NTP Technical Reports on Cell Phone Radiofrequency Radiation. National Institute of Environmental Health Sciences. 2018. pp. 1-51.

Open access paper: https://ntp.niehs.nih.gov/ntp/about_ntp/panel/2018/march/peerreview20180328_508.pdf

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May 3, 2018

Videos of NTP Peer Review Meeting

Videos with closed captions for the peer review meeting of the draft NTP technical reports on cell phone radiation are now available on the NTP website at <http://bit.ly/NTPvideos>.

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April 10, 2018

Experts Find "Clear Evidence" of Cancer from Cell Phone Radiation in NTP Study

March 28, 2018 (Last updated April 10)

Eleven experts convened by the National Toxicology Program (NTP) over a three day period to review the draft technical reports from the NTP's cell phone radiation studies concluded that there is "clear evidence" that exposure to cell phone radiation caused a rare cancer in the hearts of male rats, and "there is equivocal evidence" in the hearts of female rats.

The expert panel also reported "some evidence" that cell phone radiation exposure caused brain cancer in male and female rats and cancer of the adrenal glands in male rats.

Additionally, "equivocal evidence" of cancer risk was reported in the pituitary, adrenal, and prostate glands and pancreas and liver in male rats and adrenal glands in female rats.

The mice in the study, exposed to a different cell phone radiation frequency than the rats (1800 MHz vs. 900 MHz), displayed less evidence of cancer risk. Equivocal evidence of cancer risk from cell phone radiation was reported for lymphoma in male and female mice. Equivocal evidence was also reported for skin, lung, and liver cancer in male mice.

In seven instances, the expert group upgraded the evaluations of evidence published by NTP staff in the draft technical reports. Thus, the NTP scientists appear to have been overly conservative in their assessment of the hazards of long-term exposure to cell phone radiation. According to a former NTP scientist, "There was never a time when so many upgrades were recommended."

The following table based upon NTP's official summary of actions compares the evaluations of evidence of carcinogenicity prepared by NTP staff with the expert committee's findings. The two-page document which also contains the committee's findings for nonneoplastic lesions can be downloaded from <http://bit.ly/NTP180330>.

The presentations and oral public comments are available at the following link: <http://bit.ly/2qmvvQg>.

Definitions

Clear Evidence of Carcinogenic Activity is demonstrated by studies that are interpreted as showing a dose-related (i) increase of malignant neoplasms, (ii) increase of a combination of malignant and benign neoplasms, or (iii) marked increase of benign neoplasms if there is an indication from this or other studies of the ability of such tumors to progress to malignancy.

Some Evidence of Carcinogenic Activity is demonstrated by studies that are interpreted as showing a chemical-related increased incidence of neoplasms (malignant, benign, or combined) in which the strength of the response is less than that required for clear evidence.

Equivocal Evidence of Carcinogenic Activity is demonstrated by studies that are interpreted as showing a marginal increase of neoplasms that may be chemically related.

No Evidence of Carcinogenic Activity is demonstrated by studies that are interpreted as showing no chemical-related increases in malignant or benign neoplasms.

<https://ntp.niehs.nih.gov/results/pubs/longterm/defs/index.html>

Note: Although the definitions typically are applied to chemical agents, NTP also uses them with physical agents like cell phone radiation.

National Toxicology Program Finds Cell Phone Radiation Causes Cancer
Brief History of NTP Cell Phone Radiation Studies and Comments on Reports
Ramazzini Institute Cell Phone Radiation Study Replicates NTP Study

Peer Review

The members of the two peer review committees for the NTP meeting have been announced.

David Eaton, PhD, University of Washington, Chair

Technical Panel 1: Reverberation Chamber Exposure System: Assess the reverberation chamber technology for evaluating the effects of cell phone radiofrequency radiation exposure in rats and mice.

Members:

Frank Barnes, PhD, University of Colorado Boulder
Asimuni Kiourtli, PhD, Ohio State University
James Lin, PhD, University of Illinois at Chicago

Technical Panel 2: NTP Findings in Rats and Mice: (1) Review and evaluate the scientific and technical elements of the study and its presentation; (2) Determine whether the study's experimental design, conduct, and findings support the NTP's conclusions regarding the carcinogenic activity and toxicity of the test agent.

