

complaints for doing what needs to be done to increase access – exercise discretion to include features that enhance access into different products where “readily achievable.”

By making manufacturers vulnerable to complaints about the alleged inaccessibility of every product to every functional limitation, the FCC’s proposal maximizes the number of complaints that can potentially be filed. Since a manufacturer will need to defend its product design decisions concerning what is “readily achievable” for all functional limitations for every product, the FCC’s proposal similarly maximizes the amount of documentation that a conscientious manufacturer will, as a practical matter, be required to keep to defend itself.¹⁷ Consequently, the FCC’s proposed approach, which requires manufacturers to assess whether each of the 18 accessibility criteria are “readily achievable” for each product, is excessively burdensome.

¹⁷ Without question, the five day “fast-track” complaint procedure proposed by the FCC, *see NPRM* ¶ 126, will dictate that a manufacturer maintain files of documentation in order to respond to any complaints forwarded by the FCC in a timely manner. The fast-track process, discussed in Section V.A. *infra*, highlights the inaccuracy of the FCC’s tentative conclusion that the proposed rules impose no information collection requirements other than designation of a point of contact. *See NPRM*, App. E (Initial Regulatory Analysis); *see also* SPRI Study. As TIA argued in its comments on the Access Board’s *NPRM*, each of the 18 accessibility criteria on the checklist will surface at each decision-making crossroads in the product design, development and fabrication processes. A prudent manufacturer will want to document the reasons why any action that had an impact on accessibility was taken to show that it had done what was readily achievable to promote access or that access could not readily be achieved. The FCC’s tentative refusal to recognize these significant documentation costs, implicitly required by the *NPRM*, permits the FCC to avoid asking the question whether such documentation costs should be considered in determining what is readily achievable, and to ignore the practical reality that the diversion of limited resources to documentation and defense will inevitably reduce the resources available to provide access.

In contrast, the product line approach to compliance, advocated by TIA and other manufacturers, recognizes the practical reality that no product can be accessible to all functional limitations, and permits more resources to be devoted to accessibility rather than to documentation of compliance.

D. The ADA Not Only Supports, But Compels The FCC To Adopt The Product Line Approach To Compliance Advocated By TIA And Other Manufacturers.

As TIA has argued throughout these proceedings, the ADA – which is referred to in both the text and the legislative history of Section 255 – provides strong support for the FCC to interpret Section 255 up front to require each manufacturer to provide a range of functionally equivalent, comparably priced products that are accessible – in other words, to produce a representative sample of accessible products – rather than to require that every product be “accessible,” if “readily achievable.” Under this regime, compliance would be assessed based upon the accessibility of product lines or families.

The FCC has the authority to interpret Section 255 to require accessibility across product lines rather than for each product. The telecommunications and CPE “equipment” referred to in Section 255(b) can be interpreted as either singular or plural. If “equipment” is interpreted as being singular, this would suggest that each telecommunications product would need to be accessible; whereas an interpretation of the equipment as plural would suggest that Section 255 should apply to groups or families of products.

To resolve this textual ambiguity, the FCC should look to the ADA, which strongly supports defining the scope of Section 255 to apply to families or groups of products. Both the courts and the government agencies responsible for implementing the ADA have recognized that proper application of the “readily achievable” definition, will, in some circumstances, result in disabled consumers having accessibility but fewer choices than the general public.

As TIA has repeatedly pointed out, the ADA regulations related to fixed seating in public theaters and stadiums, and to hotel rooms, demonstrate the reality that providing access is not inexpensive, and that the “readily achievable” definition does not require that every seat or room be accessible.¹⁸ These regulations demonstrate that *access to facilities and services* is the ultimate goal, rather than access to a particular seat or hotel room. Similarly, TIA believes that *access to telecommunications service* is the goal of Section 255, rather than access to any particular model of pager or telephone.

¹⁸ Under the guidelines promulgated by the Access Board, and adopted by the Department of Justice (“DOJ”), theater and stadium owners are not required to make every single seat wheelchair accessible. Department of Justice Standards for Accessible Design (“JDSAD”), 28 C.F.R., Part 36, App. A, § 4.33.3; 28 C.F.R. § 36.308, DOJ Preamble to Regulation on Non-Discrimination on the Basis of Disability (“DOJ Preamble”), 28 C.F.R. Part 36, App. B (commenting on § 36.308). Instead, the ADA has been interpreted to require that: (1) a certain percentage of accessible seats be provided; (2) the accessible seats must be integrated into the seats available to the general public; and (3) the accessible seating must be dispersed throughout the stadium or arena so that disabled patrons are offered the same general range of choices, including sight lines and price, that are available to the general public. *Id.*; *Paralyzed Veterans of America v. Ellerbe Beckett Architects & Engineers, P.C.*, 950 F. Supp. 393, 398-405 (D. D.C. 1996) (discussing these requirements and applying them to the MCI arena in the District of Columbia), *aff’d*, 117 F.3d 579 (D. C. Cir. 1997), *cert. denied*, 118 S. Ct. 1184 (1998).

