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Closed Captioning of Internet Protocol-Delivered Video Programming: Implementation of the Twenty-First Century Communications and Video Accessibility Act of 2010; Final Rule

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Parts 15 and 79

[MB Docket No. 11-154; FCC 12-9]

Closed Captioning of Internet Protocol-Delivered Video Programming: Implementation of the Twenty-First Century Communications and Video Accessibility Act of 2010

AGENCY: Federal Communications

Commission. **ACTION:** Final rule.

SUMMARY: Pursuant to the Twenty-First Century Communications and Video Accessibility Act of 2010, the FCC revises its regulations to require closed captioning of IP-delivered video programming that is published or exhibited on television with captions after the effective date of the new regulations. The FCC also imposes closed captioning requirements on certain apparatus that receive or play back video programming, and on certain recording devices. This action will better enable individuals who are deaf or hard of hearing to view IP-delivered video programming, as Congress intended.

DATES: Effective April 30, 2012, except for §§ 79.4(c)(1)(ii), 79.4(c)(2)(ii) through (iii), 79.4(d)(1) through (4) and (d)(6) through (9), 79.4(e)(1) through (6), and 79.103(b)(3) through (4), which contain information collection requirements that are not effective until approved by the Office of Management and Budget. The FCC will publish a document in the Federal Register announcing the effective date for those sections. The incorporation by reference of certain publications listed in the rules is approved by the Director of the Federal Register as of April 30, 2012. Written comments on the Paperwork Reduction Act (PRA) modified information collection requirements must be submitted by the public, OMB and other interested parties on or before May 29, 2012.

FOR FURTHER INFORMATION CONTACT: For additional information on this proceeding pertaining to Section 202 of the CVAA, contact Diana Sokolow, Diana. Sokolow@fcc.gov, of the Policy Division, Media Bureau, (202) 418—2120. For additional information on this proceeding pertaining to Section 203 of the CVAA, contact Jeffrey Neumann, Jeffrey. Neumann@fcc.gov, of the Engineering Division, Media Bureau, (202) 418—7000. For additional information concerning the Paperwork Reduction Act information collection

requirements contained in this document, contact Cathy Williams at 202–418–2918, or via the Internet at *PRA@fcc.gov*.

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's Report and Order, FCC 12-9, adopted on January 12, 2012 and released on January 13, 2012, and the Erratum thereto, released on January 30, 2012. The full text of this document is available for public inspection and copying during regular business hours in the FCC Reference Center, Federal Communications Commission, 445 12th Street SW., CY-A257, Washington, DC 20554. This document will also be available via ECFS (http://www.fcc.gov/ cgb/ecfs/). (Documents will be available electronically in ASCII, Word 97, and/ or Adobe Acrobat.) The complete text may be purchased from the Commission's copy contractor, 445 12th Street SW., Room CY-B402, Washington, DC 20554. To request this document in accessible formats (computer diskettes, large print, audio recording, and Braille), send an email to fcc504@fcc.gov or call the Commission's Consumer and Governmental Affairs Bureau at (202) 418-0530 (voice), (202) 418-0432 (TTY).

Paperwork Reduction Act of 1995 Analysis

This document contains modified information collection requirements. The Commission, as part of its continuing effort to reduce paperwork burdens, invites the general public to comment on the information collection requirements contained in this Report and Order as required by the Paperwork Reduction Act of 1995, Public Law 104-13. In addition, the Commission notes that pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, see 44 U.S.C. 3506(c)(4), we previously sought specific comment on how the Commission might further reduce the information collection burden for small business concerns with fewer than 25 employees. We did not receive any comments specifically addressing this issue. In the present document, we have assessed the effects of the new requirements on small businesses, including those with fewer than 25 employees, in the Final Regulatory Flexibility Analysis ("FRFA") below.

