

COMMONWEALTH OF MASSACHUSETTS
SUPREME JUDICIAL COURT

No. SJC 13797

Courtney Gilardi, Charlie Herzig, Judy Herzig, Mark Markham, Angela
Markham, and Elaine Ireland

Plaintiffs/Appellants,

v.

Roberta Orsi, Brad Gordon, Kimberly Loring, Dr. Jeffry Leppo, collectively the
Pittsfield Board of Health

Defendants/Appellees

BRIEF OF THE PLAINTIFFS/APPELLANTS

Courtney Gilardi, Charlie Herzig, Judy Herzig, Mark Markham, Angela
Markham, and Elaine Ireland

PAUL REVERE, III,
BBO #636200
LAW OFFICES OF PAUL REVERE, III
226 RIVER VIEW LANE
CENTERVILLE, MASSACHUSETTS 02632
(508) 237-1620
revereiii@aol.com

W. SCOTT MCCOLLOUGH
PRO HAC VICE
MCCOLLOUGH LAW FIRM PC
2290 GATLIN CREEK RD.
DRIPPING SPRING, TEXAS 78620
(512) 633-3498
wsmc@dotlaw.biz

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CORPORATE DISCLOSURE STATEMENT

A Corporate Disclosure Statement is not required under Supreme Judicial Court Rule 1.21 because no Appellant is a corporate party.

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STATEMENT OF ISSUES

1. The Superior Court erred in its application of the rules for deciding a motion for judgment on the pleadings because it did not accept all of Plaintiffs' pleaded facts as true, draw every reasonable inference in favor of the Plaintiffs or take full account of the uncontested evidence in the record.
2. The Superior Court erred by allowing the motion because the Defendants did not carry their burden of proving a substantial obstacle to the attainment of the purposes or objectives underlying 47 U.S.C. Title III or any Federal Communications Commission rule arises when a board of health complies with state law by commanding a wireless provider to appear and show cause why it should not be required to abate activity that the board has directly found – based on extensive evidence – is injurious, life-threatening and renders homes uninhabitable.

STATEMENT OF CASE

This is an appeal of a judgment of the Berkshire Superior Court entered on October 3, 2024, which granted judgment on the pleadings in favor of the Defendants/Appellees (“Defendants”) Roberta Orsi, Brad Gordon, Kimberly Loring, Dr. Jeffrey Leppo, collectively the Pittsfield Board of Health (“Board”). Appendix (“A.”) at 361 (Decision) and 370 (Judgment). The Plaintiffs/Appellants Courtney Gilardi, Charlie Herzig, Judy Herzig, Mark Markham, Angela Markham,

and Elaine Ireland (“Plaintiffs”) have appealed that judgment. A. at 371 (Notice of Appeal).

STATEMENT OF FACTS

This lawsuit is about a cluster of seriously injured Pittsfield residents. Several families, including multiple sickened children, were constructively evicted because their homes are uninhabitable. Others have nowhere to go so they suffer in a toxic home environment. A. at 30-34 (Complaint ¶¶16-27).

A Verizon cell tower went active on August 4, 2020 in the “Shacktown” neighborhood in Pittsfield. Soon thereafter at least 17 residents began to suffer serious health problems, including headaches, sleep problems, heart palpitations, tinnitus (ringing in the ears), dizziness, nausea, skin rashes and memory and cognitive problems. A. at 30-34 (Complaint ¶¶16-27). After receiving many complaints, the Pittsfield City Council asked the Board to investigate and report back to the City Council with its findings as well as any remedies. A. at 34 (Complaint ¶28).

The Board conducted an exhaustive investigation¹ over 18 months. On April 11, 2022, it issued an “Emergency Order Requiring That Pittsfield Cellular Telephone Company, d/b/a Verizon Wireless, And Farley White South Street, LLC,

¹ The entire record of proceedings below contains over 600 items and comprises more than 20,000 pages. A. at 166.

Show Cause Why The Pittsfield Board of Health Should Not Issue A Cease And Desist Order Abating A Nuisance At 877 South Street Arising From The Operation Of A Verizon Wireless Cell Tower Thereon And Constituting Immediate Order Of Discontinuance And Abatement If No Hearing Is Requested” (“Show Cause Order”). A. at 66. The Show Cause Order contained extensive findings of fact and exhaustively listed the medical and scientific information and other evidence the Board considered and relied upon for its conclusions. Paragraph 24 (A. at 76) found that “[t]he evidence shows that involuntary Radio Frequency Radiation (“RFR”) exposure directed upon Shacktown residents in their homes has effectively evicted several residents injured by pulsed and modulated RFR; they have no choice but to leave. Pulsed and modulated RFR from the Verizon Wireless 877 South Street wireless facility has rendered their homes uninhabitable – unfit for human habitation – because the continued exposure causes them severe pain, unable to function, and endangers and materially impairs their health and safety.” The next paragraph (A. at 77) concluded, in pertinent part, that “there is a cluster of illness around the Verizon Wireless 877 South Street wireless facility that is caused by the facility’s operation.” The Board applied the evidence, then found injury and expressly identified the cause: the tower had caused and was still responsible for a significant adverse and still-ongoing health event with at least 17

injured people. These Board findings are not contested on appeal and must be assumed true.

The Board then, consistent with state law mandates, ordered Verizon to appear within seven days and show cause why it should not be required to eliminate the identified harms. The Show Cause Order went on to provide that if Verizon did not appear or request a hearing the order would be converted into a notice of discontinuance. A. at 79-80.

The Board issued the order to provide an incentive for Verizon to meaningfully engage at the administrative level and collaborate with the affected parties to find a solution. A. at 300 (Opposition to Renewed Motion to Dismiss Exh. 3). The “action” reflected an effort to mediate an end to the crisis, not to regulate or prohibit.² There may be some simple adjustments that could resolve this short of turning down the tower.

Verizon did not appear or otherwise exhaust administrative remedies. Instead, fifteen days after the Show Cause Order, it filed suit in federal court. The Verizon federal complaint did not contest any of the factual findings or legal conclusions, but, rather, sought a declaratory judgment that that the Board’s state

² As explained below, even if the effect was a form of “regulation” the Defendants did not carry their burden of showing that federal law preempts Massachusetts health board actions consistent with state law mandates to eliminate life-threatening illnesses identified after investigation.

law authority to eliminate the threats to public health it had found was expressly preempted. A. at 37 (Complaint ¶36); A. at 134 (Verizon raises only express preemption). The action was not an administrative appeal in the nature of certiorari pursuant to state law.

The City Solicitor agreed with Verizon's preemption argument and convinced the City Council it should not act on the Board's request for outside counsel to defend the Verizon action. A. at 49-54 (Complaint ¶¶57-61, 66-67). This rendered the Board defenseless, so on June 1, 2022 the Board rescinded the Show Cause Order under duress. Verizon promptly withdrew its federal case. A. at 49-46 (Complaint ¶¶57-60, 63-71). Plaintiffs then timely brought this action as a state law appeal in the nature of certiorari. A. at 28 (Complaint ¶1).

Plaintiffs filed suit against the Board and its members in their official capacity because it was their coerced action rescinding the Show Cause Order, thereby allowing the health emergency and constructive eviction to continue, that led to the need for judicial review. But to be clear, Plaintiffs' true disagreement lies with others. The Board dedicated enormous energy and attention to this illness cluster event. They spent an extraordinary amount of time and effort collecting evidence and studying the extant science and medical information and reached the right conclusions. The Board then tried to get Verizon to engage in a collaborative effort to resolve the problem, but Verizon would not engage. The Show Cause

Order turned into an order to shut down only because Verizon did not respond by the deadline and then filed suit in federal court against the Board. The Board was denied counsel and, thus defenseless, had to rescind the Show Cause Order. Plaintiffs filed the certiorari action below, asserting the coerced rescission was unlawful on various grounds. A. at 28-64 (Complaint).

Plaintiffs ended up having to reconstruct the administrative record for reasons not pertinent to this appeal. During the parties' discussions relating to this assemblage it became apparent that the preemption issue was potentially dispositive, so they agreed to first compile a much more limited and stipulated administrative record relating to that topic alone and present that issue for judgment on the pleadings.³ A. at 165-171 (Motion), 172 (Minute Entry).

The Defendants moved to dismiss based on preemption. They raised express and obstacle conflict preemption, but not field preemption or "impossibility" conflict preemption. A. at 173-204. Defendants chose to not designate any portion of the record or supply any kind of evidence to support their preemption arguments. Plaintiffs offered four pieces of evidence that were relevant to the preemption claims. Three (Exhs. 1-3, A. at 225-273, 274-298, 299-300) were from

³ The administrative record, even when limited by agreement, is evidence but it is also part of the pleadings. Superior Court Standing Order 1-96.2, 4, 5. This is what allows "on the record" administrative review cases to be disposed through a motion for judgment on the pleadings rather than having to await summary judgment.

the administrative record. One (Exh. 4), A. at 301-305) was an excerpt from the legislative history of the Telecommunications Act of 1996 and therefore judicially cognizable and proper for use as part of a motion for judgment on the pleadings. Plaintiffs then addressed each of the Defendants’ legal arguments by showing that neither express nor obstacle conflict preemption stood in the way of the Board’s efforts.

The Superior Court issued its decision on September 4, 2024. A. at 361-369. The lower court purported to grant the Defendants’ motion on as to “obstacle conflict preemption” only. A. at 366,⁴ 368.⁵

Plaintiffs are now before this Court seeking to vindicate local health boards’ essential, *independent* and state-law role in health matters. The ultimate issue is whether the lower court erred by finding the Board – and by extension the state laws pursuant to which it was acting – are conflict preempted. If this Court grants the requested relief the matter will be put back in the Board’s capable hands, where it belongs.

SUMMARY OF ARGUMENT

⁴ “With these background principles in mind, the court concludes the Board's issuance of the Order impairs the goals of the TCA and conflicts with the TCA's careful allocation of authority between the FCC and state and local governments.”

⁵ “The court's decision is premised on obstacle conflict preemption, ...”

The Defendants raised and the Superior Court found in favor of federal “obstacle conflict” preemption. What got lost along the way is that preemption is an *affirmative defense*, which means the Defendants had the burden of both proof and persuasion. But they proffered no evidence to support their claims of conflict. They did not cite any Federal Communications Commission (“FCC”) rule that would be frustrated by the Board’s Show Cause Order. They offered no facts showing how Verizon’s appearance and participation in good-faith efforts to end the local suffering would present an obstacle to any federal purpose or objective. They merely relied on conjecture and hypothetical future actions by other parties.

A mere order to appear and show cause cannot conceivably threaten network disruption. Telling Verizon to show up and talk *increases* communication. Indeed, there is **no evidence** that even an order to turn off this tower would threaten Verizon’s ability to provide service in the area. The Defendants had the burden of proving it would, and they offered nothing.

The Superior Court’s decision rests on conflict preemption but operates like field preemption because it has the effect of completely removing the Board (indeed all state and local authorities) from any role. It means no Massachusetts health board can touch a matter directly related to health even after it has concluded – based on extensive evidence – that a wireless facility is making people deathly ill. Local health boards are not the only affected bodies. The true effect is

that Massachusetts' health and safety laws cannot be applied to wireless matters. No state or local health authority can protect Massachusetts citizens if the matter involves personal wireless service. The court below purported to apply (and as shown below misapplied) obstacle conflict preemption principles. However, the decision results in field preemption even though most of the decisions the Superior Court it relied on stated that Congress never intended the Communications Act to field preempt, at least in pertinent part.

The Superior Court erred by applying the wrong standard for motions for judgment on the pleadings. It did not accept all of Plaintiffs' averments as true, take proper account of the evidence or draw all inferences in Plaintiffs' favor. The lower court also failed to follow directly applicable preemption precedent. There is no evidence supporting obstacle preemption; the only evidence demonstrates there is no interference with any Congressionally intended private right against state or local action and, more generally, no obstacle to attainment of any federal purpose or objective.

ARGUMENT

A. Standard of Review

This matter involves a motion for judgment on the pleadings pursuant to Mass. R. Civ. P 12(c). This Court reviews a grant of a motion for judgment on the pleadings *de novo* with no deference to the trial court ruling. *Boston Clear Water*

Co., LLC v. Town of Lynnfield, 100 Mass. App. Ct. 657, 660 (2022) (*citing Merriam v. DeMoulas Super Mkts., Inc.*, 464 Mass. 721, 726 (2013)).

The court must “‘accept as true’ ‘all facts pleaded by the nonmoving party’ and ‘draw every reasonable inference in [that party’s] favor’ to determine whether the ‘factual allegations plausibly suggest[]’ that the nonmoving party is entitled to relief.” *Barron v. Kolenda*, 491 Mass. 408, 415 (2023), *quoting Mullins v. Corcoran*, 488 Mass. 275, 281 (2021) and *UBS Fin. Servs., Inc. v. Aliberti*, 483 Mass. 396, 405 (2019).

B. Issues Common to All Points

Plaintiffs raise two points on appeal. The first relates to the Superior Court’s failure to follow the basic rules attendant to motions for judgment on the pleadings. The second demonstrates the lower court’s error in failing to apply binding precedent relating to federal preemption. Both points, however, have a common nucleus of facts and principles. This portion of the brief will address them together and then apply to each discrete point of error.

1. Local Health Boards’ Historical and Statutory Role

Boards of Health derive their authority from Massachusetts General Laws and state regulations. They are responsible for disease prevention and control, health and environmental protection and, ultimately, supporting a healthy community in their area. These boards serve as the local arm of both the

Massachusetts Department of Public Health and Department of Environmental Protection. They enforce the Commonwealth's health policies to maintain minimum standards, especially regarding housing and food, and ensure that the basic health needs of their community are met.

Local health boards, unlike many other municipal or regional commissions and agencies, directly derive their powers and duties through state law. They are an "agent" of the State. *Bd. of Health v. Mayor of N. Adams*, 368 Mass. 554, 567-68 (1975) citing *Breault v. Auburn*, 303 Mass. 424, 427-428 (1939); *Gibney v. Mayor of Fall River*, 306 Mass. 561 (1940) and *Malden v. MacCormac*, 318 Mass. 729 (1945); *Daddario v. Pittsfield*, 301 Mass. 552, 558 (1938), citing *Cox v. Segee*, 206 Mass. 380, 382 (1910) and *Wood v. Concord*, 268 Mass. 185, 190-191 (1929).

G.L. c. 111 ss122-152⁶ and the state Sanitary Code,⁷ grant independent powers and impose specific duties on the Board. Under state law if, "in its opinion," something is "injurious to the public health" the Board "shall destroy, remove or prevent the same as the case may require." G.L. c. 111 s. 122 (emphasis added). G.L. c. 111 s. 123 provides that upon a nuisance determination the board shall order the owner to remove the nuisance. This is mandatory, not discretionary, language given the employment of the term "shall" in combination with other

⁶ See especially G.L. c. 111 ss 122, 123, 124, 125, 127I, 130, 143, 152.

⁷ See especially 105 C.M.R. 410.001, 410.002, 410.500.

sections within Chapter 111 that use “may” when the intent was to allow discretion. *See, e.g.*, G.L. c. 111 s. 152 (noxious and offensive trades). If the Board finds a threat to public health, then it is required to act and, when enforcing the state Sanitary Code, its procedure for enforcement including service and requiring hearings are governed by state regulations.⁸

In other words, state law commands that a local health board take affirmative administrative action once it finds a health injury. This is so even if the activity in issue has received local land use approval for that activity. *P & D Svc. Co., Inc. v. Zoning Bd. of Appeals of Dedham*, 359 Mass. 96, 104 (1971) (Health Board nuisance order independent of land use permit); *Waltham v. Mignosa*, 327 Mass. 250, 253 (1951) *citing Building Commissioner of Medford v. C. & H. Co.*, 319 Mass. 273, 282, 286 (1946) (“the fact that a trade or employment is permitted under such [zoning] laws does not mean that it need not also comply with valid orders and regulations of a board of health”); *Marshall v. Holbrook*, 276 Mass. 341, 348 (1931) (“If there are reasons apart from the zoning law why the business may not be legally carried on in the district, the zoning law furnishes no protection to it.” A permittee gains “no right so to operate his plant as to create a nuisance to the injury of” others).

⁸ *See especially* 105 C.M.R. 410.650, 410.670, 410.800, 410.810, 410.830.

The Superior Court found it objectionable that Verizon had obtained a land use permit but was then confronted by a health issue. A. at 368.⁹ But that is exactly what the courts found *unobjectionable* in *P & D Svc. Co., Waltham, Building Commissioner* and *Marshall*. Those decisions properly recognized that zoning administration and health administration are different functions performed by two separate bodies. A permitting decision by a municipal zoning authority does not preclude a health board's subsequent enforcement of state health and safety laws. The Board has a state-imposed mandatory and overriding duty to take administrative action once it finds a nuisance or health injury, even if the violator has a land use permit.

This part of the Superior Court decision then cites a portion of an FCC order that is merely quoting the comments by the parties to that proceeding and is not part of the actual decision. *Procedures for Reviewing Requests for Relief From State and Local Regulations Pursuant to Section 332(c)(7)(B); Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation*, 12 FCC Rcd 13494, 13527 (1997). This portion of that order was addressing requests for reconsideration of a prior order. 12 FCC Rcd at 13525, ¶80. The actual decision on the issue appears in a subsequent paragraph. 12 FCC Rcd at 13529, ¶88. The FCC

⁹ “A locality could dutifully follow the law by ensuring it does not prevent the siting and construction of a tower on the basis of such emissions, yet turn around and prevent its operation on the same basis.”

denied reconsideration and retained the originally adopted rule appearing at 47 C.F.R. §1.1307(e). That rule merely “incorporate[d] the provisions of Section 704 of the Telecommunications Act.” *Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation*, 11 FCC Rcd 15123, 15183, ¶166 (1996). The FCC rule does no more than restate 47 U.S.C. §332(c)(7)(iv) so the wording in the FCC order cited by the Superior Court adds nothing.

2. Superior Court Misapprehended Board’s Purpose and Intent

The Board did not seek to enforce the order in court. The Board did not intend to sue for enforcement, at least initially; the goal was to have Verizon appear in the administrative proceeding and engage in collaborative problem-solving at the administrative level. A. at 67 (Complaint ¶67), 300 (Opposition to Renewed Motion to Dismiss Exh. 3).

The Board’s municipally assigned counsel abandoned their client to side with Verizon. Counsel, on behalf of the Board (but despite its wishes), have contended that federal law entirely eliminates health boards’ role *over health matters* if a wireless company is somehow involved. Counsel for the Board insist that the Commonwealth’s health and safety laws governing health boards cannot be applied to wireless matters. Like the Superior Court, Counsel for the Board express remorse but stick with the notion that wireless companies have federally issued licenses to kill and there is nothing any Massachusetts authority can do about it.

The Board found different. The Show Cause Order rejected the preemption argument (A. at 78) and lays out all the reasons for the finding of harm and causation. Even while rescinding the Show Cause Order under duress, all voting members reaffirmed the finding of harm, causation and desire to act. A. at 55 (Complaint ¶70). They were coerced into rescission but stand by ready to take up the mantle if allowed to proceed.

3. Precedent on Preemption as Applied to This Case

There are three different preemption types: “express,” “conflict,” and “field.” *Murphy v. Nat’l Collegiate Athletic Ass’n*, 584 U.S. 453, 477 (2018).

Express preemption occurs “when congressional intent to preempt state law is made explicit in the language of a federal statute.” *Tobin v. Fed. Exp. Corp.*, 775 F.3d 448, 452 (1st Cir. 2014). Conflict preemption arises when state law imposes a duty that is “inconsistent – *i.e.*, in conflict – with federal law.” *Murphy*, 584 U.S. at 477. There are two kinds of conflict preemption. “Impossibility” conflict occurs when it is impossible for a private party to comply with both State and Federal requirements,¹⁰ whereas “obstacle” conflict applies where State law stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress. *Marsh v. Massachusetts Coastal Railroad LLC*, 492 Mass. 641, 648

¹⁰ The Defendants did not assert, and the Superior Court did not rule that impossibility obstacle preemption applies.

(Mass. 2023) (quote marks and citations cleaned up). Finally, field preemption is when federal law occupies a field of regulation “so comprehensively that it has left no room for supplementary state legislation.” *Murphy*, 584 U.S. at 479; *Marsh*, 492 Mass. at 648.

The Supreme Judicial Court has well-established precedent on the test for federal or state preemption, including in relation to local health boards and the state Department of Public Health.¹¹ The case law is clear that Defendants, not Plaintiffs, had the burden of proof on the preemption issue since it is an affirmative defense. *Merck Sharp & Dohme Corp. v. Albrecht*, 587 U.S. 299, 313 (2019); *Bruesewitz v. Wyeth LLC*, 562 U.S. 223, 251 & n.2 (2011). “To support a claim of preemption, the defendants are ‘required to prove their case with hard evidence of conflict, and not merely with unsupported pronouncements as to [Federal] ‘policy.’”¹² *Grocery Mfrs. of Am., Inc. v. Department of Pub. Health*, 379 Mass. 70, 81-82 (1979). The most pertinent precedent is *Arthur D. Little v. Commissioner of Health of Cambridge*, 395 Mass. 535, 545-552 (1985). “Preemption is not favored,

¹¹ The test for whether state law preempts local board authority is similar to that for federal preemption. *See Six Brothers, Inc. v. Brookline*, 493 Mass. 616, 619, 623-633 (2024) (no state-level preemption of town health-related bylaw, relying on health board precedent and requiring “sharp conflict”).

¹² *See also, Roberts v. Sw. Bell Mobile Sys.*, 429 Mass. 478 (1999), involving wireless company claimed preemption as to zoning matters. The First Circuit uses the same presumption. *Pub. Int. Legal Found., Inc. v. Bellows*, 92 F.4th 36, 51 (1st Cir. 2024), *quoting Medtronic, Inc. v. Lohr*, 518 U.S. 470, 485 (1996).

and State laws should be upheld unless a conflict with Federal law is clear.” ...

“The [one claiming preemption] is obligated to show preemption ‘with hard evidence of conflict’¹³ on the basis of the record evidence in this case.”¹⁴ ... “This court, and the United States Supreme Court, have been particularly reluctant to overturn State laws which are ‘deeply rooted in local feeling and responsibility.’

This principle applies with special force to laws designed to protect the public health and welfare, a subject of ‘particular, immediate, and perpetual concern’ to any municipality.” 395 Mass. at 545-546 (citations omitted). “In preemption analysis, courts should assume that ‘the historic police powers of the States’ are not superseded ‘unless that was the clear and manifest purpose of Congress.’” *Little*, 395 Mass. at 549, *citing Rice v. Santa Fe Elevator Corp.*, 331 U.S. 218, 230 (1947).¹⁵ “The States traditionally have had great latitude under their police powers to legislate as ‘to the protection of the lives, limbs, health, comfort, and quiet of all persons.’” *Little*, 395 Mass. at 546. The First Circuit has repeatedly cautioned that

¹³ Conjectural arguments do not win the day, nor do “domestic domino” theories based on a hypothetical future chain of events. *Little*, 395 Mass. at 547-548.

¹⁴ The First Circuit also agrees that the party claiming preemption has the burden of proving preemption. *Maine Forest Prods. Council v. Cormier*, 51 F.4th 1, 6 (1st Cir. 2022).

¹⁵ This “...rule of construction rests on an assumption about congressional intent: that Congress does not exercise lightly the extraordinary power to legislate in areas traditionally regulated by the States.” *Arizona v. Inter Tribal Council of Ariz., Inc.*, 570 U.S. 1, 13 (2013).

“[p]reemption is strong medicine, not casually to be dispensed.” *Grant’s Dairy--Maine, LLC v. Comm’r of Maine Dep’t of Agric., Food & Rural Res.*, 232 F.3d 8, 18 (1st Cir. 2000); *Brown v. United Airlines, Inc.*, 720 F.3d 60, 71 (1st Cir. 2013) (same). “[A] high threshold must be met if a state law is to be preempted for conflicting with the purposes of a federal Act,” *Whiting*, 563 U.S. at 607 (internal quotation marks and citation omitted).

“[R]egardless of the language sometimes used by Congress and this Court, every form of preemption is based on a federal law that regulates the conduct of private actors, not the States.” *Murphy*, 584 U.S. at 479. When the claimed preemptive laws or regulations purport to restrict state or local action, the direct focus is not how the federal law “regulates” state conduct; rather it is about claimed federal rights granted to private actors. In other words, one must first determine if there is a federally granted private right of exemption from local regulation. Only then can judicial findings be made whether a particular state or local action is foreclosed. The issue is whether the private party has a federally granted “right to be free” from a specific state or local requirement. *Id.*, citing *Arizona v. United States*, 567 U. S. 387, 401 (2012). This is an important point missed by the court below. The Superior Court appears to have considered only whether the Board’s involvement implicated an area where the FCC has authority,

not whether the Communications Act or any FCC rule gives wireless providers a “right to be free” from supposedly conflicting state requirements.

4. The Communications Act and FCC Regulations Require Licensees to Emit the Minimum Power Necessary; There is No Evidence Verizon Cannot Reduce Exposures While Still Maintaining Adequate Service

There is no doubt the FCC has authority over these issues. The question is whether state law touching in the this area is preempted. 47 U.S.C. §303(e) authorizes the FCC to “[r]egulate the kind of apparatus to be used with respect to its external effects and the purity and sharpness of the emissions from each station and the apparatus therein.” But this does not give the station operator the right to be free” from other state or local regulations bearing on the same topic. 47 U.S.C. §301 says that no federal license for radio communication “shall be construed to grant any right, beyond the terms, conditions and periods of the license.” In this case the question must be whether *Verizon’s licenses* grant it a “right to be free” from state-level health and safety regulation that does not threaten its ability to provide adequate service.

Each station license must “set forth” “the ownership and location of the proposed station and of the stations, if any, with which it is proposed to communicate; the frequencies and the power desired to be used; the hours of the day or other periods of time during which it is proposed to operate the station; the purposes for which the station is to be used; and such other information as [the

Commission] may require.” 47 U.S.C. §308(b). 47 U.S.C. §319(a) (Construction permits) has the same wording. Verizon’s licenses and permits are not in evidence, nor is there any evidence of the rights they convey. We do not know, for example, what Verizon’s federal licenses (Radio Station Authorizations) say about emissions.

The Second Circuit noted in *Sprint Spectrum L.P. v. Mills*, 283 F.3d 404, 421 (2d Cir. 2002) that “so far as we are aware, nothing in the law requires a communications company to operate at the FCC Guidelines maximum permissible radiation exposure levels.” It was correct. The FCC “maximum permitted exposure” limits in 47 C.F.R. §1.1310 represent a *ceiling* but not a *floor*. The floor is the minimum level of power the Defendants need to reasonably operate their service. 47 U.S.C. §324 *requires* that “all radio stations” “shall use the minimum amount of power necessary to carry out the communication desired.” (emphasis added). The FCC’s rules *require* that fixed, mobile and portable stations use the “minimum necessary for successful communications.” *See, e.g.*, 47 C.F.R. §§2.106(b)(136), 2.106(b)(143), 15.15(c), 24.232(c), 27.50(a)(2), 27.50(a)(3)(iii), 27.50(d)(4), 27.50(j)(3), 96.39(c). The federal mandate is operation at the floor unless service requirements demand higher exposures up to the ceiling. Indeed, no FCC rule requires that wireless providers deliver service delivery in any place at

any specific level of quality or power.¹⁶ They have a license to operate up to the maximum but only when necessary for successful communications. Otherwise, the statute and rules require them to use “minimum” power.

Defendants presented no evidence indicating, and the lower court did not find that Verizon could not mitigate the harm while still maintaining adequate service to users in Shacktown or doing so would be inconsistent with the terms of its license or any FCC rule. Simply put, the Defendants failed to adduce any “sharp evidence of conflict,” and the court below did not find any.

5. Superior Court Relied on Generalities and Hypotheticals

Rather than focusing on whether the Health Board’s involvement interfered with any of Verizon’s private rights, the court below engaged in an improper “freewheeling judicial inquiry into whether [the Board’s action] is in tension with federal objectives.” *But see, Chamber of Com. of U.S. v. Whiting*, 563 U.S. 582, 607 (2011) (*quoting Gade v. Nat’l Solid Wastes Mgmt. Ass’n*, 505 U.S. 88, 111

¹⁶ 47 C.F.R. §27.14(g) does require that service using the 700 MHz band be provided over at least 70% of the geographic area covered by a license, which can often be several hundred square miles. The service delivery metric does have a minimum average signal strength and data rate. There are similar rules for other frequency ranges subject to auction. But no rule for any frequency band relevant here requires service to specific locations, and no rule mandates a particular level of service quality to any individual location or small area such as in and around the Plaintiffs’ homes.

(1992)). The case law advises that this sort of endeavor “would undercut the principle that it is Congress rather than the courts that pre-empts state law.”

The decision below also fails to adequately define what the “significant objective” is that the Health Board’s involvement truly thwarts. *C.f.*, *Williamson v. Mazda Motor of Am., Inc.*, 562 U.S. 323, 330 (2011). “[I]t is necessary to look beyond general expressions of ‘national policy’ to specific federal statutes with which the state law is claimed to conflict.” *Commonwealth Edison Co. v. Montana*, 453 U.S. 609, 634 (1981) (citation omitted). “Viewed at a high level of generality, every provision in a statute will relate to its overarching purpose. The real question is whether the alleged statutory violation is among the concrete harms Congress enacted the law to remedy.” *Thorne v. Pep Boys Manny Moe & Jack Inc.*, 980 F.3d 879, 892 (3d Cir. 2020). The Defendants had to show that the state law would do “major damage” to “clear and substantial federal interests.” *See McHenry Cnty. v. Kwame Raoul*, 44 F.4th 581, 591 (7th Cir. 2022) (*quoting C.Y. Wholesale, Inc. v. Holcomb*, 965 F.3d 541, 547 (7th Cir. 2020)).

The only claimed “objective” identified by the Superior Court was an abstract need for “uniformity.” A. at 365, 368. But neither the Defendants nor the lower court explained how reducing exposures to only that required to carry desired communications in this one location threatens uniformity since the Communications Act and FCC rules require that everywhere. *See* part B.4. There is

no evidence that Verizon’s service quality here or anywhere would be affected. Nor is there any evidence that Verizon’s network today is actually “uniform” or must be. Defendants produced none. Verizon’s wireless network, just like all others, is in fact not uniform at all. Wireless infrastructure will vary in any given market based on a host of factors, including terrain,¹⁷ population density¹⁸ and the capabilities and reach of the specific frequencies the licensee is authorized to use for service.¹⁹ This demonstrates the caution in precedent warning against relying on general expressions of “national policy” for things like “uniformity” as part of preemption analysis. Hard facts showing actual sharp conflict in the specific context at hand are required, but none exist here.

¹⁷ “All else being equal, wireless network engineering principles indicate that greater variability of terrain in a given geographic area reduces the signal strength received by a mobile user, which requires wireless carriers to build more sites to provide the same quality of service (e.g., speed).” *Comment Sought on Adjustment Factor Values for the 5G Fund*, 35 FCC Rcd 5704, 5726, ¶18 (2020).

¹⁸ “...another important factor to account for is the effect of demand on cell site service areas. In less rural areas with higher mobile data demand, the size of the cell site service area required to meet the carriers’ minimum subscriber performance target may be determined by capacity constraints rather than signal propagation limitations. As a result, in areas of high demand, terrain may have almost no impact on the service area of a site since the site service area may already need to be quite small due to capacity limits...” *Adjustment Factor Values for the 5G Fund*, 35 FCC Rcd at 5727, ¶20.

¹⁹ “...Lower frequency spectrum can travel farther and better penetrate natural and other obstacles, which allows a carrier to cover a larger area with fewer sites absent capacity constraints.” *Adjustment Factor Values for the 5G Fund*, 35 FCC Rcd at 5730, ¶29.

6. The FCC Expressly Held That the States' Generally Applicable Health and Safety Laws Are Not Preempted

The FCC has ruled that generally applicable state and local health and safety laws are not preempted. A. at 78, citing *Broadband Deployment by Improving Wireless Facilities Siting Policies*, 29 FCC Rcd 12865, 12943-12956, 12951, 12962 (October 21, 2014). See also *Implementation of State & Local Governments' Obligation to Approve Certain Wireless Facility Modification Requests*, 35 FCC Rcd 5977, 5989, 5999 (2020). Verizon's land use permit accordingly conditioned approval on compliance with Massachusetts health and safety laws. A. at 78-79. The Board was not newly eliminating any right held by Verizon; it was merely enforcing permit terms allowed by the FCC that Verizon voluntarily accepted.