Therefore, the ADA compels an interpretation of Section 255 that would permit manufacturers to provide a representative sample of accessible products, to the extent “readily achievable,” that would provide disabled consumers with the same general range of choices as non-disabled consumers, such as telecommunications functions, features, quality and cost. And, this interpretation of Section 255 will increase the quality of accessible products available in the marketplace over what would be achieved under a product-by-product approach.

III. DEFINITIONS.

In the *NPRM*, the FCC requested comment on its proposed definitions of a number of terms contained in Section 255.¹⁹ TIA comments on a number of definitions. First, for certain statutory terms, the FCC has relied upon definitions taken from the ADA.²⁰ TIA urges the FCC to adapt certain ADA definitions to the telecommunications context. This is necessary to address the differences between the ADA and Section 255. Unlike the ADA, which applies in a broad range of contexts, including employment and access to public accommodations, the disability access provisions of Section 255 apply to a very narrow range of activities by equipment manufacturers: the manufacture, production and design of telecommunications equipment and CPE.²¹ The definitions of certain terms used in the ADA are applied in a specific context – generally the obligations of employers, government entities, and

¹⁹ See generally *NPRM* ¶¶ 35 - 123.

²⁰ See e.g. ¶¶ 70 (definition of disability), 97 (definition of readily achievable).

²¹ 47 U.S.C. § 255(a)(1).

operators of public accommodations. TIA provides comment on how the principles embodied in these ADA definitions should be applied in the context of telecommunications services.

Second, for other statutory terms, the FCC has relied upon definitions provided by the Access Board.²² TIA believes these definitions are helpful; however, TIA provides comment on how these definitions might be revised to avoid certain undesirable consequences and negative incentives that may not be apparent to the Access Board or the FCC, and will not promote the primary goal of increasing accessibility.

A. The Definition Of "Disability," Incorporated By Reference From The ADA Should Be Interpreted To Include Only Those Persons With Functional Limitations That Affect Their Ability To Utilize Telecommunications.

In the *NPRM*, the FCC requested comment on its tentative conclusion that the definition of disability be adopted, without modification, from the ADA, as well as "additional ways of making the definition of 'disability' useful to consumers."²³ In TIA's view, the definition of disability must be interpreted to include only those persons with functional limitations that affect their ability to utilize telecommunications equipment and CPE. Such a definition would be more consistent with the ADA and the legislative history of Section 255. Moreover, unless the definition of disability is interpreted in this way, it will not be "useful" to industry, consumers, or the FCC in implementing Section 255.

²² See *NPRM* ¶ 75 (definition of accessible); 92 (definition of compatibility); 58-61 (definition of manufacturer).

²³ See *NPRM* ¶ 70.

1. **By analogy, the ADA supports an interpretation of “disability” in the telecommunications context to include only those persons with functional limitations that affect their ability to use telecommunications.**

The ADA defines the term disability to include those individuals with "a physical or mental impairment that substantially limits one or more . . . major life activities"; persons with "a record of such an impairment"; and persons "being regarded as having such an impairment."²⁴

The relevant major life activity for the purposes of Section 255 is the ability to utilize telecommunications equipment and services. Certainly, many disabilities, such as sight and hearing impairments, can substantially limit an individual's ability to access telecommunications equipment.²⁵ Other disabilities, however, may or may not limit an individual's ability to access telecommunications equipment.²⁶

²⁴ 42 U.S.C. § 12102(a)(2).

²⁵ *Cf.* 42 U.S.C. § 12102(a).

²⁶ For example, some wheelchair users, though “disabled” with respect to certain major life activities, probably do not have a functional limitation that impairs their ability to use telecommunications within the meaning of Section 255. And, if they are impaired in their ability to use telecommunications equipment, Section 255 may not be the remedy. As the FCC tentatively concludes in its *NPRM*, manufacturers and service providers cannot be accountable, for example, for the height of pay telephones, because they do not control placement of the phones. *See NPRM* ¶ 79. The absence of a remedy under Section 255, however, does not mean that a person in a wheelchair is without recourse for inaccessible phone placement. The ADA requires that pay phones in public accommodations be placed in positions that are accessible to persons in wheelchairs. *See* 28 C.F.R. Pt. 36, App. A; 49 C.F.R. Pt. 37, App. A. This example shows that the definition of disability can and should be narrowly interpreted in the Section 255 context to draw attention to the functional limitations on the ability to use telecommunications that are relevant to Section 255’s goals of accessible equipment and service, because the ADA provides protections for limitations on other “major life activit[ies].”

