Nos. 11-17707, 11-17773

IN THE UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

CTIA — THE WIRELESS ASSOCIATION,

Plaintiff-Appellant/Cross-Appellee,

v.

THE CITY AND COUNTY OF SAN FRANCISCO, CALIFORNIA,

Defendant-Appellee/Cross-Appellant.

On Appeal from the United States District Court
for the Northern District of California
(Honorable William H. Alsup)

BRIEF FOR AMICI CURIAE ENVIRONMENTAL WORKING GROUP AND PUBLIC CITIZEN, INC., IN SUPPORT OF DEFENDANT-APPELLEE

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CORPORATE DISCLOSURE STATEMENT

Pursuant to F.R.A.P. 26.1, amici curiae Environmental Working Group and Public Citizen, Inc. state that each is a non-profit, non-stock corporation. Neither has a parent corporation, and no publicly held corporation owns 10% or more of their stock.

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INTEREST OF AMICI CURIAE

Environmental Working Group (EWG), a nonprofit research organization with over a million online supporters, is dedicated to using the power of information to protect public health and the environment. EWG's staff includes scientists, engineers, policy experts, lawyers and computer programmers who analyze government data, legal documents, scientific studies, and laboratory tests to educate the public and advocate policies at the local, state, and federal levels to protect vulnerable segments of the population.

Public Citizen is a nonprofit organization devoted to research, advocacy, and education on public-health and consumer-safety issues, with more than 250,000 members and supporters. Public Citizen has a longstanding interest in fighting exaggerated claims of federal preemption of state health and safety laws. Its lawyers have represented parties in many federal preemption cases, including *Williamson v. Mazda Motor of Am., Inc.*, 131 S. Ct. 1131 (2011), *Warner-Lambert Co. v. Kent*, 552 U.S. 440 (2008) (mem.), *Riegel v. Medtronic, Inc.*, 552 U.S. 312 (2008), and *Medtronic, Inc. v. Lohr*, 518 U.S. 470 (1996).

All parties have consented to the filing of this amicus brief.[1]

BACKGROUND

All cell phones send and receive radiofrequency (RF) radiation, a form of electromagnetic energy, which is transmitted between the cell-phone antenna and base stations. Cell phones transmit this energy outward in all directions.

At sufficient intensity, RF radiation can be harmful to humans. *See* FCC, *Questions and Answers about Biological Effects and Potential Hazards of Radiofrequency Electromagnetic Fields*, Office of Eng'g & Tech. Bulletin 56, at 6 (4th ed. Aug. 1999). At high levels of exposure, RF radiation can cause biological damage including effects such as cataracts and reproductive organ damage. Studies have also found biological effects at relatively low levels of exposure, including neurological and behavioral effects, alterations in brain metabolism, immune system damage, and breaks in DNA strands. *Id.* at 8. According to the Federal Communications Commission (FCC), "whether or not such effects might indicate a human health hazard is not presently known." *Id.*

[1] No party's counsel authored this brief in whole or in part, and no party or party's counsel, or any other person aside from amici curiae and their members, contributed money intended for the preparation or submission of this brief.

Although the evidence is not definitive, public-health researchers have warned that long-term cell-phone use may increase risks of brain cancer and other conditions. The concern is particularly acute for children, whose developing brains appear to absorb more RF radiation. In light of recent scientific data on the association between long-term cell-phone use and increased cancer risks, a group of prominent scientists has compared the potential cell-phone threat to the harm caused by asbestos, which was discovered only after decades of use caused irremediable lung damage and untreatable cancers in thousands.[2]

San Francisco responded to these concerns by requiring retail cell-phone dealers to provide customers with a single-page fact sheet advising them about possible risks from cell-phone RF radiation and measures they may take to reduce their exposure and their children's. The fact sheet, as revised to comply with the district court's decision, [3] provides balanced, accurate, and conservative information about RF radiation. It

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[2] *See The Case for Precaution in the Use of Cell Phones: Advice from University of Pittsburgh Cancer Institute Based on Advice from an International Expert Panel* (2008), http://www.upci.upmc.edu/news/pdf/The-Case-for-Precaution-in-Cell-Phone-Use.pdf.

[3] This brief addresses the revised fact sheet that is the subject of CTIA's appeal, but much of its analysis is also relevant to San Francisco's cross-appeal.

accurately states that the FCC has issued standards applicable to cell-phone RF emissions, but that studies have not ruled out the possibility of harm from exposure to RF radiation; that the World Health Organization (WHO) has classified RF emissions as a possible (though not known or probable) carcinogen; that studies of cell-phone health effects continue; and that children's brains and heads absorb more RF radiation than do adults'. The fact sheet advises consumers that if they are concerned about possible risks, they can reduce RF radiation exposure by limiting children's cell-phone use, using headsets or speakerphones, texting rather than making voice calls, carrying cell phones in a handbag or belt-clip rather than next to their bodies (a precaution cell-phone user manuals also typically recommend), avoiding use where signal strength is low and phones transmit at higher power, reducing the number and length of calls, and turning off phones when not using them. The fact sheet tells consumers where they can obtain more information from the WHO, the FCC, and the San Francisco Department of the Environment. It concludes: "*This material was prepared solely by the City and County of San Francisco and must be provided to consumers under local law*."

