

**WEST VIRGINIA  
SECRETARY OF STATE  
JOE MANCHIN, III  
ADMINISTRATIVE LAW DIVISION**

Do Not Mark In This Box

**FILED**

2003 APR 17 P 4:09

OFFICE WEST VIRGINIA  
SECRETARY OF STATE

Form #6

**NOTICE OF FINAL FILING AND ADOPTION OF A LEGISLATIVE RULE AUTHORIZED  
BY THE WEST VIRGINIA LEGISLATURE**

AGENCY: Department of Administration TITLE NUMBER: 148

AMENDMENT TO AN EXISTING RULE: YES  NO

IF YES, SERIES NUMBER OF RULE BEING AMENDED: \_\_\_\_\_

TITLE OF RULE BEING AMENDED: \_\_\_\_\_

IF NO, SERIES NUMBER OF RULE BEING PROPOSED: 15

TITLE OF RULE BEING PROPOSED: Rule for Technology Access for Visually Impaired

THE ABOVE RULE HAS BEEN AUTHORIZED BY THE WEST VIRGINIA LEGISLATURE.

AUTHORIZATION IS CITED IN (house or senate bill number) HB 2592

SECTION § 64-2-1(a), PASSED ON March 8, 2003

THIS RULE IS FILED WITH THE SECRETARY OF STATE. THIS RULE BECOMES EFFECTIVE ON THE  
FOLLOWING DATE: July 1, 2003

  
Authorized Signature



STATE OF WEST VIRGINIA  
DEPARTMENT OF ADMINISTRATION  
OFFICE OF THE CABINET SECRETARY

BOB WISE  
GOVERNOR

GREGORY A. BURTON  
CABINET SECRETARY

April 17, 2003

***Via Hand-Delivery***

The Honorable Joe Manchin, III  
Secretary of State  
Building 1, Suite 157K  
1900 Kanawha Boulevard, East  
Charleston, WV 25305

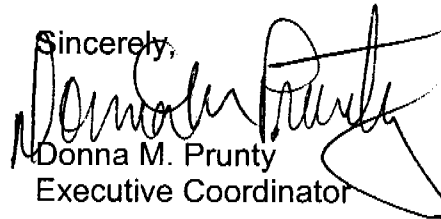
**Re: Legislative Rules**

Dear Secretary Manchin,

I am enclosing the "Notice of Final Filing and Adoption of a Legislative Rule Authorized by the West Virginia Legislature" as well as the original rules for filing. The rules established deal with Technology Access, 148 CSR 15, resulting from the passage of House Bill 2592. As requested, I am also enclosing a disc containing the rules.

Thank you very much for your assistance. If you have any questions, or need any additional information, please do not hesitate to give me a call.

Sincerely,

  
Donna M. Prunty  
Executive Coordinator

DMP:dp  
Enclosures  
cc: Gregory A. Burton, Cabinet Secretary

TITLE 148  
WEST VIRGINIA DEPARTMENT OF ADMINISTRATION  
PURCHASING DIVISION

OFFICE WEST VIRGINIA  
SECRETARY OF STATE

SERIES 15  
RULE FOR TECHNOLOGY ACCESS FOR VISUALLY IMPAIRED

§ 148-15-1 General.

1.1 Scope.-- This Legislative Rule sets forth the minimum standards and criteria to be used in approving or rejecting procurements by state agencies for adaptive technologies for nonvisual access uses.

1.2 Authority. - W.Va. Code §18-10N-3.

1.3 Filing Date. - \_\_\_\_\_

1.4 Effective Date. - \_\_\_\_\_

1.5 Purpose. - This rule requires that when State agencies develop, procure, maintain, or use electronic and information technology, State employees who are visually impaired have access to and use of information and data that is comparable to the access and use by State employees who are not individuals with disabilities, unless an undue burden would be imposed on the agency. This rule also requires that individuals who are visually impaired, who are members of the public seeking information or services from a State agency, have access to and use of information and data that is comparable to that provided to the public who are not individuals with disabilities, unless an undue burden would be imposed on the agency.