Members:

Rick Adler, DVM, PhD, DACVP, Glaxo Smith Kline
Lydia Andrews-Jones, DVM, PhD, DACVP, Allergan, Inc.
J. Mark Cline, DVM, PhD, DACVP, Wake Forest School of Medicine
George Corcoran, PhD, ATS, Wayne State University
Susan Feller, PhD, Proctor & Gamble
Jack Harkema, DVM, PhD, DACVP, Michigan State University
Wolfgang Kaufmann, DVM, PhD, DECVP, Fellow IATP, Merck (retired)
Tyler Malys, PhD, National Cancer Institute
Kamala Pant, MS, BioReliance
Matthias Rinke, DVM, PhD, FTA Pathology, CVP, Fellow IATP, Bayer Pharma (retired)
Laurence Whiteley, DVM, PhD, DACVP, Pfizer

Jan 29, 2018 (Updated Jan 31, 2018)

The following information was excerpted from the Federal Register.

On January 29, 2018, the National Toxicology Program (NTP) announced a meeting to peer review two draft NTP Technical Reports on Cell Phone Radiofrequency Radiation. These reports present the results of NTP studies conducted to evaluate the impact of cell phone radiofrequency radiation exposure in mice and rats.

The peer-review meeting will be held at the National Institute of Environmental Health Sciences (NIEHS) in Research Triangle Park, NC and is open to the public. Registration is requested for attendance at the meeting either in-person or by webcast and to present oral comments. Information about the meeting and registration will be available at <https://ntp.niehs.nih.gov/go/36051>.

Meeting

Tentatively scheduled for March 26, 2018, 8:30 a.m. to adjournment on March 28, 2018, at approximately 5:00 p.m. Eastern Daylight Time. The preliminary agenda will be available at <https://ntp.niehs.nih.gov/go/36051> and will be updated one week before the meeting.

Document Availability

The NTP will post the two draft technical reports at 12 noon (Eastern Standard Time) on Friday, February 2 on the NTP web site: <https://ntp.niehs.nih.gov/go/36051>.

Deadlines

Written Public Comment Submissions: March 12, 2018
Registration for Oral Comments: March 12, 2018
Registration to Attend Meeting In-person: March 28, 2018
Registration to View Webcast: March 28, 2018

Background

Personal (cellular) telecommunications is a rapidly evolving technology that uses radiofrequency energy or radiation for mobile communication. According to a 2016 survey, 95 percent of American adults now use cell phones. Given such broad use, adverse health effects shown to be associated with cell phone use could be a widespread public health concern.

The U.S. Food and Drug Administration (FDA) nominated cell phone radiofrequency radiation for NTP study because (a) widespread human exposure is possible, (b) current exposure guidelines are based largely on protection from acute injury due to thermal effects, (c) little is known about the potential health effects of long-term exposure to radiofrequency radiation, and (d) currently available human studies have found limited evidence of an increased risk of cancer from cell phone use.

NTP studied in rats and mice the effects of exposure to cell phone radiofrequency radiation from two system modulations: Global

System for Mobile Communications and Code Division Multiple Access. NTP released the "Report of Partial Findings from the National Toxicology Program Carcinogenesis Studies of Cell Phone Radiofrequency Radiation in Hsd: Sprague Dawley SD Rats (Whole Body Exposure)" in May 2016 (<https://doi.org/10.1101/055699>). The partial findings will be included in the draft NTP technical report for rats. The two draft NTP technical reports present results for all NTP studies on rats and mice on the toxicity and carcinogenicity of cell phone-emitted radiofrequency radiation.

Public Comment Registration

NTP invites written and oral public comments on the draft NTP technical reports: [Guidelines for Public Comments](#).

The deadline for submission of written comments is March 12, 2018. Written public comments should be submitted through the meeting website. Persons submitting written comments should include name, affiliation, mailing address, phone, email, and sponsoring organization (if any). Written comments received in response to this notice will be posted on the NTP website, and the submitter will be identified by name, affiliation, and sponsoring organization (if any). Comments that address scientific or technical issues will be forwarded to the peer-review panel and NTP staff prior to the meeting.