ARGUMENT

I. Requiring Retailers To Provide Consumers With Material Information About Possible Health Hazards Of Cell-Phone Use Does Not Violate The First Amendment.

A. The Government May Require Merchants To Provide Consumers With Material Information About Products, Including Information About Health Issues.

Requiring cell-phone retailers to provide San Francisco's fact sheet to customers is not subject to strict scrutiny under the First Amendment. Regulating cell-phone retailers cannot be compared to compelling schoolchildren to recite the Pledge of Allegiance in violation of their religious beliefs or forcing residents of New Hampshire to display ideological messages on their personal vehicles. San Francisco's requirement that information be provided to customers is triggered by purely commercial activity—selling telephones—not fully protected speech. None of the precedents CTIA cites to support its claim that strict scrutiny should apply involved an informational requirement attached to purely commercial activity.

This case is not comparable to *Pacific Gas & Electric Co. v. Public Utilities Commission*, 475 U.S. 1 (1986), where a company was directed to turn over envelope space it used for noncommercial, political speech to

other private groups who wished to offer opposing messages—a requirement that the company subsidize private speech chosen on the basis of its content. The San Francisco ordinance involves no similar content-based governmental preference for one private speaker over another. Nor does the fact-sheet requirement penalize speech, fully protected or otherwise: the requirement is not triggered by *any* speech of the retailer, let alone by fully protected, noncommercial speech.

In fact, the ordinance does not involve compelled speech at all because it does not direct the *retailer* to speak, but only to provide customers with a sheet of paper containing *governmental* speech—speech "in the name of the government itself." *R.J. Reynolds Tobacco Co. v. Shewry*, 423 F.3d 906, 917 (9th Cir. 2004). The ordinance does not prevent cell-phone retailers from providing consumers with their own, possibly contrary views about cell-phone safety.[4] *Cf. Envtl. Def. Ctr., Inc. v. EPA*, 344 F.3d 832, 850 (9th Cir. 2003) (holding compelled speech doctrine inapplicable to a law that did "not prohibit [plaintiff] from

[4] The ordinance is thus less restrictive than product-labeling requirements that would be violated if products were also labeled with contradictory information (for example, if a food package included two different nutritional labels, or a drug's labeling listed not only approved uses but also unapproved uses).

stating its own views" and could be satisfied by "making available federally produced informational materials on the subject and identifying them as such"). In these respects, the ordinance is strikingly similar to the federal requirement that law schools allow government recruiters onto their campuses despite the schools' wish to exclude the message of these government speakers—a requirement that *Rumsfeld v. Forum for Academic & Institutional Rights* (*FAIR*), 547 U.S. 47 (2006), holds does not involve compelled speech *at all*.

Like the federal government in *FAIR*, here San Francisco "neither limits what [cell-phone retailers] may say nor requires them to say anything." *Id*. at 60. Complying with the San Francisco requirement, like providing access to the government recruiters in *FAIR*, may involve some speech by retailers—such as, "here is San Francisco's cell-phone fact sheet," comparable to the sending of emails and posting of notices about the whereabouts of job interviews in *FAIR*. But *FAIR* makes clear that such "incidental" speech, which the government "does not dictate," does not transform a regulation into "compelled speech." *Id.* at 62.

FAIR also holds that requiring a private entity to "host" or "accommodate" a governmental message is not an infringement of

speech if it neither is triggered by nor affects the private entity's own speech. *Id*. at 63-64. Thus, *FAIR* held that requiring law schools to host government recruiters was not subject to First Amendment strict scrutiny because "the schools are not speaking when they host interviews and recruiting receptions" and "a law school's decision to allow recruiters on campus is not inherently expressive." *Id*. at 64. Similarly, selling phones is neither speech nor "inherently expressive" activity, but commercial conduct pure and simple.

Moreover, the requirement that retailers distribute a fact sheet in connection with commercial activity does not imply that retailers agree with the message conveyed in the fact sheet. Indeed, the fact sheet expressly attributes its message to San Francisco and says its distribution is a legal requirement. In *FAIR*, the Court pointedly commented that "[n]othing about recruiting suggests that law schools agree with any speech by recruiters, and nothing in the Solomon Amendment restricts what the law schools may say about the military's policies." *Id*. at 65. So, too, nothing about selling phones suggests agreement with San Francisco's views, and nothing in the San Francisco

ordinance restricts what cell-phone retailers may say about cell-phone safety.

Even assuming, contrary to *FAIR*'s implications, that the San Francisco fact sheet involved regulation of the retailers' own speech, the proper analytical framework would not be the strict scrutiny applicable to restraints on (or compelled participation in) fully protected speech, but the standard developed for disclosure and other mandatory informational requirements applicable to *commercial* speech. Such requirements, the Supreme Court held in *Zauderer v. Office of Disciplinary Counsel*, 471 U.S. 626 (1985), are permissible if "reasonably related" to a permissible state interest. *Id*. at 651. *Zauderer* subjects commercial-speech disclosure requirements to a level of constitutional scrutiny "akin to the general rational basis test governing all government regulations." *Pharm. Care Mgmt. Ass'n v. Rowe*, 429 F.3d 294, 316 (1st Cir. 2005).