Although it is estimated that approximately 50 million persons in the United States have some form or degree of disability, not all of these individuals are limited in their ability to use the telephone. Survey data compiled by the United States Census Bureau indicates that 3.1 million persons aged 15 years and older, representing approximately 1.6% of all individuals in that age range, either are unable to use the telephone or have difficulty doing so. Approximately one third of these 3.1 million persons are unable to use the telephone, while two-thirds have difficulty doing so. According to the Census Bureau, the remaining approximately 98.4 per cent of the population over the age of 15 years and 94 per cent of individuals with disabilities report having no difficulty using the telephone.²⁷

Unlike the ADA, which applies in a broad range of contexts, including employment and access to public accommodations, Section 255 applies only to a very narrow range of life activities – the use of telecommunications equipment and services. To the extent that people are substantially limited with respect to other major life activities, they are protected against discrimination by the ADA, not by Section 255.

TIA believes Section 255 should be interpreted to require manufacturers to provide equipment, to the extent “readily achievable,” that is accessible to individuals whose

²⁷ See U.S. Census Bureau Official Statistics Regarding the Disability Status of Persons <<http://www.census.gov/hhes/www/disable/sipp/disstat.html>>. TIA includes these statistics not to minimize the need to provide accessibility to individuals with disabilities that prevent them from access to telecommunications services, regardless of their number. TIA merely suggests that the number 50 million is overly broad. TIA further points out that the individuals with disabilities that prevent them from gaining access to telecommunications equipment have a wide variety of functional limitations. A product line approach to Section 255 will provide more meaningful access to this diverse group of individuals.

disabilities substantially limit their ability to use telecommunications. Thus, certain categories of disabilities that do not impact an individual's ability to use telecommunications, as well as persons who have "a record of . . . an impairment" or who are "regarded as having . . . an impairment" which could be relevant in the ADA context, need not be considered for Section 255 purposes.²⁸

2. The legislative history supports an interpretation of “disability” that includes only those functional limitations that “substantially limit” a person’s ability to use telecommunications.

Similarly, the legislative history of Section 255 supports an interpretation of disability in the Section 255 context as applying only to functional limitations that affect a person's ability to use telecommunications. The Senate Report, which borrowed from the ADA in the most detail, states that the Committee “intends the definition of disability to principally cover individuals with functional limitations of hearing, vision, manipulation, speech, or interpretation of information.” S. Rep. No. 104-23 at 52 (1995).²⁹ This list of functional limitations, though not exhaustive, is clear evidence of Congress' functional approach to the definition of disability in the Section 255 context. Under this functional approach, the definition of disability should appropriately be focused upon and limited to those functional limitations that

²⁸ See 42 U.S.C. § 12102(a)(2).

²⁹ See also H. Rep. No. 104-204 at 14 (1995) (defining disability as “including individuals with functional limitations of hearing, vision, movement, manipulation, speech, and interpretation of information”); TAAC Final Report at 11-12 (quoting language from Senate Report).

substantially limit a person's ability to use telecommunications, the limitations that Section 255 requires manufacturers and service providers to consider and to the extent "readily achievable," to overcome by providing access.

3. **In order to be "useful" to manufacturers, service providers, consumers, and the FCC, the definition of "disability" must be focused on the functional limitations that "substantially limit" a person's ability to use telecommunications.**

A definition of disability is only useful to the extent that it clarifies manufacturers' obligations under Section 255. Accessibility and compatibility are an issue only for those persons who, because of functional limitations, face barriers in accessing telecommunications equipment and services. Section 255 requires manufacturers and service providers to remove those barriers, to the extent "readily achievable." A useful definition of disability would focus attention on the functional limitations that create those barriers to telecommunications. A definition of disability that includes a record or perception of an impairment, for example, provides no meaningful guidance to manufacturers and service providers. There is nothing that a manufacturer can do in the design, development or fabrication of telecommunications equipment to improve its accessibility to individuals with a record or perception of an impairment. Consequently, these components of the ADA definition are not useful in implementing Section 255.