§ 148-15-2 Applicability.

2.1 This legislative rule applies to all state agencies, except those statutorily exempted from its application.

2.2 Products covered by the rule shall comply with all applicable provisions of the rule. When developing, procuring, maintaining, or using electronic and information technology, each state agency shall ensure that the products comply with the applicable provisions of the rule, unless an undue burden would be imposed on the state agency.

(1) When compliance with the provisions of the rule imposes an undue burden, state agencies shall provide blind or visually impaired individuals with the information and data involved by an alternative means of access that allows the individual to use the information and data.

(2) When procuring a product, if a state agency determines that compliance with any provision of the rule imposes an undue burden, the documentation by the state agency supporting the procurement shall explain why, and to what extent, compliance with each provision creates an undue burden.

2.3 When procuring a product, each state agency shall procure products which comply with the provisions in the rule when the products are available in the commercial marketplace or when the products are developed in response to a State solicitation. State agencies cannot claim a product as a whole is not commercially available because no product in the marketplace meets all the standards. If products are commercially available that meet some but not all of the standards, the state agency shall procure the product that best meets the standards.

2.4 The rule applies to electronic and information technology developed, procured, maintained, or used by state agencies directly or used by a contractor under a contract with an agency which requires the use of the product, or requires the use, to a significant extent, of the product in the performance of a service or the furnishing of a product.

## 2.5 General exceptions.

(a) Except as required to comply with the provisions in the rule, the rule does not require the state agency to install specific accessibility-related software or the attachment of an assistive technology device at a workstation of a State employee who is not an individual with a disability.

(b) When state agencies provide access to the public to information or data through information technology, they are not required to make products owned by them available for access and use by individuals with disabilities at a location other than that where the information technology is provided to the public, or to purchase products for access and use by individuals with disabilities at a location other than that where the information technology is provided to the public.

(c) The rule shall not be construed to require a fundamental alteration in the nature of a product or its components.

(d) Products located in spaces frequented only by service personnel for maintenance, repair, or occasional monitoring of equipment are not required to comply with the rule.

## § 148-15-3 Definitions.

### 3.1 Definitions -

(a) "State Agency" means any State department or agency.

(b) "Alternate formats" means formats usable by

people with disabilities; may include, but are not limited to, Braille, ASCII text, large print, recorded audio, and electronic formats that comply with the rule.

(c) "Alternate methods" means different means of providing information, including product documentation, to people with disabilities. Alternate methods may include, but are not limited to, voice, fax, relay service, TTY, Internet posting, captioning, text-to-speech synthesis, and audio description.

(d) "Assistive technology" means any item, piece of equipment, or system, whether acquired commercially, modified, or customized, that is commonly used to increase, maintain, or improve functional capabilities of individuals with disabilities.

(e) "Electronic technology" means any equipment or interconnected system or subsystem of equipment, that is used in the creation, conversion, or duplication of data or information. The term electronic technology includes, but is not limited to, telecommunications products such as telephones, information kiosks and transaction machines, World Wide Web sites, multimedia, and office equipment such as copiers and fax machines. The term does not include any equipment that contains embedded information technology that is used as an integral part of the product, but the principal function of which is not the acquisition, storage, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information. For example, HVAC (heating, ventilation, and air conditioning) equipment such as thermostats or temperature control devices, and medical equipment where information technology is integral to its operation, are not information technology.

(f) "Information technology" means data processing and telecommunications hardware, software, services, supplies, personnel, maintenance and training, and includes the programs and routines used to employ and control the capabilities of data processing hardware. It also includes any

equipment or interconnected system or subsystem of equipment, that is used in the automatic acquisition, storage, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information. The term information technology includes computers, ancillary equipment, software, firmware and similar procedures, services, including support service, and related resources.

(g) "Operable controls" means components of a product that requires physical contact for normal operation. Operable controls include, but are not limited to, mechanically operated controls, input and output trays, card slots, keyboards, or keypads.