Although the state interest considered in *Zauderer* was preventing consumer deception, *Zauderer*'s reasoning extends to the government's interest in seeing that consumers receive information material to their purchase or use of a product. As *Zauderer* explained, any interests commercial actors may have in *not* speaking about the characteristics of

their goods and services "are not of the same order as" the interest in being free from compelled speech outside of the commercial realm. 471 U.S. at 651. Because "First Amendment protection for commercial speech is justified in large part by the information's value to consumers," a commercial speaker's "constitutionally protected interest in not providing … required factual information is 'minimal.'" *Milavetz, Gallop & Milavetz, P.A. v. United States*, 130 S. Ct. 1324, 1339 (2010) (quoting *Zauderer*, 471 U.S. at 651). Disclosure requirements that provide important information about commercial goods and services, like disclosure requirements aimed at outright deception, advance the First Amendment interest in conveying valuable information to consumers while implicating only a "minimal" interest of the commercial speaker in not providing such information.

Zauderer's rational-basis standard applies fully to disclosure requirements that provide factual information about possible health and environmental effects of commercial products, as well as their safe use or consumption. Thus, in *National Electrical Manufacturers Association v. Sorrell*, 272 F.3d 104 (2d Cir. 2001), the Second Circuit applied *Zauderer*'s standard to uphold a Vermont statute requiring

manufacturers of light bulbs containing mercury to use labeling that disclosed the presence of mercury and told consumers how to dispose of mercury-containing products. *See id.* at 114-15. The law met *Zauderer*'s reasonableness requirement because it served "to better inform consumers about the products they purchase" by "increasing their awareness of the presence of mercury in a variety of products," which in turn served the state's interest in "the reduction of mercury pollution." *Id.* at 115. This Court has approvingly cited *Sorrell*'s application of *Zauderer*, *see Envtl. Def. Cen.*, 344 F.3d at 851 n.27, and has concurred that requirements aimed at "[i]nforming the public about safe toxin disposal" are not subject to strict scrutiny. *Id*. at 850.

Similarly, in *New York State Restaurant Association v. New York City Board of Health*, 556 F.3d 114, 132-33 (2d Cir. 2009), the court reiterated that a reasonable relationship to a state interest in informing consumers of facts bearing on health risks was sufficient to preserve a disclosure requirement against First Amendment challenge. There, New York City had required chain restaurants to disclose calorie contents of menu items. Reaffirming that "rules 'mandating that commercial actors disclose commercial information' are subject to the rational basis test,"

id. at 132 (quoting *Sorrell*, 272 F.3d at 114-15), the court held that the city's interest in promoting public health and combating obesity by informing consumers about fast-food calories justified the challenged regulation.

As both *Restaurant Association* and *Sorrell* reflect, *Zauderer*'s reasonableness standard grants governments authority to require manufacturers or retailers to disclose factual information that reasonable consumers would find material to their decisions about purchasing and using a product, including information about possible health risks and safe use.

B. Developing Scientific Evidence Shows That The Information In The Fact Sheet Is Accurate And Important To Reasonable Consumers' Choices About Buying And Using Cell Phones.

Scientific evidence about the health effects of cell-phone use provides ample justification for San Francisco's decision to require that consumers be informed of potential risks and the simple steps that they can take to reduce their exposure to cell-phone RF radiation, even while enjoying the benefits of cell phones. To be sure, research is ongoing and has not yet reached definitive conclusions. But widespread use of cell phones is a recent phenomenon, and latent health risks, particularly

cancer risks, often take decades to materialize. Even at this point, though, there is significant cause for caution, as the WHO recognized in classifying cell phones a possible carcinogen and calling for more studies of their effects. Accordingly, requiring cell-phone retailers to distribute the fact sheet is reasonably related to San Francisco's interest in ensuring that consumers are informed of the uncertainty and the steps they can take to alleviate possible risks.

1. The WHO's Designation Of Cell-Phone RF Emissions As A Possible Carcinogen Reflects Studies Showing A Possible Relationship Between Long-Term Cell-Phone Use And Cancer.

On May 31, 2011, the International Agency for Research on Cancer (IARC), the arm of the WHO that coordinates and conducts research on the causes of human cancer, designated RF emissions from wireless telephones a possible human carcinogen. Supplemental Excerpts of Record (SER) 334-40. The designation was the result of a detailed weight-of-the-evidence assessment by 30 leading scientists in the field of epidemiology and cancer risk, who concluded that evidence supported an association between RF radiation and increased risk of glioma, a malignant and usually fatal form of brain cancer. SER 299-302.

The IARC scientists relied substantially on the INTERPHONE study, a large international study of subjects in 13 countries. SER 532. Despite methodological limitations reflecting a seeming bias toward understating risk, the study's results showed an elevated risk of gliomas on the side of the brain where the subjects habitually used their phones among cell-phone users with the most cumulative call time.[5] The study also found an increased risk of temporal lobe tumors among heavier cell-phone users, a particularly suggestive finding because the temporal lobe is more heavily exposed to RF radiation during cell-phone use than other regions of the brain. SER 301, 311.