7. Savings Clauses Inconsistent with Result

The lower court did not deal with or even mention the savings clauses in the Communications Act. Pub. L. 104–104, title VI, § 601(c)(1), Feb. 8, 1996, 110 Stat. 143²⁰ and 47 U.S.C. §414.²¹ Several courts have relied on these savings clauses for their conclusion that Congress did not intend to “field preempt” all

²⁰ “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.” The 1996 savings clause is not codified in the United States Code but is included as part of the notes to 47 U.S.C. §152.

²¹ “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.”

communications matters and did leave many issues to state and local authority and law. Savings provisions are “fundamentally incompatible with complete field preemption; if Congress intended to preempt the entire field . . . there would be nothing . . . to ‘save,’ and the provision would be mere surplusage.” *NOS Commc’ns*, 495 F.3d 1052, 1058 (9th Cir. 2007); *See also Holk v. Snapple Beverage Corp.*, 575 F.3d 329, 338 (3d Cir. 2009); *Time Warner Cable v. Doyle*, 66 F.3d 867, 878 (7th Cir. 1995). The Superior Court distinguished field and obstacle conflict preemption in its Order on page 4 (A. at 364) yet its “obstacle conflict” operates like field preemption since it effectively declares that all Commonwealth health laws cannot be applied to wireless services. This is inconsistent with the savings clauses.

8. The Board Did Not Set a Different Standard, Perform Its Own Risk-Utility Analysis or Regulate Tower Operation

The lower court decision asserts that the “Board’s action in this case inescapably stems from the premise that the RF emissions standards set by the FCC are inadequate to protect public health and safety” (A. at 366) and claims that the Board’s action tries to “strike” a “different balance” in a way that would “upset the balance set by the FCC” (A. at 367). The court below concluded that the Board was performing its own “risk-utility analysis” and allowing a state entity to do that would “eradicate the uniformity necessary to regulate the wireless network.” A. at 368.

But the Board did not set a different standard. The action below was not a generally applicable regulation. It did not make a tort-like finding the tower is unreasonably dangerous, only that a discrete group of residents were being harmed, perhaps due to special sensitivities not present in the general population. Yes, it found that that “wireless radiation transmitted from cell towers can have adverse effects even when the pulsed and modulated RF emissions are significantly lower than the FCC’s emission guidelines” and “[c]ompliance with FCC emission limits does not ensure safety nor protection from all harm.” A. at 72 (Show Cause Order ¶13). The Board correctly observed that the FCC is not a health agency and “there is no federal regulatory agency with health expertise monitoring the published science, nor providing surveillance for health effects, nor measuring RF levels in the environment.” A. at 72.

A full reading of the Show Cause Order reasoning reveals that despite this background discussion the Board was not trying to set a general standard, devise some different balance or engage in a broad risk/utility analysis. That is rulemaking; this was an adjudication. The Board was focusing on *this tower* and *these Plaintiffs* and trying to deal with a specific health event caused by one actor. See, A. at 76-78. The Show Cause Order then observes (A. at 78) that the FCC’s emissions guidelines are for “general population purposes and do not take into account for the situation where, at least, certain individuals develop adverse

reactions such as those who experience electromagnetic sensitivity.” The Board concluded that the FCC’s guidelines “do not prevent this Board, operating under State authority, from taking action to protect the health and safety of those specific individuals who have demonstrated that a continuously operating cell tower built adjacent to a densely populated residential neighborhood is injuring their health on a continuing basis, as well as the health of other neighborhood residents.”²² The

²² The court in *G v. Fay Sch., Inc.*, 282 F. Supp. 3d 381, 394-396 (D. Mass., 2017) used a similar rationale in an ADA case:

The FCC thus considered risks to those with unusual sensitivity to electromagnetic radiation in the regulated spectrum and declined to craft regulation for such matters based on a lack of scientific consensus. Rather than precluding the possibility that a few individuals might be particularly sensitive to RF emissions below the established threshold, the FCC actually leaves the door open on this issue.

Defendants’ argument that this suit represents an illegitimate collateral attack on the FCC’s regulatory powers is without merit. When a plaintiff seeks accommodation under the ADA for an unusual sensitivity to RF, they no more attack the FCC’s general regulation of RF than a person seeking an accommodation for a peanut allergy attacks or undermines the FDA’s general powers to regulate the peanut butter industry.

...

The safety or otherwise of RF radiation clearly does lie at the heart of the tasks assigned to FCC by Congress in 47 U.S.C. §151, and it is likely true that FCC is better placed than this Court to determine the extent and nature of non-thermal effects of RF emissions to people generally, and to those who might be particularly sensitive to them. However, the FCC has previously decided that there was insufficient evidence to form a rule within their broad mandate to balance safety and commerce, and has, as yet, not updated that guidance. Moreover, given the balancing function assigned to the FCC under 47 U.S.C. § 151, the agency’s determination will not materially aid the Court here, where the matter is not the regulation of technology, but the mitigation of the

Board found support from the fact that the FCC itself has said its rules do not preempt “generally applicable state or local health and safety codes” like the ones the Board is charged with enforcing. A. at 78-79. *See* part B.6.

The Board was adjudicating, not making rules. It applied the evidence about an individual illness cluster to the commands of already existing state health laws and codes. But even then it tried to obtain a resolution short of a full shut-down. The purpose of the Show Cause Order was to “nudge Verizon into a discussion with a few people.” A. at 300. It is hard to see how discussion “nudges” violate any private rights or more generally present an obstacle conflict.

The lower court misapprehended the true nature of the Board’s efforts and action. It then compounded that error by not recognizing the Defendants’ abject failure to present “sharp evidence” of a conflict and finding conflict based on unsupported general pronouncements about perceived federal policy along with speculation and hypothetical “domino theories” about what other boards might do in the future. *See* parts B.3, B.5.

9. Savings Clauses Imply Congress Wants to Retain a Remedy

The Superior Court failed to address the impact of the Communications Act’s saving clauses on obstacle conflict preemption. *See* part B.7. A saving clause

impact of technology on a very small subset of the population that may have an unusual affliction mediated by RF radiation.

raises the inference that Congress did not intend to preempt state law. *Geier v. Am. Honda Motor Co.*, 529 U.S. 861, 871, 874 (2000). In *Geier*, the Supreme Court held that a state level effort to establish different safety *standards* was conflict-preempted notwithstanding a savings clause, but the clause reflected a congressional determination that some nonuniformity is permissible, including when “providing necessary compensation to victims.” *Geier*, 529 U.S. at 871.

The Supreme Court’s focus on remedies is important here. Savings clauses become far more meaningful when the federal law does not provide a substitute federal remedy for the state law remedy being contested for preemption. *Silkwood v. Kerr-Mcgee Corp.*, 464 U.S. 238, 251 (1984)²³; *see also id.* at 263-264 (Blackmun, J. dissenting)²⁴; *United Construction Workers v. Laburnum Construction Corp.*, 347 U.S. 656, 663-64 (1954)²⁵; *Rice v. Santa Fe Elevator*

²³ “It is difficult to believe that Congress would, without comment, remove all means of judicial recourse for those injured by illegal conduct.”

²⁴ “...because it is inconceivable that Congress intended to leave victims with no remedy at all, the pre-emption analysis established by *Pacific Gas* comfortably accommodates – indeed it compels – the conclusion that compensatory damages are not pre-empted whereas punitive damages are.”

²⁵ “Here Congress has neither provided nor suggested any substitute for the traditional state court procedure for collecting damages for injuries caused by tortious conduct. For us to cut off the injured respondent from this right of recovery will deprive it of its property without recourse or compensation.”

Corp., 331 U.S. 218, 230 (1947); *Pedraza v. Shell Oil Co.*, 942 F.2d 48, 54, n7 (1st Cir. 1991).²⁶

The personal injury cases cited in the decision below (A. at 367)²⁷ come from other states and circuits, and there is a circuit split on whether state tort law is preempted. The court below did not acknowledge the contrary holding in *Pinney v. Nokia, Inc.*, 402 F.3d 430 (4th Cir. 2005), *cert. den.* 546 U.S. 998. To date the Supreme Court has declined to resolve the circuit split. The First Circuit has not addressed this issue, nor has any federal district court in the circuit or any Massachusetts state court.

The cited cases are all distinguishable. *Robbins* involved a collateral attack on a zoning permit where one of the theories involved fears that the plaintiffs would suffer *future* injury.²⁸ *Farina* was a “failure to warn” case seeking damages and the matter was dismissed before any evidence was taken. None of the cited cases involved a health authority that did receive evidence, found individual injury and direct causation and then complied with a state law duty to act. None related to

²⁶ “It is noteworthy as well that OSHA provides no replacement remedy for workplace injuries, disease or death caused to employees by suppliers of products used in the workplace.”

²⁷ *Robbins v. New Cingular Wireless PCS, LLC*, 854 F.3d 315 (6th Cir. 2017); *Farina v. Nokia, Inc.*, 625 F.3d 97 (3d Cir. 2010), *cert. den.* 565 U.S. 928 (2011).

²⁸ *Robbins*, 854 F.3d at 322 (“The Residents, however, have suffered no actual damage; they merely allege harms from the planning board's decision (for which Kentucky law disallows collateral attack)).

a state authority's issuance of a "show cause" order to appear, where no monetary fines or damages are imposed. The *Farina* court found that the suit would impose a "different standard" which as explained in part B.8 is not what the Board action did. Finally, all the other obstacle preemption cases rest on a misreading of the FCC's exposure rules by wrongly assuming the limits grant an enforceable private right to emit up to the maximum at any or all times when that is simply not true. See part B.8. None of the other cases actually looked to see if there was an available and meaningful FCC remedy for individuals proven to have been harmed by a wireless company.

10. Plaintiffs Have No FCC Remedy

The lower court says the Plaintiffs must "raise their concerns directly with the FCC." A. at 369. The Superior Court's ruling assumes that the Communications Act and FCC rules provide a venue for relief to people injured by a cell tower. This assumption is misplaced. There is no FCC remedy when a licensee is acting within the terms of its license²⁹ but for some reason is, as here, still harming a specific group of people. For example, the FCC's 47 U.S.C. §309(d) power to issue a cease and desist order does not extend to circumstances like this

²⁹ The court below assumed, without evidence, what Verizon's license allows it to do. See part B.4.

one.³⁰ The Communications Act does not provide a cause of action of this sort at the FCC. There is no statutory process for an individual complaint in this context. 47 U.S.C. §§201, 202, 206, 207 and 208 relate to common carrier duties, assume the carrier is providing a service to the complainant and the dispute is over whether the rate or practice associated with that service is reasonable and nondiscriminatory. None contemplate a duty to or complaint by someone who does not use or seek the provider's service. When a complaint is sustained only economic damages are available. *See* 47 C.F.R. §1.723. *Conboy v. AT&T Corp.* 241 F.3d 242, 254 (2d Cir. 2001). A private party cannot seek injunctive relief for claimed violations of the Communications Act; only economic damages are available and only if the respondent is a common carrier. *Conboy*, 241 F.3d at 250-256. There is no statutory provision for, and no FCC rule allows complaints about licensee actions that cause personal injury.³¹

³⁰ The cease and desist power applies only when a licensee “(1) has failed to operate substantially as set forth in a license, (2) has violated or failed to observe any of the provisions of this chapter, or section 1304, 1343, or 1464 of title 18, or (3) has violated or failed to observe any rule or regulation of the Commission authorized by this chapter or by a treaty ratified by the United States.”

³¹ 47 U.S.C. §332(c)(7)(B)(v) provides that “[a]ny person adversely affected by an act or failure to act by a State or local government or any instrumentality thereof that is inconsistent with clause (iv) may petition the Commission for relief.” Verizon would have a right to bring a claim at the FCC if it believes any Board action unduly “restricts the operation of personal wireless facilities.” But this cause of action does not extend to Plaintiffs. They claim the Show Cause Order was *consistent* “with clause (iv).”

The Superior Court also failed to recognize that the Communications Act and FCC do not exist “to benefit individual plaintiffs but to ‘protect the public interest in communications.’” *Conboy*, 241 F.3d at 254, *citing Lechtner v. Brownyard*, 679 F.2d 322, 327 (3d Cir. 1982) (“The focus of the Act is the general public, with the FCC, not the private litigant, as its champion”), *quoting Scripps-Howard Radio, Inc. v. FCC*, 316 U.S. 4, 14 (1942) (“private litigants have standing only as representatives of the public interest”) and *Montauk-Caribbean Airways, Inc. v. Hope*, 784 F.2d 91, 97 (2d Cir. 1986). The FCC has jurisdiction over licensees and does not have *any* authority over members of the general public, especially innocent bystanders not in privity with but nonetheless harmed by a licensee.³² Congress could not lawfully strip individuals’ private rights to redress in traditional state *fora* and force all matters to be decided before a distant federal executive agency. The FCC oversees *public rights* and has no inherent authority and cannot have exclusive jurisdiction over *private rights* held by unregulated parties with no relationship with a regulated party other than geographic proximity. *Axon Enter. v. FTC*, 598 U.S. 175, 196 (2023) (Thomas, J., concurring and expressing “grave doubts about the constitutional propriety of Congress vesting

³² The FCC has a longstanding policy of not interfering in private disputes where the claim does not assert a violation of the Communications Act, FCC rules or the terms of a license. *Listeners’ Guild, Inc. v. FCC*, 813 F.2d 465, 469 (D.C. Cir. 1987); *Environmental, LLC v. FCC*, 661 F.3d 80, 85 (D.C. Cir. 2011); *Regents v. Carroll*, 338 U.S. 586, 602 (1950).

administrative agencies with primary authority to adjudicate core private rights with only deferential judicial review on the back end.”)

If one assumes (as the court below necessarily did since the Defendants did not present evidence on this issue) that Verizon is acting within its license the FCC does not have the power to suspend or require changes to that license unless it follows the mandates of 47 U.S.C. §§303(m), 309 and 316. This would represent a massive shift in roles, since FCC would become the complainant and the Plaintiffs would no longer have their complaint case. Instead, Plaintiffs would be relegated to bystanders with no prosecutorial rights greater than the general public.

The Superior Court’s suggestion that the sole remedy lies at the FCC is incorrect because there is no FCC remedy for these Plaintiffs in relation to this specific situation. The Superior Court’s disposition allows FCC authorizations to become licenses to kill with impunity. This court cannot just assume Congress meant to actively preclude all possible remedies for injurious actions like those here. To do so would improperly read the savings clauses out of the Communications Act. *See* parts B.7, B.9. It would also give rise to grave constitutional concerns relating to individual liberties protected by the Bill of Rights. *United Construction Workers*, 347 U.S. at 663-64.

POINTS OF ERROR

The foregoing discussion sets the table for Plaintiffs' two Points of Error. The 10 points in Part B are all incorporated into each point of error even though only some are specifically repeated. As will be explained, the lower court did not properly apply the rules for decisions on motions for judgment on the pleadings in relation to the matters at hand. The Superior Court also disregarded and failed to faithfully follow the precedent on federal preemption and erred on the ultimate merits question by finding obstacle conflict preemption applies.

Point of Error 1: Superior Court Erred in its Application of the Rules for Deciding a Motion for Judgment on the Pleadings Because it Did Not Accept all of Plaintiffs' Pleaded Facts as True, Draw Every Reasonable Inference in Favor of the Plaintiffs or Take Full Account of the Uncontested Evidence in the Record

A. The Lower Court Should Have Considered Plaintiffs' Evidence

When addressing a motion for judgment on the pleadings, a court may rely on "matters of public record, orders, items appearing in the record of the case, and exhibits attached to the complaint, also may be taken into account" without converting the motion to a motion for summary judgment. *Reliance Ins. Co. v. City of Boston*, 71 Mass. App. Ct. 550, 555 (2008). Plaintiffs' preemption related evidence is part of the pleadings since the parties agreed on the contents of a limited Administrative Record for purposes of adjudicating the preemption issue and the evidence came from the record. Therefore, a properly disposed judgment

on the pleadings would have been appropriate. *See* Superior Court Standing Order 1-96.2 (“The administrative agency whose proceedings are to be judicially reviewed shall, by way of answer, file the original or certified copy of the record of the proceeding under review (the record)...”), 1-96.4 (“A claim for judicial review shall be resolved through a motion for judgment on the pleadings”); 1-96.5 (“the review shall be confined to the record”).

B. Defendants Had the Burden of Proof

Although the plaintiff typically bears the burden of showing agency error, preemption is an affirmative defense, so on this issue Defendants had the burden. They had to prove that federal law expressly or impliedly prevents the application of state health law to assist Massachusetts residents after a direct, evidence-based finding of injury caused by a wireless facility. *See* part B.3. Defendants did not present evidence that federal law expressly or impliedly precludes application of Massachusetts’ generally applicable state health laws and codes merely because a wireless company’s emissions are involved.³³

³³ The Defendants and Superior Court both focus on the Board’s “action,” but the Board was merely executing state law that requires “action” when health harms are identified. That the lower court effectively declared state health laws preempted is evident from its references to “health boards” (in the plural sense) during its discussion of obstacle conflict preemption. A. at 366 (note 6), 367. The Superior Court basically adopted the Defendants’ “Domino Theory” – that if multiple boards of health follow the Board here a “patchwork” would result. A. at 367-368. The lower court cleared the field of all Commonwealth health law enforcement by any authority if a wireless licensee is involved.

C. Defendants Provided No Evidence Showing Conflict

Here there was an agreed limited record. A. at 169. Each side was free to select items from the complete record generated below in support of their position. Plaintiffs submitted four exhibits. A. at 225-305. The Defendants did not designate any materials. The Defendants provided *no evidence* to support their legal contentions relating to preemption. The Superior Court's decision cites only to the Show Cause Order and then engages in an improper "freewheeling judicial inquiry into whether [the Board's action] is in tension with federal objectives." *But see Chamber of Com. of U.S. v. Whiting*, 563 U.S. at 607. It applied the very kind of "domestic domino" theory found "too hypothetical" in *Little*, 395 Mass. at 547-548. *See* part B.3. Further, it wrongly assessed whether the Board's involvement touched on an area where the FCC has authority, not whether the Communications Act or any FCC rule gives Verizon, the private party involved, a federally-granted "right to be free" from a specific state or local requirement. *Murphy*, 584 U.S. at 479. *See* part B.3.

The court below erred by not requiring and then applying the "sharp evidence of conflict" that is expressly necessary for preemption claims in Massachusetts. It decided the issue on no evidence.

D. The Superior Court Did Not Accept Plaintiffs' Evidence as True, Take Full Account of the Uncontested Evidence in the Record and Draw Every Reasonable Inference in Plaintiffs' Favor

On Motions for Judgment on the Pleadings the court must accept as true all facts pleaded by the nonmoving party, taking full account of the uncontested evidence in the record. *See* part B. Although the Superior Court accepted the basic historic facts set out in the Complaint in the Background portion of the decision (A. at 362-363), it did not accept several seminal pleaded facts. For example, it did not accept Plaintiffs’ pleaded facts (A. at 67 (Complaint ¶67)) and evidence (A. at 300 (Exhibit 3 to Opposition to Renewed Motion)) that the Board was not trying to “regulate” “operation” of the tower and the purpose behind the “action” was to “nudge” Verizon into collaborative problem-solving. *See*, Decision at 5-6 & n. 6, 7, 8 (A. at 365-368).³⁴ Note 6 to the decision directly says “the court is unpersuaded by the plaintiffs’ characterization of the Order as a mere effort to mediate...” (emphasis added). This clearly indicates the trial court did not follow the rules for assessing motions for judgment on the pleadings, since it rejected the pleaded facts, ignored the plain and uncontested evidence and did not draw all inferences in Plaintiffs’ favor. The decision almost entirely turns on the lower court’s improper and counter-evidentiary conclusion that the Board *was* trying to regulate operation and *did* set a standard (*see* part B.8), so the error was highly prejudicial.

³⁴ The intent was not to “regulate” but Plaintiffs assert that the Board could have “regulated” since it would be enforcing generally applicable state health and safety codes that are not preempted. *See* parts B.6, B.8.

The lower court also acted contrary to the rules by similarly concluding that the Board was “substituting its own risk-utility analysis” in derogation of one supposedly performed by the FCC. That too was improper rejection of the pleaded facts and evidence. The Board did not want to shut down or even regulate the tower, it wanted to end this specific illness cluster. *See* parts B.2, B.4, B.5, B.8. Defendants did not present any evidence, and the Superior Court did not cite any facts indicating that shutting down the tower was the only possible solution. Nor is there any evidence that Verizon would have to “change its service” to resolve the illness cluster (*see* part B.5) or that a Board order requiring Verizon to stop injuring the Plaintiffs would violate its license rights (*see* part B.4). The lower court just inferred or assumed it would. Similarly the Superior Court based its obstacle conflict conclusion on the assumption that a chain of other “individual boards of health” will “require different standards” that will then destroy also-assumed network uniformity (A. at 367). This is not drawing all inferences in Plaintiffs’ favor.

The order below says “the Plaintiffs may of course raise [their] concerns with the FCC...” A. at 369. But it does not examine whether they can in fact or in law actually do so. It just assumes there is an FCC remedy. As explained in part B.10, there is no FCC remedy for these Plaintiffs, since the FCC has no authority,

no process and no means to resolve specific events like this. The assumption was unfounded.

The lower court engaged in rank speculation. It erroneously drew a host of inferences *adverse* to the Plaintiffs, not in favor.

Point of Error 2: Superior Court erred by allowing the motion because the Defendants did not carry their burden of proving a substantial obstacle to the attainment of the purposes or objectives underlying 47 U.S.C. Title III or any FCC rule arises when a board of health complies with state law by commanding a wireless provider to appear and show cause why it should not be required to abate activity that the board has directly found – based on extensive evidence – is injurious, life-threatening and renders homes uninhabitable

Point of Error 1 focused on the failure to follow the rules for motions for judgment on the pleadings. This Point of Error 2 deals with the erroneous ultimate merits determination that obstacle conflict preemption applies. The Superior Court disregarded and failed to faithfully follow the precedent on federal preemption. Again, it did not recognize that the Defendants have the burden of proof. Regardless of burden, it erred on the ultimate merits issue of whether obstacle conflict preemption applies. The 10 points in Part B are all incorporated into this point of error even though only some are specifically repeated or generally referenced.

A. The Superior Court Failed to Enforce Defendants' Duty to Show *Evidence of Conflict*

The decision below is heavy with general rhetoric about conflicts but shockingly light on specifics. That is because there is *no evidence* of “conflict.” *See* parts B.3, B.4, B.5. There is no explanation how an order to appear and show cause creates any significant problem. *See* part B.3. There was no showing that the “action” – even after it converted into a discontinuance order when Verizon refused to appear – eliminated any rights held by Verizon or represented a remedy Congress intended to preclude. *See* parts B.3, B.6. There is no evidence that the Board’s general involvement or the Show Cause Order will in any way create an obstacle to the attainment of any purposes or objectives behind Title III of the Communications Act or any FCC rule. *See* parts B.3, B.8. The entire rationale is nothing but unsupported pronouncements as to Federal policy, conjecture and hypotheticals. *See* part B.3. There is no evidence that other “individual boards of health” will “require different standards” that result in a patchwork that does not already exist (A. at 367). Assuming they will is the very kind of “domestic domino” theory rejected in *Little*, 395 Mass. at 547-548. *See* part B.3. Even if one conjectures that multiple boards will follow the Pittsfield Board in Domino fashion that still does not offer “hard evidence of conflict” because one must also assume that each will impose a unique “standard” that leads to a “patchwork” that then threatens claimed but factually non-existent “uniformity.” *See* parts B.5, B.8.

B. The Board Did Not “Regulate Operation” or Set a “Standard”

The Board did not set or require a “standard” for “RF-emissions” or require that Verizon provide a different “service.” A. at 366, 368. *See* part B.8. The Show Cause Order did not specify a specific level of acceptable (or unacceptable) exposure. It did not impose fines or financial liability of any kind. It did not tell Verizon how to run its network. Instead, it found that the wireless facility violated specific state health and sanitary codes and ordered Verizon to appear and show cause. Nowhere is there an explanation why requiring an appearance erects any kind of obstacle to anything.

Any Board order requiring Verizon to take some action by way of ceasing operation, changing configuration or reducing power output would still not set a “standard” other than “stop hurting these people.” One can only speculate whether any such future order would require Verizon to “change its ‘service’” or threaten any of Verizon’s rights. It is entirely possible Verizon could still offer more than adequate service quality even without the tower in issue. *See* part B.4. All the rationales in the order below are based on assumptions and hypotheticals, not hard facts based on what the Show Cause Order said or did or the intentions behind it.

There is no evidence Congress intended to save Verizon from the inconvenience of appearing before a health board, interacting with the *hoi polloi* it has harmed, and working in good faith to resolve a serious problem that it alone

caused. Verizon may wish itself above such things, but this is no more onerous than for any business found to be violating state health and sanitation laws.

C. The Superior Court Erred by Assuming Plaintiffs Have an FCC Remedy But They Do Not

The order below says “the Plaintiffs may of course raise [their] concerns with the FCC...” A. at 369. But it does not examine whether they can in fact or in law actually do so. It just assumes there is an FCC remedy. As explained in part B.10 there is no FCC remedy for these Plaintiffs, since the FCC has no authority, no process and no means to resolve specific events like this. The assumption was unfounded. This is important since courts are far less likely to find a state remedy is preempted if the federal law does not provide an adequate substitute. *See* parts B.7, B.9.

CONCLUSION

This case is about a specific group of individuals that have been required to suffer grievous illness and constructive eviction for more than four years. They sought assistance from the Board and it dutifully responded by doing what Commonwealth law required – investigating and making findings, then acting to eliminate the source of the problem.

The Board found both serious injury and causation, applied those findings to the Commonwealth’s health and safety laws and determined a likely violation. It then sought to mediate an end to the significant suffering in Shacktown by ordering

Verizon to appear and show cause. Nothing in the Board “action” did or would erect an “obstacle” to any federal purpose. On the contrary, it would serve the overarching purpose of saving lives and protecting people’s health.

Massachusetts’ generally applicable health and safety laws specifically charged local boards with doing precisely what was attempted here. Defendants fell far short of making the strong showing of conflict that is required by the precedent, and state law is not preempted in any event. The Superior Court erred by allowing the motion. This Court should reverse the Judgment and remand for further proceedings.

SIGNATURE OF COUNSEL

PAUL REVERE, III
BBO #636200
LAW OFFICES OF PAUL REVERE, III
226 RIVER VIEW LANE
CENTERVILLE, MASSACHUSETTS 02632
(508) 237-1620
revereiii@aol.com

W. SCOTT MCCOLLOUGH
PRO HAC VICE
MCCOLLOUGH LAW FIRM PC
2290 GATLIN CREEK RD.
DRIPPING SPRING, TEXAS 78620
(512) 633-3498
wsmc@dotlaw.biz

CERTIFICATE OF COMPLIANCE

Mass. R. App. P. 16(k) Certification

I, Paul Revere, III, certify that the foregoing Brief complies with the rules of court that pertain to the filing of briefs, including, but not limited to: Mass. R. App. P. 16(6)(a) (pertinent findings in or memorandum of decision); Mass. R. App. P. 16(f) (reproduction of statutes, rules and regulations); Mass. R. App. P. 16(h) (length of briefs); Mass. R. App. P. 18 (appendix to brief); and Mass. R. App. P. 20 (form of briefs, appendices, and other papers).

/s/ Paul Revere, III
Paul Revere, III

CERTIFICATE OF SERVICE

Pursuant to M.R.A.P. 13(d), I certify that on July 21, 2025, I served this Brief and Appendix by electronically filing it with a copy to defendant's counsel of record.

/s/ Paul Revere, III
Paul Revere, III

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Statutes

Federal Statutes

47 U.S. Code §201

§ 201 - Service and charges

(a) It shall be the duty of every common carrier engaged in interstate or foreign communication by wire or radio to furnish such communication service upon reasonable request therefor; and, in accordance with the orders of the Commission, in cases where the Commission, after opportunity for hearing, finds such action necessary or desirable in the public interest, to establish physical connections with other carriers, to establish through routes and charges applicable thereto and the divisions of such charges, and to establish and provide facilities and regulations for operating such through routes.

(b) All charges, practices, classifications, and regulations for and in connection with such communication service, shall be just and reasonable, and any such charge, practice, classification, or regulation that is unjust or unreasonable is declared to be unlawful: Provided, That communications by wire or radio subject to this chapter may be classified into day, night, repeated, unrepeated, letter, commercial, press, Government, and such other classes as the Commission may decide to be just and reasonable, and different charges may be made for the different classes of communications: Provided further, That nothing in this chapter or in any other provision of law shall be construed to prevent a common carrier subject to this chapter from entering into or operating under any contract with any common carrier not subject to this chapter, for the exchange of their services, if the Commission is of the opinion that such contract is not contrary to the public interest: Provided further, That nothing in this chapter or in any other provision of law shall prevent a common carrier subject to this chapter from furnishing reports of positions of ships at sea to newspapers of general circulation, either at a nominal charge or without charge, provided the name of such common carrier is displayed along with such ship position reports. The Commission may prescribe such rules and regulations as may be necessary in the public interest to carry out the provisions of this chapter.

47 U.S.C. §202

§ 202 - Discriminations and preferences

(a) Charges, services, etc.

It shall be unlawful for any common carrier to make any unjust or unreasonable discrimination in charges, practices, classifications, regulations, facilities, or services for or in connection with like communication service, directly or indirectly, by any means or device, or to make or give any undue or unreasonable

preference or advantage to any particular person, class of persons, or locality, or to subject any particular person, class of persons, or locality to any undue or unreasonable prejudice or disadvantage.

(b) Charges or services included

Charges or services, whenever referred to in this chapter, include charges for, or services in connection with, the use of common carrier lines of communication, whether derived from wire or radio facilities, in chain broadcasting or incidental to radio communication of any kind.

(c) Penalty

Any carrier who knowingly violates the provisions of this section shall forfeit to the United States the sum of \$6,000 for each such offense and \$300 for each and every day of the continuance of such offense.

47 U.S.C. §206

§ 206 - Carriers' liability for damages

In case any common carrier shall do, or cause or permit to be done, any act, matter, or thing in this chapter prohibited or declared to be unlawful, or shall omit to do any act, matter, or thing in this chapter required to be done, such common carrier shall be liable to the person or persons injured thereby for the full amount of damages sustained in consequence of any such violation of the provisions of this chapter, together with a reasonable counsel or attorney's fee, to be fixed by the court in every case of recovery, which attorney's fee shall be taxed and collected as part of the costs in the case.

47 U.S.C. §207

§ 207 - Recovery of damages

Any person claiming to be damaged by any common carrier subject to the provisions of this chapter may either make complaint to the Commission as hereinafter provided for, or may bring suit for the recovery of the damages for which such common carrier may be liable under the provisions of this chapter, in any district court of the United States of competent jurisdiction; but such person shall not have the right to pursue both such remedies.

47 U.S.C. §208

§ 208 - Complaints to Commission; investigations; duration of investigation; appeal of order concluding investigation

(a) Any person, any body politic, or municipal organization, or State commission, complaining of anything done or omitted to be done by any common carrier subject to this chapter, in contravention of the provisions thereof, may apply to said Commission by petition which shall briefly state the facts, whereupon a statement

of the complaint thus made shall be forwarded by the Commission to such common carrier, who shall be called upon to satisfy the complaint or to answer the same in writing within a reasonable time to be specified by the Commission. If such common carrier within the time specified shall make reparation for the injury alleged to have been caused, the common carrier shall be relieved of liability to the complainant only for the particular violation of law thus complained of. If such carrier or carriers shall not satisfy the complaint within the time specified or there shall appear to be any reasonable ground for investigating said complaint, it shall be the duty of the Commission to investigate the matters complained of in such manner and by such means as it shall deem proper. No complaint shall at any time be dismissed because of the absence of direct damage to the complaint.

(b)

(1) Except as provided in paragraph (2), the Commission shall, with respect to any investigation under this section of the lawfulness of a charge, classification, regulation, or practice, issue an order concluding such investigation within 5 months after the date on which the complaint was filed.

(2) The Commission shall, with respect to any such investigation initiated prior to November 3, 1988, issue an order concluding the investigation not later than 12 months after November 3, 1988.

(3) Any order concluding an investigation under paragraph (1) or (2) shall be a final order and may be appealed under section 402(a) of this title.