The FCC's definition of disability also is overbroad in that it overstates the number of people with disabilities who face barriers in accessing telecommunications equipment and CPE. Manufacturers have already developed many products that have made

telecommunications services more accessible, and thereby improved the quality of life, for many persons with disabilities. Some barriers remain. TIA's 900 member companies embrace their obligation under Section 255 to remove those barriers, to the extent "readily achievable," and expect that many of those barriers will fall as a result of the heightened efforts by individual member companies and collectively by industry, as well as technological developments that provide, for example, greater microprocessor processing power at decreasing costs. TIA also discourages the FCC from adopting an overbroad definition of disability, suggesting that there is a large, untapped market of people with disabilities for accessible equipment, because an overbroad definition lends itself to concepts such as "cost recovery" which should not be considered in an FCC enforcement process.³⁰

³⁰ See *NPRM* ¶ 115 (requesting comment on whether and how to consider cost recovery). The FCC has proposed the "expense" factor be evaluated in terms of a "net" figure, comparing the cost of a feature (including research and development, production and marketing costs) with the additional income the feature will provide. TIA disagrees with such an approach. First, the calculation of the net cost of a feature is highly speculative. The costs are concrete; they are paid by manufacturers upfront. By contrast, the additional income recovered is merely a projection. TIA disagrees with the consideration of cost recovery in a more fundamental way. If the market demands a certain feature, manufacturers respond by providing such a feature. Many accessibility features have, in the past, appealed to a broader market that includes non-disabled consumers and consequently have been included in more products because they appeal to consumers as a whole. For example, the vibrating feature on pagers, which provides access for persons with disabilities but was not designed for their benefit, is now included on most models because of its popularity with all consumers, disabled and non-disabled alike. As this example demonstrates, where cost recovery comes into play, the FCC does not need to regulate; the market will take care of accessibility features that increase the usability of products for all consumers.

B. The FCC Should Adopt A Definition Of “Accessible” That Minimizes The Amount Of Resources Diverted To Documentation And Maximizes The Accessibility Information Made Available To Consumers.

In the *NPRM*, the FCC proposes to adopt the definition of accessible adopted by the Access Board.³¹ The definition, an 18 point checklist, relates to the accessibility of product inputs, outputs, displays, mechanical and control functions for a variety of functional limitations.³² Under the Access Board’s definition of accessible, each of the 18 items on the checklist is mandatory, so that a manufacturer must perform an independent “readily achievable” calculus for each item on the checklist.³³ The FCC has requested comment on this proposal.³⁴

TIA believes that the Access Board’s definition of accessible has an important role to play in implementing Section 255. However, unless that definition is used differently, TIA believes the definition will divert excessive resources to compliance and will provide disincentives to manufacturers to provide persons with disabilities with the product accessibility information that they need to identify the products that meet their accessibility requirements.

³¹ *NPRM* ¶¶ 74-75; Access Board Guidelines §§ 1193.41, 1193.43.

³² Access Board Guidelines §§ 1193.41, 1193.43.

³³ Under the Access Board’s definition of accessible, each item on the 18 point checklist of accessible product functionality must be assessed independently. Access Board Guidelines 1193.41, 1193.43. The independent assessment that the Access Board appears to have in mind is whether each of the 18 accessibility criteria, considered in isolation, is readily achievable and, therefore, required under Section 255. Under this regime, a conscientious manufacturer would need to document its decision whether it was readily achievable to satisfy each of the 18 criteria.

³⁴ *NPRM* ¶ 75.

With respect to the definition of accessible, TIA believes that the FCC should adopt an approach that minimizes the manufacturer resources diverted to compliance documentation and maximizes the ability of persons with disabilities to purchase products that meet their needs by making available information about product accessibility features.

1. **The FCC's proposed definition of "accessible" requires manufacturers to waste resources defending their inability to achieve the impossible: a universally accessible product.**

TIA believes that the FCC's proposed definition of accessible will require manufacturers to waste resources defending their inability to achieve what is practically impossible: a universally accessible product. As the TAAC recognized, "because no single interface design will accommodate all disabilities, companies **must use discretion in choosing** among accessibility features."³⁵

The recognition that it is impossible to make a piece of telecommunications equipment or CPE accessible to every person with a disability is grounded upon several principles. Most importantly, no single product can be accessible to everyone because different functional limitations generate conflicting accessibility needs. For example, multiple selectable access features would likely run afoul of the requirement that the product be accessible to persons with cognitive disabilities.³⁶ Further, universal accessibility is not "readily achievable"

³⁵ *NPRM* ¶ 15 (citing TAAC Final Report § 5.2.1 at 20) (emphasis added).

³⁶ Access Board's Guidelines 1193.41(i).

within the meaning of Section 255, because it is not technically feasible, or would fundamentally alter the nature of the equipment, or is simply too expensive.

In spite of the virtual universal recognition that no single piece of equipment can be accessible to everyone, that is how the Access Board defined, and the FCC proposes to define, accessibility. The Access Board's "checklist" approach to the definition of accessible requires manufacturers to make each product accessible to each disability, if "readily achievable." In other words, the manufacturer has to make the equipment accessible to every functional limitation on the checklist or be able to demonstrate that it was not "readily achievable" to do so.