The INTERPHONE results are not alone in suggesting an association between long-term cell-phone use and brain tumors. As the IARC scientists noted, a Swedish study also found increased risk of glioma (as well as acoustic neuroma, a usually benign but nonetheless serious tumor of the auditory nerves) among subjects who had used cell phones for more than one year, with increased risk associated with both use of the phone on the same side as the tumor and increasing years of

[5] *See* Saracci & Samet, *Commentary: Call me on my mobile phone … or better not?—a look at the INTERPHONE study results*, 39 Int'l J. Epidemiology 695, 696-97 (2010); *see also* SER 309-11.

use. *See* SER 301; *see also* SER 486-96, 497-507. These results are similar to those noted by a number of other published studies, including partial results of the INTERPHONE study published before the combined report covering all 13 countries, and publications by other independent researchers.[6] In addition, other studies suggest a relationship between cell-phone use and cancers of the parotid (salivary) gland.[7]

Although definitive conclusions are premature and researchers (including the National Research Council, *see* SER 625-704) agree further study is needed, it is striking that epidemiological studies published so soon after widespread cell-phone use became prevalent would show any association with cancer. In the INTERPHONE study, for example, few of the subjects had used cell phones for more than ten years, and the longest period of cell-phone use by any subject was 12 years. SER 310. Latent health risks, particularly risks of carcinogenesis, rarely manifest themselves in less than ten years. *Id.* As two researchers commenting on the INTERPHONE study noted, "None of … today's

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[6] *See* SER 518-30, 567-76, 577-84, 595-602, 726-35, 742-49, 757-66.

[7] *See* SER 706-17; Duan et al., *Correlation between cellular phone use and epithelial parotid gland malignancies*, 40 Int'l J. Oral & Maxillofacial Surgery 966 (2011).

established carcinogens, including tobacco, could have been firmly identified as increasing risk in the first 10 years or so since first exposure. Ionizing radiation is a recognized cause of brain tumours but except for rare instances the radiation induced cases occur on average after 10–20 years since the time of first exposure." Saracci & Samet, *supra*, at 696. Moreover, the heaviest users in the INTERPHONE and other studies were not heavy users by current standards: The top ten percent of users in the INTERPHONE study, among whom an increased risk of glioma was observed, had 1,640 or more hours of cumulative cell-phone use—"not a very intensive use by today's pattern: spread over 10 years, the lower limit of this category is about half an hour per day." *Id*.

That epidemiological studies have detected indications of increased cancer risk so early in the history of widespread cell-phone use thus calls for serious consideration and further study. As two leading researchers recently stated:

> While more studies are needed to confirm or refute these results, indications of an increased risk in high- and long-term users from Interphone and other studies are of concern. There are now more than 4 billion people, including children, using mobile phones. Even a small risk at the individual level could eventually result in a considerable number of tumours and become an important public-health issue. Simple and low-cost measures, such as the use of text messages, hands-free kits and/or the loud-

> speaker mode of the phone could substantially reduce exposure to the brain from mobile phones. Therefore, until definitive scientific answers are available, the adoption of such precautions, particularly among young people, is advisable.

SER 311.

Although existing research does not prove that cell-phone use causes cancer, the evidence to date shows that it is entirely rational to require retailers to inform consumers of the possibility that cell-phone emissions are carcinogenic. Reasonable consumers would consider this information important to their decisions about whether and how to use cell phones.

2. Studies Support Concerns About Increased Absorption Of RF Radiation By Children's Brains.

The exposure of children to cell-phone RF emissions is of particular concern because children using cell phones now will likely be exposed for decades to come, resulting in much higher lifetime cumulative exposures than those experienced by adults who became cell-phone users later in life. *See* Saracci & Samet, *supra*, at 696. In addition, strong evidence suggests that children's skulls and brains absorb significantly higher amounts of RF radiation during cell-phone use than do those of adults. A study by France Telecom, for example, showed that under some

conditions, twice as much cell-phone radiation would penetrate a child's skull and reach the brain. SER 780-795. Other studies have reached similar conclusions.[8] This effect appears attributable to children's thinner skulls and smaller head size, SER 409-10, and the higher water and ion content of their tissues as compared to those of adults.[9]

Citing the testimony of its expert witness, CTIA contends that the claim that children's brains absorb more cell-phone radiation is "controversial." CTIA Br. 30. CTIA does not explain the basis of its expert's disagreement with the WHO finding (SER 300) that is the source of the statement in the fact sheet or with the string of peer-reviewed studies finding higher radiation absorption in children's brains, but CTIA's expert's report states that, when averaged over the brain as a whole, radiation absorption is not significantly different in children and adults. However, the absorption of cell-phone radiation is highly localized in the brain, and RF radiation generally does not penetrate regions of the

[8] *See* SER 300 (citing Christ et al., *Age-dependent tissue-specific exposure of cell phone users*, 55 Phys. Med. Biol. 1767 (2010)); *see also* SER 375-91, 402-18, 448-62, 750-56, 773-79.

[9] *See* Peyman, et al., *Variation of the dielectric properties of tissues with age: the effect on the values of SAR in children when exposed to walkie-talkie device*, 54 Phys. Med. Biol. 227 (2009).

brain on the opposite side from the phone. SER 361-74. Measurements averaged over the brain as a whole do not call into question the evidence that the parts of children's brains closest to cell-phone antennas absorb more RF radiation than do those of adults. *See* Christ, et al., *supra*.

