

**Comments on the Section 508/255 Information and Communications Technology Refresh Standards, 36 CFR Parts 1193 and 1194 [Docket No. ATBCB-2015-0002] RIN 3014-AA37, as proposed by the U.S. Access Board.**

The American Council of the Blind (ACB) is a leading national membership organization whose purpose is to work toward independence, security, equality of opportunity, and improved quality of life for all blind and visually impaired people. Founded in 1961, ACB's members work through more than 70 state and special-interest affiliates to improve the well-being of all blind and visually impaired people by: serving as a representative national organization; elevating the social, economic and cultural levels of blind people; improving educational and rehabilitation facilities and opportunities; cooperating with the public and private institutions and organizations concerned with blind services; encouraging and assisting all people with severely impaired vision to develop their abilities and conducting a public education program to promote greater understanding of blindness and the capabilities of people who are blind.

*ACB wishes to commend the Access Board for taking on the momentous task of harmonizing 508 Standards and the 255 Guidelines into a single set of regulations that will assure the accessibility of technology for people with disabilities. While there are a few areas where we would ask the Access Board to reconsider how issues are explained or the extent industry is being required to engineer their products to assure their accessibility, we are pleased with the overall product and the reasoning behind it.*

*We agree with the Board's decision to incorporate the WCAG 2.0 standards as the backbone of the proposed regulations as well as with the Board's functional approach to defining how accessibility is defined and reached. We agree that this approach will result in more durable regulations requiring only infrequent refreshes and leaving much less room for interpretation without limiting innovation.*

*We urge the Access Board to complete their work on these regulations expeditiously so as to limit the extent to which inaccessible technologies become part of the workplace. Each day, week, and month that goes by without these regulations will result in more and more barriers to the employment of people with disabilities.*

### **E202.2 National Security Systems**

The 508 standards do not apply to ICT operated by agencies as part of a national security system, as defined by 40 U.S.C. 11103(a). The board should consider amending this section by adding language which makes it clear that if such entities employ individuals with disabilities who as part of their work must interact with ICT that is part of the national security system, such ICT shall comply with the Section 508 standards to the maximum extent possible.

### **E202.3 Federal Contracts**

ICT acquired by a contractor incidental to a contract shall not be required to conform to the 508 Standards. This appears to run contrary to Section 503 of the Rehabilitation Act as well as recent actions designed to encourage more Federal contractors to employ up to 7% workers with disabilities. The board should change this standard to make it clear that if employees with disabilities are required to use equipment provided by a contractor for a deliverable, said equipment must comply with Section 508 standards.

## **E203.2 Agency Business Needs**

When agencies procure, develop, maintain or use ICT they shall identify the business needs of users with disabilities affecting vision, hearing, color perception, speech, dexterity, strength, or reach to determine:

A. How users with disabilities will perform the functions supported by the ICT; and

B. How the ICT will be installed, configured, and maintained to support users with disabilities. The board should make it clear in the language of this subsection, not just as an advisory, that training must be offered to individuals with disabilities on how to use ICT, either with or without Assistive Technology to accomplish agency business needs. Too often, individuals are provided with technology but not with adequate training on how to efficiently use it. The board should also state that evaluation, installation, configuration and training in assistive technology shall be provided at no cost to an individual with a disability.

## **Section 205.3 Agency Official Communication**

Answer to Question 4 on the eight categories of non-public facing information in Section 205.3. These categories are adequate to meet the needs of employees with disabilities in Federal agencies. The board has clearly stated that these categories do not impact on the duty of agencies to provide reasonable accommodations under Sections 501 and 504 of the Rehabilitation Act. It would be helpful for the board to indicate that agencies are encouraged to make all documents available where readily achievable, to insure that employees with disabilities are not unintentionally excluded from receiving the same information as their non-disabled colleagues.

In Question 6, The Board seeks comment on the extent that the proposed incorporation of WCAG 2.0 Level A and Level AA Success Criteria would result in new costs or benefits. We have characterized the majority of success criteria as “substantially equivalent” to requirements under the existing 508 Standards and 255 Guidelines and request comment as to the accuracy of this characterization. The board has accurately characterized a majority of the WCAG 2.0 Level A and AA criteria as equivalent to the Section 508 standards. There should be very little additional cost and greater benefits from including WCAG 2.0 for documents over and above websites. It makes it clear that documents, especially PDF documents, need to be written such that they are accessible to people with disabilities. Also, it will help to clarify that mobile apps and their content must also be accessible per WCAG 2.0. This is readily achievable, particularly on mobile devices which have assistive technology included such as Apple iDevices and the Android platform.