Consequently, the proposed definition of accessible dictates that a manufacturer will be subject to complaints about the alleged inaccessibility of its equipment for every one of the functional limitations identified on the checklist. In essence, this approach leaves a manufacturer to defend, through a series of piecemeal complaints, its inability to accomplish the impossible, and what is not "readily achievable" – a universally accessible product. This approach is particularly problematic because, while recognizing that manufacturers must exercise discretion in incorporating accessibility features among various products, the FCC has failed to provide manufacturers with a "safe harbor" from complaints for doing what must be done - exercising discretion - to meet the needs of people with disabilities.

By leaving manufacturers vulnerable to complaints about the accessibility of every product to every disability, the FCC's proposed regime forces manufacturers to divert resources from providing access to documenting their decisions about what is and is not "readily achievable" and to defending themselves against complaints. TIA does not believe this approach

will be helpful to consumers with disabilities. To date, both the Access Board and the FCC have failed to recognize the substantial expense that manufacturers will incur in documenting their decisions whether to incorporate access features based upon whether it was “readily achievable” to do so.³⁷ Even if these documentation costs continue to be ignored, the FCC cannot deny that manufacturers will incur substantial expenses in receiving and responding to complaints. TIA recognizes that complaints have a legitimate role in implementing Section 255 and that complaints may have merit. However, the FCC’s proposed definition of accessibility, which maximizes the number of complaints that can be filed, is fundamentally inconsistent with the manner that manufacturers can and must implement Section 255 by incorporating different access features across a range of products.

2. The FCC’s proposed definition of “accessible” ignores ADA precedent and incorrectly refuses to consider the cumulative cost of providing access to different disabilities in determining what is “readily achievable.”

Furthermore, the FCC’s proposed definition of accessible, which requires an independent “readily achievable” calculus for each functional limitation on the checklist, is not supported by Section 255 and is inconsistent with ADA precedent.

³⁷ For this reason, the FCC’s position that the proposed rules impose no documentation other than maintaining a point of contact is well off the mark. *See NPRM*, App. E, at E22 (Initial Regulatory Flexibility Act Analysis).

As a threshold matter, the language of Section 255 does not require that every piece of equipment³⁸ be accessible to every disability, if “readily achievable.” Rather, Section 255 requires that equipment be “designed, developed and fabricated to be accessible to and useable by individuals with disabilities, if ‘readily achievable.’” Section 255 refers to people with disabilities as a group, not on a disability-by-disability basis.

Moreover, in the ADA context, the Department of Justice, in its regulations implementing the ADA, recognized that the “readily achievable” definition did not mandate the immediate removal of all barriers.³⁹

The FCC’s proposed definition of accessible, which would require an independent “readily achievable” determination for each type of functional limitation, is fundamentally at odds with the ADA approach and with Section 255. The FCC’s proposed definition of accessible would improperly segment the Section 255 obligation so that manufacturers might be forced to do more than what is “readily achievable” or accomplishable without much difficulty or expense.⁴⁰ To avoid this, it is essential that the FCC’s rules permit manufacturers to consider the cumulative costs of accessibility features. Moreover, the FCC’s rules should not require

³⁸ As TIA has previously pointed out, the “equipment” subject to Section 255 can be interpreted both in the singular and in the plural.

³⁹ DOJ Preamble, 28 C.F.R. Part 36, App. B (commenting on § 36.104) (indicating that it is “appropriate to consider the cost of other barrier removal actions as one factor in determining whether a measure is readily achievable.”). Regulations issued by the agency charged with administering a statute are entitled to considerable weight unless arbitrary and capricious or contrary to the statute. *Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 844 (1984).

⁴⁰ 42 U.S.C. § 12181(9).

manufacturers to incorporate features that fundamentally alter a product's characteristics. Most importantly, TIA believes that requiring manufacturers to apply the Access Board's 18 point checklist on a product-by-product basis would result in manufacturers being required to do more than what is "readily achievable." If the FCC were to interpret the definition of accessible in this way, the FCC would be abusing its discretion.

3. The FCC's proposed definition of "accessible" creates disincentives for manufacturers to provide accessibility information – information which would be helpful to consumers with disabilities.

By proposing to adopt the Access Board's definition of accessible, the FCC creates disincentives for manufacturers to provide persons with disabilities with information about accessibility features. Manufacturers cannot create a product that is "accessible" under the Access Board's definition; even if manufacturers focus on specific functional limitations, such as hearing impairments, the wide range of individuals with a given disability will effectively preclude manufacturers from representing that a product is accessible to individuals with that disability. Manufacturers will therefore be reluctant to provide accessibility information about their product, particularly in light of potential legal exposure they may face under Section 255.