Whether the greater absorption of RF emissions in children's brains has adverse health consequences remains unknown, but some studies show disturbing results. A large Danish study found that children who used cell phones, and whose mothers used them during pregnancy, had an 80% increased risk of hyperactivity and emotional problems. SER 419. The Swedish brain-tumor study cited by the IARC found the highest risk among subjects who had begun using cell phones as adolescents. SER 498. And although its authors sought to downplay any suggestion of risk, a recent European study of children with brain tumors showed elevated risks of tumors associated with cell-phone use, but was unable to establish that the risks were statistically significant at the 95% level—meaning that the study did not include enough long-term users to develop statistically significant findings, not that the risk does not exist. Notably, among a subset of subjects for whom available billing records provided objectively verifiable evidence of the length of time they were

cell-phone subscribers, the study found a statistically significant trend of increased risk with increasing time from first cell-phone use.[10]

Again, the evidence is not definitive, and studies on children continue. Meanwhile, in light of the evidence of a possible cancer risk from cell-phone emissions and the indications that children may be at heightened risk, it is reasonable to require retailers to inform consumers that studies show increased absorption of radiation by children's brains, so that they can consider whether to take steps to limit their children's exposure.

3. The Federal Government's Actions And Views Concerning Cell Phones Do Not Vitiate San Francisco's Interest In Informing Consumers About Possible Risks.

CTIA argues that the FCC's regulations concerning cell-phone RF emissions, as well as statements by the FCC and Food and Drug Administration (FDA) concerning cell-phone safety, render San Francisco's interest in informing consumers about potential health risks

[10] *See* Aydin et al., *Mobile Phone Use and Brain Tumors in Children and Adolescents: A Multicenter Case-Control Study*, 103 J. Nat'l Cancer Inst. 1264 (2011); *see also* Goldman, *CEFALO: Mixed Signals on The Cell Phone-Brain Tumor Issue*, http://holisticprimarycare.net/topics/topics-a-g/environomics/1165-cefalo-mixed-signals-on-the-cell-phonebrain-tumor-issue.

too insubstantial to satisfy any level of scrutiny. Neither the FCC regulations nor the statements issued by the FCC and FDA, however, make it unreasonable for San Francisco to conclude that consumers should be informed about the possibility of a risk and the simple measures they can take to reduce that risk.

As San Francisco's revised fact sheet indicates, the FCC has promulgated guidelines for cell-phone RF emissions.[11] Compliance with the FCC guidelines, however, says little about whether RF emissions pose a risk of cancer, because the guidelines were promulgated in 1996, before epidemiological studies of long-term risks (based on use of phones that *meet* existing standards) became available, and they were based on an assessment of health risks associated with short-term exposure to cell-phone RF radiation.[12] Moreover, contrary to CTIA's assertion, the FCC guidelines do not provide a "fifty-fold" protection even against the short-term effects they were designed to address. The FCC's standard for

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[11] As explained below, the FCC guidelines are not substantive standards but were issued to comply with procedural requirements of the National Environmental Policy Act.

[12] *See* Environmental Working Group, *Cell Phone Radiation: Science Review on Cancer Risks and Children's Health* 12-13 (2009), http://www.ewg.org/project/2009cellphone/cellphoneradiation-fullreport.pdf.

"local" as opposed to whole-body RF exposures, including exposures to the head, hip, or groin, is 1.6 watts per kilogram, averaged over one gram of tissue—only 2.5 times lower than the level where the FCC found that thermal effects of RF emissions harmed lab animals (4 W/kg).[13]

As for the FCC and FDA statements about cell-phone safety cited by CTIA, they reflect the agencies' positions on the state of the evidence. But they by no means render it *irrational* for another governmental body to examine the evidence and conclude that consumers should be informed that cell-phone emissions have been identified by a respected international scientific body as a possible carcinogen so that consumers can decide whether to reduce their exposure.

In any event, San Francisco's ordinance is consistent with statements by both the FDA and the FCC. Although the FDA says "the weight of scientific evidence has not linked cell phones with any health problems" and "does not show a danger" to users,[14] the agency does not

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[13] *See id.*

[14] FDA, *Health Issues: Do Cell Phones Pose a Health Hazard*, http://www.fda.gov/Radiation-EmittingProducts/RadiationEmittingProductsandProcedures/HomeBusinessandEntertainment/CellPhones/ucm116282.htm; FDA, *Children and Cell Phones*, http://www.fda.gov/

claim cell phones have been *proven safe*.[15] The FDA acknowledges that some studies show a connection between cell phones and health problems.[16] Indeed, it agrees with the scientific "consensus that additional research is warranted to address gaps in knowledge, such as the effects of cell-phone use over the long-term and on pediatric populations."[17] Similarly, the FCC, although saying the evidence does not show a "causal link" between cell phones and health problems, concedes that "[t]hose evaluating the potential risks of using wireless devices agree that more and longer-term studies should explore whether there is a better basis for RF safety standards than is currently used."[18] And both agencies, like San Francisco's fact sheet, advise consumers that "if you are concerned about avoiding even potential risks, you can take a few

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Radiation-EmittingProducts/RadiationEmittingProductsandProcedures/HomeBusinessandEntertainment/CellPhones/ucm116331.htm.

[15] FDA, *Reducing Exposure: Hands-free Kits and Other Accessories*, http://www.fda.gov/Radiation-EmittingProducts/RadiationEmittingProductsandProcedures/HomeBusinessandEntertainment/CellPhones/ucm116293.htm.