47 U.S.C. §303

47 U.S. Code § 303 - Powers and duties of Commission

Except as otherwise provided in this chapter, the Commission from time to time, as public convenience, interest, or necessity requires, shall—

(a) Classify radio stations;

(b) Prescribe the nature of the service to be rendered by each class of licensed stations and each station within any class;

(c) Assign bands of frequencies to the various classes of stations, and assign frequencies for each individual station and determine the power which each station shall use and the time during which it may operate;

(d) Determine the location of classes of stations or individual stations;

(e) Regulate the kind of apparatus to be used with respect to its external effects and the purity and sharpness of the emissions from each station and from the apparatus therein;

(f) Make such regulations not inconsistent with law as it may deem necessary to prevent interference between stations and to carry out the provisions of this

chapter: Provided, however, That changes in the frequencies, authorized power, or in the times of operation of any station, shall not be made without the consent of the station licensee unless the Commission shall determine that such changes will promote public convenience or interest or will serve public necessity, or the provisions of this chapter will be more fully complied with;

(g) Study new uses for radio, provide for experimental uses of frequencies, and generally encourage the larger and more effective use of radio in the public interest;

(h) Have authority to establish areas or zones to be served by any station;

(i) Have authority to make special regulations applicable to radio stations engaged in chain broadcasting;

(j) Have authority to make general rules and regulations requiring stations to keep such records of programs, transmissions of energy, communications, or signals as it may deem desirable;

(k) Have authority to exclude from the requirements of any regulations in whole or in part any radio station upon railroad rolling stock, or to modify such regulations in its discretion;

(l)

(1) Have authority to prescribe the qualifications of station operators, to classify them according to the duties to be performed, to fix the forms of such licenses, and to issue them to persons who are found to be qualified by the Commission and who otherwise are legally eligible for employment in the United States, except that such requirement relating to eligibility for employment in the United States shall not apply in the case of licenses issued by the Commission to (A) persons holding United States pilot certificates; or (B) persons holding foreign aircraft pilot certificates which are valid in the United States, if the foreign government involved has entered into a reciprocal agreement under which such foreign government does not impose any similar requirement relating to eligibility for employment upon citizens of the United States;

(2) Notwithstanding paragraph (1) of this subsection, an individual to whom a radio station is licensed under the provisions of this chapter may be issued an operator's license to operate that station.

(3) In addition to amateur operator licenses which the Commission may issue to aliens pursuant to paragraph (2) of this subsection, and notwithstanding section 301 of this title and paragraph (1) of this subsection, the Commission may issue authorizations, under such conditions and terms as it may prescribe, to permit an alien licensed by his government as an amateur radio operator to operate his amateur radio station licensed by his government in the United States, its possessions, and the Commonwealth of

Puerto Rico provided there is in effect a multilateral or bilateral agreement, to which the United States and the alien's government are parties, for such operation on a reciprocal basis by United States amateur radio operators. Other provisions of this chapter and of subchapter II of chapter 5, and chapter 7, of title 5 shall not be applicable to any request or application for or modification, suspension, or cancellation of any such authorization.

(m)

(1) Have authority to suspend the license of any operator upon proof sufficient to satisfy the Commission that the licensee—

(A) has violated, or caused, aided, or abetted the violation of, any provision of any Act, treaty, or convention binding on the United States, which the Commission is authorized to administer, or any regulation made by the Commission under any such Act, treaty, or convention; or

(B) has failed to carry out a lawful order of the master or person lawfully in charge of the ship or aircraft on which he is employed; or

(C) has willfully damaged or permitted radio apparatus or installations to be damaged; or

(D) has transmitted superfluous radio communications or signals or communications containing profane or obscene words, language, or meaning, or has knowingly transmitted—

(1) false or deceptive signals or communications, or

(2) a call signal or letter which has not been assigned by proper authority to the station he is operating; or

(E) has willfully or maliciously interfered with any other radio communications or signals; or

(F) has obtained or attempted to obtain, or has assisted another to obtain or attempt to obtain, an operator's license by fraudulent means.

(2) No order of suspension of any operator's license shall take effect until fifteen days' notice in writing thereof, stating the cause for the proposed suspension, has been given to the operator licensee who may make written application to the Commission at any time within said fifteen days for a hearing upon such order. The notice to the operator licensee shall not be effective until actually received by him, and from that time he shall have fifteen days in which to mail the said application. In the event that physical conditions prevent mailing of the application at the expiration of the fifteen-day period, the application shall then be mailed as soon as possible thereafter, accompanied by a satisfactory explanation of the delay. Upon receipt by the Commission of such application for hearing, said order of suspension shall be held in abeyance until the conclusion of the hearing

which shall be conducted under such rules as the Commission may prescribe. Upon the conclusion of said hearing the Commission may affirm, modify, or revoke said order of suspension.

(n) Have authority to inspect all radio installations associated with stations required to be licensed by any Act, or which the Commission by rule has authorized to operate without a license under section 307(e)(1) of this title, or which are subject to the provisions of any Act, treaty, or convention binding on the United States, to ascertain whether in construction, installation, and operation they conform to the requirements of the rules and regulations of the Commission, the provisions of any Act, the terms of any treaty or convention binding on the United States, and the conditions of the license or other instrument of authorization under which they are constructed, installed, or operated.

(o) Have authority to designate call letters of all stations;

(p) Have authority to cause to be published such call letters and such other announcements and data as in the judgment of the Commission may be required for the efficient operation of radio stations subject to the jurisdiction of the United States and for the proper enforcement of this chapter;

(q) Have authority to require the painting and/or illumination of radio towers if and when in its judgment such towers constitute, or there is a reasonable possibility that they may constitute, a menace to air navigation. The permittee or licensee, and the tower owner in any case in which the owner is not the permittee or licensee, shall maintain the painting and/or illumination of the tower as prescribed by the Commission pursuant to this section. In the event that the tower ceases to be licensed by the Commission for the transmission of radio energy, the owner of the tower shall maintain the prescribed painting and/or illumination of such tower until it is dismantled, and the Commission may require the owner to dismantle and remove the tower when the Administrator of the Federal Aviation Agency determines that there is a reasonable possibility that it may constitute a menace to air navigation.

(r) Make such rules and regulations and prescribe such restrictions and conditions, not inconsistent with law, as may be necessary to carry out the provisions of this chapter, or any international radio or wire communications treaty or convention, or regulations annexed thereto, including any treaty or convention insofar as it relates to the use of radio, to which the United States is or may hereafter become a party.

(s) Have authority to require that apparatus designed to receive television pictures broadcast simultaneously with sound be capable of adequately receiving all frequencies allocated by the Commission to television broadcasting when such apparatus is shipped in interstate commerce, or is imported from any foreign country into the United States, for sale or resale to the public.

- (t) Notwithstanding the provisions of section 301(e) of this title, have authority, in any case in which an aircraft registered in the United States is operated (pursuant to a lease, charter, or similar arrangement) by an aircraft operator who is subject to regulation by the government of a foreign nation, to enter into an agreement with such government under which the Commission shall recognize and accept any radio station licenses and radio operator licenses issued by such government with respect to such aircraft.
- (u) Require that, if technically feasible—
- (1) apparatus designed to receive or play back video programming transmitted simultaneously with sound, if such apparatus is manufactured in the United States or imported for use in the United States and uses a picture screen of any size—
- (A) be equipped with built-in closed caption decoder circuitry or capability designed to display closed-captioned video programming;
- (B) have the capability to decode and make available the transmission and delivery of video description services as required by regulations reinstated and modified pursuant to section 613(f) of this title; and
- (C) have the capability to decode and make available emergency information (as that term is defined in section 79.2 of the Commission's regulations (47 CFR 79.2)) in a manner that is accessible to individuals who are blind or visually impaired; and
- (2) notwithstanding paragraph (1) of this subsection—
- (A) apparatus described in such paragraph that use a picture screen that is less than 13 inches in size meet the requirements of subparagraph (A), (B), or (C) of such paragraph only if the requirements of such subparagraphs are achievable (as defined in section 617 of this title);
- (B) any apparatus or class of apparatus that are display-only video monitors with no playback capability are exempt from the requirements of such paragraph; and
- (C) the Commission shall have the authority, on its own motion or in response to a petition by a manufacturer, to waive the requirements of this subsection for any apparatus or class of apparatus—
- (i) primarily designed for activities other than receiving or playing back video programming transmitted simultaneously with sound; or
- (ii) for equipment designed for multiple purposes, capable of receiving or playing video programming transmitted simultaneously with sound but whose essential utility is derived from other purposes.

(v) Have exclusive jurisdiction to regulate the provision of direct-to-home satellite services. As used in this subsection, the term “direct-to-home satellite services” means the distribution or broadcasting of programming or services by satellite directly to the subscriber’s premises without the use of ground receiving or distribution equipment, except at the subscriber’s premises or in the uplink process to the satellite.

(w) Omitted.

(x) Require, in the case of an apparatus designed to receive television signals that are shipped in interstate commerce or manufactured in the United States and that have a picture screen 13 inches or greater in size (measured diagonally), that such apparatus be equipped with a feature designed to enable viewers to block display of all programs with a common rating, except as otherwise permitted by regulations pursuant to section 330(c)(4) of this title.

(y) Have authority to allocate electromagnetic spectrum so as to provide flexibility of use, if—

(1) such use is consistent with international agreements to which the United States is a party; and

(2) the Commission finds, after notice and an opportunity for public comment, that—

(A) such an allocation would be in the public interest;

(B) such use would not deter investment in communications services and systems, or technology development; and

(C) such use would not result in harmful interference among users.

(z) Require that—

(1) if achievable (as defined in section 617 of this title), apparatus designed to record video programming transmitted simultaneously with sound, if such apparatus is manufactured in the United States or imported for use in the United States, enable the rendering or the pass through of closed captions, video description signals, and emergency information (as that term is defined in section 79.2 of title 47, Code of Federal Regulations) such that viewers are able to activate and de-activate the closed captions and video description as the video programming is played back on a picture screen of any size; and

(2) interconnection mechanisms and standards for digital video source devices are available to carry from the source device to the consumer equipment the information necessary to permit or render the display of closed captions and to make encoded video description and emergency information audible.

(aa) Require—

- (1) if achievable (as defined in section 617 of this title) that digital apparatus designed to receive or play back video programming transmitted in digital format simultaneously with sound, including apparatus designed to receive or display video programming transmitted in digital format using Internet protocol, be designed, developed, and fabricated so that control of appropriate built-in apparatus functions are accessible to and usable by individuals who are blind or visually impaired, except that the Commission may not specify the technical standards, protocols, procedures, and other technical requirements for meeting this requirement;
- (2) that if on-screen text menus or other visual indicators built in to the digital apparatus are used to access the functions of the apparatus described in paragraph (1), such functions shall be accompanied by audio output that is either integrated or peripheral to the apparatus, so that such menus or indicators are accessible to and usable by individuals who are blind or visually impaired in real-time;
- (3) that for such apparatus equipped with the functions described in paragraphs (1) and (2) built in access to those closed captioning and video description features through a mechanism that is reasonably comparable to a button, key, or icon designated for activating the closed captioning or accessibility features; and
- (4) that in applying this subsection the term “apparatus” does not include a navigation device, as such term is defined in section 76.1200 of the Commission’s rules (47 CFR 76.1200).

(bb) Require—

- (1) if achievable (as defined in section 617 of this title), that the on-screen text menus and guides provided by navigation devices (as such term is defined in section 76.1200 of title 47, Code of Federal Regulations) for the display or selection of multichannel video programming are audibly accessible in real-time upon request by individuals who are blind or visually impaired, except that the Commission may not specify the technical standards, protocols, procedures, and other technical requirements for meeting this requirement;
- (2) for navigation devices with built-in closed captioning capability, that access to that capability through a mechanism is reasonably comparable to a button, key, or icon designated for activating the closed captioning, or accessibility features; and
- (3) that, with respect to navigation device features and functions—
 - (A) delivered in software, the requirements set forth in this subsection shall apply to the manufacturer of such software; and

(B) delivered in hardware, the requirements set forth in this subsection shall apply to the manufacturer of such hardware.

47 U.S.C §308

§ 308 - Requirements for license

(a) Writing; exceptions

The Commission may grant construction permits and station licenses, or modifications or renewals thereof, only upon written application therefor received by it: Provided, That (1) in cases of emergency found by the Commission involving danger to life or property or due to damage to equipment, or (2) during a national emergency proclaimed by the President or declared by the Congress and during the continuance of any war in which the United States is engaged and when such action is necessary for the national defense or security or otherwise in furtherance of the war effort, or (3) in cases of emergency where the Commission finds, in the nonbroadcast services, that it would not be feasible to secure renewal applications from existing licensees or otherwise to follow normal licensing procedure, the Commission may grant construction permits and station licenses, or modifications or renewals thereof, during the emergency so found by the Commission or during the continuance of any such national emergency or war, in such manner and upon such terms and conditions as the Commission shall by regulation prescribe, and without the filing of a formal application, but no authorization so granted shall continue in effect beyond the period of the emergency or war requiring it: Provided further, That the Commission may issue by cable, telegraph, or radio a permit for the operation of a station on a vessel of the United States at sea, effective in lieu of a license until said vessel shall return to a port of the continental United States.

(b) Conditions

All applications for station licenses, or modifications or renewals thereof, shall set forth such facts as the Commission by regulation may prescribe as to the citizenship, character, and financial, technical, and other qualifications of the applicant to operate the station; the ownership and location of the proposed station and of the stations, if any, with which it is proposed to communicate; the frequencies and the power desired to be used; the hours of the day or other periods of time during which it is proposed to operate the station; the purposes for which the station is to be used; and such other information as it may require. The Commission, at any time after the filing of such original application and during the term of any such license, may require from an applicant or licensee further written statements of fact to enable it to determine whether such original application should be granted or denied or such license revoked. Such application and/or such statement of fact shall be signed by the applicant and/or licensee in any manner or

form, including by electronic means, as the Commission may prescribe by regulation.

(c) Commercial communication

The Commission in granting any license for a station intended or used for commercial communication between the United States or any Territory or possession, continental or insular, subject to the jurisdiction of the United States, and any foreign country, may impose any terms, conditions, or restrictions authorized to be imposed with respect to submarine-cable licenses by section 35 of this title.

(d) Summary of complaints

Each applicant for the renewal of a commercial or noncommercial television license shall attach as an exhibit to the application a summary of written comments and suggestions received from the public and maintained by the licensee (in accordance with Commission regulations) that comment on the applicant's programming, if any, and that are characterized by the commentor as constituting violent programming.

47 U.S.C. §309

§ 309. Application for license

(a) Considerations in granting application. Subject to the provisions of this section, the Commission shall determine, in the case of each application filed with it to which section 308 [47 USCS § 308] applies, whether the public interest, convenience, and necessity will be served by the granting of such application, and, if the Commission, upon examination of such application and upon consideration of such other matters as the Commission may officially notice, shall find that public interest, convenience, and necessity would be served by the granting thereof, it shall grant such application.

(b) Time of granting application. Except as provided in subsection (c) of this section, no such application—

(1) for an instrument of authorization in the case of a station in the broadcasting or common carrier services, or

(2) for an instrument of authorization in the case of a station in any of the following categories:

(A) industrial radio positioning stations for which frequencies are assigned on an exclusive basis,

(B) aeronautical en route stations,

(C) aeronautical advisory stations,

(D) airdrome control stations,

(E) aeronautical fixed stations, and

(F) such other stations or classes of stations, not in the broadcasting or common carrier services, as the Commission shall by rule prescribe, shall be granted by the Commission earlier than thirty days following issuance of public notice by the Commission of the acceptance for filing of such application or of any substantial amendment thereof.

(c) Applications not affected by subsection (b). Subsection (b) of this section shall not apply—

(1) to any minor amendment of an application to which such subsection is applicable, or

(2) to any application for—

(A) a minor change in the facilities of an authorized station,

(B) consent to an involuntary assignment or transfer under section 310(b) [47 USCS § 310(b)] or to an assignment or transfer thereunder which does not involve a substantial change in ownership or control,

(C) a license under section 319(c) [47 USCS § 319(c)] or, pending application for or grant of such license, any special or temporary authorization to permit interim operation to facilitate completion of authorized construction or to provide substantially the same service as would be authorized by such license,

(D) extension of time to complete construction of authorized facilities,

(E) an authorization of facilities for remote pickups, studio links and similar facilities for use in the operation of a broadcast station,

(F) authorizations pursuant to section 325(c) [47 USCS § 325(c)] where the programs to be transmitted are special events not of a continuing nature,

(G) a special temporary authorization for nonbroadcast operation not to exceed thirty days where no application for regular operation is contemplated to be filed or not to exceed sixty days pending the filing of an application for such regular operation, or

(H) an authorization under any of the proviso clauses of section 308(a) [47 USCS § 308(a)].

(d) Petition to deny application; time; contents; reply; findings.

(1) Any party in interest may file with the Commission a petition to deny any application (whether as originally filed or as amended) to which subsection (b) of this section applies at any time prior to the day of Commission grant thereof without hearing or the day of formal designation thereof for hearing; except that with respect to any classification of applications, the Commission from time to time by rule may specify a shorter period (no less than thirty days following the issuance of public notice by the Commission of the acceptance for filing of such application or of any substantial amendment thereof), which shorter period shall be reasonably related to the time when the applications would normally be

reached for processing. The petitioner shall serve a copy of such petition on the applicant. The petition shall contain specific allegations of fact sufficient to show that the petitioner is a party in interest and that a grant of the application would be prima facie inconsistent with subsection (a) (or subsection (k) in the case of renewal of any broadcast station license). Such allegations of fact shall, except for those of which official notice may be taken, be supported by affidavit of a person or persons with personal knowledge thereof. The applicant shall be given the opportunity to file a reply in which allegations of fact or denials thereof shall similarly be supported by affidavit.

(2) If the Commission finds on the basis of the application, the pleadings filed, or other matters which it may officially notice that there are no substantial and material questions of fact and that a grant of the application would be consistent with subsection (a) (or subsection (k) in the case of renewal of any broadcast station license), it shall make the grant, deny the petition, and issue a concise statement of the reasons for denying the petition, which statement shall dispose of all substantial issues raised by the petition. If a substantial and material question of fact is presented or if the Commission for any reason is unable to find that grant of the application would be consistent with subsection (a) (or subsection (k) in the case of renewal of any broadcast station license), it shall proceed as provided in subsection (e).

(e) Hearings; intervention; evidence; burden of proof. If, in the case of any application to which subsection (a) of this section applies, a substantial and material question of fact is presented or the Commission for any reason is unable to make the finding specified in such subsection, it shall formally designate the application for hearing on the ground or reasons then obtaining and shall forthwith notify the applicant and all other known parties in interest of such action and the grounds and reasons therefor, specifying with particularity the matters and things in issue but not including issues or requirements phrased generally. When the Commission has so designated an application for hearing the parties in interest, if any, who are not notified by the Commission of such action may acquire the status of a party to the proceeding thereon by filing a petition for intervention showing the basis for their interest not more than thirty days after publication of the hearing issues or any substantial amendment thereto in the Federal Register. Any hearing subsequently held upon such application shall be a full hearing in which the applicant and all other parties in interest shall be permitted to participate. The burden of proceeding with the introduction of evidence and the burden of proof shall be upon the applicant, except that with respect to any issue presented by a petition to deny or a petition to enlarge the issues, such burdens shall be as determined by the Commission.

(f) Temporary authorization of operations under subsection (b). When an application subject to subsection (b) has been filed, the Commission, notwithstanding the requirements of such subsection, may, if the grant of such application is otherwise authorized by law and if it finds that there are extraordinary circumstances requiring temporary operations in the public interest and that delay in the institution of such temporary operations would seriously prejudice the public interest, grant a temporary authorization, accompanied by a statement of its reasons therefor, to permit such temporary operations for a period not exceeding 180 days, and upon making like findings may extend such temporary authorization for additional periods not to exceed 180 days. When any such grant of a temporary authorization is made, the Commission shall give expeditious treatment to any timely filed petition to deny such application and to any petition for rehearing of such grant filed under section 405 [47 USCS § 405].

(g) Classification of applications. The Commission is authorized to adopt reasonable classifications of applications and amendments in order to effectuate the purposes of this section.

(h) Form and conditions of station licenses. Such station licenses as the Commission may grant shall be in such general form as it may prescribe, but each license shall contain, in addition to other provisions, a statement of the following conditions to which such license shall be subject: (1) The station license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized therein; (2) neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of this Act; (3) every license issued under this Act shall be subject in terms to the right of use or control conferred by section 706 of this Act [47 USCS § 606].

(i) Random selection.

(1) General authority. Except as provided in paragraph (5), if there is more than one application for any initial license or construction permit, then the Commission shall have the authority to grant such license or permit to a qualified applicant through the use of a system of random selection.

(2) No license or construction permit shall be granted to an applicant selected pursuant to paragraph (1) unless the Commission determines the qualifications of such applicant pursuant to subsection (a) and section 308(b) [47 USCS § 308(b)]. When substantial and material questions of fact exist concerning such qualifications, the Commission shall conduct a hearing in order to make such determinations. For the purpose of making such determinations, the Commission may, by rule, and notwithstanding any other provision of law—

(A) adopt procedures for the submission of all or part of the evidence in written form;

- (B) delegate the function of presiding at the taking of the evidence to Commission employees other than administrative law judges; and
- (C) omit the determination required by subsection (a) with respect to any application other than the one selected pursuant to paragraph (1).

(3)

- (A) The Commission shall establish rules and procedures to ensure that, in the administration of any system of random selection under this subsection used for granting licenses or construction permits for any media of mass communications, significant preferences will be granted to applicants or groups of applicants, the grant to which of the license or permit would increase the diversification of ownership of the media of mass communications. To further diversify the ownership of the media of mass communications, an additional significant preference shall be granted to any applicant controlled by a member or members of a minority group.
- (B) The Commission shall have authority to require each qualified applicant seeking a significant preference under subparagraph (A) to submit to the Commission such information as may be necessary to enable the Commission to make a determination regarding whether such applicant shall be granted such preference. Such information shall be submitted in such form, at such times, and in accordance with such procedures, as the Commission may require.
- (C) For purposes of this paragraph:
 - (i) The term “media of mass communications” includes television, radio, cable television, multipoint distribution service, direct broadcast satellite service, and other services, the licensed facilities of which may be substantially devoted toward providing programming or other information services within the editorial control of the licensee.
 - (ii) The term “minority group” includes Blacks, Hispanics, American Indians, Alaska Natives, Asians, and Pacific Islanders.

(4)

- (A) The Commission shall, after notice and opportunity for hearing, prescribe rules establishing a system of random selection for use by the Commission under this subsection in any instance in which the Commission, in its discretion, determines that such use is appropriate for the granting of any license or permit in accordance with paragraph (1).
- (B) The Commission shall have authority to amend such rules from time to time to the extent necessary to carry out the provisions of this subsection. Any such amendment shall be made after notice and opportunity for hearing.
- (C) Not later than 180 days after the date of enactment of this subparagraph [enacted Aug. 10, 1993], the Commission shall prescribe such transfer

disclosures and antitrafficking restrictions and payment schedules as are necessary to prevent the unjust enrichment of recipients of licenses or permits as a result of the methods employed to issue licenses under this subsection.

(5) Termination of authority.

(A) Except as provided in subparagraph (B), the Commission shall not issue any license or permit using a system of random selection under this subsection after July 1, 1997.

(B) Subparagraph (A) of this paragraph shall not apply with respect to licenses or permits for stations described in section 397(6) of this Act [47 USCS § 397(6)].

(j) Use of competitive bidding.

(1) General authority. If, consistent with the obligations described in paragraph (6)(E), mutually exclusive applications are accepted for any initial license or construction permit, then, except as provided in paragraph (2), the Commission shall grant the license or permit to a qualified applicant through a system of competitive bidding that meets the requirements of this subsection.

(2) Exemptions. The competitive bidding authority granted by this subsection shall not apply to licenses or construction permits issued by the Commission—

(A) for public safety radio services, including private internal radio services used by State and local governments and non-government entities and including emergency road services provided by not-for-profit organizations, that—

(i) are used to protect the safety of life, health, or property; and

(ii) are not made commercially available to the public;

(B) for initial licenses or construction permits for digital television service given to existing terrestrial broadcast licensees to replace their analog television service licenses; or

(C) for stations described in section 397(6) of this Act [47 USCS § 397(6)].

(3) Design of systems of competitive bidding. For each class of licenses or permits that the Commission grants through the use of a competitive bidding system, the Commission shall, by regulation, establish a competitive bidding methodology. The Commission shall seek to design and test multiple alternative methodologies under appropriate circumstances. The Commission shall, directly or by contract, provide for the design and conduct (for purposes of testing) of competitive bidding using a contingent combinatorial bidding system that permits prospective bidders to bid on combinations or groups of licenses in a single bid and to enter multiple alternative bids within a single bidding round. In identifying classes of licenses and permits to be issued by competitive bidding, in specifying eligibility and other characteristics of such licenses and

permits, and in designing the methodologies for use under this subsection, the Commission shall include safeguards to protect the public interest in the use of the spectrum and shall seek to promote the purposes specified in section 1 of this Act [47 USCS § 151] and the following objectives:

(A) the development and rapid deployment of new technologies, products, and services for the benefit of the public, including those residing in rural areas, without administrative or judicial delays;

(B) promoting economic opportunity and competition and ensuring that new and innovative technologies are readily accessible to the American people by avoiding excessive concentration of licenses and by disseminating licenses among a wide variety of applicants, including small businesses, rural telephone companies, and businesses owned by members of minority groups and women;

(C) recovery for the public of a portion of the value of the public spectrum resource made available for commercial use and avoidance of unjust enrichment through the methods employed to award uses of that resource;

(D) efficient and intensive use of the electromagnetic spectrum;

(E) ensure that, in the scheduling of any competitive bidding under this subsection, an adequate period is allowed—

(i) before issuance of bidding rules, to permit notice and comment on proposed auction procedures; and

(ii) after issuance of bidding rules, to ensure that interested parties have a sufficient time to develop business plans, assess market conditions, and evaluate the availability of equipment for the relevant services; and

(F) for any auction of eligible frequencies described in section 113(g)(2) of the National Telecommunications and Information Administration Organization Act (47 U.S.C. 923(g)(2)), the recovery of 110 percent of estimated relocation or sharing costs as provided to the Commission pursuant to section 113(g)(4) of such Act [47 USCS § 923(g)(4)].

(4) Contents of regulations. In prescribing regulations pursuant to paragraph (3), the Commission shall—

(A) consider alternative payment schedules and methods of calculation, including lump sums or guaranteed installment payments, with or without royalty payments, or other schedules or methods that promote the objectives described in paragraph (3)(B), and combinations of such schedules and methods;

(B) include performance requirements, such as appropriate deadlines and penalties for performance failures, to ensure prompt delivery of service to rural areas, to prevent stockpiling or warehousing of spectrum by licensees

or permittees, and to promote investment in and rapid deployment of new technologies and services;

(C) consistent with the public interest, convenience, and necessity, the purposes of this Act, and the characteristics of the proposed service, prescribe area designations and bandwidth assignments that promote (i) an equitable distribution of licenses and services among geographic areas, (ii) economic opportunity for a wide variety of applicants, including small businesses, rural telephone companies, and businesses owned by members of minority groups and women, and (iii) investment in and rapid deployment of new technologies and services;

(D) ensure that small businesses, rural telephone companies, and businesses owned by members of minority groups and women are given the opportunity to participate in the provision of spectrum-based services, and, for such purposes, consider the use of tax certificates, bidding preferences, and other procedures;

(E) require such transfer disclosures and antitrafficking restrictions and payment schedules as may be necessary to prevent unjust enrichment as a result of the methods employed to issue licenses and permits; and

(F) prescribe methods by which a reasonable reserve price will be required, or a minimum bid will be established, to obtain any license or permit being assigned pursuant to the competitive bidding, unless the Commission determines that such a reserve price or minimum bid is not in the public interest.

(5) Bidder and licensee qualification. No person shall be permitted to participate in a system of competitive bidding pursuant to this subsection unless such bidder submits such information and assurances as the Commission may require to demonstrate that such bidder's application is acceptable for filing. No license shall be granted to an applicant selected pursuant to this subsection unless the Commission determines that the applicant is qualified pursuant to subsection (a) and sections 308(b) and 310 [47 USCS §§ 308(b) and 310]. Consistent with the objectives described in paragraph (3), the Commission shall, by regulation, prescribe expedited procedures consistent with the procedures authorized by subsection (i)(2) for the resolution of any substantial and material issues of fact concerning qualifications.

(6) Rules of construction. Nothing in this subsection, or in the use of competitive bidding, shall—

(A) alter spectrum allocation criteria and procedures established by the other provisions of this Act;

(B) limit or otherwise affect the requirements of subsection (h) of this section, section 301, 304, 307, 310, or 706 [47 USCS § 301, 304, 307, 310,

or 706], or any other provision of this Act (other than subsections (d)(2) and (e) of this section);

(C) diminish the authority of the Commission under the other provisions of this Act to regulate or reclaim spectrum licenses;

(D) be construed to convey any rights, including any expectation of renewal of a license, that differ from the rights that apply to other licenses within the same service that were not issued pursuant to this subsection;

(E) be construed to relieve the Commission of the obligation in the public interest to continue to use engineering solutions, negotiation, threshold qualifications, service regulations, and other means in order to avoid mutual exclusivity in application and licensing proceedings;

(F) be construed to prohibit the Commission from issuing nationwide, regional, or local licenses or permits;

(G) be construed to prevent the Commission from awarding licenses to those persons who make significant contributions to the development of a new telecommunications service or technology; or

(H) be construed to relieve any applicant for a license or permit of the obligation to pay charges imposed pursuant to section 8 of this Act [47 USCS § 158].

(7) Consideration of revenues in public interest determinations.

(A) Consideration prohibited. In making a decision pursuant to section 303(c) [47 USCS § 303(c)] to assign a band of frequencies to a use for which licenses or permits will be issued pursuant to this subsection, and in prescribing regulations pursuant to paragraph (4)(C) of this subsection, the Commission may not base a finding of public interest, convenience, and necessity on the expectation of Federal revenues from the use of a system of competitive bidding under this subsection.

(B) Consideration limited. In prescribing regulations pursuant to paragraph (4)(A) of this subsection, the Commission may not base a finding of public interest, convenience, and necessity solely or predominantly on the expectation of Federal revenues from the use of a system of competitive bidding under this subsection.

(C) Consideration of demand for spectrum not affected. Nothing in this paragraph shall be construed to prevent the Commission from continuing to consider consumer demand for spectrum-based services.

(8) Treatment of revenues.

(A) General rule. Except as provided in subparagraphs (B), (D), (E), (F), and (G), all proceeds from the use of a competitive bidding system under this subsection shall be deposited in the Treasury in accordance with chapter 33 of title 31, United States Code [33 USCS §§ 3301 et seq.].

(B) Retention of revenues. Notwithstanding subparagraph (A), the salaries and expenses account of the Commission shall retain as an offsetting collection such sums as may be necessary from such proceeds for the costs of developing and implementing the program required by this subsection. Such offsetting collections shall be available for obligation subject to the terms and conditions of the receiving appropriations account, and shall be deposited in such accounts on a quarterly basis. Such offsetting collections are authorized to remain available until expended.

(C) Deposit and use of auction escrow accounts. Any deposits the Commission may require for the qualification of any person to bid in a system of competitive bidding pursuant to this subsection shall be deposited in the Treasury. Within 45 days following the conclusion of the competitive bidding—

- (i) the deposits of successful bidders shall be deposited in the general fund of the Treasury (where such deposits shall be used for the sole purpose of deficit reduction), except as otherwise provided in subparagraphs (D)(ii), (E)(ii), (F), and (G); and
- (ii) the deposits of unsuccessful bidders shall be returned to such bidders, and payments representing the return of such deposits shall not be subject to administrative offset under section 3716(c) of title 31, United States Code.

(D) Proceeds from reallocated Federal spectrum.

- (i) In general. Except as provided in clause (ii), cash proceeds attributable to the auction of any eligible frequencies described in section 113(g)(2) of the National Telecommunications and Information Administration Organization Act (47 U.S.C. 923(g)(2)) shall be deposited in the Spectrum Relocation Fund established under section 118 of such Act [47 USCS § 928], and shall be available in accordance with that section.

- (ii) Certain other proceeds. Notwithstanding subparagraph (A) and except as provided in subparagraph (B), in the case of proceeds (including deposits and upfront payments from successful bidders) attributable to the auction of eligible frequencies described in paragraph (2) of section 113(g) of the National Telecommunications and Information Administration Organization Act [47 USCS § 923(g)] that are required to be auctioned by section 6401(b)(1)(B) of the Middle Class Tax Relief and Job Creation Act of 2012 [47 USCS § 1451(b)(1)(B)], such portion of such proceeds as is necessary to cover the relocation or sharing costs (as defined in paragraph (3) of such section 113(g) [47 USCS § 923(g)]) of Federal entities relocated from such eligible

frequencies shall be deposited in the Spectrum Relocation Fund. The remainder of such proceeds shall be deposited in the Public Safety Trust Fund established by section 6413(a)(1) of the Middle Class Tax Relief and Job Creation Act of 2012 [47 USCS § 1457(a)(1)].

(E) Transfer of receipts.