The board should also state that as WCAG evolves, items required to currently comply with WCAG 2.0 should also be made to comply with any future guidelines when they are substantially updated. Technology is evolving quickly, and as the referenced guidelines are revised, Federal agencies need to revise those items without having a new NPRM issued so people with disabilities are not left behind.

In Question 7, the board asks: *Question 7.* A Web page can conform to WCAG 2.0 either by satisfying all success criteria under one of the levels of conformance or by providing a conforming alternate version. WCAG 2.0 always permits the use of conforming alternate versions. Are there any concerns that unrestricted use of conforming alternate versions of Web pages may lead to the unnecessary

development of separate Web sites or unequal services for individuals with disabilities? Should the Board restrict the use of conforming alternate versions beyond the explicit requirements of WCAG 2.0? The board is right in its decision to delete Section 1194.22K. If content is developed to WCAG 2.0 Level A and AA, there should never be the need for an alternate version. Furthermore, we do not believe there should be concerns about development of unequal services. Developing to WCAG 2 Level A or AA will also allow for access by people with disabilities using mobile devices such as Apple's iDevices or the Android platform.

In question 14, the board asks: *Question 14.* Is the scope of public facing content covered by proposed E205.2 sufficiently clear? Are there other issues the Board should consider in defining the scope of the term "public facing"? While the board has broadly covered what is public facing, it should also urge that if an agency is unclear whether something is covered by this section, it should assume it is and do what is required to make sure it is accessible to and usable by people with disabilities.

### **Section E206 Hardware**

The board should make it clear that hardware includes mobile devices such as cell phones and tablets, as these are used heavily in both the Government and private sectors to conduct business. This comment applies to Section C204, hardware under the Section 255 guidelines as well. A variety of mobile devices include accessibility features which make them usable by individuals with disabilities. These include Apple iDevices which include VoiceOver and Zoom, and Android devices which incorporate TalkBack and BrailleBack. The board needs to make it clear that hardware needs to be procured which either includes accessibility features, or, can work with assistive technology used by people with disabilities.

### **Section E207 Software**

The board needs to make it clear that these requirements apply to apps on mobile devices which are necessary to conduct agency business. Specifically, the board should clarify that apps designed to allow agency employees to conduct business or provide information to the public shall be designed, developed and tested to work with accessibility features found on mobile devices, such as Zoom and VoiceOver on iDevices or TalkBack, BrailleBack and magnification found on Android devices. This comment applies to Section C205, software under the 255 guidelines as well.

### **Section 302.1 Without Vision**

Currently states: *302.1 Without Vision.* Where a visual mode of operation is provided, ICT shall provide at least one mode of operation that does not require user vision. We are concerned that agencies could meet this requirement by providing just audio output, which may not work for individuals who have no usable vision, plus hearing loss or individuals who are deaf blind as defined using definitions provided by the Helen Keller National Center for Deafblind Youths and Adults. The board should add the following language to the end of this subsection: "Where audio output is used, ICT shall support the use of

auxiliary aids such as Refreshable Braille devices in order to insure that all potential users without usable vision will be able to access all features and functions of the ICT.”

#### **402.1 Closed Functionality, General**

The board should require that where signage, information kiosks or other systems which provide information either to the public and/or to employees with disabilities must provide this information in at least an audio and visual format. This requirement should apply even if the device in question may be viewed as a closed system. Systems providing real time information can and have been made accessible. For example, The Metro Commuter Rail system in Chicago, Illinois has installed systems in its downtown Chicago stations which provide real time train and track information, with such systems providing audio and visual output.

#### **402.2 Speech-Output Enabled**

ICT with a display screen shall be speech-output enabled. Operating instructions and orientation, visible transaction prompts, user input verification, error messages, and all displayed information for full use shall be accessible to, and independently usable by, individuals with vision impairments. Speech output shall be delivered through a mechanism that is readily available to all users, including, but not limited to, an industry standard connector or a telephone handset. Speech shall be recorded or digitized human, or synthesized. Speech output shall be coordinated with information displayed on the screen. Again, this could exclude use of such equipment by individuals who are deaf blind using refreshable Braille devices. The board should add the following language to the end of this subsection, just before discussing exceptions: “Where readily achievable, such ICT shall support the use of refreshable Braille devices to provide the same access as that provided using speech output.”