[16] FDA, *Current Research Results*, http://www.fda.gov/Radiation-EmittingProducts/RadiationEmittingProductsandProcedures/HomeBusinessandEntertainment/CellPhones/ucm116335.htm.

[17] *Id*.

[18] FCC, *Wireless Devices and Health Concerns*, http://www.fcc.gov/guides/ wireless-devices-and-health-concerns.

simple steps to minimize your RF exposure," including some of the very steps described in the fact sheet.[19] Taken as a whole, the agencies' statements *support* the reasonableness of San Francisco's determination that consumers should be made aware of the open question concerning the effects of cell-phone RF radiation so they can determine whether to take steps to reduce RF radiation exposure.

Moreover, history teaches that federal agencies' early assessments of health and safety risks often prove erroneous when later studies document previously unanticipated or underestimated effects that become evident only with widespread or long-term exposure. The FDA has approved drugs and medical devices as safe only to withdraw approval after adverse health effects appeared when the products were widely used. For example, the FDA approved diethylstilbestrol, or DES, as safe for the prevention of miscarriages in 1947, but ordered it withdrawn for that purpose in 1971 when daughters of women who had received DES during pregnancy began to develop a rare form of vaginal

[19] FDA, *Reducing Exposure*, *supra*; FCC, *FAQs—Wireless Phones*, http://www.fcc.gov/encyclopedia/faqs-wireless-phones#steps; *see also* FCC, *Wireless Devices and Health Concerns*, *supra*.

cancer. The full range of adverse health impacts is still being assessed.[20] The federal government's response to lead provides another example: Although lead has long been known to be toxic, federal standards for lead in the bloodstream, and in products such as paint, have repeatedly been revised downward as new information shows that earlier limits were insufficiently protective, with the result that hundreds of thousands of children have been exposed to unsafe levels of lead.[21] Similarly, the Occupational Safety and Health Administration recently lowered its exposure limit for airborne hexavalent chromium by a factor of 10 because the prior standard, set over 35 years earlier, allowed exposure at levels that posed a significant cancer risk, as shown by more recent epidemiological studies.[22] And, of course, cigarettes and asbestos were once thought to be harmless. By the time their latent health effects were widely recognized, the death toll was enormous and continues to mount.

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[20] *See* Hoover, et al., *Adverse Health Outcomes in Women Exposed In Utero to Diethylstilbestrol*, 365 N. Eng. J. Med. 1304 (2011).

[21] *See* Centers for Disease Control, *Preventing Lead Poisoning in Young Children* (2005), http://www.cdc.gov/nceh/lead/publications/PrevLeadPoisoning.pdf.

[22] OSHA, Final Rule: Occupational Exposure to Hexavalent Chromium, 71 Fed. Reg. 10100 (2006).

These examples underscore the reasonableness of San Francisco's decision, in the face of a continuing scientific inquiry into possible health effects of cell phones, to ensure that consumers are advised of the facts about the existence of the issue and the precautionary measures they can take—consistent with using the product—to limit potential exposure. Already, more people in this country, proportionally, use cell phones than have ever smoked cigarettes: CTIA itself reports that there are more cell-phone subscriptions than people in the United States, for a "penetration" rate of 102.4%.[23] The high-water mark for smoking came in 1954, when 45% of the *adult* population smoked cigarettes.[24] Given consumers' ever-increasing reliance on cell phones, even a modestly increased risk of cancer attributable to their use could mean far too many needless deaths. Caution and conservatism support apprising consumers of the possible risk so they can decide for themselves whether to take common-sense steps to reduce exposures (or whether, as CTIA advocates, to leave their cell phones on at all times so their cell-phone company can track their

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[23] CTIA, *Wireless Quick Facts* (June 2011), http://www.ctia.org/advocacy/research/index.cfm/aid/10323.

[24] Saad, *U.S. Smoking Rate Still Coming Down* (2008), http://www.gallup.com/poll/109048/us-smoking-rate-still-coming-down.aspx.

every move). Requiring that reasonable disclosure does not violate the First Amendment.

II. San Francisco's Ordinance Is Not Impliedly Preempted By Federal Standards.

CTIA argues that San Francisco's ordinance is preempted because it "second-guesse[s] the policy choices" of the FCC and poses "an obstacle to the achievement of the objectives of Congress and the FCC." CTIA Br. 40, 43. This argument misunderstands the scope and character of FCC regulation, mischaracterizes the basis for the ordinance, and ignores significant provisions of the relevant federal statutes.

A. The FCC's RF Radiation Guideline For Cell Phones Does Not Set A Substantive Standard.

The FCC has regulatory jurisdiction over cell phones as part of its authority over radio transmissions. The FCC regulates the spectrum available for cell-phone use and sets technical standards for cell-phone communication. Because cell phones transmit radio signals, FCC authorization is required before a particular model of cell phone may be sold or used in the United States. 47 C.F.R. § 2.803.

In 1982, the FCC first addressed human exposure to RF radiation from certain FCC-regulated facilities (but *not* cell phones) by issuing a

proposed level of RF radiation that facilities could emit without triggering the FCC's obligation to undertake an assessment under the National Environmental Policy Act (NEPA). The FCC "stress[ed] that the Commission has neither the expertise nor the primary jurisdiction to promulgate health and safety standards for RF and microwave radiation." FCC, Notice of Proposed Rulemaking, 89 F.C.C.2d 214, ¶ 183 (1982). The FCC explained, however, that NEPA required it to consider whether activities at facilities that it licensed significantly affected the environment.