(i) Establishment of Fund. There is established in the Treasury of the United States a fund to be known as the Digital Television Transition and Public Safety Fund.

(ii) Proceeds for funds. Notwithstanding subparagraph (A), the proceeds (including deposits and upfront payments from successful bidders) from the use of a competitive bidding system under this subsection with respect to recovered analog spectrum shall be deposited in the Digital Television Transition and Public Safety Fund.

(iii) Transfer of amount to Treasury. On September 30, 2009, the Secretary shall transfer \$7,363,000,000 from the Digital Television Transition and Public Safety Fund to the general fund of the Treasury.

(iv) Recovered analog spectrum. For purposes of clause (i), the term “recovered analog spectrum” has the meaning provided in paragraph (15)(C)(vi).

(F) Certain proceeds designated for Public Safety Trust Fund.

Notwithstanding subparagraph (A) and except as provided in subparagraphs (B) and (D)(ii), the proceeds (including deposits and upfront payments from successful bidders) from the use of a system of competitive bidding under this subsection pursuant to section 6401(b)(1)(B) of the Middle Class Tax Relief and Job Creation Act of 2012 [47 USCS § 1451(b)(1)(B)] shall be deposited in the Public Safety Trust Fund established by section 6413(a)(1) of such Act [47 USCS § 1457(a)(1)].

(G) Incentive auctions.

(i) In general. Notwithstanding subparagraph (A) and except as provided in subparagraph (B), the Commission may encourage a licensee to relinquish voluntarily some or all of its licensed spectrum usage rights in order to permit the assignment of new initial licenses subject to flexible-use service rules by sharing with such licensee a portion, based on the value of the relinquished rights as determined in the reverse auction required by clause (ii)(I), of the proceeds (including deposits and upfront payments from successful bidders) from the use of a competitive bidding system under this subsection.

(ii) Limitations. The Commission may not enter into an agreement for a licensee to relinquish spectrum usage rights in exchange for a share of auction proceeds under clause (i) unless—

- (I) the Commission conducts a reverse auction to determine the amount of compensation that licensees would accept in return for voluntarily relinquishing spectrum usage rights; and
 - (II) at least two competing licensees participate in the reverse auction.
- (iii) Treatment of revenues. Notwithstanding subparagraph (A) and except as provided in subparagraph (B), the proceeds (including deposits and upfront payments from successful bidders) from any auction, prior to the end of fiscal year 2022, of spectrum usage rights made available under clause (i) that are not shared with licensees under such clause shall be deposited as follows:
- (I) \$1,750,000,000 of the proceeds from the incentive auction of broadcast television spectrum required by section 6403 of the Middle Class Tax Relief and Job Creation Act of 2012 [47 USCS § 1452] shall be deposited in the TV Broadcaster Relocation Fund established by subsection (d)(1) of such section.
 - (II) All other proceeds shall be deposited—
 - (aa) prior to the end of fiscal year 2022, in the Public Safety Trust Fund established by section 6413(a)(1) of such Act [47 USCS § 1457(a)(1)]; and
 - (bb) after the end of fiscal year 2022, in the general fund of the Treasury, where such proceeds shall be dedicated for the sole purpose of deficit reduction.
- (iv) Congressional notification. At least 3 months before any incentive auction conducted under this subparagraph, the Chairman of the Commission, in consultation with the Director of the Office of Management and Budget, shall notify the appropriate committees of Congress of the methodology for calculating the amounts that will be shared with licensees under clause (i).
- (v) Definition. In this subparagraph, the term “appropriate committees of Congress” means—
- (I) the Committee on Commerce, Science, and Transportation of the Senate;
 - (II) the Committee on Appropriations of the Senate;
 - (III) the Committee on Energy and Commerce of the House of Representatives; and
 - (IV) the Committee on Appropriations of the House of Representatives.
- (9) Use of former Government spectrum. The Commission shall, not later than 5 years after the date of enactment of this subsection [enacted Aug. 10, 1993],

issue licenses and permits pursuant to this subsection for the use of bands of frequencies that—

(A) in the aggregate span not less than 10 megahertz; and

(B) have been reassigned from Government use pursuant to part B of the National Telecommunications and Information Administration Organization Act [47 USCS §§ 921 et seq.].

(10) Authority contingent on availability of additional spectrum.

(A) Initial conditions. The Commission's authority to issue licenses or permits under this subsection shall not take effect unless—

(i) the Secretary of Commerce has submitted to the Commission the report required by section 113(d)(1) of the National Telecommunications and Information Administration Organization Act [47 USCS § 923(d)(1)];

(ii) such report recommends for immediate reallocation bands of frequencies that, in the aggregate, span not less than 50 megahertz;

(iii) such bands of frequencies meet the criteria required by section 113(a) of such Act [47 USCS § 923(a)]; and

(iv) the Commission has completed the rulemaking required by section 332(c)(1)(D) of this Act [47 USCS § 332(c)(1)(D)].

(B) Subsequent conditions. The Commission's authority to issue licenses or permits under this subsection on and after 2 years after the date of the enactment of this subsection [enacted Aug. 10, 1993] shall cease to be effective if—

(i) the Secretary of Commerce has failed to submit the report required by section 113(a) of the National Telecommunications and Information Administration Organization Act [47 USCS § 923(a)];

(ii) the President has failed to withdraw and limit assignments of frequencies as required by paragraphs (1) and (2) of section 114(a) of such Act [47 USCS § 924(a)];

(iii) the Commission has failed to issue the regulations required by section 115(a) of such Act [47 USCS § 925(a)];

(iv) the Commission has failed to complete and submit to Congress, not later than 18 months after the date of enactment of this subsection [enacted Aug. 10, 1993], a study of current and future spectrum needs of State and local government public safety agencies through the year 2010, and a specific plan to ensure that adequate frequencies are made available to public safety licensees; or

(v) the Commission has failed under section 332(c)(3) [47 USCS § 332(c)(3)] to grant or deny within the time required by such section any

- petition that a State has filed within 90 days after the date of enactment of this subsection [enacted Aug. 10, 1993];
until such failure has been corrected.
- (11) Termination. The authority of the Commission to grant a license or permit under this subsection shall expire March 9, 2023, except that, with respect to the electromagnetic spectrum identified under section 1004(a) of the Spectrum Pipeline Act of 2015 [47 USCS § 921 note], such authority shall expire on September 30, 2025, and with respect to the electromagnetic spectrum identified under section 90008(b)(2)(A)(ii) of the Infrastructure Investment and Jobs Act [47 USCS § 921 note], such authority shall expire on the date that is 7 years after the date of enactment of that Act [enacted Nov. 15, 2021].
- (12) [Deleted]
- (13) Recovery of value of public spectrum in connection with pioneer preferences.

(A) In general. Notwithstanding paragraph (6)(G), the Commission shall not award licenses pursuant to a preferential treatment accorded by the Commission to persons who make significant contributions to the development of a new telecommunications service or technology, except in accordance with the requirements of this paragraph.

(B) Recovery of value. The Commission shall recover for the public a portion of the value of the public spectrum resource made available to such person by requiring such person, as a condition for receipt of the license, to agree to pay a sum determined by—

(i) identifying the winning bids for the licenses that the Commission determines are most reasonably comparable in terms of bandwidth, scope of service area, usage restrictions, and other technical characteristics to the license awarded to such person, and excluding licenses that the Commission determines are subject to bidding anomalies due to the award of preferential treatment;

(ii) dividing each such winning bid by the population of its service area (hereinafter referred to as the per capita bid amount);

(iii) computing the average of the per capita bid amounts for the licenses identified under clause (i);

(iv) reducing such average amount by 15 percent; and

(v) multiplying the amount determined under clause (iv) by the population of the service area of the license obtained by such person.

(C) Installments permitted. The Commission shall require such person to pay the sum required by subparagraph (B) in a lump sum or in guaranteed installment payments, with or without royalty payments, over a period of not more than 5 years.

(D) Rulemaking on pioneer preferences. Except with respect to pending applications described in clause (iv) of this subparagraph, the Commission shall prescribe regulations specifying the procedures and criteria by which the Commission will evaluate applications for preferential treatment in its licensing processes (by precluding the filing of mutually exclusive applications) for persons who make significant contributions to the development of a new service or to the development of new technologies that substantially enhance an existing service. Such regulations shall—

- (i) specify the procedures and criteria by which the significance of such contributions will be determined, after an opportunity for review and verification by experts in the radio sciences drawn from among persons who are not employees of the Commission or by any applicant for such preferential treatment;
- (ii) include such other procedures as may be necessary to prevent unjust enrichment by ensuring that the value of any such contribution justifies any reduction in the amounts paid for comparable licenses under this subsection;
- (iii) be prescribed not later than 6 months after the date of enactment of this paragraph [enacted Dec. 8, 1994];
- (iv) not apply to applications that have been accepted for filing on or before September 1, 1994; and
- (v) cease to be effective on the date of the expiration of the Commission's authority under subparagraph (F).

(E) Implementation with respect to pending applications. In applying this paragraph to any broadband licenses in the personal communications service awarded pursuant to the preferential treatment accorded by the Federal Communications Commission in the Third Report and Order in General Docket 90-314 (FCC 93-550, released February 3, 1994)—

- (i) the Commission shall not reconsider the award of preferences in such Third Report and Order, and the Commission shall not delay the grant of licenses based on such awards more than 15 days following the date of enactment of this paragraph [enacted Dec. 8, 1994], and the award of such preferences and licenses shall not be subject to administrative or judicial review;
- (ii) the Commission shall not alter the bandwidth or service areas designated for such licenses in such Third Report and Order;
- (iii) except as provided in clause (v), the Commission shall use, as the most reasonably comparable licenses for purposes of subparagraph (B)(i), the broadband licenses in the personal communications service for

blocks A and B for the 20 largest markets (ranked by population) in which no applicant has obtained preferential treatment;

(iv) for purposes of subparagraph (C), the Commission shall permit guaranteed installment payments over a period of 5 years, subject to—

(I) the payment only of interest on unpaid balances during the first 2 years, commencing not later than 30 days after the award of the license (including any preferential treatment used in making such award) is final and no longer subject to administrative or judicial review, except that no such payment shall be required prior to the date of completion of the auction of the comparable licenses described in clause (iii); and

(II) payment of the unpaid balance and interest thereon after the end of such 2 years in accordance with the regulations prescribed by the Commission; and

(v) the Commission shall recover with respect to broadband licenses in the personal communications service an amount under this paragraph that is equal to not less than \$400,000,000, and if such amount is less than \$400,000,000, the Commission shall recover an amount equal to \$400,000,000 by allocating such amount among the holders of such licenses based on the population of the license areas held by each licensee.

The Commission shall not include in any amounts required to be collected under clause (v) the interest on unpaid balances required to be collected under clause (iv).

(F) Expiration. The authority of the Commission to provide preferential treatment in licensing procedures (by precluding the filing of mutually exclusive applications) to persons who make significant contributions to the development of a new service or to the development of new technologies that substantially enhance an existing service shall expire on the date of enactment of the Balanced Budget Act of 1997 [enacted Aug. 5, 1997].

(G) Effective date. This paragraph shall be effective on the date of its enactment [enacted Dec. 8, 1994] and apply to any licenses issued on or after August 1, 1994, by the Federal Communications Commission pursuant to any licensing procedure that provides preferential treatment (by precluding the filing of mutually exclusive applications) to persons who make significant contributions to the development of a new service or to the development of new technologies that substantially enhance an existing service.

(14) Auction of recaptured broadcast television spectrum.

(A) Limitations on terms of terrestrial television broadcast licenses. A full-power television broadcast license that authorizes analog television service may not be renewed to authorize such service for a period that extends beyond June 12, 2009.

(B) Spectrum reversion and resale.

(i) The Commission shall—

(I) ensure that, as licenses for analog television service expire pursuant to subparagraph (A), each licensee shall cease using electromagnetic spectrum assigned to such service according to the Commission's direction; and

(II) reclaim and organize the electromagnetic spectrum in a manner consistent with the objectives described in paragraph (3) of this subsection.

(ii) Licensees for new services occupying spectrum reclaimed pursuant to clause (i) shall be assigned in accordance with this subsection.

(C) Certain limitations on qualified bidders prohibited. In prescribing any regulations relating to the qualification of bidders for spectrum reclaimed pursuant to subparagraph (B)(i), the Commission, for any license that may be used for any digital television service where the grade A contour of the station is projected to encompass the entirety of a city with a population in excess of 400,000 (as determined using the 1990 decennial census), shall not—

(i) preclude any party from being a qualified bidder for such spectrum on the basis of—

(I) the Commission's duopoly rule (47 C.F.R. 73.3555(b)); or

(II) the Commission's newspaper cross-ownership rule (47 C.F.R. 73.3555(d)); or

(ii) apply either such rule to preclude such a party that is a winning bidder in a competitive bidding for such spectrum from using such spectrum for digital television service.

(15) Commission to determine timing of auctions.

(A) Commission authority. Subject to the provisions of this subsection (including paragraph (11)), but notwithstanding any other provision of law, the Commission shall determine the timing of and deadlines for the conduct of competitive bidding under this subsection, including the timing of and deadlines for qualifying for bidding; conducting auctions; collecting, depositing, and reporting revenues; and completing licensing processes and assigning licenses.

(B) Termination of portions of auctions 31 and 44. Except as provided in subparagraph (C), the Commission shall not commence or conduct auctions

31 and 44 on June 19, 2002, as specified in the public notices of March 19, 2002, and March 20, 2002 (DA 02-659 and DA 02-563).

(C) Exception.

(i) Blocks excepted. Subparagraph (B) shall not apply to the auction of—

(I) the C-block of licenses on the bands of frequencies located at 710–716 megahertz, and 740–746 megahertz; or

(II) the D-block of licenses on the bands of frequencies located at 716–722 megahertz.

(ii) Eligible bidders. The entities that shall be eligible to bid in the auction of the C-block and D-block licenses described in clause (i) shall be those entities that were qualified entities, and that submitted applications to participate in auction 44, by May 8, 2002, as part of the original auction 44 short form filing deadline.

(iii) Auction deadlines for excepted blocks. Notwithstanding subparagraph (B), the auction of the C-block and D-block licenses described in clause (i) shall be commenced no earlier than August 19, 2002, and no later than September 19, 2002, and the proceeds of such auction shall be deposited in accordance with paragraph (8) not later than December 31, 2002.

(iv) [Deleted]

(v) Additional deadlines for recovered analog spectrum.

Notwithstanding subparagraph (B), the Commission shall conduct the auction of the licenses for recovered analog spectrum by commencing the bidding not later than January 28, 2008, and shall deposit the proceeds of such auction in accordance with paragraph (8)(E)(ii) not later than June 30, 2008.

(vi) Recovered analog spectrum. For purposes of clause (v), the term “recovered analog spectrum” means the spectrum between channels 52 and 69, inclusive (between frequencies 698 and 806 megahertz, inclusive) reclaimed from analog television service broadcasting under paragraph (14), other than—

(I) the spectrum required by section 337 [47 USCS § 337] to be made available for public safety services; and

(II) the spectrum auctioned prior to the date of enactment of the Digital Television Transition and Public Safety Act of 2005 [enacted Feb. 8, 2006].

(D) Return of payments. Within one month after the date of enactment of this paragraph [enacted June 19, 2002], the Commission shall return to the

- bidders for licenses in the A-block, B-block, and E-block of auction 44 the full amount of all upfront payments made by such bidders for such licenses.
- (16) Special auction provisions for eligible frequencies.
- (A) Special regulations. The Commission shall revise the regulations prescribed under paragraph (4)(F) of this subsection to prescribe methods by which the total cash proceeds from any auction of eligible frequencies described in section 113(g)(2) of the National Telecommunications and Information Administration Organization Act (47 U.S.C. 923(g)(2)) shall at least equal 110 percent of the total estimated relocation or sharing costs provided to the Commission pursuant to section 113(g)(4) of such Act [47 USCS § 923(g)(4)].
- (B) Conclusion of auctions contingent on minimum proceeds. The Commission shall not conclude any auction of eligible frequencies described in section 113(g)(2) of such Act [47 USCS § 923(g)(2)] if the total cash proceeds attributable to such spectrum are less than 110 percent of the total estimated relocation or sharing costs provided to the Commission pursuant to section 113(g)(4) of such Act [47 USCS § 923(g)(4)]. If the Commission is unable to conclude an auction for the foregoing reason, the Commission shall cancel the auction, return within 45 days after the auction cancellation date any deposits from participating bidders held in escrow, and absolve such bidders from any obligation to the United States to bid in any subsequent reauction of such spectrum.
- (C) Authority to issue prior to deauthorization. In any auction conducted under the regulations required by subparagraph (A), the Commission may grant a license assigned for the use of eligible frequencies prior to the termination of an eligible Federal entity's authorization. However, the Commission shall condition such license by requiring that the licensee cannot cause harmful interference to such Federal entity until such entity's authorization has been terminated by the National Telecommunications and Information Administration.
- (17) Certain conditions on auction participation prohibited.
- (A) In general. Notwithstanding any other provision of law, the Commission may not prevent a person from participating in a system of competitive bidding under this subsection if such person—
- (i) complies with all the auction procedures and other requirements to protect the auction process established by the Commission; and
- (ii) either—
- (I) meets the technical, financial, character, and citizenship qualifications that the Commission may require under section

303(l)(1), 308(b), or 310 [47 USCS § 303(l)(1), 308(b), or 310] to hold a license; or

(II) would meet such license qualifications by means approved by the Commission prior to the grant of the license.

(B) Clarification of authority. Nothing in subparagraph (A) affects any authority the Commission has to adopt and enforce rules of general applicability, including rules concerning spectrum aggregation that promote competition.

(18) Estimate of upcoming auctions.

(A) Not later than September 30, 2018, and annually thereafter, the Commission shall make publicly available an estimate of what systems of competitive bidding authorized under this subsection may be initiated during the upcoming 12-month period.

(B) The estimate under subparagraph (A) shall, to the extent possible, identify the bands of frequencies the Commission expects to be included in each such system of competitive bidding.

(k) Broadcast station renewal procedures.

(1) Standards for renewal. If the licensee of a broadcast station submits an application to the Commission for renewal of such license, the Commission shall grant the application if it finds, with respect to that station, during the preceding term of its license—

(A) the station has served the public interest, convenience, and necessity;

(B) there have been no serious violations by the licensee of this Act or the rules and regulations of the Commission; and

(C) there have been no other violations by the licensee of this Act or the rules and regulations of the Commission which, taken together, would constitute a pattern of abuse.

(2) Consequence of failure to meet standard. If any licensee of a broadcast station fails to meet the requirements of this subsection, the Commission may deny the application for renewal in accordance with paragraph (3), or grant such application on terms and conditions as are appropriate, including renewal for a term less than the maximum otherwise permitted.

(3) Standards for denial. If the Commission determines, after notice and opportunity for a hearing as provided in subsection (e), that a licensee has failed to meet the requirements specified in paragraph (1) and that no mitigating factors justify the imposition of lesser sanctions, the Commission shall—

(A) issue an order denying the renewal application filed by such licensee under section 308 [47 USCS § 308]; and

(B) only thereafter accept and consider such applications for a construction permit as may be filed under section 308 [47 USCS § 308] specifying the channel or broadcasting facilities of the former licensee.

(4) Competitor consideration prohibited. In making the determinations specified in paragraph (1) or (2), the Commission shall not consider whether the public interest, convenience, and necessity might be served by the grant of a license to a person other than the renewal applicant.

(l) Applicability of competitive bidding to pending comparative licensing cases. With respect to competing applications for initial licenses or construction permits for commercial radio or television stations that were filed with the Commission before July 1, 1997, the Commission shall—

(1) have the authority to conduct a competitive bidding proceeding pursuant to subsection (j) to assign such license or permit;

(2) treat the persons filing such applications as the only persons eligible to be qualified bidders for purposes of such proceeding; and

(3) waive any provisions of its regulations necessary to permit such persons to enter an agreement to procure the removal of a conflict between their applications during the 180-day period beginning on the date of enactment of the Balanced Budget Act of 1997.

47 U.S.C. §316

§ 316. Modification by Commission of station licenses or construction permits; burden of proof

(a)

(1) Any station license or construction permit may be modified by the Commission either for a limited time or for the duration of the term thereof, if in the judgment of the Commission such action will promote the public interest, convenience, and necessity, or the provisions of this Act or of any treaty ratified by the United States will be more fully complied with. No such order of modification shall become final until the holder of the license or permit shall have been notified in writing of the proposed action and the grounds and reasons therefor, and shall be given reasonable opportunity, of at least thirty days, to protest such proposed order of modification; except that, where safety of life or property is involved, the Commission may by order provide, for a shorter period of notice.

(2) Any other licensee or permittee who believes its license or permit would be modified by the proposed action may also protest the proposed action before its effective date.

(3) A protest filed pursuant to this subsection shall be subject to the requirements of section 309 [47 USCS § 309] for petitions to deny.

(b) In any case where a hearing is conducted pursuant to the provisions of this section, both the burden of proceeding with the introduction of evidence and the burden of proof shall be upon the Commission; Except that, with respect to any issue that addresses the question of whether the proposed action would modify the license or permit of a person described in subsection (a)(2), such burdens shall be as determined by the Commission.

47 U.S.C. §319

§ 319. Construction permits

(a) Requirements. No license shall be issued under the authority of this Act for the operation of any station unless a permit for its construction has been granted by the Commission. The application for a construction permit shall set forth such facts as the Commission by regulation may prescribe as to the citizenship, character, and the financial, technical, and other ability of the applicant to construct and operate the station, the ownership and location of the proposed station and of the station or stations with which it is proposed to communicate, the frequencies desired to be used, the hours of the day or other periods of time during which it is proposed to operate the station, the purpose for which the station is to be used, the type of transmitting apparatus to be used, the power to be used, the date upon which the station is expected to be completed and in operation, and such other information as the Commission may require. Such application shall be signed by the applicant in any manner or form, including by electronic means, as the Commission may prescribe by regulation.

(b) Time limitation; forfeiture. Such permit for construction shall show specifically the earliest and latest dates between which the actual operation of such station is expected to begin, and shall provide that said permit will be automatically forfeited if the station is not ready for operation within the time specified or within such further time as the Commission may allow, unless prevented by causes not under the control of the grantee.

(c) Licenses for operation. Upon the completion of any station for the construction or continued construction of which a permit has been granted, and upon it being made to appear to the Commission that all the terms, conditions, and obligations set forth in the application and permit have been fully met, and that no cause or circumstance arising or first coming to the knowledge of the Commission since the granting of the permit would, in the judgment of the Commission, make the operation of such station against the public interest, the Commission shall issue a license to the lawful holder of said permit for the operation of said station. Said license shall conform generally to the terms of said permit. The provisions of section 309(a), (b), (c), (d), (e), (f), and (g) [47 USCS § 309(a)–(g)] shall not apply

with respect to any station license the issuance of which is provided for and governed by the provisions of this subsection.

(d) Government, amateur, or mobile station; waiver. A permit for construction shall not be required for Government stations, amateur stations, or mobile stations. A permit for construction shall not be required for public coast stations, privately owned fixed microwave stations, or stations licensed to common carriers, unless the Commission determines that the public interest, convenience, and necessity would be served by requiring such permits for any such stations. With respect to any broadcasting station, the Commission shall not have any authority to waive the requirement of a permit for construction, except that the Commission may by regulation determine that a permit shall not be required for minor changes in the facilities of authorized broadcast stations. With respect to any other station or class of stations, the Commission shall not waive the requirement for a construction permit unless the Commission determines that the public interest, convenience, and necessity would be served by such a waiver.

47 U.S.C. §324

§ 324. Use of minimum power

In all circumstances, except in case of radio communications or signals relating to vessels in distress, all radio stations, including those owned and operated by the United States, shall use the minimum amount of power necessary to carry out the communication desired.

47 U.S.C. §414

§ 414. Exclusiveness of Act

Nothing in this Act contained shall in any way abridge or alter the remedies now existing at common law or by statute, but the provisions of this Act are in addition to such remedies.

Pub. L. 104–104, title VI, § 601(c)(1), Feb. 8, 1996, 110 Stat. 143

See 47 U.S.C. §152, note

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.

State Statutes

G.L. c. 111 s. 122

§ 122. Nuisances, Sources of Filth and Causes of Sickness — Inspection, Removal, Destruction.

The board of health shall examine into all nuisances, sources of filth and causes of sickness within its town, or on board of vessels within the harbor of such town, which may, in its opinion, be injurious to the public health, shall destroy, remove or prevent the same as the case may require, and shall make regulations for the public health and safety relative thereto and to articles capable of containing or conveying infection or contagion or of creating sickness brought into or conveyed from the town or into or from any vessel. Whoever violates any such regulation shall forfeit not more than one thousand dollars.

G.L. c. 111 s. 123

§ 123. Nuisances and Causes of Sickness — Removal by Owner.

Said board shall order the owner or occupant of any private premises, at his own expense, to remove any nuisance, source of filth or cause of sickness found thereon within twenty-four hours, or within such other time as it considers reasonable, after notice; and an owner or occupant shall forfeit not more than one thousand dollars for every day during which he knowingly violates such order.

G.L. c. 111 s. 124

§ 124. Nuisances and Causes of Sickness — Removal by Owner — Service of Order.

Such order shall be in writing, and may be served personally on the owner, occupant or his authorized agent by any person authorized to serve civil process; or a copy of the order may be left at the last and usual place of abode of the owner, occupant or agent, if he is known and within or without the commonwealth; or a copy of the order may be sent to the owner, occupant or agent by registered mail, return receipt requested, if he is known and within the commonwealth. If the order is directed against the owner and if the residence and whereabouts of the owner or his agent are unknown or without the commonwealth, the board may direct the order to be served by posting a copy thereof in a conspicuous place on the premises and by advertising it for at least three out of five consecutive days in one or more newspapers of general circulation within the municipality wherein the building affected is situated.

G.L. c. 111 s. 125

§ 125. Nuisances and Causes of Sickness — Removal by Owner — Failure to Remove.

If the owner or occupant fails to comply with such order, the board may cause the nuisance, source of filth or cause of sickness to be removed, and all expenses incurred thereby shall constitute a debt due the city or town upon the completion of the removal and the rendering of an account therefor to the owner, his authorized

agent, or the occupant, and shall be recoverable from such owner or occupant in an action of contract.

The provisions of the second paragraph of section three A of chapter one hundred and thirty-nine, relative to liens for such debt and the collection of the claims for such debt, shall apply to any debt referred to in this section, except that the board of health shall act hereunder in place of the mayor or board of selectmen.

G.L. c. 111 s. 127I

§127I. Dwellings Unfit for Human Habitation — Petition to Enforce — Procedures; Receiver.

Upon the filing of a petition to enforce the provisions of the sanitary code, or any civil action concerning violations of the sanitary code by any affected occupants or a public agency, whether begun in the district, housing or superior court, and whether brought under section one hundred and twenty-seven C or otherwise, the court may: issue temporary restraining orders, preliminary or permanent injunctions; order payment by any affected occupants to the clerk of court, in accordance with the provisions of section one hundred and twenty-seven F; or appoint a receiver whose rights, duties and powers shall be specified by the court in accordance with the provisions of this section.

Upon receipt of service of any petition in which the appointment of a receiver is sought, the owner shall provide to the petitioner, within three days, a written list of all mortgagees and lienors of record. At least fourteen days prior to any hearing in any such proceeding, the petitioner shall send by certified or registered mail a copy of the petition to all mortgagees and lienors included in the owner's list as well as to all other mortgagees and lienors of which the petitioner may be aware, and shall notify them of the time and place of the hearing. Upon motion of the petitioner, the court may order such shorter periods of prior notice as may be justified by the facts of the case.

Whenever a petitioner shows that violations of the sanitary code will not be promptly remedied unless a receiver is appointed and the court determines that such appointment is in the best interest of occupants residing in the property, the court shall appoint a receiver of the property. Any receiver appointed under this paragraph may be removed by the court upon a showing that the receiver is not diligently carrying out the work necessary to bring the property into compliance with the code, or that it is in the best interest of any tenants residing in the property that removal occur.

No receiver shall be appointed until the receiver furnishes a bond or such other surety and provides proof of such liability insurance as the court deems sufficient in the circumstances of the case. Upon appointment, the receiver shall promptly repair the property and maintain it in a safe and healthful condition. The receiver

shall have full power to borrow funds and to grant security interests or liens on the affected property, to make such contracts as the receiver may deem necessary, and, notwithstanding any special or general law to the contrary, shall not be subject to any public bidding law nor considered a state, county or municipal employee for any purpose. In order to secure payment of any costs incurred and repayment of any loans for repair, operation, maintenance or management of the property, the receiver shall have a lien with priority over all other liens or mortgages except municipal liens, and such lien priority may be assigned to lenders for the purpose of securing loans for repair, operation, maintenance or management of the property. No such lien shall be effective unless recorded in the registry for the county in which the property is located.

The receiver shall be authorized to collect rents and shall apply the rents to payment of any repairs necessary to bring the property into compliance with the sanitary code and to necessary expenses of operation, maintenance, and management of the property, including insurance expenses and reasonable fees of the receiver, and then to payment of any unpaid taxes, assessments, penalties or interest. Any excess of income in the hands of the receiver shall then be applied to payments due any mortgagee or lienor of record.

Nothing in this section shall be deemed to relieve the owner of property of any civil or criminal liability or any duty imposed by reason of acts or omissions of the owner, nor shall appointment of a receiver suspend any obligation the owner or any other person may have for payment of taxes, of any operating or maintenance expense, or of mortgages or liens, or for repair of the premises.

The receiver shall be liable for injuries to persons and property to the same extent as the owner would have been liable; however, such liability shall be limited to the assets and income of the receivership, including any proceeds of insurance purchased by the receiver in its capacity as receiver. The receiver shall in no instance be personally liable for actions or inactions within the scope of the receiver's capacity as receiver. No suit shall be brought against the receiver except as approved by the court which appointed the receiver. Nothing herein shall be construed to limit the right of tenants to raise any counterclaims or defenses in any summary process or other action regarding possession brought by a receiver.

The remedies set forth herein shall be available to condominium unit owners and tenants in condominium units. Whenever used in this section, the term "petitioner" shall include a condominium unit owner or tenant, the term "owner" shall include a condominium association, the terms "mortgagees" and "lienors" shall include mortgagees and lienors of individual condominium units, and the term "rents" shall include condominium fees. The receiver shall have the right to impose assessments upon individual condominium units for payment of expenses incurred in the

exercise of his powers, which liens shall have priority over all other liens and mortgages, except municipal liens.

The receiver shall file with the court and with all parties of record, on a bimonthly basis, an accounting of all funds received by and owed to the receiver, and all funds disbursed, and shall comply with such other reporting requirements mandated by court, unless, for cause shown, the court determines that less frequent or less detailed reports are appropriate; provided that said notice shall not be less than five days.

Notwithstanding the fourth paragraph, following the appointment of a receiver for a vacant residential property, the court, upon motion by the receiver with notice to the owner, mortgagee and all interested parties, may allow the sale of the property to a nonprofit entity for fair market value in its then current condition. Any such sale shall be conditioned upon the court finding that the nonprofit agrees to correct all outstanding state sanitary code violations and rehabilitate the property for sale to a first-time homebuyer whose income is not more than 120 per cent of the area median income as determined by the United States Department of Housing and Urban Development; provided, that a nonprofit entity shall demonstrate to the court adequate expertise and resources necessary to rehabilitate the property and correct outstanding state sanitary code violations. Any such motion filed by a receiver pursuant to this paragraph shall be heard by the court not less than 30 days following the filing date, during which period the owner, mortgagee and any other interested parties may join a motion for leave to correct all outstanding state sanitary code violations at the property. Upon a finding by the court that the owner, mortgagee or other interested party has the intention and ability to correct all outstanding state sanitary code violations, the court shall stay the hearing on the receiver's motion for a reasonable period of time to allow the owner, mortgagee or other interested party to correct such outstanding sanitary code violations.

G.L. c. 111 s. 130

§ 130. Nuisances and Causes of Sickness — Enjoining Nuisance.

The superior court, either before or pending a prosecution for a common nuisance affecting the public health, may enjoin the maintenance of such nuisance until the matter is decided or the injunction dissolved.

G.L. c. 111 s. 143

§ 143. Nuisance and Harmful Trades — Site Assignment.

No trade or employment which may result in a nuisance or be harmful to the inhabitants, injurious to their estates, dangerous to the public health, or may be attended by noisome and injurious odors shall be established in a city or town except in such a location as may be assigned by the board of health thereof after a

public hearing has been held thereon, subject to the provisions of chapter forty A and such board of health may prohibit the exercise thereof within the limits of the city or town or in places not so assigned, in any event. Such assignments shall be entered in the records of the city or town, and may be revoked when the board shall think proper.