Without specific, technical information about the nature of the accessibility features included in a piece of equipment, consumers with disabilities will not be able to insure that the product they are purchasing meets their highly individualized accessibility needs. This lack of information will, in turn, generate more complaints by persons with disabilities who have purchased the "wrong" product, e.g. a product that is not accessible to them.

4. **TIA proposes an alternative definition of “accessible” that creates incentives for manufacturers to provide information about accessibility features to consumers, and recognizes that such features will be incorporated, to the extent “readily achievable,” across product lines and families.**

As an alternative to the FCC’s proposal to adopt the Access Board’s definition of accessible, TIA proposes a definition that is more consistent with the scope and purpose of Section 255. TIA’s proposal recognizes and is consistent with the reality that manufacturers must have discretion to incorporate access features across product lines, and be somewhat insulated from complaints for exercising this unavoidable discretion, because every product cannot be accessible to every person.

TIA’s proposed definition would provide as follows:

“Accessible:” Telecommunications equipment and CPE is “accessible” to the extent that it enhances the ability of a person with a disability to use the telecommunications equipment or CPE by incorporating one or more of the following features or functionalities, to the extent readily achievable:

Input, control, and mechanical functions. Input, control, and mechanical functions shall be locatable, identifiable, and operable in accordance with each of the following, assessed independently:

(a) **OPERABLE WITHOUT VISION.** Provide at least one mode that does not require user vision.

(b) **OPERABLE WITH LOW VISION AND LIMITED OR NO HEARING.** Provide at least one mode that permits operation by users with visual acuity between 20/70 and 20/200, without relying on audio output.

(c) **OPERABLE WITH LITTLE OR NO COLOR PERCEPTION.** Provide at least one mode that does not require user color perception.

(d) OPERABLE WITHOUT HEARING. Provide at least one mode that does not require user auditory perception.

(e) OPERABLE WITH LIMITED MANUAL DEXTERITY. Provide at least one mode that does not require user fine motor control or simultaneous actions.

(f) OPERABLE WITH LIMITED REACH AND STRENGTH. Provide at least one mode that is operable with user limited reach and strength.

(g) OPERABLE WITHOUT TIME-DEPENDENT CONTROLS. Provide at least one mode that does not require a response time. Alternatively, a response time may be required if it can be by-passed or adjusted by the user over a wide range.

(h) OPERABLE WITHOUT SPEECH. Provide at least one mode that does not require user speech.

(i) OPERABLE WITH LIMITED COGNITIVE SKILLS. Provide at least one mode that minimizes the cognitive, memory, language, and learning skills required of the user.

Output, display, and control functions. All information necessary to operate and use the product, including but not limited to, text, static or dynamic images, icons, labels, sounds, or incidental operating cues, shall comply with each of the following, assessed independently:

(a) AVAILABILITY OF VISUAL INFORMATION. Provide visual information through at least one mode in auditory form.

(b) AVAILABILITY OF VISUAL INFORMATION FOR LOW VISION USERS. Provide visual information through at least one mode to users with visual acuity between 20/70 and 20/200 without relying on audio.

(c) ACCESS TO MOVING TEXT. Provide moving text in at least one static presentation mode at the option of the user.

(d) AVAILABILITY OF AUDITORY INFORMATION. Provide auditory information through at least one mode in visual form and, where appropriate, in tactile form.

(e) AVAILABILITY OF AUDITORY INFORMATION FOR PEOPLE WHO ARE HARD OF HEARING. Provide audio or acoustic information, including any auditory feedback tones that are important for the use of the product, through at least one mode in enhanced auditory fashion (i.e., increased amplification,

increased signal-to-noise ratio, or combination). For transmitted voice signals, provide a gain adjustable up to a minimum of 20 dB. For incremental volume control, provide at least one intermediate step of 12 dB of gain.⁴¹

(f) PREVENTION OF VISUALLY-INDUCED SEIZURES. Visual displays and indicators shall minimize visual flicker that might induce seizures in people with photosensitive epilepsy.

(g) AVAILABILITY OF AUDIO CUTOFF. Where a product delivers audio output through an external speaker, provide an industry standard connector for headphones or personal listening devices (e.g. phone-like handset or earcup) which cuts off the speaker(s) when used.

⁴¹ The FCC technical specification for volume control, §68.317, see 47 CFR Part 68, currently requires a volume control with a minimum gain of 12 dB. On April 1, 1998, a joint TIA/MMTA letter was addressed to Geraldine Matise, Head of the Common Carrier Bureau, and supports industry understanding and interpretation of the requirements of §68.317. This interpretation is currently being used by both large and small manufacturers for equipment being designed today to meet the January 1, 2000 deadline for implementation of §68.317, as required by Part 68 of the FCC Rules.