Registration to provide oral comments is on or before March 12, 2018, at <https://ntp.niehs.nih.gov/go/36051>. Registration is on a first-come, first-served basis, and registrants will be assigned a number in their confirmation email. Oral comments may be presented in person at NIEHS or by teleconference line. The access number for the teleconference line will be provided to registrants by email prior to the meeting. Each organization is allowed one time slot per comment period. The agenda allows for two public comment periods: The first comment period on the exposure system (12 commenters, up to 5 minutes per speaker), and the second comment period on the NTP findings in rats and mice (24 commenters, up to 5 minutes per speaker). After the maximum number of speakers per comment period is exceeded, individuals registered to provide oral comment will be placed on a wait list and notified should an opening become available. Commenters will be notified after March 12, 2018, the deadline to register for oral public comments, about the actual time allotted per speaker.

If possible, oral public commenters should send a copy of their slides and/or statement or talking points to Camden Byrd by email: NTP-Meetings@icf.com by March 12, 2018.

Background Information on NTP Peer-Review Panels

NTP panels are technical, scientific advisory bodies to provide independent scientific peer review. These panels help ensure transparent, unbiased, and scientifically rigorous input to the program. Scientists interested in serving on an NTP panel should provide their current curriculum vitae to Camden Byrd by email: NTP-Meetings@icf.com.

More information about the meeting

<http://bit.ly/FedRegNTP>

<https://ntp.niehs.nih.gov/go/36051>

Information about NTP Partial Report of Findings

<http://bit.ly/NTPpartireport>



Labels: cancer, cell phone radiation, DNA, meeting, mice, National Toxicology Program, NTP, peer review, public review, rats, report, study

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Electromagnetic Radiation Safety

Science and policy developments regarding the health effects of electromagnetic radiation exposure from cell phones, cell towers, Wi-Fi, Smart Meters, and other wireless technology

Wednesday, August 22, 2018

5G Wireless Technology: Cutting Through the Hype

The CTIA, the wireless industry trade association, has launched an advertising campaign entitled, "*The Global Race to 5G*." The ads claim that unless the U.S. wins this "global race" to become the first nation to deploy the fifth generation of wireless technology or 5G, we will not reap the economic benefits of this technology.

The CTIA claims that "compared to today's 4G networks, 5G will be up to 100x faster, support 100x more devices, and provide a 5x faster response time." Moreover, the association asserts that the nation's wireless industry is prepared to invest \$275 billion in 5G which will yield three million new jobs and \$500 billion in economic growth. If we win the global race, the "next-generation of wireless will drive \$2.7 trillion of new economic benefits to American families and businesses."

The CTIA has denied for decades that there are adverse health effects from exposure to wireless radiation. By establishing a revolving door between its leadership and the FCC's, the CTIA ensures that the federal regulatory agency maintains the inadequate, ~~obsolete~~ radio frequency exposure limits which the FCC adopted in 1996.

The FCC and federal health agencies have been oblivious to the health concerns raised by more than 230 scientists from 41 nations who have published peer-reviewed research on the biologic or health effects of exposure to electromagnetic fields.

This September more than 180 scientists and doctors from 35 countries signed a [declaration](#) demanding a moratorium on the planned increase of cell antennas for 5G deployment in the European Union. Concerns over health effects from higher radiation exposure include potential neurological impacts, infertility, and cancer.

The following excerpts were extracted from a 23-page special report from *RCR Wireless* that cuts through much of the hype surrounding the deployment of 5G. The excerpts are direct quotes from the report.

RCR Wireless is a trade publication that has reported on the wireless industry and wireless technology since 1982.

Transitioning to a 5G World

Kelly Hill, *RCR Wireless*, Nov. 2017

Excerpts from the Report

Hype is certainly high for 5G, given that the industry is still technically in a pre-standard phase and that standalone 5G systems are still some time off.

5G is coming even faster than originally expected. In December, the first official specification from the Third Generation Partnership Project is expected to be released; 5G New Radio will finally make its standardized debut — although like Long Term Evolution, 5G will continue to evolve and be refined in the coming years.

"5G will not replace LTE," Rysavy Research concluded in an August report for the GSMA. "In most deployments, the two technologies will be tightly integrated and co-exist through at least the late-2020s."

Although the industry is preparing for 5G, LTE [4G] capabilities will continue to improve in LTE Advanced Pro through the rest of the decade," Rysavy wrote 5G will eventually play an important role, but it must be timed appropriately so that the jump in capability justifies the new investment.

KT, for example, plans to support two different frequencies from the get-go in its 5G network: 3.5 GHz as an anchor with better propagation, complemented by 28 GHz in dense areas. Given that networks are expected to initially be 4G/5G networks, testing will have to continue to support LTE alongside 5G.