NEPA requires all agencies to consider the environmental impact of proposed actions and take procedural steps, including preparing environmental assessments or environmental impact statements, before taking any "major" action that may "significantly affect[] the quality of the human environment." 42 U.S.C. § 4332(2)(C). Consistent with its obligations under NEPA, the FCC's proposed RF standard did not seek to impose substantive requirements on regulated industries. *See* 89 F.C.C.2d at ¶ 187. In addition, the FCC noted that state and local authorities had already adopted regulations regarding human exposure to RF radiation, and the Commission did not indicate any concerns about

possible conflict between those regulations and the proposed FCC standard. *Id*. ¶ 188.

In 1985, the FCC finalized its proposal by amending the regulations in which it specified actions that would be categorically excluded from NEPA's environmental analysis requirement because they lack significant impact.[25] The FCC stated that applications for certain permits would trigger NEPA requirements if the facilities seeking the permits were not in compliance with the otherwise voluntary, privately promulgated health and safety guidelines for RF radiation established by the American National Standards Institute (ANSI) in 1982. FCC, Report and Order, Biological Effects of Radiofrequency Radiation, 100 F.C.C.2d 543, ¶ 1 (1985). As it had in its 1982 proposal, the FCC acknowledged that it had "neither the expertise nor the authority to develop its own health and safety standards." *Id*. ¶ 49. The FCC's 1985 standard did not apply to many low-power devices, including wireless telephones.

In 1992, ANSI adopted new RF radiation exposure guidelines that for the first time included cell phones. *See* FCC, Notice of Proposed

[25] The Council on Environmental Quality has authorized agencies to exclude such categories of actions from NEPA review. 40 C.F.R. §§ 1507.3(b), 1508.4.

Rulemaking, Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation, 8 F.C.C.R. 2849, 2850 (1993). The FCC proposed replacing the 1982 ANSI guidelines with the 1992 version in its NEPA regulations. *Id*. at 2851. Because the 1992 ANSI guidelines addressed cell phones, the FCC likewise proposed to include cell phones in its NEPA regulations. *Id*. While the FCC rulemaking was underway, Congress enacted the Telecommunications Act of 1996 (TCA), Pub. L. No. 104-104, 110 Stat. 56 (1996), which amended the Communications Act. The TCA did not authorize the FCC to issue substantive health or safety regulations addressing RF emissions, but it directed the FCC to complete the pending NEPA rulemaking within 180 days. *Id*. § 704(b).

The TCA also included a narrow preemption provision, applicable only to the siting and building of physical facilities, which states that the FCC's RF regulations preempt state and local regulations regarding "placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the [FCC's] regulations concerning such emissions." *Id*. § 704(a), *codified at* 47 U.S.C. § 332(c)(7)(B)(iv). In addition to that limited preemption provision

for the siting and building of facilities, the TCA incorporated a broad *no-preemption* provision. The Communications Act, even before the TCA, contained a "savings" provision that states: "Nothing in this chapter contained shall in any way abridge or alter the remedies now existing at common law or by statute, but the provisions of this chapter are in addition to such remedies." 47 U.S.C. § 414. The TCA went further, expressly disclaiming any implied preemption of state or local law:

> No Implied Effect—This Act and the amendments made by this Act shall not be construed to modify, impair, or supersede Federal, State, or local law unless expressly so provided in such Act or amendments.

TCA § 601(c)(1), 47 U.S.C. § 152 note.

After passage of the TCA, and in accordance with the TCA's requirement that the FCC conclude its RF rulemaking, the FCC on August 1, 1996, adopted new regulations, which it referred to as "guidelines," addressing RF radiation emitted by regulated facilities and cell phones. Under the guidelines, the FCC may approve cell phones that emit less than a specified amount of RF radiation without undertaking environmental analysis under NEPA. FCC, Report and Order, Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation, 11 F.C.C.R. 15123 (1996).

The FCC issued the 1996 regulations to satisfy its "responsibilities under [NEPA] to evaluate the environmental significance of its actions." 47 C.F.R. § 2.1093(a); *see* 11 F.C.C.R. at 15125 (regulations issued to satisfy NEPA and "the requirements of the [TCA] for a timely resolution of this proceeding"). Accordingly, if an application for equipment authorization from a cell-phone manufacturer shows that a phone emits more than the specified amount of RF radiation, FCC regulations require the completion of a NEPA environmental analysis before the application can be approved. In addition, the 1996 regulations include a preemption regulation that incorporates verbatim the narrow preemptive language of the TCA, 47 U.S.C. § 332(c)(7)(B)(iv), applicable only to the location, construction, or modification of facilities. 47 C.F.R. § 1.1307(e). The 1996 regulations remain in effect today.