In contrast, Appendix C of the *NPRM*, which contains a copy of §1193.43, paragraph (e), of the Access Board's Guidelines, released on February 6, 1998, requires manufacturers to provide a gain adjustable up to a minimum of 20 dB. This is a significant discrepancy from the point of view of designers of equipment trying to meet the FCC Part 68 deadline. TIA has previously submitted our comments regarding the technical challenge of implementing this 20 dB requirement.

In an attempt to test the feasibility of the requirement to provide a gain adjustable up to a minimum of 20 dB, a TIA member purchased and evaluated samples of the same 3 models of telephones that were used by the consultants referenced in the Access Board Guidelines, 36 CFR Part 1193 Section-by-Section Analysis portion of the preamble of §1193.43, paragraph (e), and frequently conferred with the consultants. The TIA evaluation of the phones revealed that, when measured according to §68.317 requirements, none of these phones could meet the requirement of the provision of a gain adjustable up to a minimum of 20dB. All of these phones demonstrated significant shortcomings in meeting other telephone performance standards. The performance shortcomings are likely due to the attempt of the manufacturers to meet the requirement of the provision of a gain adjustable up to a minimum of 20 dB. Therefore, TIA respectfully requests that the FCC resolve this discrepancy by reaffirming the requirements of Section 68.317 as the sole and correct interpretation of volume control requirements.

(h) NON-INTERFERENCE WITH HEARING TECHNOLOGIES. Reduce interference to hearing technologies (including hearing aids, cochlear implants, and assistive listening devices) to the lowest possible level that allows a user to utilize the product.

(i) HEARING AID COUPLING. Where a product delivers output by an audio transducer which is normally held up to the ear, provide a means for effective wireless coupling to hearing aids.

Under TIA's proposal, accessible is defined in terms of features that perform accessibility-enhanced functions, utilizing the criteria developed by the Access Board.⁴²

Although TIA's proposal, like the FCC's *NPRM*, incorporates the Access Board's guidelines for accessibility, TIA's proposal uses the guidelines in a different way. TIA's proposal uses the guidelines to identify those product features that enhance the accessibility of products for persons with disabilities. TIA believes that its approach has several advantages.

First, TIA's proposal, unlike the FCC's, encourages manufacturers to provide specific, technical information about the accessibility features included in products. Under the FCC's proposal, manufacturers cannot represent that a product is accessible even if it complies with Section 255 because it is impossible to make any product accessible to everyone.⁴³ A statement that a product is accessible, to the extent "readily achievable," provides no useful information to a person with a disability.

In contrast, under TIA's proposal, manufacturers are not constrained from making representations concerning how many decibels of audio gain a product can produce, the font size

⁴² *NPRM* ¶¶ 74-75; Access Board Guidelines §§ 1193.41, 1193.43.

⁴³ *NPRM* ¶ 15 (citing TAAC Final Report § 5.2.1 at 20) (emphasis added).

and typeface used on a display, the size of buttons on a keypad, or whether the product has a voice chip or a vibrating feature. In fact, under TIA's definition, manufacturers will be motivated to include information on the various features that "enhance" the ability of persons with disabilities to use their products. These are features that enhance the accessibility of products which can be described in specific technical terms useful to persons with disabilities. Generally, persons with disabilities are well informed about the performance criteria that a product must meet in order to be accessible to their unique functional limitations. TIA believes this specific information will likely be helpful in their purchasing. The FCC's proposed regime, while not precluding manufacturers from providing information about product features that enhance accessibility, fails to create any incentives for the provision of such information.

Second, TIA's proposal is consistent with both the limitations of the "readily achievable" standard and the practical reality that every product cannot be accessible to everyone. Under TIA's definition, each item on the Access Board's checklist would not be mandatory. Rather, a manufacturer would be required to do what was "readily achievable," a determination based upon, among other "readily achievable" criteria, the cumulative cost of accessibility features, as defined by the Access Board's guidelines, included in a product. In so doing, TIA's definition of accessible would apply the "readily achievable" standard in the same way as that term has been applied and defined in the ADA context.⁴⁴ Moreover, TIA's definition

⁴⁴ DOJ Preamble, 28 C.F.R. Part 36, App. B (commenting on § 36.104) (indicating that it is "appropriate to consider the cost of other barrier removal actions as one factor in determining whether a measure is readily achievable.").

is consistent with the reality that it is not technically feasible, and therefore not “readily achievable,” to have a universally accessible product. Instead, TIA’s definition would recognize that manufacturers must exercise discretion in incorporating accessibility features across product lines. In addition, this approach would provide an incentive for manufacturers to differentiate products so as to provide truly meaningful access for different disabilities, rather than a very superficial level of access in virtually every product.