Summary of the Report and Order I. Introduction

1. Pursuant to our responsibilities under the Twenty-First Century Communications and Video

Accessibility Act of 2010 ("CVAA"),1 this Report and Order adopts rules governing the closed captioning requirements for the owners, providers, and distributors of video programming delivered using Internet protocol ("IP").2 This Report and Order also adopts rules governing the closed captioning capabilities of certain apparatus on which consumers view video programming. Closed captioning is the visual display of the audio portion of video programming, which provides access to individuals who are deaf or hard of hearing. Prior to the adoption of the CVAA, the Communications Act of 1934, as amended (the "Act"), required the use of closed captioning on television, but not on IP-delivered video programming that was not part of a broadcaster or multichannel video programming distributor ("MVPD") service. That changed with the enactment of the CVAA, which directed the Federal Communications Commission ("Commission") to revise its regulations to require closed captioning of IP-delivered video programming that is published or exhibited on television with captions after the effective date of the new regulations. Further, the CVAA directed the Commission to impose closed captioning requirements on certain apparatus that receive or play back video programming, and on certain recording devices. The rules we adopt here will better enable individuals who are deaf or hard of hearing to view IPdelivered video programming, as Congress intended. Moreover, we believe these benefits of our rules to deaf or hard of hearing consumers will outweigh the affected entities' costs of compliance.

- 2. As discussed in Section III below, we adopt the following closed captioning requirements for the owners, providers, and distributors of IP-delivered video programming under Section 202(b) through (c) of the CVAA. Specifically, we adopt rules that will:
- Specify the obligations of entities subject to Section 202(b) by:
- Requiring video programming owners to send required caption files for IP-delivered video programming to video programming distributors and providers along with program files;

¹Public Law 111–260, 124 Stat. 2751 (2010). See also Amendment of Twenty-First Century Communications and Video Accessibility Act of 2010, Public Law 111–265, 124 Stat. 2795 (2010) (making technical corrections to the CVAA).

² The CVAA defines "Internet protocol" as including "Transmission Control Protocol and a successor protocol or technology to Internet protocol." Public Law 111–260, sec. 206(5).

- O Requiring video programming distributors and providers to enable the rendering or pass through of all required captions to the end user, including through the hardware or software that a distributor or provider makes available for this purpose;
- O Requiring video programming owners and video programming distributors and providers to agree upon a mechanism to make available to video programming distributors and providers information on video programming that is subject to the IP closed captioning requirements on an ongoing basis; and
- Requiring video programming owners to provide video programming distributors and providers with captions of at least the same quality as the television captions for the same programming, and requiring distributors and providers to maintain the quality of the captions provided by the video programming owner.
- Create a schedule of deadlines under which:
- O All prerecorded programming that is not edited for Internet distribution and is subject to the new requirements must be captioned if it is shown on television with captions on or after the date six months after publication of these rules in the **Federal Register**;
- All live and near-live programming subject to the new requirements must be captioned if it is shown on television with captions on or after the date 12 months after publication of these rules in the Federal Register;
- All prerecorded programming that is edited for Internet distribution and is subject to the new requirements must be captioned if it is shown on television with captions on or after the date 18 months after publication of these rules in the Federal Register; and
- Archival content must be captioned according to the following deadlines: Beginning two years after publication of these rules in the Federal Register, all programming that is subject to the new requirements and is already in the VPD's library before it is shown on television with captions must be captioned within 45 days after it is shown on television with captions. Beginning three years after publication of these rules in the **Federal Register**, such programming must be captioned within 30 days after it is shown on television with captions. Beginning four years after publication of these rules in the Federal Register, such programming must be captioned within 15 days after it is shown on television with captions;
- Craft procedures by which video programming providers and owners may petition the Commission for exemptions

- from the new requirements based on economic burden;
- Not treat a *de minimis* failure to comply with the new rules as a violation, and permit entities to comply with the new requirements by alternate means, as provided in the CVAA; and
- Adopt procedures for complaints alleging a violation of the new requirements.
- 3. As discussed in Section IV below, we adopt the following closed captioning requirements for the manufacturers of devices used to view video programming under Section 203 of the CVAA. Specifically, we adopt rules that will:
- Establish what apparatus are covered by Section 203:
- All physical devices designed to receive and play back video programming, including smartphones, tablets, personal computers, and television set-top boxes;
- All "integrated software" in covered devices (that is, software installed in the device by the manufacturer before sale or that the manufacturer requires the consumer to install after sale); and
- All recording devices and removable media players;
- Exclude professional and commercial equipment from the scope of Section 203;
- Exempt display-only monitors as set forth in Section 203, and establish procedures for finding a lack of achievability or technical feasibility;
- Establish the requirements for devices covered by Section 203:
- Specify how covered apparatus must implement closed captioning by adopting functional display standards;
- Require apparatus to render or pass-through closed captioning on each of their video outputs;
- Decline to grant blanket waivers or exempt any device or class of devices from our rules based on achievability or the waiver provisions set forth in Section 203:
- Establish general complaint procedures and modify our existing television receiver closed captioning decoder requirements to conform to screen size and achievability provisions; and
- Establish a deadline for compliance of January 1, 2014 by which devices must comply with the requirements of Section 203.