The department of environmental protection shall advise, upon request, the board of health of a city or town previous to the assignment of places for the exercise of any trade or employment referred to in this section, and any person, including persons in control of any public land, aggrieved by the action of the board of health in assigning certain places for the exercise of any trade or employment referred to in this section may, within sixty days, appeal from the assignment of the board of health to the department and said department may, after a hearing rescind, modify or amend such assignment.

Notwithstanding any provision in section one hundred and twenty-five A of this chapter, this section shall apply to the operations of piggeries.

G.L. c. 111 s. 152

§ 152. Noxious and Offensive Trades — Prohibition.

If any buildings or premises are so occupied or used, the department of environmental protection shall, upon application, appoint a time and place for hearing the parties, and, after due notice thereof to the party against whom the application is made and a hearing, may, if in its judgment the public health, comfort or convenience so require, order any person to desist from further carrying on said trade or occupation in such buildings or premises; and no person shall thereafter continue so to occupy or use such buildings or premises. Whoever occupies or uses any building or premises in violation of this or the preceding section shall forfeit not more than two hundred dollars for every month of such occupancy or use and in like proportion for a shorter time.

Rules and Regulations

Federal Communications Commission Rules

47 C.F.R. §1.723

1.723 Damages.

(a) If a complainant in a formal complaint proceeding wishes to recover damages, the complaint must contain a clear and unequivocal request for damages.

(b) In all cases in which recovery of damages is sought, the complaint must include either:

(1) A computation of each and every category of damages for which recovery is sought, along with an identification of all relevant documents and materials or such other evidence to be used by the complainant to prove the amount of such damages; or

(2) If any information not in the possession of the complainant is necessary to develop a detailed computation of damages, an explanation of:

(i) Why such information is unavailable to the complaining party;

(ii) The factual basis the complainant has for believing that such evidence of damages exists; and

(iii) A detailed outline of the methodology that would be used to create a computation of damages with such evidence.

(c) If a complainant wishes a determination of damages to be made in a proceeding that is separate from and subsequent to the proceeding in which the determinations of liability and prospective relief are made, the complainant must:

(1) Comply with paragraph (a) of this section, and

(2) State clearly and unequivocally that the complainant wishes a determination of damages to be made in a proceeding that is separate from and subsequent to the proceeding in which the determinations of liability and prospective relief will be made.

(d) If the Commission decides that a determination of damages would best be made in a proceeding that is separate from and subsequent to the proceeding in which the determinations of liability and prospective relief are made, the Commission may at any time bifurcate the case and order that the initial proceeding will determine only liability and prospective relief, and that a separate, subsequent proceeding initiated in accordance with paragraph (e) of this section will determine damages.

(e) If a complainant exercises its right under paragraph (c) of this section, or the Commission invokes its authority under paragraph (d) of this section, the complainant may initiate a separate proceeding to obtain a determination of damages by filing a supplemental complaint within sixty days after public notice

(as defined in § 1.4(b)) of a decision that contains a finding of liability on the merits of the original complaint. Supplemental complaints filed pursuant to this section need not comply with the requirements in §§ 1.721(c) or 1.722(d), (g), (h), (j), and (k). The supplemental complaint shall be deemed, for statutory limitations purposes, to relate back to the date of the original complaint.

(f) The Commission may, in its discretion, order the defendant either to post a bond for, or deposit into an interest bearing escrow account, a sum equal to the amount of damages which the Commission finds, upon preliminary investigation, is likely to be ordered after the issue of damages is fully litigated, or some lesser sum which may be appropriate, provided the Commission finds that the grant of this relief is favored on balance upon consideration of the following factors:

- (1) The complainant's potential irreparable injury in the absence of such deposit;
- (2) The extent to which damages can be accurately calculated;
- (3) The balance of the hardships between the complainant and the defendant; and
- (4) Whether public interest considerations favor the posting of the bond or ordering of the deposit.

(g) The Commission may, in its discretion, end adjudication of damages by adopting a damages computation method or formula. In such cases, the parties shall negotiate in good faith to reach an agreement on the exact amount of damages pursuant to the Commission-mandated method or formula. Within 30 days of the release date of the damages order, parties shall submit jointly to the Commission either:

- (1) A statement detailing the parties' agreement as to the amount of damages;
- (2) A statement that the parties are continuing to negotiate in good faith and a request that the parties be given an extension of time to continue negotiations; or
- (3) A statement detailing the bases for the continuing dispute and the reasons why no agreement can be reached.

(h) In any proceeding to which no statutory deadline applies, the Commission may, in its discretion, suspend ongoing damages proceedings to provide the parties with time to pursue settlement negotiations or mediation under § 1.737.

47 C.F.R. §1.1307

§ 1.1307 Actions that may have a significant environmental effect, for which Environmental Assessments (EAs) must be prepared.

(a) Commission actions with respect to the following types of facilities may significantly affect the environment and thus require the preparation of EAs by

the applicant (see §§ 1.1308 and 1.1311) and may require further Commission environmental processing (see §§ 1.1314, 1.1315 and 1.1317):

- (1) Facilities that are to be located in an officially designated wilderness area.
- (2) Facilities that are to be located in an officially designated wildlife preserve.
- (3) Facilities that:
 - (i) May affect listed threatened or endangered species or designated critical habitats; or
 - (ii) are likely to jeopardize the continued existence of any proposed endangered or threatened species or likely to result in the destruction or adverse modification of proposed critical habitats, as determined by the Secretary of the Interior pursuant to the Endangered Species Act of 1973.

Note:

The list of endangered and threatened species is contained in 50 CFR 17.11, 17.22, 222.23(a) and 227.4. The list of designated critical habitats is contained in 50 CFR 17.95, 17.96 and part 226. To ascertain the status of proposed species and habitats, inquiries may be directed to the Regional Director of the Fish and Wildlife Service, Department of the Interior.

- (4) Facilities that may affect districts, sites, buildings, structures or objects, significant in American history, architecture, archeology, engineering or culture, that are listed, or are eligible for listing, in the National Register of Historic Places (see 54 U.S.C. 300308; 36 CFR parts 60 and 800), and that are subject to review pursuant to section 1.1320 and have been determined through that review process to have adverse effects on identified historic properties.
- (5) Facilities that may affect Indian religious sites.
- (6) Facilities to be located in floodplains, if the facilities will not be placed at least one foot above the base flood elevation of the floodplain.
- (7) Facilities whose construction will involve significant change in surface features (e.g., wetland fill, deforestation or water diversion). (In the case of wetlands on Federal property, see Executive Order 11990.)
- (8) Antenna towers and/or supporting structures that are to be equipped with high intensity white lights which are to be located in residential neighborhoods, as defined by the applicable zoning law.

(b)

(1) Requirements.

- (i) With respect to the limits on human exposure to RF provided in § 1.1310 of this chapter, applicants to the Commission for the grant or modification of construction permits, licenses or renewals thereof, temporary authorities, equipment authorizations, or any other authorizations for radiofrequency sources must either:

- (A) Determine that they qualify for an exemption pursuant to § 1.1307(b)(3);

(B) Prepare an evaluation of the human exposure to RF radiation pursuant to § 1.1310 and include in the application a statement confirming compliance with the limits in § 1.1310; or

(C) Prepare an Environmental Assessment if those RF sources would cause human exposure to levels of RF radiation in excess of the limits in § 1.1310.

(ii) Compliance with these limits for fixed RF source(s) may be accomplished by use of mitigation actions, as provided in § 1.1307(b)(4). Upon request by the Commission, the party seeking or holding such authorization must electronically submit technical information showing the basis for such compliance, either by exemption or evaluation. Notwithstanding the preceding requirements, in the event that RF sources cause human exposure to levels of RF radiation in excess of the limits in § 1.1310 of this chapter, such RF exposure exemptions and evaluations are not deemed sufficient to show that there is no significant effect on the quality of the human environment or that the RF sources are categorically excluded from environmental processing.

(2) Definitions. For the purposes of this section, the following definitions shall apply.

Available maximum time-averaged power for an RF source is the maximum available RF power (into a matched load) as averaged over a time-averaging period;

Category One is any spatial region that is compliant with the general population exposure limit with continuous exposure or source-based time-averaged exposure;

Category Two is any spatial region where the general population exposure limit is exceeded but that is compliant with the occupational exposure limit with continuous exposure;

Category Three is any spatial region where the occupational exposure limit is exceeded but by no more than ten times the limit;

Category Four is any spatial region where the exposure is more than ten times the occupational exposure limit or where there is a possibility for serious injury on contact.

Continuous exposure refers to the maximum time-averaged exposure at a given location for an RF source and assumes that exposure may take place indefinitely. The exposure limits in § 1.1310 of this chapter are used to establish the spatial regions where mitigation measures are necessary assuming continuous exposure as prescribed in § 1.1307(b)(4) of this chapter.

Effective Radiated Power (ERP) is the product of the maximum antenna gain which is the largest far-field power gain relative to a dipole in any direction for each transverse polarization component, and the maximum delivered time-averaged power which is the largest net power delivered or supplied to an

antenna as averaged over a time-averaging period; ERP is summed over two polarizations when present;

Exemption for (an) RF source(s) is solely from the obligation to perform a routine environmental evaluation to demonstrate compliance with the RF exposure limits in § 1.1310 of this chapter; it is not exemption from the equipment authorization procedures described in part 2 of this chapter, not exemption from general obligations of compliance with the RF exposure limits in § 1.1310 of this chapter, and not exemption from determination of whether there is no significant effect on the quality of the human environment under § 1.1306 of this chapter.

Fixed RF source is one that is physically secured at one location, even temporarily, and is not able to be easily moved to another location while radiating;

Mobile device is as defined in § 2.1091(b) of this chapter;

Plane-wave equivalent power density is the square of the root-mean-square (rms) electric field strength divided by the impedance of free space (377 ohms).

Portable device is as defined in § 2.1093(b) of this chapter;

Positive access control is mitigation by proactive preclusion of unauthorized access to the region surrounding an RF source where the continuous exposure limit for the general population is exceeded. Examples of such controls include locked doors, ladder cages, or effective fences, as well as enforced prohibition of public access to external surfaces of buildings. However, it does not include natural barriers or other access restrictions that did not require any action on the part of the licensee or property management.

Radiating structure is an unshielded RF current-carrying conductor that generates an RF reactive near electric or magnetic field and/or radiates an RF electromagnetic wave. It is the component of an RF source that transmits, generates, or reradiates an RF fields, such as an antenna, aperture, coil, or plate.

RF source is Commission-regulated equipment that transmits or generates RF fields or waves, whether intentionally or unintentionally, via one or more radiating structure(s). Multiple RF sources may exist in a single device.

Separation distance (variable R in Table 1) is the minimum distance in any direction from any part of a radiating structure and any part of the body of a nearby person;

Source-based time averaging is an average of instantaneous exposure over a time-averaging period that is based on an inherent property or duty-cycle of a device to ensure compliance with the continuous exposure limits;

Time-averaging period is a time period not to exceed 30 minutes for fixed RF sources or a time period inherent from device transmission characteristics not to exceed 30 minutes for mobile and portable RF sources;

Transient individual is an untrained person in a location where occupational/controlled limits apply, and he or she must be made aware of the potential for exposure and be supervised by trained personnel pursuant to § 1.1307(b)(4) of this chapter where use of time averaging is required to ensure compliance with the general population exposure limits in § 1.1310 of this chapter.

(3) Determination of exemption.

(i) For single RF sources (i.e., any single fixed RF source, mobile device, or portable device, as defined in paragraph (b)(2) of this section): A single RF source is exempt if:

(A) The available maximum time-averaged power is no more than 1 mW, regardless of separation distance. This exemption may not be used in conjunction with other exemption criteria other than those in paragraph (b)(3)(ii)(A) of this section. Medical implant devices may only use this exemption and that in paragraph (b)(3)(ii)(A);

(B) Or the available maximum time-averaged power or effective radiated power (ERP), whichever is greater, is less than or equal to the threshold P_{th} (mW) described in the following formula. This method shall only be used at separation distances (cm) from 0.5 centimeters to 40 centimeters and at frequencies from 0.3 GHz to 6 GHz (inclusive). P_{th} is given by:

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases}$$

Where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right) \text{ and } f \text{ is in GHz;}$$

and

$$ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases}$$

d = the separation distance (cm);

(C) Or using Table 1 and the minimum separation distance (R in meters) from the body of a nearby person for the frequency (f in MHz) at which the source operates, the ERP (watts) is no more than the calculated value prescribed for that frequency. For the exemption in Table 1 to apply, R must

be at least $\lambda/2\pi$, where λ is the free-space operating wavelength in meters. If the ERP of a single RF source is not easily obtained, then the available maximum time-averaged power may be used in lieu of ERP if the physical dimensions of the radiating structure(s) do not exceed the electrical length of $\lambda/4$ or if the antenna gain is less than that of a half-wave dipole (1.64 linear value).

Table 1 to § 1.1307(b)(3)(i)(C)—Single RF Sources Subject to Routine Environmental Evaluation	
RF Source frequency (MHz)	Threshold ERP (watts)
0.3-1.34	$1,920 R^2$.
1.34-30	$3,450 R^2/f^2$.
30-300	$3.83 R^2$.
300-1,500	$0.0128 R^2 f$.
1,500-100,000	$19.2R^2$.

(ii) For multiple RF sources: Multiple RF sources are exempt if:

(A) The available maximum time-averaged power of each source is no more than 1 mW and there is a separation distance of two centimeters between any portion of a radiating structure operating and the nearest portion of any other radiating structure in the same device, except if the sum of multiple sources is less than 1 mW during the time-averaging period, in which case they may be treated as a single source (separation is not required). This exemption may not be used in conjunction with other exemption criteria other than those in paragraph (b)(3)(i)(A) of this section. Medical implant devices may only use this exemption and that in paragraph (b)(3)(i)(A).

(B) in the case of fixed RF sources operating in the same time-averaging period, or of multiple mobile or portable RF sources within a device operating in the same time averaging period, if the sum of the fractional contributions to the applicable thresholds is less than or equal to 1 as indicated in the following equation.

$$\sum_{i=1}^a \frac{P_i}{P_{th,i}} + \sum_{j=1}^b \frac{ERP_j}{ERP_{th,j}} + \sum_{k=1}^c \frac{Evaluated_k}{Exposure Limit_k} \leq 1$$

Where:

a = number of fixed, mobile, or portable RF sources claiming exemption using paragraph (b)(3)(i)(B) of this section for P_{th} , including existing exempt transmitters and those being added.

b = number of fixed, mobile, or portable RF sources claiming exemption using paragraph (b)(3)(i)(C) of this section for Threshold ERP, including existing exempt transmitters and those being added.

c = number of existing fixed, mobile, or portable RF sources with known evaluation for the specified minimum distance including existing evaluated transmitters.

P_i = the available maximum time-averaged power or the ERP, whichever is greater, for fixed, mobile, or portable RF source i at a distance between 0.5 cm and 40 cm (inclusive).

$P_{th,i}$ = the exemption threshold power (P_{th}) according to paragraph (b)(3)(i)(B) of this section for fixed, mobile, or portable RF source i .

ERP_j = the ERP of fixed, mobile, or portable RF source j .

$ERP_{th,j}$ = exemption threshold ERP for fixed, mobile, or portable RF source j , at a distance of at least $\lambda/2\pi$ according to the applicable formula of paragraph (b)(3)(i)(C) of this section.

$Evaluated_k$ = the maximum reported SAR or MPE of fixed, mobile, or portable RF source k either in the device or at the transmitter site from an existing evaluation at the location of exposure.

$Exposure\ Limit_k$ = either the general population/uncontrolled maximum permissible exposure (MPE) or specific absorption rate (SAR) limit for each fixed, mobile, or portable RF source k , as applicable from § 1.1310 of this chapter.

(4) Mitigation.

(i) As provided in paragraphs (b)(4)(ii) through (vi) of this section, specific mitigation actions are required for fixed RF sources to the extent necessary to ensure compliance with our exposure limits, including the implementation of an RF safety plan, restriction of access to those RF sources, and disclosure of spatial regions where exposure limits are exceeded.

(ii) Category One—INFORMATION: No mitigation actions are required when the RF source does not cause continuous or source-based time-averaged exposure in excess of the general population limit in s§ 1.1310 of this part. Optionally a green “INFORMATION” sign may offer information to those persons who might be approaching RF sources. This optional sign, when used, must include at least the following information: Appropriate signal word “INFORMATION” and associated color (green), an explanation of the safety precautions to be observed when closer to the antenna than the information sign, a reminder to obey all postings and boundaries (if higher categories are nearby), up-to-date licensee (or operator) contact information (if higher categories are nearby), and a place to get additional information (such as a website, if no higher categories are nearby).

(iii) Category Two—NOTICE: Mitigation actions are required in the form of signs and positive access control surrounding the boundary where the continuous exposure limit is exceeded for the general population, with the appropriate signal word “NOTICE” and associated color (blue) on the signs. Signs must contain the components discussed in paragraph (b)(4)(vi) of this section. Under certain controlled conditions, such as on a rooftop with limited access, a sign attached directly to the surface of an antenna will be considered sufficient if the sign specifies a minimum approach distance and is readable at this separation distance and at locations required for compliance with the general population exposure limit in § 1.1310 of this part. Appropriate training is required for any occupational personnel with access to controlled areas within restrictive barriers where the general population exposure limit is exceeded, and transient individuals must be supervised by trained occupational personnel upon entering any of these areas. Use of time averaging is required for transient individuals to ensure compliance with the general population exposure limit.

(iv) Category Three—CAUTION: Signs (with the appropriate signal word “CAUTION” and associated color (yellow) on the signs), controls, or indicators (e.g., chains, railings, contrasting paint, diagrams) are required (in addition to the positive access control established for Category Two) surrounding the area in which the exposure limit for occupational personnel in a controlled environment is exceeded by no more than a factor of ten. Signs must contain the components discussed in paragraph (b)(4)(vi) of this section. If the boundaries between Category Two and Three are such that placement of both Category Two and Three signs would be in the same location, then the Category Two sign is optional. Under certain controlled conditions, such as on a rooftop with limited access, a sign may be attached directly to the surface of an antenna within a controlled environment if it specifies the minimum approach distance and is readable at this distance and at locations required for compliance with the occupational exposure limit in § 1.1310 of this part. If signs are not used at the occupational exposure limit boundary, controls or indicators (e.g., chains, railings, contrasting paint, diagrams, etc.) must designate the boundary where the occupational exposure limit is exceeded. Additionally, appropriate training is required for any occupational personnel with access to the controlled area where the general population exposure limit is exceeded, and transient individuals must be supervised by trained personnel upon entering any of these areas. Use of time averaging is required for transient individuals to ensure compliance with the general population exposure limit. Further mitigation by reducing exposure time in accord with six-minute time averaging is required for occupational personnel in the area in

which the occupational exposure limit is exceeded. However, proper use of RF personal protective equipment may be considered sufficient in lieu of time averaging for occupational personnel in the areas in which the occupational exposure limit is exceeded. If such procedures or power reduction, and therefore Category reduction, are not feasible, then lockout/tagout procedures in 29 CFR 1910.147 must be followed.

(v) Category Four—WARNING/DANGER: Where the occupational limit could be exceeded by a factor of more than ten, “WARNING” signs with the associated color (orange), controls, or indicators (e.g., chains, railings, contrasting paint, diagrams) are required (in addition to the positive access control established for Category Two) surrounding the area in which the occupational exposure limit in a controlled environment is exceeded by more than a factor of ten. Signs must contain the components discussed in paragraph (b)(4)(vi) of this section. “DANGER” signs with the associated color (red) are required where immediate and serious injury will occur on contact, in addition to positive access control, regardless of mitigation actions taken in Categories Two or Three. If the boundaries between Category Three and Four are such that placement of both Category Three and Four signs would be in the same location, then the Category Three sign is optional. No access is permitted without Category reduction. If power reduction, and therefore Category reduction, is not feasible, then lockout/tagout procedures in 29 CFR 1910.147 must be followed.

(vi) RF exposure advisory signs must be viewable and readable from the boundary where the applicable exposure limits are exceeded, pursuant to 29 CFR 1910.145, and include at least the following five components:

- (A) Appropriate signal word, associated color {i.e., {“DANGER” (red), “WARNING” (orange), “CAUTION,” (yellow) “NOTICE” (blue)}};
- (B) RF energy advisory symbol;
- (C) An explanation of the RF source;
- (D) Behavior necessary to comply with the exposure limits; and
- (E) Up-to-date contact information.

(5) Responsibility for compliance.

(i) In general, when the exposure limits specified in § 1.1310 of this part are exceeded in an accessible area due to the emissions from multiple fixed RF sources, actions necessary to bring the area into compliance or preparation of an Environmental Assessment (EA) as specified in § 1.1311 of this part are the shared responsibility of all licensees whose RF sources produce, at the area in question, levels that exceed 5% of the applicable exposure limit proportional to power. However, a licensee demonstrating that its facility was not the most recently modified or newly-constructed facility at the site

establishes a rebuttable presumption that such licensee should not be liable in an enforcement proceeding relating to the period of non-compliance. Field strengths must be squared to be proportional to SAR or power density.

Specifically, these compliance requirements apply if the square of the electric or magnetic field strength exposure level applicable to a particular RF source exceeds 5% of the square of the electric or magnetic field strength limit at the area in question where the levels due to multiple fixed RF sources exceed the exposure limit. Site owners and managers are expected to allow applicants and licensees to take reasonable steps to comply with the requirements contained in paragraph (b)(1) of this section and, where feasible, should encourage co-location of RF sources and common solutions for controlling access to areas where the RF exposure limits contained in § 1.1310 of this part might be exceeded. Applicants and licensees are required to share technical information necessary to ensure joint compliance with the exposure limits, including informing other licensees at a site in question of evaluations indicating possible non-compliance with the exposure limits.

(ii) Applicants for proposed RF sources that would cause non-compliance with the limits specified in § 1.1310 at an accessible area previously in compliance must submit an EA if emissions from the applicant's RF source would produce, at the area in question, levels that exceed 5% of the applicable exposure limit. Field strengths must be squared if necessary to be proportional to SAR or power density.

(iii) Renewal applicants whose RF sources would cause non-compliance with the limits specified in § 1.1310 at an accessible area previously in compliance must submit an EA if emissions from the applicant's RF source would produce, at the area in question, levels that exceed 5% of the applicable exposure limit. Field strengths must be squared if necessary to be proportional to SAR or power density.

(c) If an interested person alleges that a particular action, otherwise categorically excluded, will have a significant environmental effect, the person shall electronically submit to the Bureau responsible for processing that action a written petition setting forth in detail the reasons justifying or circumstances necessitating environmental consideration in the decision-making process. If an interested person is unable to submit electronically or if filing electronically would be unreasonably burdensome, such person may submit the petition by mail, with a request for waiver under § 1.1304(b). (See § 1.1313). The Bureau shall review the petition and consider the environmental concerns that have been raised. If the Bureau determines that the action may have a significant environmental impact, the Bureau will require the applicant to prepare an EA

(see §§ 1.1308 and 1.1311), which will serve as the basis for the determination to proceed with or terminate environmental processing.

(d) If the Bureau responsible for processing a particular action, otherwise categorically excluded, determines that the proposal may have a significant environmental impact, the Bureau, on its own motion, shall require the applicant to electronically submit an EA. The Bureau will review and consider the EA as in paragraph (c) of this section.

Note to paragraph (d):

Pending a final determination as to what, if any, permanent measures should be adopted specifically for the protection of migratory birds, the Bureau shall require an Environmental Assessment for an otherwise categorically excluded action involving a new or existing antenna structure, for which an antenna structure registration application (FCC Form 854) is required under part 17 of this chapter, if the proposed antenna structure will be over 450 feet in height above ground level (AGL) and involves either:

1. Construction of a new antenna structure;
2. Modification or replacement of an existing antenna structure involving a substantial increase in size as defined in paragraph I(C)(1)(3) of Appendix B to part 1 of this chapter; or
3. Addition of lighting or adoption of a less preferred lighting style as defined in § 17.4(c)(1)(iii) of this chapter. The Bureau shall consider whether to require an EA for other antenna structures subject to § 17.4(c) of this chapter in accordance with § 17.4(c)(8) of this chapter. An Environmental Assessment required pursuant to this note will be subject to the same procedures that apply to any Environmental Assessment required for a proposed tower or modification of an existing tower for which an antenna structure registration application (FCC Form 854) is required, as set forth in § 17.4(c) of this chapter.

(e) No State or local government or instrumentality thereof may regulate the 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 regulations contained in this chapter concerning the environmental effects of such emissions. For purposes of this paragraph:

- (1) The term personal wireless service means commercial mobile services, unlicensed wireless services, and common carrier wireless exchange access services;
- (2) The term personal wireless service facilities means facilities for the provision of personal wireless services;
- (3) The term unlicensed wireless services means the offering of telecommunications services using duly authorized devices which do not

require individual licenses, but does not mean the provision of direct-to-home satellite services; and

(4) The term direct-to-home satellite services means the distribution or broadcasting of programming or services by satellite directly to the subscriber's premises without the use of ground receiving or distribution equipment, except at the subscriber's premises or in the uplink process to the satellite.

47 C.F.R. §1.1310

§ 1.1310 Radiofrequency radiation exposure limits.

(a) Specific absorption rate (SAR) shall be used to evaluate the environmental impact of human exposure to radiofrequency (RF) radiation as specified in § 1.1307(b) of this part within the frequency range of 100 kHz to 6 GHz (inclusive).

(b) The SAR limits for occupational/controlled exposure are 0.4 W/kg, as averaged over the whole body, and a peak spatial-average SAR of 8 W/kg, averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube). Exceptions are the parts of the human body treated as extremities, such as hands, wrists, feet, ankles, and pinnae, where the peak spatial-average SAR limit for occupational/controlled exposure is 20 W/kg, averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube). Exposure may be averaged over a time period not to exceed 6 minutes to determine compliance with occupational/controlled SAR limits.

(c) The SAR limits for general population/uncontrolled exposure are 0.08 W/kg, as averaged over the whole body, and a peak spatial-average SAR of 1.6 W/kg, averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube). Exceptions are the parts of the human body treated as extremities, such as hands, wrists, feet, ankles, and pinnae, where the peak spatial-average SAR limit is 4 W/kg, averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube). Exposure may be averaged over a time period not to exceed 30 minutes to determine compliance with general population/uncontrolled SAR limits.

(d)

(1) Evaluation with respect to the SAR limits in this section must demonstrate compliance with both the whole-body and peak spatial-average limits using technically supported measurement or computational methods and exposure conditions in advance of authorization (licensing or equipment certification) and in a manner that facilitates independent assessment and, if appropriate, enforcement. Numerical computation of SAR must be supported by adequate documentation showing that the numerical method as implemented in the computational software has been fully validated; in

addition, the equipment under test and exposure conditions must be modeled according to protocols established by FCC-accepted numerical computation standards or available FCC procedures for the specific computational method.

(2) For operations within the frequency range of 300 kHz and 6 GHz (inclusive), the limits for maximum permissible exposure (MPE), derived from whole-body SAR limits and listed in Table 1 in paragraph (e)(1) of this section, may be used instead of whole-body SAR limits as set forth in paragraphs (a) through (c) of this section to evaluate the environmental impact of human exposure to RF radiation as specified in § 1.1307(b) of this part, except for portable devices as defined in § 2.1093 of this chapter as these evaluations shall be performed according to the SAR provisions in § 2.1093.

(3) At operating frequencies above 6 GHz, the MPE limits listed in Table 1 in paragraph (e)(1) of this section shall be used in all cases to evaluate the environmental impact of human exposure to RF radiation as specified in § 1.1307(b) of this part.

(4) Both the MPE limits listed in Table 1 in paragraph (e)(1) of this section and the SAR limits as set forth in paragraphs (a) through (c) of this section are for continuous exposure, that is, for indefinite time periods. Exposure levels higher than the limits are permitted for shorter exposure times, as long as the average exposure over a period not more than the specified averaging time in Table 1 in paragraph (e)(1) is less than (or equal to) the exposure limits. Detailed information on our policies regarding procedures for evaluating compliance with all of these exposure limits can be found in the most recent edition of FCC's OET Bulletin 65, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields," and its supplements, all available at the FCC's internet website: <https://www.fcc.gov/general/oet-bulletins-line>, and in the Office of Engineering and Technology (OET) Laboratory Division Knowledge Database (KDB) (<https://www.fcc.gov/kdb>).

Note to paragraphs (a) through (d):

SAR is a measure of the rate of energy absorption due to exposure to RF electromagnetic energy. These SAR limits to be used for evaluation are based generally on criteria published by the American National Standards Institute (ANSI) for localized SAR in Section 4.2 of "IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," ANSI/IEEE Std C95.1-1992, copyright 1992 by the Institute of Electrical and Electronics Engineers, Inc., New York, New York 10017. These criteria for SAR evaluation are similar to those recommended by the National

Council on Radiation Protection and Measurements (NCRP) in “Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields,” NCRP Report No. 86, Section 17.4.5, copyright 1986 by NCRP, Bethesda, Maryland 20814. Limits for whole body SAR and peak spatial-average SAR are based on recommendations made in both of these documents. The MPE limits in Table 1 are based generally on criteria published by the NCRP in “Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields,” NCRP Report No. 86, Sections 17.4.1, 17.4.1.1, 17.4.2 and 17.4.3, copyright 1986 by NCRP, Bethesda, Maryland 20814. In the frequency range from 100 MHz to 1500 MHz, these MPE exposure limits for field strength and power density are also generally based on criteria recommended by the ANSI in Section 4.1 of “IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz,” ANSI/IEEE Std C95.1-1992, copyright 1992 by the Institute of Electrical and Electronics Engineers, Inc., New York, New York 10017.

Table 1 to § 1.1310(e)(1)—Limits for Maximum Permissible Exposure (MPE)				
Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(i) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*(100)	≤6
3.0-30	1842/f	4.89/f	*(900/f ²)	<6
30-300	61.4	0.163	1.0	<6
300-1,500			f/300	<6
1,500-100,000			5	<6
(ii) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	<30
1.34-30	824/f	2.19/f	*(180/f ²)	<30
30-300	27.5	0.073	0.2	<30
300-1,500			f/1500	<30
1,500-100,000			1.0	<30
f = frequency in MHz. * = Plane-wave equivalent power density.				

(e)

(1) Table 1 to § 1.1310(e)(1) sets forth limits for Maximum Permissible Exposure (MPE) to radiofrequency electromagnetic fields.

(2) Occupational/controlled exposure limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. The phrase fully aware in the context of applying these exposure limits means that an exposed person has received written and/or verbal information fully explaining the potential for RF exposure resulting from his or her employment. With the exception of transient persons, this phrase also means that an exposed person has received appropriate training regarding work practices relating to controlling or mitigating his or her exposure. In situations when an untrained person is transient through a location where occupational/controlled limits apply, he or she must be made aware of the potential for exposure and be supervised by trained personnel pursuant to § 1.1307(b)(2) of this part where use of time averaging is required to ensure compliance with the general population exposure limit. The phrase exercise control means that an exposed person is allowed and also knows how to reduce or avoid exposure by administrative or engineering work practices, such as use of personal protective equipment or time averaging of exposure.

(3) General population/uncontrolled exposure limits apply in situations in which the general public may be exposed, or in which persons who are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure. For example, RF sources intended for consumer use shall be subject to the limits for general population/uncontrolled exposure in this section.

47 C.F.R. §2.106(b)(136)

[pinpoint quote due to rule size and unreproducible images]

(136) 5.136 Additional allocation: frequencies in the band 5900-5950 kHz may be used by stations in the following services, communicating only within the boundary of the country in which they are located: fixed service (in all three Regions), land mobile service (in Region 1), mobile except aeronautical mobile (R) service (in Regions 2 and 3), on condition that harmful interference is not caused to the broadcasting service. When using frequencies for these services, administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations.

47 C.F.R. §15.15

§ 15.15 General technical requirements.

(a) An intentional or unintentional radiator shall be constructed in accordance with good engineering design and manufacturing practice. Emanations from the device shall be suppressed as much as practicable, but in no case shall the emanations exceed the levels specified in these rules.

(b) Except as follows, an intentional or unintentional radiator must be constructed such that the adjustments of any control that is readily accessible by or intended to be accessible to the user will not cause operation of the device in violation of the regulations. Access BPL equipment shall comply with the applicable standards at the control adjustment that is employed. The measurement report used in support of an application for Certification and the user instructions for Access BPL equipment shall clearly specify the user-or installer-control settings that are required for conformance with these regulations.