Answer to Question 19: In Question 19, the board asks: *Question 19*. Does the proposed exception to the requirement for tactilely discernible input controls strike the appropriate balance so that it permits innovative accessibility approaches for individuals with visual impairments without being overbroad? Should there be additional requirements for touchscreens? For example, should the Board require touchscreens to be compatible with prosthetic devices? We are concerned about the board providing this exemption because it assumes that any individual with a visual impairment can operate a touch screen using the types of gestures and audio cues provided by Apple IOS devices using VoiceOver. First, individuals who also have hearing loss in addition to visual impairment may not be able to easily operate such devices unless they support the attachment of refreshable Braille devices. Secondly, some individuals with visual impairments who have conditions such as diabetes also experience neuropathy in their hands, which causes shaking and can make it difficult or impossible to perform the gestures and movements needed to control touch screen devices. Therefore, the board should require that tactually discernible controls be provided.

#### **402.2.2 Braille Instructions**

In the NPRM, Sec. 402.2.2 Braille Instructions, states that "Where speech output is required by 402.2, Braille instructions for initiating the speech mode of operation shall be provided. Braille shall conform to

36 CFR Part 1191, Appendix D, and Section 703.3." This is a superb move. The Board deserves commendation for adding this to the proposed regulation.

In real world scenarios, however, the experience of numerous blind individuals is that the actual time and effort it takes to read the Braille instructions, locate all of the relevant keys on the device, and move back and forth between the ICT and the instructions in order to try to quickly learn the needed processes is prohibitive, especially when there is a line of impatient non-disabled individuals behind the visually-impaired user waiting to use the same ICT.

The Board should consider amending the 402.2.2 section by adding (after the word "provided") the phrase, "and shall conform to 602.4 Alternate Formats for Non-electronic Support Documentation." By doing so, individuals could appropriately study instructions off-site, and develop a plan of action when encountering the ICT. The standard would thus read: 402.2.2 Braille Instructions. "Where speech output is required by 402.2, Braille instructions for initiating the speech mode of operation shall be provided, and shall conform to 602.4 Alternate Formats for Non-electronic Support Documentation. Braille shall conform to 36 CFR Part 1191, Appendix D, Section 703.3."

### **407.3 Tactilely Discernible**

The Board asks Question 19: "Does the proposed exception to the requirement for tactilely discernible input controls strike the appropriate balance so that it permits innovative accessibility approaches for individuals with visual impairments without being overbroad? Should there be additional requirements for touchscreens? For example, should the Board require touchscreens to be compatible with prosthetic devices?"

Please consider the following, as it may be a way of getting the most out of both tactilely discernible and accessible audio controls for blind individuals without limiting either control set.

The Board should consider dropping the word "Tactilely" from the name of 407.3 and rename 407.3 to "Discernible." The Board should then consider adding the phrase "or audibly discernible without activation and operable by touch" to 407.3. The standard would then read, "407.3 Discernible. At least one input control that is tactilely discernible, or audibly discernible without activation and operable by touch shall be provided for each function and shall conform to 407.3."

This would have the advantage of eliminating the Exception to 407.3, and allow a smooth transition to any new technology that provides either tactilely discernible or accessible audio controls for all such devices without limiting audio controls to only personal devices.

For 407.3.1, the standard could easily be modified as follows: "407.3.1 Identification. For input controls that are tactilely discernible without activation and operable by touch, key surfaces outside active areas of the display screen shall be raised above surrounding surfaces."

### **409.1 Transactional Outputs, General, Exception 3**

The Board asks: "Question 25. Are the requirements in proposed Exception 3 to 409.1 sufficiently clear?"

This question refers to the sentence "3. Itineraries, maps, checks, and other visual images shall not be required to be audible." This is quite clear, so the answer to the question is yes; however, a blind individual utilizing ICT with material contained in this exception may not know that this material exists until well into the interactive transaction.

The Board should consider adding a section 409.2 "Prior Notification" to the standard. It might read for example: "409.2 Prior Notification. If material contained in 409.1, Exception 3, is necessary for the completion of the transaction, the speech output shall notify the user at the beginning of the transaction that the transaction may contain images that have not been described, and may render the transaction difficult or impossible."

### **Section 409 Transactional Outputs**

For clarity, the Board should consider codifying Section 409 into a subsection of 402, since Transactional Outputs is a subset of Closed Functionality. This would also ensure that all of the requirements of 402 would apply to Transactional Outputs.

### **Section 413.1.2 Audio Description Controls**

While we agree with the board's approach to requiring that controls for audio description must be placed in a prominent location to other program selection controls, the board should also go farther and require that such controls be tactility discernible.