(h) "Self Contained, Closed Products" means products that generally have embedded software and are commonly designed in such a fashion that a user cannot easily attach or install assistive technology. These products include, but are not limited to, information kiosks and information transaction machines, copiers, printers, calculators, fax machines, and other similar types of products.

(i) "Telecommunications" means any transmission, emission or reception of signs, signals, writings, images or sounds of intelligence of any nature by wire, radio or other electromagnetic or optical systems. The term includes all facilities and equipment performing those functions that are owned, leased or used by the executive agencies of state government. The term also includes the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received.

(j) "Undue burden" means significant difficulty or expense. In determining whether an action would result in an undue burden, an agency shall consider all agency resources available to the program or component for which the product is being developed, procured, maintained, or used.

(k) "ASCII" (American Standard Code for Information Exchange) means a 7-bit code providing 128 character combinations. ASCII is a

data processing term to describe a specific format for the data.

(l) "TTY or TDD" means a communication devices that function as text telephones, used by hearing-impaired or speech-impaired, to communicate over regular telephone lines.

(m) "DVD" means a digital video disk.

## § 148-15-4 Technical Standards

### 4.1 Equivalent facilitation.

Nothing in the rule is intended to prevent the use of designs or technologies as alternatives to those prescribed in the rule provided they result in substantially equivalent or greater access to and use of a product for people with disabilities.

### 4.2 Software applications and operating systems.

(a) When software is designed to run on a system that has a keyboard, product functions shall be executable from a keyboard where the function itself or the result of performing a function can be discerned textually.

(b) Applications shall not disrupt or disable activated features of other products that are identified as accessibility features, where those features are developed and documented according to industry standards. Applications also shall not disrupt or disable activated features of any operating system that are identified as accessibility features where the application programming interface for those accessibility features has been documented by the manufacturer of the operating system and is available to the product developer.

(c) A well-defined on-screen indication of the current focus shall be provided that moves among interactive interface elements as the input focus changes. The focus shall be programmatically exposed so that assistive technology can track focus

and focus changes.

(d) Sufficient information about a user interface element including the identity, operation and state of the element shall be available to assistive technology. When an image represents a program element, the information conveyed by the image shall also be available in text.

(e) When bitmap images are used to identify controls, status indicators, or other programmatic elements, the meaning assigned to those images shall be consistent throughout an application's performance.

(f) Textual information shall be provided through operating system functions for displaying text. The minimum information that shall be made available is text content, text input caret location, and text attributes.

(g) Applications shall not override user selected contrast and color selections and other individual display attributes.

(h) When animation is displayed, the information shall be displayable in at least one non-animated presentation mode at the option of the user.

(i) Color coding shall not be used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.

(j) When a product permits a user to adjust color and contrast settings, a variety of color selections capable of producing a range of contrast levels shall be provided.

(k) Software shall not use flashing or blinking text, objects, or other elements having a flash or blink frequency greater than 2 Hz and lower than 55 Hz.

(l) When electronic forms are used, the form shall allow people using assistive technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.

#### 4.3 Web-based intranet and internet information and applications.

(a) A text equivalent for every non-text element shall be provided (e.g., via "alt", "longdesc", or in element content).

(b) Equivalent alternatives for any multimedia presentation shall be offered.

(c) Web pages shall be designed so that all information conveyed with color is also available without color, for example, from context or markup.

(d) Documents shall be organized so they are readable without requiring an associated style sheet.

(e) Redundant text links shall be provided for each active region of a server-side image map.

(f) Client-side image maps shall be provided instead of server-side image maps except where the regions cannot be defined with an available geometric shape.

(g) Row and column headers shall be identified for data tables.

(h) Markup shall be used to associate data cells and header cells for data tables that have two or more logical levels of row or column headers.

(i) Frames shall be titled with text that facilitates frame identification and navigation.

(j) Pages shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.

(k) A text-only page, with equivalent information or functionality, shall be provided to make a web site comply with the provisions of the rule, when compliance cannot be accomplished in any other way. The content of the text-only page shall be updated whenever the primary page changes.