Hurtarte of LitePoint noted that although "millimeter wave" tends to be treated as one category, there are significant differences between the components and frequency planning needed at 28 GHz versus 39 GHz. In addition, although some frequencies are widely agreed upon, there are other frequencies that may get the nod for 5G use: 24 GHz in China, possibly 40-43 GHz and possibly even above 70 GHz.

There are some major challenges to the success of 5G, which are all interrelated: the move to mmwave, the need for ultra-density, and the question of when the economics of 5G will actually work well enough to take off.

Mmwave [millimeter wave] provides the huge bandwidths that are needed for fast speeds and high capacity, but the higher the frequency, the shorter its range and more susceptible it is to being easily blocked and reflected (thus the need for beamforming in order to focus the energy more tightly). Seasonal foliage, energy efficient glass windows with special coatings, and standard housing materials all present effective barriers to mmwave reaching indoors to customer premise equipment, operators and vendors have found in their field testing.



Joel M. Moskowitz, Ph.D.
Director
Center for Family and Community Health
School of Public Health
University of California, Berkeley

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Denisowski pointed out that fixed wireless is one thing, but moving objects are another. Obstruction, not radiating sources of energy, is likely to be the main cause of interference in 5G systems: vehicles driving back and forth, or even wind farms can scatter microwave radiation.

Density of foliage "plays a big role," said Thadasina of Samsung, which has been working with a number of carriers on 5G trials. "What we found is that for the mmwave signal, as it penetrated through trees, the thickness of the trees matters. Initially the impedance offered by foliage is linear, but beyond a certain density it is no longer linear ... it kills the signal." Building materials are well-known to play a role in transmission from outdoors to indoors, he added, but the angle of incidence does as well. The difference between 30 degrees to 60 degrees to 90 degrees can create additional impedance, Thadasina said, "some of those things make it challenging in terms of closing the link." Moisture levels play a role as well, he said

Fiber is fuel for 5G, and its prevalence is increasing. SNL Kagan found earlier this year that global fiber residential investment increased sharply in 2016, and that fiber is on track to reach 1 billion subscribers by 2021. Meanwhile, in the U.S., Vertical Systems Group reported that 49.6% of multi-tenant and enterprise buildings had access to fiber last year, compared to only 10% in 2004.

Deloitte said earlier this year that it expects to see \$130 billion-\$150 billion in "deep fiber" investment in the U.S. over 5-7 years, due to a combination of broadband competition, ensuring 5G readiness, and expanding fiber into new areas.

Murphy of Nokia said that operators should expect that, depending on which frequency they deploy in, they will need 2.5 to 10 times as many sites as they have now. That's a tall order, especially given that small cell sites in cellular frequencies can take 18 to 24 months to get site approvals – scaling small cells has been hard enough in LTE, with the market moving much more slowly than analysts had predicted or carriers would like.

"It's going to take a long time," Einbinder said. "Constructing a cell tower is hard. A micro-cell has a lot of the same issues": power and fiber and access to a site, which a community may be reluctant to grant – California, for instance, recently rejected a measure passed at the state level that would have streamlined processes for small cells.

... Einbinder thinks that some communities will take initiative and want to be 5G economic centers. While that's encouraging for operators, it may also mean that 5G coverage maps look very different from the familiar red, blue, yellow and magenta maps indicating nationwide coverage. "The resulting coverage maps might have a lot more to do with [communities] than any economic or technological drivers – it's going to be driven by local preference."

While early work estimated that as many as 40 to 50 homes could be covered by a single fixed wireless site, according to Rouault of EXFO, that number has turned out to be around five in testing because of the complexity of beamforming necessary to support multiple homes. "It's not at the point we would say the verdict is out," Rouault added. "The technology is proven to work, but to make the business case work, the scale is the problem right now."

So the biggest question is where a breakthrough is going to happen that becomes the point at which 5G becomes a more attractive investment than LTE. "What can 5G do that other systems can't? This is where there is no clear answer," said Hemant Minocha, EVP for device and IoT at TEOCO. There is no 5G requirement for IoT [Internet of Things], he points out, and the business case hasn't yet been proven out for ultra-low latency (not to mention that LTE is capable of lower latency than it has achieved to this point in networks).