(c) Parties responsible for equipment compliance should note that the limits specified in this part will not prevent harmful interference under all circumstances. Since the operators of part 15 devices are required to cease operation should harmful interference occur to authorized users of the radio frequency spectrum, the parties responsible for equipment compliance are encouraged to employ the minimum field strength necessary for communications, to provide greater attenuation of unwanted emissions than required by these regulations, and to advise the user as to how to resolve harmful interference problems (for example, see § 15.105(b)).

47 C.F.R. §24.232

§ 24.232 Power and antenna height limits.

(a)

(1) Base stations with an emission bandwidth of 1 MHz or less are limited to 1640 watts equivalent isotropically radiated power (EIRP) with an antenna height up to 300 meters HAAT, except as described in paragraph (b) below.

(2) Base stations with an emission bandwidth greater than 1 MHz are limited to 1640 watts/MHz equivalent isotropically radiated power (EIRP) with an antenna height up to 300 meters HAAT, except as described in paragraph (b) below.

(3) Base station antenna heights may exceed 300 meters HAAT with a corresponding reduction in power; see Tables 1 and 2 of this section.

(4) The service area boundary limit and microwave protection criteria specified in §§ 24.236 and 24.237 apply.

Table 1—Reduced Power for Base Station Antenna Heights Over 300 Meters, With Emission Bandwidth of 1 MHz or Less

HAAT in meters	Maximum EIRP watts
≤300	1640
≤500	1070
≤1000	490
≤1500	270
≤2000	160

Table 2—Reduced Power for Base Station Antenna Heights Over 300 Meters, With Emission Bandwidth Greater Than 1 MHz

HAAT in meters	Maximum EIRP watts/MHz
≤300	1640
≤500	1070
≤1000	490
≤1500	270
≤2000	160

(b)

(1) Base stations that are located in counties with population densities of 100 persons or fewer per square mile, based upon the most recently available population statistics from the Bureau of the Census, with an emission bandwidth of 1 MHz or less are limited to 3280 watts equivalent isotropically radiated power (EIRP) with an antenna height up to 300 meters HAAT.

(2) Base stations that are located in counties with population densities of 100 persons or fewer per square mile, based upon the most recently available population statistics from the Bureau of the Census, with an emission bandwidth greater than 1 MHz are limited to 3280 watts/MHz equivalent isotropically radiated power (EIRP) with an antenna height up to 300 meters HAAT.

(3) Base station antenna heights may exceed 300 meters HAAT with a corresponding reduction in power; see Tables 3 and 4 of this section.

(4) The service area boundary limit and microwave protection criteria specified in §§ 24.236 and 24.237 apply.

(5) Operation under this paragraph (b) at power limits greater than permitted under paragraph (a) of this section must be coordinated in advance with all broadband PCS licensees authorized to operate on adjacent frequency blocks within 120 kilometers (75 miles) of the base station and is limited to base

stations located more than 120 kilometers (75 miles) from the Canadian border and more than 75 kilometers (45 miles) from the Mexican border.

Table 3—Reduced Power for Base Station Antenna Heights Over 300 Meters, With Emission Bandwidth of 1 MHz or Less

HAAT in meters	Maximum EIRP watts
≤300	3280
≤500	2140
≤1000	980
≤1500	540
≤2000	320

Table 4—Reduced Power for Base Station Antenna Heights Over 300 Meters, With Emission Bandwidth Greater Than 1 MHz

HAAT in meters	Maximum EIRP watts/MHz
≤300	3280
≤500	2140
≤1000	980
≤1500	540
≤2000	320

(c) Mobile and portable stations are limited to 2 watts EIRP and the equipment must employ a means for limiting power to the minimum necessary for successful communications.

(d) Power measurements for transmissions by stations authorized under this section may be made either in accordance with a Commission-approved average power technique or in compliance with paragraph (e) of this section. In both instances, equipment employed must be authorized in accordance with the provisions of § 24.51. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

(e) Peak transmit power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage. The measurement results shall be properly adjusted for any instrument limitations, such as detector response times, limited resolution bandwidth capability when compared to the emission bandwidth, sensitivity, etc., so as to obtain a true peak measurement for the emission in question over the full bandwidth of the channel.

Note to § 24.232:

Height above average terrain (HAAT) is to be calculated using the method set forth in § 24.53 of this part.

47 C.F.R. §27.14

§ 27.14 Construction requirements.

(a) AWS and WCS licensees, with the exception of WCS licensees holding authorizations for the 600 MHz band, Block A in the 698-704 MHz and 728-734 MHz bands, Block B in the 704-710 MHz and 734-740 MHz bands, Block E in the 722-728 MHz band, Block C, C1, or C2 in the 746-757 MHz and 776-787 MHz bands, Block A in the 2305-2310 MHz and 2350-2355 MHz bands, Block B in the 2310-2315 MHz and 2355-2360 MHz bands, Block C in the 2315-2320 MHz band, Block D in the 2345-2350 MHz band, in the 3450-3550 MHz band, and in the 3700-3980 MHz band, and with the exception of licensees holding AWS authorizations in the 1915-1920 MHz and 1995-2000 MHz bands, the 2000-2020 MHz and 2180-2200 MHz bands, or 1695-1710 MHz, 1755-1780 MHz and 2155-2180 MHz bands, must, as a performance requirement, make a showing of “substantial service” in their license area within the prescribed license term set forth in § 27.13. “Substantial service” is defined as service which is sound, favorable and substantially above a level of mediocre service which just might minimally warrant renewal. Failure by any licensee to meet this requirement will result in forfeiture of the license and the licensee will be ineligible to regain it.

(b)-(f) [Reserved]

(g) WCS licensees holding EA authorizations for Block A in the 698-704 MHz and 728-734 MHz bands, cellular market authorizations for Block B in the 704-710 MHz and 734-740 MHz bands, or EA authorizations for Block E in the 722-728 MHz band, if the results of the first auction in which licenses for such authorizations are offered satisfy the reserve price for the applicable block, shall provide signal coverage and offer service over at least 35 percent of the geographic area of each of their license authorizations no later than June 13, 2013 (or within four years of initial license grant if the initial authorization in a market is granted after June 13, 2009), and shall provide such service over at least 70 percent of the geographic area of each of these authorizations by the end of the license term. In applying these geographic benchmarks, licensees are not required to include land owned or administered by government as a part of the relevant service area. Licensees may count covered government land for purposes of meeting their geographic construction benchmark, but are required to add the covered government land to the total geographic area used for measurement purposes. Licensees are required to include those populated lands held by tribal

governments and those held by the Federal Government in trust or for the benefit of a recognized tribe.

(1) If an EA or CMA licensee holding an authorization in these particular blocks fails to provide signal coverage and offer service over at least 35 percent of the geographic area of its license authorization by no later than June 13, 2013 (or within four years of initial license grant, if the initial authorization in a market is granted after June 13, 2009), the term of that license authorization will be reduced by two years and such licensee may be subject to enforcement action, including forfeitures. In addition, an EA or CMA licensee that provides signal coverage and offers service at a level that is below this interim benchmark may lose authority to operate in part of the remaining unserved areas of the license.

(2) If any such EA or CMA licensee fails to provide signal coverage and offer service to at least 70 percent of the geographic area of its license authorization by the end of the license term, that licensee's authorization will terminate automatically without Commission action for those geographic portions of its license in which the licensee is not providing service, and those unserved areas will become available for reassignment by the Commission. Such licensee may also be subject to enforcement action, including forfeitures. In addition, an EA or CMA licensee that provides signal coverage and offers service at a level that is below this end-of-term benchmark may be subject to license termination. In the event that a licensee's authority to operate in a license area terminates automatically without Commission action, such areas will become available for reassignment pursuant to the procedures in paragraph (j) of this section.

(3) For licenses under paragraph (g) of this section, the geographic service area to be made available for reassignment must include a contiguous area of at least 130 square kilometers (50 square miles), and areas smaller than a contiguous area of at least 130 square kilometers (50 square miles) will not be deemed unserved.

(h) WCS licensees holding REAG authorizations for Block C in the 746-757 MHz and 776-787 MHz bands or REAG authorizations for Block C2 in the 752-757 MHz and 782-787 MHz bands shall provide signal coverage and offer service over at least 40 percent of the population in each EA comprising the REAG license area no later than June 13, 2013 (or within four years of initial license grant, if the initial authorization in a market is granted after June 13, 2009), and shall provide such service over at least 75 percent of the population of each of these EAs by the end of the license term. For purposes of compliance with this requirement, licensees should determine population based on the most recently available U.S. Census Data.

- (1) If a licensee holding a Block C authorization fails to provide signal coverage and offer service over at least 40 percent of the population in each EA comprising the REAG license area by no later than June 13, 2013 (or within four years of initial license grant if the initial authorization in a market is granted after June 13, 2009), the term of the license authorization will be reduced by two years and such licensee may be subject to enforcement action, including forfeitures. In addition, a licensee that provides signal coverage and offers service at a level that is below this interim benchmark may lose authority to operate in part of the remaining unserved areas of the license.
- (2) If a licensee holding a Block C authorization fails to provide signal coverage and offer service over at least 75 percent of the population in any EA comprising the REAG license area by the end of the license term, for each such EA that licensee's authorization will terminate automatically without Commission action for those geographic portions of its license in which the licensee is not providing service. Such licensee may also be subject to enforcement action, including forfeitures. In the event that a licensee's authority to operate in a license area terminates automatically without Commission action, such areas will become available for reassignment pursuant to the procedures in paragraph (j) of this section. In addition, a REAG licensee that provides signal coverage and offers service at a level that is below this end-of-term benchmark within any EA may be subject to license termination within that EA.
- (3) For licenses under paragraph (h), the geographic service area to be made available for reassignment must include a contiguous area of at least 130 square kilometers (50 square miles), and areas smaller than a contiguous area of at least 130 square kilometers (50 square miles) will not be deemed unserved.
- (i) WCS licensees holding EA authorizations for Block A in the 698-704 MHz and 728-734 MHz bands, cellular market authorizations for Block B in the 704-710 MHz and 734-740 MHz bands, or EA authorizations for Block E in the 722-728 MHz band, if the results of the first auction in which licenses for such authorizations in Blocks A, B, and E are offered do not satisfy the reserve price for the applicable block, as well as EA authorizations for Block C1 in the 746-752 MHz and 776-782 MHz bands, are subject to the following:
- (1) If a licensee holding a cellular market area or EA authorization subject to this paragraph (i) fails to provide signal coverage and offer service over at least 40 percent of the population in its license area by no later than June 13, 2013 (or within four years of initial license grant, if the initial authorization in a market is granted after June 13, 2009), the term of that license authorization will be reduced by two years and such licensee may be subject to enforcement action, including forfeitures. In addition, such licensee that provides signal

coverage and offers service at a level that is below this interim benchmark may lose authority to operate in part of the remaining unserved areas of the license. For purposes of compliance with this requirement, licensees should determine population based on the most recently available U.S. Census Data.

(2) If a licensee holding a cellular market area or EA authorization subject to this paragraph (i) fails to provide signal coverage and offer service over at least 75 percent of the population in its license area by the end of the license term, that licensee's authorization will terminate automatically without Commission action for those geographic portions of its license in which the licensee is not providing service, and those unserved areas will become available for reassignment by the Commission. Such licensee may also be subject to enforcement action, including forfeitures. In the event that a licensee's authority to operate in a license area terminates automatically without Commission action, such areas will become available for reassignment pursuant to the procedures in paragraph (j) of this section. In addition, such a licensee that provides signal coverage and offers service at a level that is below this end-of-term benchmark may be subject to license termination. For purposes of compliance with this requirement, licensees should determine population based on the most recently available U.S. Census Data.

(3) For licenses under paragraph (i), the geographic service area to be made available for reassignment must include a contiguous area of at least 130 square kilometers (50 square miles), and areas smaller than a contiguous area of at least 130 square kilometers (50 square miles) will not be deemed unserved.

(j) In the event that a licensee's authority to operate in a license area terminates automatically under paragraphs (g), (h), or (i) of this section, such areas will become available for reassignment pursuant to the following procedures:

(1) The Wireless Telecommunications Bureau is delegated authority to announce by public notice that these license areas will be made available and establish a 30-day window during which third parties may file license applications to serve these areas. During this 30-day period, licensees that had their authority to operate terminate automatically for unserved areas may not file applications to provide service to these areas. Applications filed by third parties that propose areas overlapping with other applications will be deemed mutually exclusive, and will be resolved through an auction. The Wireless Telecommunications Bureau, by public notice, may specify a limited period before the filing of short-form applications (FCC Form 175) during which applicants may enter into a settlement to resolve their mutual exclusivity, subject to the provisions of § 1.935 of this chapter.

(2) Following this 30-day period, the original licensee and third parties can file license applications for remaining unserved areas where licenses have not been

issued or for which there are no pending applications. If the original licensee or a third party files an application, that application will be placed on public notice for 30 days. If no mutually exclusive application is filed, the application will be granted, provided that a grant is found to be in the public interest. If a mutually exclusive application is filed, it will be resolved through an auction. The Wireless Telecommunications Bureau, by public notice, may specify a limited period before the filing of short-form applications (FCC Form 175) during which applicants may enter into a settlement to resolve their mutual exclusivity, subject to the provisions of § 1.935 of this chapter.

(3) The licensee will have one year from the date the new license is issued to complete its construction and provide signal coverage and offer service over 100 percent of the geographic area of the new license area. If the licensee fails to meet this construction requirement, its license will automatically terminate without Commission action and it will not be eligible to apply to provide service to this area at any future date.

(k) Licensees holding WCS or AWS authorizations in the spectrum blocks enumerated in paragraphs (g), (h), (i), (q), (r), (s), (t), (v), and (w) of this section, including any licensee that obtained its license pursuant to the procedures set forth in paragraph (j) of this section, shall demonstrate compliance with performance requirements by filing a construction notification with the Commission, within 15 days of the expiration of the applicable benchmark, in accordance with the provisions set forth in § 1.946(d) of this chapter. The licensee must certify whether it has met the applicable performance requirements. The licensee must file a description and certification of the areas for which it is providing service. The construction notifications must include electronic coverage maps, supporting technical documentation and any other information as the Wireless Telecommunications Bureau may prescribe by public notice.

(l) WCS licensees holding authorizations in the spectrum blocks enumerated in paragraphs (g), (h), or (i) of this section, excluding any licensee that obtained its license pursuant to the procedures set forth in subsection (j) of this section, shall file reports with the Commission that provide the Commission, at a minimum, with information concerning the status of their efforts to meet the performance requirements applicable to their authorizations in such spectrum blocks and the manner in which that spectrum is being utilized. The information to be reported will include the date the license term commenced, a description of the steps the licensee has taken toward meeting its construction obligations in a timely manner, including the technology or technologies and service(s) being provided, and the areas within the license area in which those services are available. Each of these licensees shall file its first report with the Commission no later than June 13, 2011 and no sooner than 30 days prior to this date. Each licensee that meets

its interim benchmarks shall file a second report with the Commission no later than June 13, 2016 and no sooner than 30 days prior to this date. Each licensee that does not meet its interim benchmark shall file this second report no later than on June 13, 2015 and no sooner than 30 days prior to this date.

(m)-(n) [Reserved]

(o) With respect to initial BRS licenses issued on or after November 6, 2009, the licensee must make a showing of substantial service within four years from the date of issue of the license. With respect to EBS licenses issued after October 25, 2019, the licensee must comply with paragraph (u) of this section. “Substantial service” is defined as service which is sound, favorable, and substantially above a level of mediocre service which just might minimally warrant renewal.

Substantial service for BRS and EBS licensees is satisfied if a licensee meets the requirements of paragraph (o)(1), (2), or (3) of this section. If a licensee has not met the requirements of paragraph (o)(1), (2), or (3) of this section, then demonstration of substantial service shall proceed on a case-by-case basis.

Except as provided in paragraphs (o)(4) and (5) of this section, all substantial service determinations will be made on a license-by-license basis. Failure by any licensee to demonstrate substantial service will result in forfeiture of the license and the licensee will be ineligible to regain it.

(1) A BRS or EBS licensee has provided “substantial service” by:

(i) Constructing six permanent links per one million people for licensees providing fixed point-to-point services;

(ii) Providing coverage of at least 30 percent of the population of the licensed area for licensees providing mobile services or fixed point-to-multipoint services;

(iii) Providing service to “rural areas” (a county (or equivalent) with a population density of 100 persons per square mile or less, based upon the most recently available Census data) and areas with limited access to telecommunications services:

(A) For mobile service, where coverage is provided to at least 75% of the geographic area of at least 30% of the rural areas within its service area; or

(B) for fixed service, where the BRS or EBS licensee has constructed at least one end of a permanent link in at least 30% of the rural areas within its licensed area.

(iv) Providing specialized or technologically sophisticated service that does not require a high level of coverage to benefit consumers; or

(v) Providing service to niche markets or areas outside the areas served by other licensees.

(2) An EBS license initially issued prior to October 25, 2019 has provided “substantial service” when:

- (i) The EBS licensee is using its spectrum (or spectrum to which the EBS licensee's educational services are shifted) to provide educational services within the EBS licensee's GSA;
 - (ii) the EBS licensee's license is actually being used to serve the educational mission of one or more accredited public or private schools, colleges or universities providing formal educational and cultural development to enrolled students; or
 - (iii) The level of service provided by the EBS licensee meets or exceeds the minimum usage requirements specified in § 27.1214 contained in the edition of 47 CFR parts 20 through 39, revised as of October 1, 2017.
- (3) An EBS or BRS licensee may be deemed to provide substantial service through a leasing arrangement if the lessee is providing substantial service under paragraph (o)(1) of this section.
- (4) If the GSA of a licensee is less than 1924 square miles in size, and there is an overlapping co-channel station licensed or leased by the licensee or its affiliate, substantial service may be demonstrated by meeting the requirements of paragraph (o)(1) or (o)(2) of this section with respect to the combined GSAs of both stations.
- (5) If the GSA of a BTA authorization holder, is less than one-half of the area within the BTA for every BRS channel, substantial service may be demonstrated for the licenses in question by meeting the requirements of paragraph (o)(1) or (o)(2) of this section with respect to the combined GSAs of the BTA authorization holder, together with any incumbent authorizations licensed or leased by the licensee or its affiliates.
- (p) This section enumerates performance requirements for licensees holding authorizations for Block A in the 2305-2310 MHz and 2350-2355 MHz bands, Block B in the 2310-2315 MHz and 2355-2360 MHz bands, Block C in the 2315-2320 MHz band, and Block D in the 2345-2350 MHz band.
- (1) For mobile and point-to-multipoint systems in Blocks A and B, and point-to-multipoint systems in Blocks C and D, a licensee must provide reliable signal coverage and offer service to at least 40 percent of the license area's population by March 13, 2017, and to at least 75 percent of the license area's population by September 13, 2019. If, when filing the construction notification required under § 1.946(d) of this chapter, a WCS licensee demonstrates that 25 percent or more of the license area's population for Block A, B or D is within a coordination zone as defined by § 27.73(a) of the rules, the foregoing population benchmarks are reduced to 25 and 50 percent, respectively. The percentage of a license area's population within a coordination zone equals the sum of the Census Block Centroid Populations within the area, divided by the license area's total population.

(2) For point-to-point fixed systems, except those deployed in the Gulf of Mexico license area, a licensee must construct and operate a minimum of 15 point-to-point links per million persons (one link per 67,000 persons) in a license area by March 13, 2017, and 30 point-to-point links per million persons (one link per 33,500 persons) in a licensed area by September 13, 2019. The exact link requirement is calculated by dividing a license area's total population by 67,000 and 33,500 for the respective milestones, and then rounding upwards to the next whole number. For a link to be counted towards these benchmarks, both of its endpoints must be located in the license area. If only one endpoint of a link is located in a license area, it can be counted as a one-half link towards the benchmarks.

(3) For point-to-point fixed systems deployed on any spectrum block in the Gulf of Mexico license area, a licensee must construct and operate a minimum of 15 point-to-point links by March 13, 2017, and a minimum of 15 point-to-point links by September 13, 2019.

(4) Under paragraph (p)(2) and (p)(3) of this section, each fixed link must provide a minimum bit rate, in bits per second, equal to or greater than the bandwidth specified by the emission designator in Hertz (e.g., equipment transmitting at a 5 Mb/s rate must not require a bandwidth of greater than 5 MHz).

(5) If an initial authorization for a license area is granted after March 13, 2013, then the applicable benchmarks in paragraphs (p)(1), (2) and (3) of this section must be met within 48 and 78 months, respectively, of the initial authorization grant date.

(6) Licensees must use the most recently available U.S. Census Data at the time of measurement to meet these performance requirements.

(7) Licensees must certify compliance with the applicable performance requirements by filing a construction notification with the Commission, within 15 days of the expiration of the relevant performance milestone, pursuant to § 1.946(d) of this chapter. Each construction notification must include electronic coverage maps, supporting technical documentation, and any other information as the Wireless Telecommunications Bureau may prescribe by public notice. Electronic coverage maps must accurately depict the boundaries of each license area (Regional Economic Area Grouping, REAG, or Major Economic Area, MEA) in the licensee's service territory. Further, REAG maps must depict MEA boundaries and MEA maps must depict Economic Area boundaries. If a licensee does not provide reliable signal coverage to an entire license area, its map must accurately depict the boundaries of the area or areas within each license area not being served. Each licensee also must file supporting documentation certifying the type of service it is providing for each REAG or

MEA within its service territory and the type of technology used to provide such service. Supporting documentation must include the assumptions used to create the coverage maps, including the propagation model and the signal strength necessary to provide reliable service with the licensee's technology.

(8) If a licensee fails to meet any applicable performance requirement, its authorization will terminate automatically without further Commission action as of the applicable performance milestone and the licensee will be ineligible to regain it.

(q) The following provisions apply to any licensee holding an AWS authorization in the 2000-2020 MHz and 2180-2200 MHz bands (an "AWS-4 licensee"):

(1) An AWS-4 licensee shall provide terrestrial signal coverage and offer terrestrial service within four (4) years from the date of the license to at least forty (40) percent of the total population in the aggregate service areas that it has licensed in the 2000-2020 MHz and 2180-2200 MHz bands ("AWS-4 Interim Buildout Requirement"). For purposes of this subpart, a licensee's total population shall be calculated by summing the population of each license area that a licensee holds in the 2000-2020 MHz and 2180-2200 MHz bands; and

(2) An AWS-4 licensee shall provide terrestrial signal coverage and offer terrestrial service within seven (7) years from the date of the license to at least seventy (70) percent of the population in each of its license areas in the 2000-2020 MHz and 2180-2200 MHz bands ("AWS-4 Final Buildout Requirement").

(3) If any AWS-4 licensee fails to establish that it meets the AWS-4 Interim Buildout Requirement, the AWS-4 Final Buildout requirement shall be accelerated by one year from (seven to six years).

(4) If any AWS-4 licensee fails to establish that it meets the AWS-4 Final Buildout Requirement in any of its license areas in the 2000-2020 MHz and 2180-2200 MHz bands, its authorization for each license area in which it fails to meet the requirement shall terminate automatically without Commission action. To the extent that the AWS-4 licensee also holds the 2 GHz MSS rights for the affected license area, failure to meet the AWS-4 Final Buildout Requirement in an EA shall also result in the MSS protection rule in § 27.1136 no longer applying in that license area.

(5) To demonstrate compliance with these performance requirements, licensees shall use the most recently available U.S. Census Data at the time of measurement and shall base their measurements of population served on areas no larger than the Census Tract level. The population within a specific Census Tract (or other acceptable identifier) will only be deemed served by the licensee if it provides signal coverage to and offers service within the specific Census Tract (or other acceptable identifier). To the extent the Census Tract (or other acceptable identifier) extends beyond the boundaries of a license area, a

licensee with authorizations for such areas may only include the population within the Census Tract (or other acceptable identifier) towards meeting the performance requirement of a single, individual license.

(6) Failure by any AWS-4 licensee to meet the AWS-4 Final Buildout Requirement in paragraph (q)(4) of this section will result in forfeiture of the license and the licensee will be ineligible to regain it.

(r) The following provisions apply to any licensee holding an AWS authorization in the 1915-1920 MHz and 1995-2000 MHz bands:

(1) A licensee shall provide signal coverage and offer service within four (4) years from the date of the initial license to at least forty (40) percent of the population in each of its licensed areas ("Interim Buildout Requirement").

(2) A licensee shall provide signal coverage and offer service within ten (10) years from the date of the initial license to at least seventy-five (75) percent of the population in each of its licensed areas ("Final Buildout Requirement").

(3) If a licensee fails to establish that it meets the Interim Buildout Requirement for a particular licensed area, then the Final Buildout Requirement (in this paragraph (r)) and the license term (as set forth in § 27.13(j)) for each license area in which it fails to meet the Interim Buildout Requirement shall be accelerated by two years (from ten to eight years).

(4) If a licensee fails to establish that it meets the Final Buildout Requirement for a particular licensed area, its authorization for each license area in which it fails to meet the Final Buildout Requirement shall terminate automatically without Commission action and the licensee will be ineligible to regain it if the Commission makes the license available at a later date.

(5) To demonstrate compliance with these performance requirements, licensees shall use the most recently available U.S. Census Data at the time of measurement and shall base their measurements of population served on areas no larger than the Census Tract level. The population within a specific Census Tract (or other acceptable identifier) will only be deemed served by the licensee if it provides signal coverage to and offers service within the specific Census Tract (or other acceptable identifier). To the extent the Census Tract (or other acceptable identifier) extends beyond the boundaries of a license area, a licensee with authorizations for such areas may only include the population within the Census Tract (or other acceptable identifier) towards meeting the performance requirement of a single, individual license.

(s) The following provisions apply to any licensee holding an AWS authorization in the 1695-1710 MHz, 1755-1780 MHz, and 2155-2180 MHz bands:

(1) A licensee shall provide reliable signal coverage and offer service within six (6) years from the date of the initial license to at least forty (40) percent of the population in each of its licensed areas ("Interim Buildout Requirement").

(2) A licensee shall provide reliable signal coverage and offer service within twelve (12) years from the date of the initial license to at least seventy-five (75) percent of the population in each of its licensed areas (“Final Buildout Requirement”).

(3) If a licensee fails to establish that it meets the Interim Buildout Requirement for a particular licensed area, then the Final Buildout Requirement (in this paragraph (s)) and the AWS license term (as set forth in § 27.13(k)) for each license area in which it fails to meet the Interim Buildout Requirement shall be accelerated by two (2) years (from twelve (12) to ten (10) years).

(4) If a licensee fails to establish that it meets the Final Buildout Requirement for a particular licensed area, its authorization for each license area in which it fails to meet the Final Buildout Requirement shall terminate automatically without Commission action and the licensee will be ineligible to regain it if the Commission makes the license available at a later date.

(5) To demonstrate compliance with these performance requirements, licensees shall use the most recently available U.S. Census Data at the time of measurement and shall base their measurements of population served on areas no larger than the Census Tract level. The population within a specific Census Tract (or other acceptable identifier) will be deemed served by the licensee only if it provides signal coverage to and offers service within the specific Census Tract (or other acceptable identifier). To the extent the Census Tract (or other acceptable identifier) extends beyond the boundaries of a license area, a licensee with authorizations for such areas may include only the population within the Census Tract (or other acceptable identifier) towards meeting the performance requirement of a single, individual license. For the Gulf of Mexico license area, the licensee shall demonstrate compliance with these performance requirements, using off-shore platforms, including production, manifold, compression, pumping and valving platforms as a proxy for population in the Gulf of Mexico.

(t) The following provisions apply to any licensee holding an authorization in the 600 MHz band:

(1) A licensee shall provide reliable signal coverage and offer service within six (6) years from the date of the initial license to at least forty (40) percent of the population in each of its license areas (“Interim Buildout Requirement”).

(2) A licensee shall provide reliable signal coverage and offer service within twelve (12) years from the date of the initial license to at least seventy-five (75) percent of the population in each of its license areas (“Final Buildout Requirement”).

(3) If a licensee fails to establish that it meets the Interim Buildout Requirement for a particular licensed area, then the Final Buildout Requirement (in this

paragraph (t)) and the license term (as set forth in § 27.13(1)) for each license area in which it fails to meet the Interim Buildout Requirement shall be accelerated by two (2) years (from twelve (12) to ten (10) years).

(4) If a licensee fails to establish that it meets the Final Buildout Requirement for a particular license area, its authorization for each license area in which it fails to meet the Final Buildout Requirement shall terminate automatically without Commission action, and the licensee will be ineligible to regain it if the Commission makes the license available at a later date.

(5) To demonstrate compliance with these performance requirements, licensees shall use the most recently available decennial U.S. Census Data at the time of measurement and shall base their measurements of population served on areas no larger than the Census Tract level. The population within a specific Census Tract (or other acceptable identifier) will be deemed served by the licensee only if it provides reliable signal coverage to and offers service within the specific Census Tract (or other acceptable identifier). To the extent the Census Tract (or other acceptable identifier) extends beyond the boundaries of a license area, a licensee with authorizations for such areas may include only the population within the Census Tract (or other acceptable identifier) towards meeting the performance requirement of a single, individual license. For the Gulf of Mexico license area, the licensee shall demonstrate compliance with these performance requirements, using off-shore platforms, including production, manifold, compression, pumping and valving platforms as a proxy for population in the Gulf of Mexico.

(u) This section enumerates performance requirements for EBS licenses initially issued after October 25, 2019. Licensees shall demonstrate compliance with performance requirements by filing a construction notification with the Commission, within 15 days of the expiration of the applicable benchmark, in accordance with the provisions set forth in § 1.946(d) of this chapter.

(1) All EBS licenses initially issued after October 25, 2019, must demonstrate compliance with the performance requirements described in this paragraph (u). All equipment used to demonstrate compliance must be in use and actually providing service, either for internal use or to unaffiliated customers, as of the interim deadline or final deadline, whichever is applicable.

(2) Except for licensees with licenses applied for in the Tribal Priority Window, licensees providing mobile or point-to-multipoint service must demonstrate reliable signal coverage of 50% of the population of the geographic service area within four years of initial license grant, and 80% of the population of the geographic service area within eight years of initial license grant.

(3) Except for licensees with licenses applied for in the Tribal Priority Window, licensees providing fixed point-to-point service must demonstrate operation of

one link for each 50,000 persons in the geographic service area within four years of initial license grant, and one link for each 25,000 persons in the geographic service area within eight years of initial license grant.

(4) Licensees with licenses applied for in the Tribal Priority Window must make an interim showing under paragraph (u)(2) or (3) of this section within two years of initial license grant. Licensees with licenses applied for in the Tribal Priority Window must make a final showing under paragraph (u)(2) or (3) of this section within five years of initial license grant.

(5) If an EBS licensee (other than the licensee of a license issued pursuant to the Tribal Priority Window) fails to meet interim performance requirements described in paragraph (u)(2) or (3) of this section, the deadline for that authorization to meet its final performance requirement will be advanced by two years. If an EBS licensee of a license issued pursuant to the Tribal Priority Window fails to meet interim performance requirements described in paragraph (u)(2) or (3) of this section, the deadline for that authorization to meet its final performance requirement will be advanced by one year. If an EBS licensee fails to meet its final performance requirement, its license shall automatically terminate without specific Commission action.

(v) The following provisions apply to any licensee holding an authorization in the 3700-3980 MHz band:

(1) Licensees relying on mobile or point-to-multipoint service shall provide reliable signal coverage and offer service within eight (8) years from the date of the initial license to at least forty-five (45) percent of the population in each of its license areas ("First Buildout Requirement"). Licensee shall provide reliable signal coverage and offer service within twelve (12) years from the date of the initial license to at least eighty (80) percent of the population in each of its license areas ("Second Buildout Requirement"). Licensees relying on point-to-point service shall demonstrate within eight years of the license issue date that they have four links operating and providing service to customers or for internal use if the population within the license area is equal to or less than 268,000 and, if the population is greater than 268,000, that they have at least one link in operation and providing service to customers, or for internal use, per every 67,000 persons within a license area ("First Buildout Requirement"). Licensees relying on point-to-point service shall demonstrate within 12 years of the license issue date that they have eight links operating and providing service to customers or for internal use if the population within the license area is equal to or less than 268,000 and, if the population within the license area is greater than 268,000, shall demonstrate they are providing service and have at least two links in operation per every 67,000 persons within a license area ("Second Buildout Requirement").

(2) In the alternative, a licensee offering Internet of Things-type services shall provide geographic area coverage within eight (8) years from the date of the initial license to thirty-five (35) percent of the license (“First Buildout Requirement”). A licensee offering Internet of Things-type services shall provide geographic area coverage within twelve (12) years from the date of the initial license to sixty-five (65) percent of the license (“Second Buildout Requirement”).

(3) If a licensee fails to establish that it meets the First Buildout Requirement for a particular license area, the licensee's Second Buildout Requirement deadline and license term will be reduced by two years. If a licensee fails to establish that it meets the Second Buildout Requirement for a particular license area, its authorization for each license area in which it fails to meet the Second Buildout Requirement shall terminate automatically without Commission action, and the licensee will be ineligible to regain it if the Commission makes the license available at a later date.