In this respect, TIA’s approach is consistent with a similar product defense, which would provide a manufacturer a safe harbor from complaints as long as the manufacturer made another product with comparable functions, features, and price that was accessible to the complainant. Furthermore, by ensuring that persons with disabilities and other consumers have the information to determine whether a product is accessible to them, TIA’s approach would eliminate complaints based on lack of knowledge about available products.⁴⁵ In these two ways, TIA’s proposed definition of accessibility would reduce the amount of manufacturer resources that are diverted to demonstrating compliance, while at the same time, encouraging increased accessibility.

⁴⁵ Complaints will be reduced because persons with disabilities will have more precise information on what accessibility features are included in a product. This will reduce the likelihood that a consumer will purchase a product which is not designed to meet his or her disability.

C. TIA Supports the FCC’s Approach to The Definition Of “Compatibility” Yet Is Concerned that the Definition Will Not Promote Innovation and Places Too Great a Burden on Manufacturers to Achieve Compatibility.

Where accessibility is not “readily achievable,” manufacturers have an obligation under Section 255 to ensure that their telecommunications equipment and CPE are “compatible with existing peripheral devices or specialized customer premises equipment commonly used by persons with disabilities . . . if readily achievable.” Section 255 clearly contemplates that specialized CPE (“SCPE”) will continue to play a legitimate role in providing access to telecommunications for some persons with some disabilities. This continued role for SCPE could only be based on Congress’ implicit recognition that it will not be “readily achievable,” and therefore not required under Section 255, for manufacturers to provide access for some severe or unique functional limitations.

In the *NPRM*, the FCC suggests there is no need to distinguish between SPCE and peripheral devices; the FCC takes the position both should be defined as equipment and devices “commonly used to achieve access.”⁴⁶ The FCC further explains that “equipment used in direct conjunction with CPE, such as amplifiers for persons with hearing disabilities, or screen readers for persons with visual disabilities, would be considered either peripheral devices or specialized CPE[,] [while] . . . devices such as hearing aids, which have a broad application outside the telecommunications context, may be used in conjunction with peripheral equipment

⁴⁶ *NPRM* ¶ 84.

or specialized CPE, but are not themselves considered specialized CPE or peripheral devices under the 1996 Act.”⁴⁷

TIA supports the FCC’s approach to defining specialized CPE and peripheral devices. TIA believes it is useful to clearly delimit the difference between CPE and specialized CPE, so that manufacturers will know their responsibilities under the Act. TIA agrees with the FCC that SPCE will continue to play an important role in providing access to telecommunications for some persons with some disabilities.

TIA believes, however, that compatibility between equipment in place is properly under the jurisdiction of the appropriate industry standard board rather than extensive regulation by the FCC. The FCC’s proposed definition of compatibility, taken from the Access Board’s guidelines,⁴⁸ will hinder innovation. Yet, despite the virtually universal recognition that technological innovation is needed in order to increase accessibility and compatibility for persons with disabilities, the FCC, like the Access Board, is heavily weighting its definition of compatibility towards outdated TTY technology.⁴⁹ Two of the five components of the FCC’s proposed definition of compatibility relate to TTY compatibility.⁵⁰

⁴⁷ *Id.*

⁴⁸ *See* 36 C.F.R. § 1193.51.

⁴⁹ It has proven difficult to achieve compatibility between digital wireless technologies and TTYs, whose technology has not changed much since their introduction in the 1960s. TTYs are not yet compatible with most computer modems.

⁵⁰ *NPRM* ¶ 91.

The FCC “recognize[s] that . . . compatibility criteria need to be broadened to account for likely technological advances in both telecommunications and accessibility products.”⁵¹ TIA agrees. Promoting technological innovation requires that the FCC not require manufacturers to expend limited resources available for enhancing accessibility to finding a way to make digital networks TTY compatible. To date, this compatibility has proven extremely difficult for digital wireless telephones.

As the FCC has recognized in other proceedings, digital technology is the wave of the future and will benefit all of the public. Specifically, digital technology has permitted enhanced access to telecommunications by persons with disabilities. Both alphanumeric paging (accessible to the hearing impaired) and the new narrowband PCS voice paging (accessible to the sight-impaired) utilize digital technology.

To promote new digital technology, the FCC has established a timetable for phasing in digital television broadcasting.⁵² Ultimately, the FCC’s rulemaking will require virtually every household in America to purchase a new television set, because existing sets will be incompatible with the new digital technology.

For the same reason, the FCC should not perpetuate TTY technology by requiring compatibility. Rather, the FCC should consider phasing out the compatibility obligation for such outdated technologies. In fact, the FCC currently recognizes the need for innovation beyond the

⁵¹ *NPRM* ¶ 92.

⁵² See 63 Fed. Reg. 15,774 (April 1, 1998) (setting the year 2006 as the target date for the completion of the transition).