(l) When pages use scripting languages to display content, or to create interface elements, the information provided by the script shall be identified with functional text that can be read by assistive technology.

(m) When a web page requires that an applet, plug-in or other application be present on the client system to interpret page content, the page shall provide an applicable link to a plug-in or applet.

(n) When electronic forms are designed to be completed on-line, the form shall allow people using assistive technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.

(o) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.

#### 4.4 Video and multimedia products.

(a) All analog television displays 13 inches and larger, and computer equipment that includes analog television receiver or display circuitry, shall be equipped with caption decoder circuitry which appropriately receives, decodes, and displays closed captions from broadcast, cable, videotape, and DVD signals. As soon as practicable, but not later than July 1, 2002, wide screen digital television (DTV) displays measuring at least 7.8 inches vertically, DTV sets with conventional displays measuring at least 13 inches vertically, and stand-alone DTV tuners, whether or not they are marketed with display screens, and computer equipment that includes DTV receiver or display circuitry, shall be equipped with caption decoder circuitry which appropriately receives, decodes, and displays closed captions from broadcast, cable, videotape, and DVD signals.

(b) Television tuners, including tuner cards for use in computers, shall be equipped with secondary audio program playback circuitry.

(c) All training and informational video and multimedia productions which support the agency's mission, regardless of format, that contain speech or other audio information necessary for the comprehension of the content, shall be open or closed captioned.

(d) All training and informational video and multimedia productions which support the agency's mission, regardless of format, that contain visual information necessary for the comprehension of the content, shall be audio described.

(e) Display or presentation of alternate text presentation or audio descriptions shall be user-selectable unless permanent.

#### 4.5 Self contained, closed products.

(a) Self contained products shall be usable by people with disabilities without requiring an end-user to attach assistive technology to the product. Personal headsets for private listening are not assistive technology.

(b) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.

(c) Color coding shall not be used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.

(d) When a product permits a user to adjust color and contrast settings, a range of color selections capable of producing a variety of contrast levels shall be provided.

(e) Products shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.

(f) Products which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following:

(1) The position of any operable control shall be determined with respect to a vertical plane, which is 48 inches in length, centered on the operable control, and at the maximum protrusion of the product within the 48 inch length.

(2) Where any operable control is 10 inches or less behind the reference plane, the height shall be 54 inches maximum and 15 inches minimum above the floor.

(3) Where any operable control is more than 10 inches and not more than 24 inches behind the reference plane, the height shall be 46 inches maximum and 15 inches minimum above the floor.

(4) Operable controls shall not be more than 24 inches behind the reference plane.

#### 4.6 Desktop and portable computers.

(a) All mechanically operated controls and keys shall comply with this rule.

(b) If a product utilizes touch screens or touch-operated controls, an input method shall be provided that complies with the guidelines herein.

(c) When biometric forms of user identification or control are used, an alternative form of identification or activation, which does not require the user to possess particular biological characteristics, shall also be provided.

(d) Where provided, at least one of each type of expansion slots, ports and connectors shall comply with publicly available industry standards.

### § 148-15-5 Functional Performance Criteria

#### 5.1 Functional performance criteria.

(a) At least one mode of operation and information retrieval that does not require user vision shall be

provided, or support for assistive technology used by people who are blind or visually impaired shall be provided.

(b) At least one mode of operation and information retrieval that does not require visual acuity greater than 20/70 shall be provided in audio and enlarged print output working together or independently, or support for assistive technology used by people who are visually impaired shall be provided.

### § 148-15-6 Information, Documentation, and Support

#### 6.1 Information, documentation, and support.

(a) Product support documentation provided to end-users shall be made available by state agencies in alternate formats upon request, at no additional charge.

(b) End-users shall have access to a description of the accessibility and compatibility features of products in alternate formats or alternate methods upon request, at no additional charge.

(c) Support services for products shall accommodate the communication needs of end-users with disabilities.