(4) To demonstrate compliance with these performance requirements, licensees shall use the most recently available decennial U.S. Census Data at the time of measurement and shall base their measurements of population or geographic area served on areas no larger than the Census Tract level. The population or area within a specific Census Tract (or other acceptable identifier) will be deemed served by the licensee only if it provides reliable signal coverage to and offers service within the specific Census Tract (or other acceptable identifier). To the extent the Census Tract (or other acceptable identifier) extends beyond the boundaries of a license area, a licensee with authorizations for such areas may include only the population or geographic area within the Census Tract (or other acceptable identifier) towards meeting the performance requirement of a single, individual license. If a licensee does not provide reliable signal coverage to an entire license area, the license must provide a map that accurately depicts the boundaries of the area or areas within each license area not being served. Each licensee also must file supporting documentation certifying the type of service it is providing for each licensed area within its service territory and the type of technology used to provide such service. Supporting documentation must include the assumptions used to create the coverage maps, including the propagation model and the signal strength necessary to provide reliable service with the licensee's technology.

(w) The following provisions apply to any licensee holding an authorization in the 3450-3550 MHz band:

(1) Performance requirements. Licensees in the 3.45 GHz Service must meet the following benchmarks, based on the type of service they provide.

(i) Mobile/point-to-multipoint service. Licensees relying on mobile or point-to-multipoint service shall provide reliable signal coverage and offer service within four (4) years from the date of the initial license to at least forty-five (45) percent of the population in each of its license areas ("First Performance Benchmark"). Licensees shall provide reliable signal coverage and offer service within eight (8) years from the date of the initial license to at least eighty (80) percent of the population in each of its license areas ("Second Performance Benchmark").

(ii) Point-to-point service. Licensees relying on point-to-point service shall demonstrate within four (4) years of the license issue date that, if the population within the license area is equal to or less than 268,000, they have four links operating and either provide service to customers or for internal use. If the population is greater than 268,000, they shall demonstrate they have at least one link in operation and either provide service to customers or for internal use per every 67,000 persons within a license area ("First Performance Benchmark"). Licensees shall demonstrate within eight (8) years of the license issue date that, if the population within license area is equal to or less than 268,000, they have eight links operating and either provide service to customers or for internal use. If the population within the license area is greater than 268,000, they shall demonstrate they have at least two links in operation and either provide service to customers or for internal use per every 67,000 persons within a license area ("Second Performance Benchmark").

(iii) Internet of Things service. Licensees offering Internet of Things-type services shall provide geographic area coverage within four (4) years from the date of the initial license to thirty-five (35) percent of the license ("First Performance Benchmark"). Licensees shall provide geographic area coverage within eight (8) years from the date of the initial license to sixty-five (65) percent of the license ("Second Performance Benchmark").

(2) Failure to meet performance requirements. If a licensee fails to establish that it meets the First Performance Benchmark for a particular license area in paragraph (w)(1) of this section, the licensee's Second Performance Benchmark deadline and license term in paragraph (w)(1) of this section will be reduced by one year. If a licensee fails to establish that it meets the Second Performance Benchmark for a particular license area, its authorization for each license area in which it fails to meet the Second Performance Benchmark shall terminate automatically without Commission action, and the licensee will be ineligible to regain it if the Commission makes the license available at a later date.

(3) Compliance procedures. To demonstrate compliance with the performance requirements in paragraph (w)(1) of this section, licensees shall use the most recently available decennial U.S. Census Data at the time of measurement and

shall base their measurements of population or geographic area served on areas no larger than the Census Tract level. The population or area within a specific Census Tract (or other acceptable identifier) will be deemed served by the licensee only if it provides reliable signal coverage to and offers service within the specific Census Tract (or other acceptable identifier). To the extent the Census Tract (or other acceptable identifier) extends beyond the boundaries of a license area, a licensee with authorizations for such areas may include only the population or geographic area within the Census Tract (or other acceptable identifier) towards meeting the performance requirement of a single, individual license. If a licensee does not provide reliable signal coverage to an entire license area, the license must provide a map that accurately depicts the boundaries of the area or areas within each license area not being served. Each licensee also must file supporting documentation certifying the type of service it is providing for each licensed area within its service territory and the type of technology used to provide such service. Supporting documentation must include the assumptions used to create the coverage maps, including the propagation model and the signal strength necessary to provide reliable service with the licensee's technology.

47 C.F.R. §27.50

§ 27.50 Power limits and duty cycle.

(a) The following power limits and related requirements apply to stations transmitting in the 2305-2320 MHz band or the 2345-2360 MHz band.

(1) Base and fixed stations.

(i) For base and fixed stations transmitting in the 2305-2315 MHz band or the 2350-2360 MHz band:

(A) The average equivalent isotropically radiated power (EIRP) must not exceed 2,000 watts within any 5 megahertz of authorized bandwidth and must not exceed 400 watts within any 1 megahertz of authorized bandwidth.

(B) The peak-to-average power ratio (PAPR) of the transmitter output power must not exceed 13 dB. The PAPR measurements should be made using either an instrument with complementary cumulative distribution function (CCDF) capabilities to determine that PAPR will not exceed 13 dB for more than 0.1 percent of the time or other Commission approved procedure. The measurement must be performed using a signal corresponding to the highest PAPR expected during periods of continuous transmission.

(ii) For base and fixed stations transmitting in the 2315-2320 MHz band or the 2345-2350 MHz band, the peak EIRP must not exceed 2,000 watts.

(2) Fixed customer premises equipment stations. For fixed customer premises equipment (CPE) stations transmitting in the 2305-2320 MHz band or in the

2345-2360 MHz band, the peak EIRP must not exceed 20 watts within any 5 megahertz of authorized bandwidth. Fixed CPE stations transmitting in the 2305-2320 MHz band or in the 2345-2360 MHz band must employ automatic transmit power control when operating so the stations operate with the minimum power necessary for successful communications. The use of outdoor antennas for CPE stations or outdoor CPE station installations operating with 2 watts per 5 megahertz or less average EIRP using the stepped emissions mask prescribed in § 27.53(a)(3) is prohibited except if professionally installed in locations removed by 20 meters from roadways or in locations where it can be shown that the ground power level of -44 dBm in the A or B blocks or -55 dBm in the C or D blocks will not be exceeded at the nearest road location. The use of outdoor antennas for fixed CPE stations operating with 2 watts per 5 megahertz or less average EIRP and the emissions mask prescribed in § 27.53(a)(1)(i) through (iii) is permitted in all locations. For fixed WCS CPE using TDD technology, the duty cycle must not exceed 38 percent;

(3) Mobile and portable stations.

(i) For mobile and portable stations transmitting in the 2305-2315 MHz band or the 2350-2360 MHz band, the average EIRP must not exceed 50 milliwatts within any 1 megahertz of authorized bandwidth, except that for mobile and portable stations compliant with 3GPP LTE standards or another advanced mobile broadband protocol that avoids concentrating energy at the edge of the operating band the average EIRP must not exceed 250 milliwatts within any 5 megahertz of authorized bandwidth but may exceed 50 milliwatts within any 1 megahertz of authorized bandwidth. For mobile and portable stations using time division duplexing (TDD) technology, the duty cycle must not exceed 38 percent in the 2305-2315 MHz and 2350-2360 MHz bands. Mobile and portable stations using FDD technology are restricted to transmitting in the 2305-2315 MHz band. Power averaging shall not include intervals in which the transmitter is off.

(ii) Mobile and portable stations are not permitted to transmit in the 2315-2320 MHz and 2345-2350 MHz bands.

(iii) Automatic transmit power control. Mobile and portable stations transmitting in the 2305-2315 MHz band or in the 2350-2360 MHz band must employ automatic transmit power control when operating so the stations operate with the minimum power necessary for successful communications.

(iv) Prohibition on external vehicle-mounted antennas. The use of external vehicle-mounted antennas for mobile and portable stations transmitting in the 2305-2315 MHz band or the 2350-2360 MHz band is prohibited.

(b) The following power and antenna height limits apply to transmitters operating in the 746-758 MHz, 775-788 MHz and 805-806 MHz bands:

- (1) Fixed and base stations transmitting a signal in the 757-758 and 775-776 MHz bands must not exceed an effective radiated power (ERP) of 1000 watts and an antenna height of 305 m height above average terrain (HAAT), except that antenna heights greater than 305 m HAAT are permitted if power levels are reduced below 1000 watts ERP in accordance with Table 1 of this section.
- (2) Fixed and base stations transmitting a signal in the 746-757 MHz and 776-787 MHz bands with an emission bandwidth of 1 MHz or less must not exceed an ERP of 1000 watts and an antenna height of 305 m HAAT, except that antenna heights greater than 305 m HAAT are permitted if power levels are reduced below 1000 watts ERP in accordance with Table 1 of this section.
- (3) Fixed and base stations located in a county with population density of 100 or fewer persons per square mile, based upon the most recently available population statistics from the Bureau of the Census, and transmitting a signal in the 746-757 MHz and 776-787 MHz bands with an emission bandwidth of 1 MHz or less must not exceed an ERP of 2000 watts and an antenna height of 305 m HAAT, except that antenna heights greater than 305 m HAAT are permitted if power levels are reduced below 2000 watts ERP in accordance with Table 2 of this section.
- (4) Fixed and base stations transmitting a signal in the 746-757 MHz and 776-787 MHz bands with an emission bandwidth greater than 1 MHz must not exceed an ERP of 1000 watts/MHz and an antenna height of 305 m HAAT, except that antenna heights greater than 305 m HAAT are permitted if power levels are reduced below 1000 watts/MHz ERP in accordance with Table 3 of this section.
- (5) Fixed and base stations located in a county with population density of 100 or fewer persons per square mile, based upon the most recently available population statistics from the Bureau of the Census, and transmitting a signal in the 746-757 MHz and 776-787 MHz bands with an emission bandwidth greater than 1 MHz must not exceed an ERP of 2000 watts/MHz and an antenna height of 305 m HAAT, except that antenna heights greater than 305 m HAAT are permitted if power levels are reduced below 2000 watts/MHz ERP in accordance with Table 4 of this section.
- (6) Licensees of fixed or base stations transmitting a signal in the 746-757 MHz and 776-787 MHz bands at an ERP greater than 1000 watts must comply with the provisions set forth in paragraph (b)(8) of this section and § 27.55(c).
- (7) Licensees seeking to operate a fixed or base station located in a county with population density of 100 or fewer persons per square mile, based upon the most recently available population statistics from the Bureau of the Census, and transmitting a signal in the 746-757 MHz and 776-787 MHz bands at an ERP greater than 1000 watts must:

- (i) Coordinate in advance with all licensees authorized to operate in the 698-758 MHz, 775-788, and 805-806 MHz bands within 120 kilometers (75 miles) of the base or fixed station;
 - (ii) coordinate in advance with all regional planning committees, as identified in § 90.527 of this chapter, with jurisdiction within 120 kilometers (75 miles) of the base or fixed station.
- (8) Licensees authorized to transmit in the 746-757 MHz and 776-787 MHz bands and intending to operate a base or fixed station at a power level permitted under the provisions of paragraph (b)(6) of this section must provide advanced notice of such operation to the Commission and to licensees authorized in their area of operation. Licensees who must be notified are all licensees authorized to operate in the 758-775 MHz and 788-805 MHz bands under part 90 of this chapter within 75 km of the base or fixed station and all regional planning committees, as identified in § 90.527 of this chapter, with jurisdiction within 75 km of the base or fixed station. Notifications must provide the location and operating parameters of the base or fixed station, including the station's ERP, antenna coordinates, antenna height above ground, and vertical antenna pattern, and such notifications must be provided at least 90 days prior to the commencement of station operation.
- (9) Control stations and mobile stations transmitting in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands and fixed stations transmitting in the 787-788 MHz and 805-806 MHz bands are limited to 30 watts ERP.
- (10) Portable stations (hand-held devices) transmitting in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands are limited to 3 watts ERP.
- (11) For transmissions in the 757-758, 775-776, 787-788, and 805-806 MHz bands, maximum composite transmit power shall be measured over any interval of continuous transmission using instrumentation calibrated in terms of RMS-equivalent voltage. The measurement results shall be properly adjusted for any instrument limitations, such as detector response times, limited resolution bandwidth capability when compared to the emission bandwidth, etc., so as to obtain a true maximum composite measurement for the emission in question over the full bandwidth of the channel.
- (12) For transmissions in the 746-757 and 776-787 MHz bands, licensees may employ equipment operating in compliance with either the measurement techniques described in paragraph (b)(11) of this section or a Commission-approved average power technique. In both instances, equipment employed must be authorized in accordance with the provisions of § 27.51.
- (c) The following power and antenna height requirements apply to stations transmitting in the 600 MHz band and the 698-746 MHz band:

- (1) Fixed and base stations transmitting a signal with an emission bandwidth of 1 MHz or less must not exceed an effective radiated power (ERP) of 1000 watts and an antenna height of 305 m height above average terrain (HAAT), except that antenna heights greater than 305 m HAAT are permitted if power levels are reduced below 1000 watts ERP in accordance with Table 1 of this section;
- (2) Fixed and base stations located in a county with population density of 100 or fewer persons per square mile, based upon the most recently available population statistics from the Bureau of the Census, and transmitting a signal with an emission bandwidth of 1 MHz or less must not exceed an ERP of 2000 watts and an antenna height of 305 m HAAT, except that antenna heights greater than 305 m HAAT are permitted if power levels are reduced below 2000 watts ERP in accordance with Table 2 of this section;
- (3) Fixed and base stations transmitting a signal with an emission bandwidth greater than 1 MHz must not exceed an ERP of 1000 watts/MHz and an antenna height of 305 m HAAT, except that antenna heights greater than 305 m HAAT are permitted if power levels are reduced below 1000 watts/MHz ERP in accordance with Table 3 of this section;
- (4) Fixed and base stations located in a county with population density of 100 or fewer persons per square mile, based upon the most recently available population statistics from the Bureau of the Census, and transmitting a signal with an emission bandwidth greater than 1 MHz must not exceed an ERP of 2000 watts/MHz and an antenna height of 305 m HAAT, except that antenna heights greater than 305 m HAAT are permitted if power levels are reduced below 2000 watts/MHz ERP in accordance with Table 4 of this section;
- (5) Licensees, except for licensees operating in the 600 MHz downlink band, seeking to operate a fixed or base station located in a county with population density of 100 or fewer persons per square mile, based upon the most recently available population statistics from the Bureau of the Census, and transmitting a signal at an ERP greater than 1000 watts must:
 - (i) Coordinate in advance with all licensees authorized to operate in the 698-758 MHz, 775-788, and 805-806 MHz bands within 120 kilometers (75 miles) of the base or fixed station;
 - (ii) coordinate in advance with all regional planning committees, as identified in § 90.527 of this chapter, with jurisdiction within 120 kilometers (75 miles) of the base or fixed station.
- (6) Licensees of fixed or base stations transmitting a signal at an ERP greater than 1000 watts and greater than 1000 watts/MHz must comply with the provisions of paragraph (c)(8) of this section and § 27.55(b), except that licensees of fixed or base stations located in a county with population density of 100 or fewer persons per square mile, based upon the most recently available

population statistics from the Bureau of the Census, must comply with the provisions of paragraph (c)(8) of this section and § 27.55(b) only if transmitting a signal at an ERP greater than 2000 watts and greater than 2000 watts/MHz;

(7) A licensee authorized to operate in the 710-716 or 740-746 MHz bands may operate a fixed or base station at an ERP up to a total of 50 kW within its authorized, 6 megahertz spectrum block if the licensee complies with the provisions of § 27.55(b). The antenna height for such stations is limited only to the extent required to satisfy the requirements of § 27.55(b).

(8) Licensees intending to operate a base or fixed station at a power level permitted under the provisions of paragraph (c)(6) of this section must provide advanced notice of such operation to the Commission and to licensees authorized in their area of operation. Licensees who must be notified are all licensees authorized under this part to operate on an adjacent spectrum block within 75 km of the base or fixed station. Notifications must provide the location and operating parameters of the base or fixed station, including the station's ERP, antenna coordinates, antenna height above ground, and vertical antenna pattern, and such notifications must be provided at least 90 days prior to the commencement of station operation.

(9) Control and mobile stations in the 698-746 MHz band are limited to 30 watts ERP.

(10) Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP.

(11) Licensees may employ equipment operating in compliance with either the measurement techniques described in paragraph (b)(11) of this section or a Commission-approved average power technique. In both instances, equipment employed must be authorized in accordance with the provisions of § 27.51.

(12) A licensee authorized to operate in the 716-722 or 722-728 MHz bands may operate a fixed or base station at an ERP up to a total of 50 kW within its authorized, 6 megahertz spectrum block if the licensee complies with the provisions of § 27.55(b), obtains written concurrences from all affected licensees in the 698-746 MHz bands within 120 km of the proposed high power site, and files a copy of each written concurrences with the Wireless Telecommunications Bureau on FCC Form 601. The antenna height for such stations is limited only to the extent required to satisfy the requirements of § 27.55(b).

(13) Licensees authorized to operate in the 716-722 or 722-728 MHz bands must coordinate with licensees with uplink operations in the 698-716 MHz band to mitigate the potential for harmful interference. Licensees authorized to operate in the 716-722 or 722-728 MHz bands must mitigate harmful

interference to licensees' uplink operations in the 698-716 MHz band within 30 days after receiving written notice from the affected licensees. A licensee authorized to operate in the 716-722 or 722-728 MHz bands must ensure that 716-728 MHz band transmissions are filtered at least to the extent that the 716-728 MHz band transmissions are filtered in markets where the 716-728 MHz band licensee holds any license in the 698-716 band, as applicable. For purposes of coordination and mitigations measures in paragraphs (i) and (iii) below, network will be deemed "deployed" as of the date upon which the network is able to support a commercial mobile or data service. The coordination and mitigation measures should include, but are not limited to, the following:

- (i) If a licensee operating in the 698-716 and 728-746 MHz band deploys a network after the 716-722 or 722-728 MHz bands licensee deploys a network on its 716-722 or 722-728 MHz spectrum in the same geographic market, the 716-722 or 722-728 MHz bands licensee will work with the licensee with uplink operations in the 698-716 MHz band to identify sites that will require additional filtering, and will help the licensee operating in the 698-716 and 728-746 MHz bands to identify proper filters;
 - (ii) The 716-722 or 722-728 MHz bands licensee must permit licensees operating in the 698-716 and 728-746 MHz bands to collocate on the towers it owns at prevailing market rates; and
 - (iii) If a 698-716 and 728-746 MHz bands licensee deploys a network before a licensee in the 716-722 or 722-728 MHz bands deploys a network in the same geographic market, the 716-722 or 722-728 MHz bands licensee will work with licensees in the 698-716 and 728-746 MHz bands to identify sites that will need additional filtering and will purchase and pay for installation of required filters on such sites.
- (d) The following power and antenna height requirements apply to stations transmitting in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz and 2180-2200 MHz bands:
- (1) The power of each fixed or base station transmitting in the 1995-2000 MHz, 2110-2155 MHz, 2155-2180 MHz or 2180-2200 MHz band and located in any county with population density of 100 or fewer persons per square mile, based upon the most recently available population statistics from the Bureau of the Census, is limited to:
 - (i) An equivalent isotropically radiated power (EIRP) of 3280 watts when transmitting with an emission bandwidth of 1 MHz or less;
 - (ii) An EIRP of 3280 watts/MHz when transmitting with an emission bandwidth greater than 1 MHz.

(2) The power of each fixed or base station transmitting in the 1995-2000 MHz, the 2110-2155 MHz 2155-2180 MHz band, or 2180-2200 MHz band and situated in any geographic location other than that described in paragraph (d)(1) of this section is limited to:

- (i) An equivalent isotropically radiated power (EIRP) of 1640 watts when transmitting with an emission bandwidth of 1 MHz or less;
- (ii) An EIRP of 1640 watts/MHz when transmitting with an emission bandwidth greater than 1 MHz.

(3) A licensee operating a base or fixed station in the 2110-2155 MHz band utilizing a power greater than 1640 watts EIRP and greater than 1640 watts/MHz EIRP must coordinate such operations in advance with all Government and non-Government satellite entities in the 2025-2110 MHz band. A licensee operating a base or fixed station in the 2110-2180 MHz band utilizing power greater than 1640 watts EIRP and greater than 1640 watts/MHz EIRP must be coordinated in advance with the following licensees authorized to operate within 120 kilometers (75 miles) of the base or fixed station operating in this band: All Broadband Radio Service (BRS) licensees authorized under this part in the 2155-2160 MHz band and all advanced wireless services (AWS) licensees authorized to operate on adjacent frequency blocks in the 2110-2180 MHz band.

(4) Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP. Fixed stations operating in the 1710-1755 MHz band are limited to a maximum antenna height of 10 meters above ground. Mobile and portable stations operating in these bands must employ a means for limiting power to the minimum necessary for successful communications.

(5) Equipment employed must be authorized in accordance with the provisions of § 24.51. Power measurements for transmissions by stations authorized under this section may be made either in accordance with a Commission-approved average power technique or in compliance with paragraph (d)(6) of this section. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

(6) Peak transmit power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage. The measurement results shall be properly adjusted for any instrument limitations, such as detector response times, limited resolution bandwidth capability when compared to the emission bandwidth, sensitivity, etc., so as to obtain a true peak measurement for the emission in question over the full bandwidth of the channel.

- (7) Fixed, mobile, and portable (hand-held) stations operating in the 2000-2020 MHz band are limited to 2 watts EIRP, except that the total power of any portion of an emission that falls within the 2000-2005 MHz band may not exceed 5 milliwatts. A licensee of AWS-4 authority may enter into private operator-to-operator agreements with all 1995-2000 MHz licensees to operate in 2000-2005 MHz at power levels above 5 milliwatts EIRP; except the total power of the AWS-4 mobile emissions may not exceed 2 watts EIRP.
- (8) A licensee operating a base or fixed station in the 2180-2200 MHz band utilizing a power greater than 1640 watts EIRP and greater than 1640 watts/MHz EIRP must be coordinated in advance with all AWS licensees authorized to operate on adjacent frequency blocks in the 2180-2200 MHz band.
- (9) Fixed, mobile and portable (hand-held) stations operating in the 1915-1920 MHz band are limited to 300 milliwatts EIRP.
- (10) A licensee operating a base or fixed station in the 1995-2000 MHz band utilizing a power greater than 1640 watts EIRP and greater than 1640 watts/MHz EIRP must be coordinated in advance with all PCS G Block licensees authorized to operate on adjacent frequency blocks in the 1990-1995 MHz band within 120 kilometers of the base or fixed station operating in this band.
- (e) The following power limits apply to the paired 1392-1395 MHz and 1432-1435 MHz bands as well as the unpaired 1390-1392 MHz band (1.4 GHz band):
- (1) Fixed stations transmitting in the 1390-1392 MHz and 1432-1435 MHz bands are limited to 2000 watts EIRP peak power. Fixed stations transmitting in the 1392-1395 MHz band are limited to 100 watts EIRP peak power.
 - (2) Mobile stations transmitting in the 1390-1392 MHz and 1432-1435 MHz bands are limited to 4 watts EIRP peak power. Mobile stations transmitting in the 1392-1395 MHz band are limited to 1 watt EIRP peak power.
- (f) The following power limits apply to the 1670-1675 MHz band:
- (1) Fixed and base stations are limited to 2000 watts EIRP peak power.
 - (2) Mobile stations are limited to 4 watts EIRP peak power.
- (g) [Reserved]
- (h) The following power limits shall apply in the BRS and EBS:
- (1) Main, booster and base stations.
 - (i) The maximum EIRP of a main, booster or base station shall not exceed $33 \text{ dBW} + 10\log(X/Y) \text{ dBW}$, where X is the actual channel width in MHz and Y is either 6 MHz if prior to transition or the station is in the MBS following transition or 5.5 MHz if the station is in the LBS and UBS following transition, except as provided in paragraph (h)(1)(ii) of this section.

(ii) If a main or booster station sectorizes or otherwise uses one or more transmitting antennas with a non-omnidirectional horizontal plane radiation pattern, the maximum EIRP in dBW in a given direction shall be determined by the following formula: $EIRP = 33 \text{ dBW} + 10 \log(X/Y) \text{ dBW} + 10 \log(360/\text{beamwidth}) \text{ dBW}$, where X is the actual channel width in MHz, Y is either (i) 6 MHz if prior to transition or the station is in the MBS following transition or (ii) 5.5 MHz if the station is in the LBS and UBS following transition, and beamwidth is the total horizontal plane beamwidth of the individual transmitting antenna for the station or any sector measured at the half-power points.

(2) Mobile and other user stations. Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

(3) For television transmission, the peak power of the accompanying aural signal must not exceed 10 percent of the peak visual power of the transmitter. The Commission may order a reduction in aural signal power to diminish the potential for harmful interference.

(4) For main, booster and response stations utilizing digital emissions with non-uniform power spectral density (e.g. unfiltered QPSK), the power measured within any 100 kHz resolution bandwidth within the 6 MHz channel occupied by the non-uniform emission cannot exceed the power permitted within any 100 kHz resolution bandwidth within the 6 MHz channel if it were occupied by an emission with uniform power spectral density, i.e., if the maximum permissible power of a station utilizing a perfectly uniform power spectral density across a 6 MHz channel were 2000 watts EIRP, this would result in a maximum permissible power flux density for the station of $2000/60 = 33.3$ watts EIRP per 100 kHz bandwidth. If a non-uniform emission were substituted at the station, station power would still be limited to a maximum of 33.3 watts EIRP within any 100 kHz segment of the 6 MHz channel, irrespective of the fact that this would result in a total 6 MHz channel power of less than 2000 watts EIRP.

(i) Peak transmit power shall be measured over any interval of continuous transmission using instrumentation calibrated in terms of rms-equivalent voltage. The measurement results shall be properly adjusted for any instrument limitations, such as detector response times, limited resolution bandwidth capability when compared to the emission bandwidth, etc., so as to obtain a true peak measurement for the emission in question over the full bandwidth of the channel.

(j) The following power requirements apply to stations transmitting in the 3700-3980 MHz band:

(1) The power of each fixed or base station transmitting in the 3700-3980 MHz band and located in any county with population density of 100 or fewer persons

per square mile, based upon the most recently available population statistics from the Bureau of the Census, is limited to an equivalent isotropically radiated power (EIRP) of 3280 Watts/MHz. This limit applies to the aggregate power of all antenna elements in any given sector of a base station.

(2) The power of each fixed or base station transmitting in the 3700-3980 MHz band and situated in any geographic location other than that described in paragraph (j)(1) of this section is limited to an EIRP of 1640 Watts/MHz. This limit applies to the aggregate power of all antenna elements in any given sector of a base station.

(3) Mobile and portable stations are limited to 1 Watt EIRP. Mobile and portable stations operating in these bands must employ a means for limiting power to the minimum necessary for successful communications.

(4) Equipment employed must be authorized in accordance with the provisions of § 27.51. Power measurements for transmissions by stations authorized under this section may be made either in accordance with a Commission-approved average power technique or in compliance with paragraph (j)(5) of this section. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

(5) Peak transmit power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage. The measurement results shall be properly adjusted for any instrument limitations, such as detector response times, limited resolution bandwidth capability when compared to the emission bandwidth, sensitivity, and any other relevant factors, so as to obtain a true peak measurement for the emission in question over the full bandwidth of the channel.

(k) The following power requirements apply to stations transmitting in the 3450-3550 MHz band:

(1) The power of each fixed or base station transmitting in the 3450-3550 MHz band and located in any county with population density of 100 or fewer persons per square mile, based upon the most recently available population statistics from the Bureau of the Census, is limited to an equivalent isotropically radiated power (EIRP) of 3280 Watts/MHz. This limit applies to the aggregate power of all antenna elements in any given sector of a base station.

(2) The power of each fixed or base station transmitting in the 3450-3550 MHz band and situated in any geographic location other than that described in paragraph (k)(1) of this section is limited to an EIRP of 1640 Watts/MHz. This limit applies to the aggregate power of all antenna elements in any given sector of a base station.

(3) Mobile devices are limited to 1 Watt (30 dBm) EIRP. Mobile devices operating in these bands must employ a means for limiting power to the minimum necessary for successful communications.

(4) Equipment employed must be authorized in accordance with the provisions of § 27.51. Power measurements for transmissions by stations authorized under this section may be made either in accordance with a Commission-approved average power technique or in compliance with paragraph (k)(5) of this section. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

(5) Peak transmit power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage. The measurement results shall be properly adjusted for any instrument limitations, such as detector response times, limited resolution bandwidth capability when compared to the emission bandwidth, sensitivity, and any other relevant factors, so as to obtain a true peak measurement for the emission in question over the full bandwidth of the channel.

Table 1 to § 27.50—Permissible Power and Antenna Heights for Base and Fixed Stations in the 757-758 and 775-776 MHz Bands and for Base and Fixed Stations in the 600 MHz, 698-757 MHz, 758-763 MHz, 776-787 MHz and 788-793 MHz Bands Transmitting a Signal With an Emission Bandwidth of 1 MHz or Less

Antenna height (AAT) in meters (feet)	Effective radiated power (ERP) (watts)
Above 1372 (4500)	65
Above 1220 (4000) To 1372 (4500)	70
Above 1067 (3500) To 1220 (4000)	75
Above 915 (3000) To 1067 (3500)	100
Above 763 (2500) To 915 (3000)	140
Above 610 (2000) To 763 (2500)	200
Above 458 (1500) To 610 (2000)	350
Above 305 (1000) To 458 (1500)	600
Up to 305 (1000)	1000

Table 2 to § 27.50—Permissible Power and Antenna Heights for Base and Fixed Stations in the 600 MHz, 698-757 MHz, 758-763 MHz, 776-787 MHz and 788-793 MHz Bands Transmitting a Signal With an Emission Bandwidth of 1 MHz or Less

Table 1 to § 27.50—Permissible Power and Antenna Heights for Base and Fixed Stations in the 757-758 and 775-776 MHz Bands and for Base and Fixed Stations in the 600 MHz, 698-757 MHz, 758-763 MHz, 776-787 MHz and 788-793 MHz Bands Transmitting a Signal With an Emission Bandwidth of 1 MHz or Less

Antenna height (AAT) in meters (feet)	Effective radiated power (ERP) (watts)
Antenna height (AAT) in meters (feet)	Effective radiated power (ERP) (watts)
Above 1372 (4500)	130
Above 1220 (4000) To 1372 (4500)	140
Above 1067 (3500) To 1220 (4000)	150
Above 915 (3000) To 1067 (3500)	200
Above 763 (2500) To 915 (3000)	280
Above 610 (2000) To 763 (2500)	400
Above 458 (1500) To 610 (2000)	700
Above 305 (1000) To 458 (1500)	1200
Up to 305 (1000)	2000

Table 3 to § 27.50—Permissible Power and Antenna Heights for Base and Fixed Stations in the 600 MHz, 698-757 MHz, 758-763 MHz, 776-787 MHz and 788-793 MHz Bands Transmitting a Signal With an Emission Bandwidth Greater than 1 MHz

Antenna height (AAT) in meters (feet)	Effective radiated power (ERP) per MHz (watts/MHz)
Above 1372 (4500)	65
Above 1220 (4000) To 1372 (4500)	70
Above 1067 (3500) To 1220 (4000)	75
Above 915 (3000) To 1067 (3500)	100
Above 763 (2500) To 915 (3000)	140
Above 610 (2000) To 763 (2500)	200
Above 458 (1500) To 610 (2000)	350
Above 305 (1000) To 458 (1500)	600
Up to 305 (1000)	1000

Table 3 to § 27.50—Permissible Power and Antenna Heights for Base and Fixed Stations in the 600 MHz, 698-757 MHz, 758-763 MHz, 776-787 MHz and 788-793 MHz Bands Transmitting a Signal With an Emission Bandwidth Greater than 1 MHz

Antenna height (AAT) in meters (feet)	Effective radiated power (ERP) per MHz (watts/MHz)
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Table 4 to § 27.50—Permissible Power and Antenna Heights for Base and Fixed Stations in the 600 MHz, 698-757 MHz, 758-763 MHz, 776-787 MHz and 788-793 MHz Bands Transmitting a Signal With an Emission Bandwidth Greater than 1 MHz

Antenna height (AAT) in meters (feet)	Effective radiated power (ERP) per MHz (watts/MHz)
Above 1372 (4500)	130
Above 1220 (4000) To 1372 (4500)	140
Above 1067 (3500) To 1220 (4000)	150
Above 915 (3000) To 1067 (3500)	200
Above 763 (2500) To 915 (3000)	280
Above 610 (2000) To 763 (2500)	400
Above 458 (1500) To 610 (2000)	700
Above 305 (1000) To 458 (1500)	1200
Up to 305 (1000)	2000

47 C.F.R. §96.39

§ 96.39 Citizens Broadband Radio Service Device (CBSD) general requirements. This section applies to all CBSDs. Additional rules applicable only to Category A or Category B CBSDs are set forth in §§ 96.43 and 96.45.