### **Section 5 Software**

*In Section 5, The Access Board* proposes that "platforms, software tools provided by platform developers, and applications must conform to the requirements in the accompanying subsections related to documented accessibility features (502.2), accessibility services (502.3), and platform accessibility services (502.4)." Where we have concern is in the granting of a blanket exception for platforms and applications that have closed functionality. ACB is concerned that in the name of "security" those entities that either require this level of security or choose to use this kind of product for other reasons have no motivation for working toward accessibility. Should they not be required to innovate in this area?

### **Section 502.3.9 Event Notification**

*In 502.3.9 Event Notification, the Board* proposes that "programmable notification of events relevant to user interactions— including changes in a component's state, value, name, description, or boundary— must be available to assistive technologies." The "Events" mentioned in this subsection can result in the reading cursor of a screen reader being forced to change focus when data on a screen is being refreshed so frequently as to disrupt the reading of the screen. Provisions should be made to assure that a screen reader can retain control of the reading cursor under these circumstances.

### **Section 503.1 Applications, General**

*In subsection 503.1 General, the Access Board* sets specifications for non-Web software—that is, programs with a user interface that are executed on a computing platform—related to certain user preferences, interfaces, and controls." In subsection 503.2 *User Preferences, The Board goes on to* propose that "applications must permit user preferences to carry over from platform settings for text color, contrast, font type, font size, and focus cursor." An exception is granted that would "exempt software designed to be isolated from the underlying operating system. Lightweight applications (often

called “applets”) using the Adobe® Flash® Platform, Oracle® Java Platform, W3C HTML 5 platform, and similar technologies, are commonly isolated in this way for security reasons.” Once again, the need for security is used to justify the need for an exemption. ACB requests that wording be added to this section that would result in a requirement that any such product provide a means by which these features can be invoked from within the product.

### **Section 503.2 User Preferences**

The Board should consider rewriting the exception to 503.2 User Preferences. The proposed section and exception state: "503.2 User Preferences. Applications shall permit user preferences from platform settings for color, contrast, font type, font size, and focus cursor.

EXCEPTION: Applications that are designed to be isolated from their underlying platforms, including Web applications, shall not be required to conform to 503.2." This exception appears to be overly broad, and would also appear to allow any web developer who wanted to maintain total control over their presentation, to simply hard code fonts and color settings. In doing so, they would thus meet the requirement of the exception, as their application would be "designed to be isolated from their underlying platforms."

We believe that the real intent of the exception is to allow content such as Flash which is unable to use the services of the underlying platform to be utilized, but the exception language doesn't promote that understanding. We wonder if the phrase "Applications that are designed" might be replaced with the phrase "Content that is designed."

### **Section 504.1 Authoring Tools, General**

*In subsection 504.1 General, the Access Board proposes requirements for “authoring tools”. The section goes on to use the term “facilitate accessible output.” ACB asks the Board to strengthen this section by requiring authoring tools to have these features turned-on by default; only allowing users to “opt-out” of their use.*

### **Section 602.1 Supporting Documentation, General**

*In subsection 602.1 General the Access Board proposes to “require documentation supporting the use of ICT to conform to the requirements in the accompanying subsections concerning identification of accessibility and compatibility features (602.2), electronic support documentation (602.3), and alternate formats for non-electronic support documentation (602.4).” We would request that the availability of accessible alternative formats be placed prominently and near the front of both the electronic content and the hardcopy printed material so as to assure ease of access. ACB also requests that it be made clear that multiple accessible formats be provided and that the choice of what format is needed be at the request of the person requesting it.*

### **Section 603.2 Information on Accessibility and Compatibility Features**

ICT support services shall include information on the accessibility and compatibility features required by 602.2. The board should expand this section in two ways. First, require that those providing support services such as help desk personnel undergo ongoing training on how to enable and use product accessibility features. Too often, when personnel turn over in a help desk setting, they are trained on the

product but not on the accessibility features. In other words, what we're saying is that training on accessibility needs to be an essential part of ongoing training on the product.

Secondly, those providing support services shall be trained such that they can describe to an individual how to enable accessibility features without requiring that said individuals provide to them information which their disability precludes them from providing. For example, a help desk person should not ask a person who is blind what lights or visual indicators are active prior to helping them to either enable accessibility features or troubleshoot product issues. The classic example of where this happens is when a person who is blind calls an internet service provider to get help with a service issue, and when they are unable to tell the support person what lights are on, they are refused help.

Respectfully submitted,

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