Key Takeaways:

- The industry is moving quickly toward 5G, with momentum in testing and trials. The first official 5G specification from 3GPP is expected in December, with a protocol-focused release coming in the spring of 2018.
- Many features and architectures in LTE, particularly gigabit LTE, will both underpin future 5G networks and provide lessons learned in making 5G systems work. These include dense fiber deployment, higher-order and massive MIMO, network slicing, virtualization, and mobile edge computing.
- The biggest challenge for 5G lies in a millimeter-wave based RAN, with significant challenges ahead for designing and deploying a workable, optimized and profitable mmwave network on a large scale.

The *RCR Wireless* report, "Transitioning to a 5G World," can be downloaded at <http://bit.ly/5Ghype>.

Related posts:

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International EMF Scientist Appeal
An Exposé of the FCC: An Agency Captured by the Industries It Regulates
FCC: Why We Need Stronger Cell Phone Radiation Regulations—Key Testimony
Cell Tower Radiation Affects Wildlife: Dept. of Interior Attacks FCC



Other resources:

The Problem with 5G.
John C. Dvorak, PC Magazine, Aug 22, 2018.

The Rising Cost of 5G: Big increases in power consumption and uncertainty about how to test these devices have yet to be resolved.

Ed Sperling, Semiconductor Engineering. Aug 22, 2018.

The Week In 5G:6/1/2018 -- 3GPP Set To Announce Final Phase-1 Standard In June; 5G Sparks Security and Health Concerns Anew
Jof Enriquez, RF Globalnet, June 1, 2018

MWC and the 5G Hype Machine Keep on Giving, and Giving and Giving...
Ernest Worthman, AGL Media Group, Apr 19, 2018

Super-fast 5G wireless is coming this year, but it probably won't be cheap
David Lazarus, Los Angeles Times, Jan 9, 2018

Upgrade to 5G Costs \$200 Billion a Year, May Not Be Worth It
Olga Kharif and Scott Moritz, Bloomberg, Dec 18, 2017

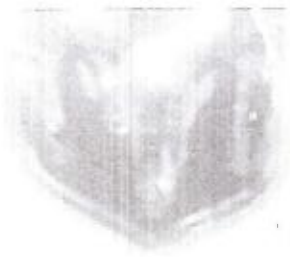
Impact of EMF Limits on 5G Network Rollout
Christer Tomevik, ITU Workshop on 5G, EMF and Health, Dec 5, 2017

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Merinda Teller, MPH, PhD, Weston A. Price Foundation, Dec 1, 2017

5G Is Not the Answer For Rural Broadband
Larry Thompson and Warren Vande Stadt, Broadband Communities. March/April, 2017

Labels: 4G, 5G technology, 5G wireless technology, challenges, fifth generation, hype, millimeter waves, mmwave, transition

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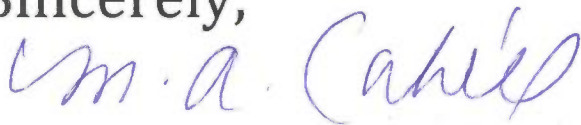
Planning Commission
San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, CA 94103

September 17, 2018

Dear President Hillis and Commissioners:

Thank you for approving the project for 450 O'Farrell Street (Fifth Church Christ, Scientist). We trust this project will bless ALL who have been, and are, connected with it. And thank you for conducting such orderly, professional proceedings. San Francisco is surely blessed by your conscientious attention to the well-being of its citizens.

Sincerely,



Mary Ann Cahill

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SEP 18 2018

CITY & COUNTY OF S.F.
PLANNING DEPARTMENT
CPC/HPC

148 Beulah Street
San Francisco, CA 94117

September 12, 2018

San Francisco Planning Department
Attn: Hearing Letters of Support
650 Mission Street
Room 400
San Francisco, CA 94103

RECEIVED

SEP 17 2018

CITY & COUNTY OF S.F.
PLANNING DEPARTMENT
CPC/HPC

RE: Support of 858 Stanyan St. Development (Hearing on September 27th at 1pm at City Hall)

Dear Planning Department,

I write to voice my strong support for the construction of 3 new residences at 858 Stanyan Street, San Francisco, CA 94117. I reside on Beulah Street between Stanyan and Shrader in District 5 just around the corner from the project site. I think adding new housing to the area is ideal. I have no objection to the 50 foot height of the proposed building.

My letter is unsolicited by any party. I saw an article about the proposal and wished to voice my support.

While I am unable to attend the hearing in person, I would be happy to discuss this further at any time.

Sincerely,



Kendra Robins

kendraSrobins@yahoo.com