(a) Geo-location and reporting capability.

(1) All CBSDs must be able to determine their geographic coordinates (referenced to the North American Datum of 1983 (NAD83)) to an accuracy of ± 50 meters horizontal and ± 3 meters of elevation. Such geographic coordinates shall be reported to an SAS at the time of first activation from a power-off condition.

(2) For professionally installed CBSDs, geographic coordinates to the same accuracy specified in paragraph (a)(1) of this section may be determined and reported to the SAS as part of the installation and registration process.

Geographic coordinates must be determined and reported each time the CBSD is moved to a new location.

(3) A non-professionally installed CBSD must check its location and report to the SAS any location changes exceeding 50 meters horizontal and ± 3 meters elevation from its last reported location within 60 seconds of such location change.

(b) Operability. All CBSDs must be capable of two-way operation on any authorized frequency assigned by an SAS. Equipment deployed by Grandfathered Wireless Broadband Licensees during their license term will be exempt from this requirement.

(c) Registration with SAS. A CBSD must register with and be authorized by an SAS prior to its initial service transmission. The CBSD must provide the SAS upon its registration with its geographic location, antenna height above ground level (in meters), CBSD class (Category A/Category B), requested authorization status (Priority Access or General Authorized Access), FCC identification number, call sign, user contact information, air interface technology, unique manufacturer's serial number, sensing capabilities (if supported), and additional information on its deployment profile required by §§ 96.43 and 96.45. If any of this information changes, the CBSD shall update the SAS within 60 seconds of such change, except as otherwise set forth in this section. All information provided by the CBSD to the SAS must be true, complete, correct, and made in good faith.

(1) A CBSD must operate at or below the maximum power level authorized by an SAS, consistent with its FCC equipment authorization, and within geographic areas permitted by an SAS on the channels or frequencies authorized by an SAS.

(2) A CBSD must receive and comply with any incoming commands from its associated SAS about any changes to power limits and frequency assignments. A CBSD must cease transmission, move to another frequency range, or change its power level within 60 seconds as instructed by an SAS.

(d) Signal Level Reporting. A CBSD must report to an SAS regarding received signal strength in its occupied frequencies and adjacent frequencies, received packet error rates or other common standard metrics of interference for itself and associated End User Devices as directed by an SAS.

(e) Frequency reporting. If directed by the SAS, a CBSD that receives a range of available frequencies or channels from an SAS must promptly report to the SAS which of the available channels or frequencies it will utilize.

(f) Security. CBSDs shall incorporate security measures sufficient to ensure that they are capable of communicating only with SASs operated by approved SAS Administrators, and that communications between CBSDs and SASs, between

individual CBSDs, and between CBSDs and End User Devices are secure to prevent corruption or unauthorized interception of data.

(1) For purposes of obtaining operational limits and frequency availabilities and their updates, CBSDs shall only contact SASs operated by SAS Administrators approved by the Commission in accordance with subpart F of this part.

(2) All communications between CBSDs and SASs must be transmitted using secure methods that protect the systems from corruption or unauthorized modification of the data.

(3) Communications between a CBSD and its associated End User Devices for purposes of obtaining operational power, location, and frequency assignments shall employ secure methods that protect the system from corruption or unauthorized modification of the data.

(g) Device security. All CBSDs and End User Devices must contain security features sufficient to protect against modification of software and firmware by unauthorized parties. Applications for certification of CBSDs and End User Devices must include an operational description of the technologies and measures that are incorporated in the device to comply with the security requirements of this section. In addition, applications for certification of CBSDs and End User Devices must identify at least one of the SAS databases operated by an approved SAS Administrator that the device will access for channel/frequency availability and affirm that the device will conform to the communications security methods used by such databases.

(h) Airborne operations. Airborne operations by CBSDs and End User Devices are prohibited.

Sanitary Code Regulations

105 C.M.R. 410.001

410.001: Purpose

The purposes of 105 CMR 410.000 are to:

- (A) Establish minimum standards for housing to protect the health, safety, and well-being of occupants and the general public;
- (B) Provide enforcement procedures for boards of health to ensure compliance with 105 CMR 410.000; and
- (C) Facilitate the use of legal remedies available to occupants of substandard housing.

105 C.M.R. 410.002

410.002: Scope

(A) The provisions of 105 CMR 410.000 apply to all residences as defined in 105 CMR 410.010, unless otherwise specified in 105 CMR 410.000.

Applicable requirements of Massachusetts General Law, 780 CMR: *State Board of Building Regulations and Standards* and other specialized codes included in M.G.L. c. 143, § 96 shall be adhered to in the design, construction, and maintenance of buildings, structures and equipment.

(B) The provisions of 105 CMR 410.000 shall not apply to any residence:

(1) Otherwise required to conform to minimum habitation standards specified in other chapters of the State Sanitary Code, or otherwise exempt by statute;

(2) Used exclusively as a temporary overnight shelter;

(3) Owned by an agency of the Commonwealth;

(4) In any hospital, convalescent, nursing home, or rest home licensed by the Department of Public Health in accordance with the provisions of M.G.L. c. 111, § 51 or 71, unless regulations pertaining to such facilities require compliance with 105 CMR 410.000; or

(5) On a federal military base or where enforcement is otherwise preempted by federal law.

(C) It is the duty of the local health official to identify violations and order correction of such violations pursuant to 105 CMR 410.640 through 105 CMR 410.680 and the legal obligation of the person to whom the order is issued to comply with such order.

(D) Nothing contained in 105 CMR 410.000 shall be construed to limit or otherwise restrict any person from seeking judicial relief in a court of competent jurisdiction notwithstanding any hearing, proceeding, or other administrative remedy set forth in 105 CMR 410.000.

(E) The provisions of 105 CMR 400.000: State Sanitary Code, Chapter I shall govern the administration and enforcement of 105 CMR 410.000 except as supplemented by 105 CMR 410.600 through 105 CMR 410.950.

105 C.M.R. 410.650

410.650: Residences Unfit for Human Habitation; Hearing; Condemnation; Order to Vacate; Demolition

(A) Finding That a Residence or Portion Thereof Is Unfit for Human Habitation. If an inspection conducted pursuant to 105 CMR 400.100 or 105 CMR 410.600 reveals that an occupied residence or portion thereof is unfit for human habitation, the board of health shall, subject to 105 CMR 410.650(B), (C) or (D) issue a written finding that the residence or portion thereof is unfit for human habitation. The finding shall include a statement of the material facts and conditions upon which the finding is based.

(B) Prior Notification to Occupant(s) and Owner. If the residence or portion thereof is occupied, the board of health shall, prior to issuing a finding under 105 CMR 410.650(A), provide written notice to the occupant(s) and owner which shall include:

- (1) Identification of the residence (address and apartment number, if any);
- (2) A copy of the inspection report;
- (3) A statement that the board of health will consider issuing a finding that the residence or a specifically identified portion thereof is unfit for human habitation;
- (4) A statement that this finding may result in an order of condemnation requiring the owner to secure the residence or portion thereof and requiring the occupant(s) to vacate the residence or portion thereof; and
- (5) A statement of the time and place of a public hearing which the board of health will conduct in order to determine whether the residence or portion thereof is unfit for human habitation, and whether an order to secure and vacate should be issued.

(C) Service of Notice. The notice shall be served in accordance with 105 CMR 410.680.

(D) Hearing If Residence or Portion Thereof Is Occupied. If the residence or portion thereof is occupied, then the board shall, prior to issuing a finding under 105 CMR 410.650(A), and at least five calendar days after service of the notice required by 105 CMR 410.650(B), conduct a public hearing to determine whether the residence or portion thereof is unfit for human habitation and whether an order to secure and to vacate should be issued. At the hearing the occupant(s), owner, or any other affected person shall be given an opportunity to be heard, to present witnesses or documentary evidence and to show why the residence or portion thereof should or should not be found unfit for human habitation, and why an order to vacate and an order to secure should or should not be issued.

(E) Exception to Notification and Hearing Requirements. If at any time the board of health determines in writing that the danger to the life or health of the occupant(s) is so immediate that no delay may be permitted, then the board of health may immediately issue a finding that an occupied residence or portion thereof is unfit for human habitation without providing the notification or hearing specified in 105 CMR 410.650(B) and (D). This emergency determination must include a written explanation of the conditions presenting an immediate danger. The board of health shall send the owner and each affected person a copy of the finding of unfitness for

human habitation and a copy of the determination of immediate danger, which shall include a statement advising of their right to a hearing in accordance with 105 CMR 410.800(A).

(F) Condemnation, Order to Vacate, Order to Secure.

(1) At the same time, or at any time after the board of health issues a finding that a residence or portion thereof is unfit for human habitation, the board may issue an order condemning the residence or portion thereof and an order to vacate the residence or portion thereof, and an order requiring the owner to secure the residence or portion thereof.

(2) If the residence or portion thereof which is ordered to be secured is unoccupied, and therefore no public hearing was conducted prior to the issuance of the order, then the owner or any other affected person shall have the right to request a hearing in accordance with 105 CMR 410.800 through 105 CMR 410.860.

(3) No residence or portion thereof which is ordered to be secured shall be occupied without the prior written permission of the board of health based upon the board's written finding that the residence or portion thereof to be occupied is fit for human habitation.

(G) Demolition. If, one year after the issuance of an order to secure, compliance with 105 CMR 410.000 has not been achieved, then the board of health may cause the residence or portion thereof to be demolished or removed provided the requirements of 105 CMR 410.800(A) have been met.

105 C.M.R. 410.670

410.670: Order to Correct Violations

(A) Every order authorized by 105 CMR 410.000 shall:

- (1) Be in writing;
- (2) Include a copy of the inspection report; and
- (3) Include a copy of Occupants' Legal Rights and Responsibilities issued by the Department.

(B) Except as otherwise specified under the emergency provisions of 105 CMR 400.200(B), any order issued under the provisions of 105 CMR 410.000 shall:

- (1) Include a statement of the violations, conditions, or defects identified in 105 CMR 410.630(A) and, in the case of occupied residences, a determination whether any violation(s) or conditions, or the cumulative effect of more than one violation or condition may endanger or materially impair the health, safety, or well-being of an occupant;

- (2) Contain notice of the right to a hearing; the deadline and proper procedure for requesting a hearing; the right to inspect and obtain copies of all relevant inspection or investigation reports, orders, notices, and other documentary information in the possession of the board of health; the right to be represented at the hearing; and that any affected person has a right to appear at said hearing;
 - (3) Include the timeframe for compliance pursuant to 105 CMR 410.640;
 - (4) Indicate the requirement for a reinspection(s) pursuant to 105 CMR 410.660(A) and (C);
 - (5) Include the following statement translated into any non-English language that is spoken as a primary language by greater than 1% of the population of that community. "This is an important legal document. It may affect your rights. You should have it translated"; and
 - (6) In an order to an owner, advise the owner that the conditions which exist may permit the occupant of the residence to exercise one or more statutory remedies.
- (C) If an inspection for all the standards in 105 CMR 410.000 reveals no violation of 105 CMR 410.000, the inspector shall forward a copy of the inspection report and a letter so stating to the person responsible for correcting the violation and the affected person within seven calendar days of completion of the inspection.

105 C.M.R. 410.800

410.800: Right to Hearing

Unless otherwise specified in 105 CMR 410.000, the following persons may request a hearing before the board of health by filing a written petition:

- (A) Any person or persons upon whom any order or notice has been served and all affected persons, pursuant to 105 CMR 410.000 (except for an order issued after the requirements of 105 CMR 410.650 have been satisfied) provided, such petition must be filed within seven calendar days after the day the order was served;
- (B) Any person aggrieved by the failure of any inspector(s) or other personnel of the board of health:
 - (1) To inspect upon request any premises as required by 105 CMR 410.000; provided, such petition must be filed within 30 calendar days after such inspection was requested;

- (2) To issue a report on an inspection as required by 105 CMR 410.000; provided, such petition must be filed within 30 calendar days after the inspection;
- (3) To find after an inspection violations of 105 CMR 410.000 when such violations are claimed to exist or to certify that a violation or combination of violations may endanger or materially impair the health or safety, and well-being of the occupants of the premises; provided, such petition must be filed within 30 calendar days after receipt of the inspection report;
- (4) To issue an order as required by 105 CMR 410.640; provided that such petition must be filed within 30 calendar days after receipt of the inspection report;
- (5) To enforce the provisions of 105 CMR 410.000 pursuant to M.G.L. c. 111, § 127A; provided such petition must be filed within 45 calendar days after receipt of the order; or
- (6) To follow the provisions of 105 CMR 410.700 in the approval of a variance; provided such petition must be filed within 30 calendar days of the board of health's grant of the variance.

105 C.M.R. 410.810

410.810: Hearing Notice

- (A) Upon receipt of a petition, the board of health shall inform the petitioner and other affected persons in writing of the date, time and place of the hearing and of their right to inspect and copy the board of health's file concerning the matter to be heard.
- (B) If a written petition for a hearing is not filed with the board of health within the appropriate time provided for in 105 CMR 410.800, the right to a hearing is waived.

105 C.M.R. 410.830

410.830: Hearing Procedures

At the hearing the petitioner and other affected persons shall be given an opportunity to be heard, to present witnesses or documentary evidence, and to show why an order should be modified or withdrawn, or why a residence should not be condemned, vacated, or demolished or why an action or failure to act by an inspector or other personnel of the board of health should be reconsidered, rescinded, or ordered.

Order and Judgment

Order on Defendants' Renewed Motion to Dismiss

COMMONWEALTH OF MASSACHUSETTS

BERKSHIRE, ss.

SUPERIOR COURT
CIVIL ACTION
NO. 2276CV00127

COURTNEY GILARDI and others,¹

Plaintiffs,

vs.

ROBERTA ORSI and others,² as members of and collectively the
PITTSFIELD BOARD OF HEALTH,

Defendants.

ORDER ON DEFENDANTS' RENEWED MOTION TO DISMISS

The plaintiffs, six residents of the City of Pittsfield, brought this action against the Pittsfield Board of Health ("Board"), seeking judicial review of the Board's rescission of an order requiring Pittsfield Cellular Telephone Company d/b/a Verizon Wireless ("Verizon") to cease operation of a wireless tower. The Board now moves to dismiss³ on the ground that the Telecommunications Act of 1996 ("TCA") preempts the Board from regulating the tower for health concerns related to radio frequency emissions ("RF emissions"). Therefore, the Board asserts, its decision to rescind the cease-and-desist order was based on substantial evidence and was not arbitrary and capricious. After a hearing and careful review of the parties' submissions,⁴ the Board's motion is allowed.

¹ Charlie Herzig, Judy Herzig, Mark Markham, Angela Markham, and Elaine Ireland.

² Brad Gordon, Stephen Smith, Kimberly Loring, and Dr. Jeffrey Leppo.

³ Though styled as a Rule 12(b)(6) motion to dismiss, the court construes the Board's motion as a motion for judgment on the pleadings under Mass. R. Civ. P. 12(c), as the core issue presented is legal, not factual.

⁴ The court has reviewed the amicus curiae letters from Dr. Paul Heroux, Dr. Kent Chamberlin, and local cell tower victims. The court agrees with the Board that these letters primarily address the health effects of RF emissions and

BACKGROUND

The plaintiffs are six residents of Pittsfield's "Shacktown" neighborhood. In 2017, Verizon obtained a local land use permit from the City of Pittsfield for the construction of a wireless cell phone tower on land at 877 South Street. Construction of the tower was completed and the facility began transmitting in August 2020. Shortly after the tower became operational, the plaintiffs and other residents of the Shacktown neighborhood began reporting a range of health symptoms, which they contend are symptoms of a condition called electromagnetic sensitivity ("EMS") and result from exposure to RF emissions coming from the Verizon tower.

The Board conducted a lengthy investigation into the residents' complaints, culminating in the issuance of an emergency order ("Order") on April 2, 2022, requiring Verizon to show cause as to why the Board should not issue a cease-and-desist order to discontinue operation of the tower based on public health concerns. The Order contained a detailed summary of the evidence presented to the Board regarding the negative health effects of RF emissions, even when such emissions were compliant with the standards set by the Federal Communications Commission ("FCC"), and ultimately concluded that the tower was a public nuisance and cause of sickness to surrounding residents. The Order gave Verizon seven days from the date of issuance to request a hearing; if Verizon failed to do so, the Order would convert into a "notice of discontinuance," requiring Verizon to cease operation of the tower at its own expense within a further seven days after the expiration of the deadline to request a hearing (i.e., fourteen days after issuance of the Order). The Board issued the Order in an effort to bring Verizon to the table

the technical aspects of electromagnetic radiation; they are not pertinent to the legal issue of preemption. The Massachusetts Association of Health Boards ("MAHB") also submitted an amicus letter, arguing the Board had authority to issue the order under state law and taking issue with the Board's citation to the MAHB's Legal Handbook in light of subsequent developments in the case law. The court has considered MAHB's statement, but finds the Board acknowledged the recent developments and provided adequate context in its motion such that the citation to the MAHB Legal Handbook was not misleading. In any case, the MAHB letter is also immaterial to the preemption analysis.

to mediate a solution. The effort, however, was unsuccessful and Verizon did not request a hearing.

On May 10, 2022, after expiration of both consecutive seven-day periods set forth in the Order, Verizon filed suit in federal court seeking a declaratory judgment stating the Board lacked legal authority to issue the Order because such action was preempted by the TCA. On June 1, 2022, the Board voted to rescind the Order and Verizon voluntarily dismissed the federal litigation as moot the following day.

The plaintiffs subsequently filed this action,⁵ challenging the Board's rescission of the Order as arbitrary, capricious, and not supported by substantial evidence. The Board now defends the rescission based on the same argument advanced by Verizon in the federal litigation: that issuance of the Order was preempted by the TCA, and the vote to rescind was therefore a decision based on substantial evidence that was not arbitrary or capricious. The parties agree preemption is a threshold issue that, if applicable, is dispositive of this action.

DISCUSSION

The doctrine of preemption is rooted in the Supremacy Clause of the United States Constitution, which "invalidates state laws that 'interfere with, or are contrary to,' federal law." *Hillsborough Cnty. v. Automated Med. Labs., Inc.*, 471 U.S. 707, 712 (1985), quoting *Gibbons v. Ogden*, 22 U.S. 1, 211 (1824). Consistent with our federalist system of government, analysis under the Supremacy Clause begins with "the assumption that the historic police powers of the States [are] not to be superseded by . . . Federal Act unless that [is] the clear and manifest purpose of Congress." *Dunn v. Genzyme Corp.*, 486 Mass. 713, 718 (2021), quoting *Cipollone v. Liggett Grp., Inc.*, 505 U.S. 504, 516 (1992). See also *Arthur D. Little, Inc. v. Comm'r of Health*

⁵ The complaint also asserted claims against Linda Tyer as Mayor of the City of Pittsfield, Stephen Pagnotta as City Solicitor, Verizon, and Farley White South Street, LLC. On June 8, 2023, the court granted those defendants' motions to dismiss, leaving only the claims against the Board.

& *Hosps. of Cambridge*, 395 Mass. 535, 549 (1985) (same). The “ultimate touchstone” of preemption is congressional intent, which is discerned from the language of the relevant statute and its framework. *Cipollone*, 505 U.S. at 516 (citations omitted).

Preemption may be either express or implied. Express preemption occurs when Congress explicitly states its intent to displace state law in the language of a federal statute. See *Consumer Data Indus. Ass’n v. Frey*, 26 F.4th 1, 5 (1st Cir. 2022). Preemption may be implied where “the Federal law so thoroughly occupies a legislative field such that it is reasonable to infer that Congress left no room for the State to supplement it (field preemption)” or where state law is in conflict with the federal law (conflict preemption). *Marsh v. Mass. Coastal Railroad LLC*, 492 Mass. 641, 648 (2023). Further, there are two general types of conflict preemption: when “it is impossible for a private party to comply with both state and federal requirements,” or where state law “stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress.” *Id.* at n.18 (alterations, quotations, and citations omitted). After careful consideration, the court concludes obstacle conflict preemption applies here.

Broadly speaking, the TCA was enacted “to provide a pro-competitive, de-regulatory national policy framework designed to accelerate private sector deployment of advanced telecommunications and information technologies and services . . . by opening all telecommunications markets to competition.” *Cellular Telephone Co. v. Town of Oyster Bay*, 166 F.3d 490, 493 (2d Cir. 1999), quoting H.R. Conf. Rep. No. 104-458, at 1 (1996). In order to accomplish this objective, the TCA sets forth a robust regulatory scheme that the First Circuit has described as “an exercise in cooperative federalism,” and which “represents a dramatic shift in the nature of telecommunications regulation.” *Nat’l Tower v. Plainville Zoning Board of Appeals*, 297 F.3d 14, 19 (1st Cir. 2002).

Specifically, Congress delegated broad authority to the FCC to create uniform rules for telecommunications, including the task of setting RF emissions levels. See *Bennett v. T-Mobile USA, Inc.*, 597 F. Supp. 2d 1050, 1053 (C.D. Cal. 2008). The TCA also grants broad preemption authority to the FCC. See *Cellular Phone Taskforce v. FCC*, 205 F.3d 82, 96 (2d Cir. 2000). While state and local governments retain primary control over the siting of wireless tower facilities, that authority is itself significantly limited by the statute. See *T-Mobile S., LLC v. City of Roswell*, 574 U.S. 293, 300 (2015). In pertinent part, the statute permits state and local governments to make “decisions regarding placement, construction, and modification of personal wireless services facilities,” 47 U.S.C. § 332(c)(7)(A), but prohibits any such regulation on the basis of the environmental effects of RF emissions “to the extent that such facilities comply with the [FCC’s] regulations concerning such emissions.” *Id.* § 332(c)(7)(B)(iv).

The statute does not expressly retain for the states the power to regulate, on the basis of health effects of RF emissions, the *operation* of wireless tower facilities that are in compliance with the FCC’s RF emissions standards. See *Cellular Phone Taskforce*, 205 F.3d at 96 (holding “absence of the word ‘operation’ from subsection (B)(iv)” does not preserve “for the states the right to regulate *operations* of wireless service facilities as well” because subsection (A) does not “preserve their authority to regulate such facilities’ operations” in the first instance; “Therefore, the absence of the word ‘operation’ from the subsequent limitation on their authority under subsection (B)(iv) does not grant such power.”). To the contrary, the FCC, as part of its rulemaking, has long interpreted the TCA as implicitly preempting state and local regulation of the operation of such facilities based on RF emissions that conform to the FCC’s guidelines. See *Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation* (“*Guidelines*”), 12 FCC Rcd. 13494, 13529 ¶ 89 (1997), citing H.R. Conf. Rep. No. 104-458, at

209 (1996) (“The limitations on the role and powers of the Commission . . . relate to local land use regulations and are not intended to limit or affect the Commission’s general authority to regulate the . . . operation of radio facilities.”). See also *Cellular Phone Taskforce*, 205 F.3d at 96 (upholding FCC’s interpretation that preemption extends to the operation of facilities based on RF emission considerations, observing there is “no doubt that Congress may preempt state and local governments from regulating the operation . . . of personal wireless communications facilities”).

With these background principles in mind, the court concludes the Board’s issuance of the Order impairs the goals of the TCA and conflicts with the TCA’s careful allocation of authority between the FCC and state and local governments.⁶ See *Town of Amherst, N.H. v. Omnipoint Comms. Enterprises, Inc.*, 173 F.3d 9, 13 (1st Cir. 1999) (describing § 332(c)(7) as a delicate and “deliberate compromise”). The Board’s action in this case inescapably stems from the premise that the RF emissions standards set by the FCC are inadequate to protect public health and safety. But “[b]y delegating the task of setting RF emissions levels to the FCC, Congress authorized the federal government—and not local governments—to strike the proper balance between protecting the public from RF emissions exposure and promoting a robust telecommunications infrastructure.” *Robbins v. New Cingular Wireless PCS, LLC*, 854 F.3d 315, 320 (6th Cir. 2017).

Conflict preemption frequently arises in regulatory situations, such as this, “in which an agency is required to strike a balance between competing statutory objectives.” *Farina v. Nokia*

⁶ Because the court’s decision is based on conflict preemption, the plaintiffs’ arguments concerning express preemption need not be addressed. Specifically, although § 332(c)(7) refers to land use and zoning decisions and pertains to the siting of wireless facilities, subsequent policing of the operation of such facilities based on RF emissions by local boards of health nevertheless stands in conflict with the goals of the TCA. Further, the court is unpersuaded by the plaintiffs’ characterization of the Order as a mere effort to mediate, as it fails to acknowledge that the Order converted to an order to discontinue operation of the tower.

Inc., 625 F.3d 97, 123 (3d Cir. 2010). This is so because “[w]hen Congress charges an agency with balancing competing objectives, it intends the agency to use its reasoned judgment to weigh the relevant considerations and determine how best to prioritize between these objectives.” *Id.* To allow state and local entities “to impose a different standard permits a rebalancing of those considerations.” *Id.*

In adopting specific guidelines regarding RF emissions, the FCC explicitly weighed “the need to protect the public and workers from exposure to potentially harmful RF electromagnetic fields and the requirement that [the] industry be allowed to provide telecommunications services to the public in the most efficient and practical manner possible.” *Guidelines*, 12 FCC Rcd. at 13496 ¶ 2. See also *CTIA – The Wireless Ass’n v. City of Berkeley*, 487 F. Supp. 3d 821, 831 (N.D. Cal. 2020) (competing considerations of protecting health and public safety and ensuring rapid development of an efficient and uniform network”); *Farina*, 625 F.3d at 125 (FCC weighed safety and efficiency); *Robbins*, 854 F.3d at 320 (same). To allow local boards of health to issue orders concerning the operation of wireless tower facilities based on the health effects of RF emissions, where those emissions comply with the FCC’s guidelines, would upset the balance struck by the FCC and shift the power to regulate RF emissions away from the FCC.⁷ Upholding a board’s determination that towers in compliance with the FCC’s guidelines are still unreasonably dangerous would, in essence, permit local governments to second-guess the FCC’s conclusion on how to balance its objectives. See *Robbins*, 854 F.3d at 320; *Bennett*, 597 F. Supp. 2d at 1053; *Fontana v. Apple Inc.*, 321 F. Supp. 3d 850, 854-855 (M.D. Tenn. 2010); *Farina*,

⁷ Other courts that have considered the issue with respect to ongoing RF emissions from already-operational facilities have reached the same conclusion. See, e.g., *Stanley v. Amalithone Realty, Inc.*, 94 A.D.3d 140, 146 (N.Y. App. Div. 2012). See also *Ruisard v. Village of Glen Ellyn*, 406 Ill. App. 3d 644, 667 (Ill. App. Ct. 2010) (claim that tower’s RF emission levels violated ordinance that permitted construction and operation of the tower preempted); *Santa Fe Alliance for Pub. Health & Safety v. City of Santa Fe*, 2020 WL 2198120, at *7 (D.N.M. May 6, 2020), citing *Abraham v. Town of Huntington*, 2018 WL 2304779, at *8 (E.D.N.Y. May 21, 2018) (plaintiffs’ claims alleging injury from RF emissions from facilities near their homes preempted where emissions fell within FCC guidelines); *Goforth v. Smith*, 338 Ark. 65, 73-75 (Ark. 1999) (nuisance claims based on RF emissions preempted).

625 F.3d at 126 (“Allowing [local boards] to perform their own risk-utility analysis . . . would disrupt the expert balancing underlying the federal scheme” and the resulting, potentially varying, state-law standards would “eradicate[e] the uniformity necessary to regulat[e] the wireless network.”).

As previously alluded to, the absence of the word “operation” from § 332(c)(7)(B)(iv) does not persuade the court that preemption does not apply. The court’s decision is premised on obstacle conflict preemption, rather than express preemption via the language of the statute. But see *Cellular Phone Taskforce*, 205 F.3d at 96. Indeed, to permit state and local governments to regulate a tower on the basis of FCC-compliant RF radiation and order the cessation of its operations would essentially allow them to circumvent the limitations imposed by § 332(c)(7)(B)(iv). A locality could dutifully follow the law by ensuring it does not prevent the siting and construction of a tower on the basis of such emissions, yet turn around and prevent its operation on the same basis. See *Guidelines*, 12 FCC Rcd. at 13527-13529. That is undoubtedly not what Congress intended. In sum, to endorse state and local governments’ authority to act in such a manner would present “an obstacle to the accomplishment and execution of the full purposes and objectives of Congress.” *Hillsborough Cnty.*, 471 U.S. at 713.

The court is mindful that the plaintiffs’ complaint in this action raises serious concerns about the health effects of RF emissions from wireless telecommunications facilities. However, the court’s analysis and decision is necessarily focused only on the legal issue at hand. Because the Board’s Order effectively substituted its own risk-utility analysis for the FCC’s and treated the tower as unreasonably dangerous despite compliance with the FCC’s guidelines, the Order conflicts with the TCA and the FCC’s regulations. Because the Board is preempted from regulating the operation of the tower due to health concerns from RF emissions that are within

FCC guidelines, its decision to rescind the Order on that basis was neither arbitrary nor capricious, and was supported by substantial evidence. To the extent the plaintiffs seek to challenge the adequacy of the RF emissions limits articulated by the FCC,⁸ the Board is not the proper forum and lacks the authority to address such claims. Though the plaintiffs may of course raise those concerns directly with the FCC, the Board is preempted from second-guessing the FCC's judgment with respect to RF emissions standards.

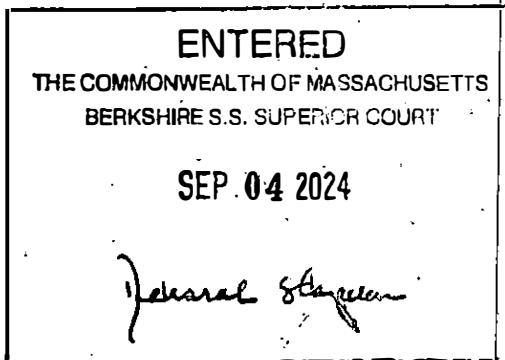
ORDER

For the foregoing reasons, the Board's Renewed Motion to Dismiss, construed as a motion for judgment on the pleadings, is **ALLOWED**. This action is hereby dismissed.



Francis E. Flannery
Justice of the Superior Court

Dated: September 3, 2024



⁸ The *Environmental Health Trust* case provides no guidance on the issues before this court. See *Env't Health Tr. v. FCC*, 9 F.4th 893 (D.C. Cir. 2021). The D.C. Circuit did not reach the merits as to whether the FCC's limits for RF radiation exposure adequately protected against the health effects to the public. Instead, it merely concluded that the FCC failed to provide a reasoned explanation for its conclusion that the limits articulated in 1996 did not need to be amended and therefore remanded an FCC order back to the Commission. The case does not affect either the guidelines currently in effect or the preemption analysis.

Judgment

(94)

JUDGMENT ON THE PLEADINGS

Trial Court of Massachusetts
The Superior Court



DOCKET NUMBER

2276CV00127

Deborah S. Capeless, Clerk of Courts
Berkshire County

CASE NAME

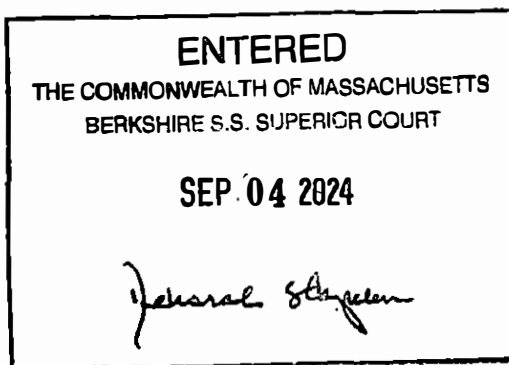
Giraldi, Courtney et al
vs.
Linda Tyer as Mayor of Pittsfield et al

COURT NAME & ADDRESS

Berkshire County Superior Court
76 East Street
Pittsfield, MA 01201

This action came before the Court, Hon. Francis E Flannery, presiding, upon a ~~motion for judgment on the pleadings~~ renewed Motion to Dismiss and the Court having construed it as a motion for judgment on the pleadings, and as such Allowed-
After hearing or consideration thereof;

It is **ORDERED AND ADJUDGED:**
the action is hereby dismissed (Flannery, J.)



DATE JUDGMENT ENTERED
09/04/2024

CLERK OF COURTS/ ASST. CLERK
X *Deborah S. Capeless*