Notably, while the FCC has addressed RF emissions from cell phones to satisfy its obligations under NEPA and provisions of the TCA that expressly disavow any implied preemptive effect, Congress has conferred authority upon another agency to issue preemptive radiation standards for consumer products. Under the Radiation Control for Health and Safety Act of 1968, Congress directed the FDA to "by

regulation prescribe performance standards for electronic products to control the emission of electronic product radiation from such products if [the FDA] determines that such standards are necessary for the protection of the public health and safety." 21 U.S.C. § 360kk(a)(1). If the FDA issues such regulations, they preempt conflicting state and local standards. *Id*. § 360ss. The FDA, however, has never issued regulations prescribing standards applicable to cell-phone RF radiation.

B. The FCC's NEPA Guideline Has No Preemptive Effect.

The FCC's RF radiation guideline does not impose a substantive standard on wireless phones. Rather, as just explained, 47 C.F.R.§ 2.1093(c) states the level of RF radiation a cell phone can emit without triggering the FCC's NEPA obligation to evaluate the device's environmental effect before authorizing the device for sale. The FCC issued the standard, not to impose a substantive obligation on companies, but "[t]o meet its responsibilities under NEPA." 11 F.C.C.R. at 15124; *see* 47 C.F.R. § 2.1093(a); FCC, Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation, 12 F.C.C.R. 13494, 13499 (1997).

Accordingly, if a company applies for authorization to sell a cell phone that does not meet the standard, FCC regulations do not require the FCC to reject the application or the company to change its product. They require only a NEPA analysis before the application can be granted. Similarly, meeting the standard does not mean a phone is in compliance with a substantive federal requirement; it means only that the agency does not have to take the procedural steps required by NEPA before it acts on the application.

Although manufacturers have generally chosen to stay within the level stated in the guideline to avoid the requirement of a NEPA analysis, the regulation is, nonetheless, a NEPA regulation. NEPA "does not mandate particular results" but "imposes only procedural requirements on federal agencies." *Dep't of Transp. v. Pub. Citizen*, 541 U.S. 752, 756 (2004) (internal quotation marks omitted); *accord Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989). Because NEPA regulates only federal agency procedure, it does not preempt substantive state and local laws. *See* Newman, *A Consideration of Federal Preemption in the Context of State and Local Environmental Regulation*, 9 UCLA J. Envtl. L. & Pol'y 97, 107 (1990).

San Francisco has not challenged the FCC's NEPA rules or interfered with the environmental analyses the federal government conducts before it approves cell phones. It seeks only to provide information to consumers—a matter the FCC's RF guidelines do not address—and, as explained above, that information is *consistent* with messages on the FCC's and FDA's own websites. Because NEPA has no preemptive effect and the adequacy or effectiveness of the FCC's NEPA standards is not implicated by San Francisco's action, the ordinance is not preempted by the FCC regulation.

C. The TCA Expressly Disclaims Any Implied Preemptive Effect.

The FCC's authority to issue the RF guideline for cell phones derives from the Communications Act's delegation of authority to regulate radio communications, but the Communications Act does not "in any way abridge or alter" common-law or statutory remedies. 47 U.S.C. § 414. The FCC's authority is also based on the TCA's direction that the FCC complete its then-pending RF rulemaking, but Congress limited the express preemptive effect of that rulemaking to state laws concerning the location or construction of facilities. *Id*. § 332(c)(7)(B)(iv). Moreover, Congress stated, in a provision entitled "No Implied Effect,"

that the TCA "shall not be construed to modify, impair, or supersede Federal, State, or local law unless expressly so provided." TCA § 601(c)(1), 47 U.S.C. § 152 note.

Section 601(c)(1) "precludes a reading that ousts … state [law] by implication." *AT&T Commc'ns of Ill. v. Ill. Bell Tel. Co.*, 349 F.3d 402, 410 (7th Cir. 2003). The Fourth Circuit has similarly held that § 601(c) "counsel[s] against any broad construction of the goals of [the relevant statutory provisions] that would create an implicit conflict with state … law." *Pinney v. Nokia, Inc.*, 402 F.3d 430, 458 (2008). *But see Farina v. Nokia, Inc.*, 625 F.3d 97, 131 (3d Cir. 2010) (noting that "it is conceivable that § 601(c)(1) could be dispositive," but holding that "a savings provision does not 'bar the ordinary working of conflict pre-emption principles'") (citation omitted). For this reason, as well as because San Francisco's ordinance does not challenge the FCC's RF radiation standard and because NEPA regulations have no preemptive effect, the ordinance is not preempted.

CONCLUSION

For the foregoing reasons, the district court's decision upholding San Francisco's fact-sheet requirement should be affirmed.

Respectfully submitted,

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February 1, 2012

CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME, TYPEFACE AND TYPE STYLE REQUIREMENTS

I hereby certify that this brief complies with the type-volume limitation of Fed. R. App. P. 32(a)(7)(B) because it contains 6,982 words. I further certify that this brief complies with the typeface requirements of Fed. R. App. P. 32(a)(6) because it was prepared in a proportionally spaced, 14-point typeface, Century Schoolbook BT, using Microsoft Word 2010. This file has been scanned for viruses before being submitted through the ECF system.

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Scott. L. Nelson

CERTIFICATE OF SERVICE

I hereby certify that on February 1, 2012, I filed the foregoing brief with the Clerk of the Court for the United States Court of Appeals for the Ninth Circuit using the appellate CM/ECF system. All parties in the case are represented by registered CM/ECF users and will be served by the appellate CM/ECF system.

February 1, 2012

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