Finally, we adopt a safe harbor for use of a particular interchange and delivery format.

II. Background

4. On October 8, 2010, President Obama signed the CVAA into law,

requiring the Commission to establish closed captioning rules for the owners, providers, and distributors of IPdelivered video programming, and for certain apparatus on which consumers view video programming. The CVAA also required the Commission to establish an advisory committee known as the Video Programming Accessibility Advisory Committee ("VPAAC"), which submitted its statutorily mandated report on closed captioning of IPdelivered video programming to the Commission on July 12, 2011.3 The Commission initiated this proceeding in September 2011.4 In the NPRM, the Commission provided extensive background information regarding the history of closed captioning, IPdelivered closed captioning, the applicable provisions of the CVAA, and the VPAAC Report, which we need not repeat here. The CVAA directs the Commission to revise its rules within six months of the submission of the VPAAC Report to require closed captioning on IP-delivered video programming and include a schedule of deadlines for the provision of such closed captioning. By the same date, Section 203 of the CVAA directs the Commission to adopt requirements for the closed captioning capabilities of certain apparatus. To fulfill these statutory mandates, we adopt the rules discussed below.5

5. As discussed in the *NPRM*, in 1997 the Commission first adopted rules and implementation schedules for closed captioning of video programming on television.⁶ In recent years, the Internet has become a powerful method of video programming distribution, and the amount of video content available on the Internet is increasing significantly each year. IP-delivered video programming today takes a number of forms, such as programming delivered to a personal computer, tablet device,

³ See First Report of the Video Programming Accessibility Advisory Committee on the Twenty-First Century Communications and Video Accessibility Act of 2010: Closed Captioning of Video Programming Delivered Using Internet Protocol, July 12, 2011, available at http://transition.fcc.gov/cgb/dro/VPAAC/First_VPAAC_Report_to_the_FCC_7-11-11_FINAL.pdf ("VPAAC Report").

⁴ Closed Captioning of Internet Protocol-Delivered Video Programming: Implementation of the Twenty-First Century Communications and Video Accessibility Act of 2010, FCC 11–138, 76 FR 59963, Sept. 28, 2011 ("NPRM").

⁵ Given the tight statutory deadline, we decline to consider proposals that go beyond implementation of the specific requirements of the CVAA.

⁶ See NPRM; see also Closed Captioning of Video Programming, FCC 97–279, 62 FR 48487, Sept. 16, 1997 ("1997 Closed Captioning Order"), recon. granted in part, Order on Reconsideration, FCC 98– 236, 63 FR 55959, Oct. 20, 1998 ("1998 Closed Captioning Recon. Order").

cellular telephone, game console, Bluray player, or set-top box. Through the CVAA, Congress sought to "update the communications laws to help ensure that individuals with disabilities are able to fully utilize communications services and equipment and better access video programming." 7 Video programming owners sometimes make their video programming available via IP through their own Web sites, and sometimes they enter into licensing agreements with third parties to distribute their video programming using IP. Although closed captioning of IP-delivered video programming has not been required previously, certain companies have chosen to make it available voluntarily. When a video programming owner enters into a licensing agreement with a third party to enable the third party to distribute the owner's programming via IP, the video programming owner or other entity may provide a closed captioning file to the third-party distributor, which may then make the closed captioning available to end users. The rules adopted below will implement new responsibilities regarding the distribution of video programming over IP, as well as new requirements for the apparatus consumers use to view video programming.

III. Section 202 of the CVAA

A. Entities Subject to Section 202(b) of the CVAA and Their Obligations

- 1. Definition of Video Programming Owner, Distributor, and Provider
- 6. Provisions in Section 202(b) and (c) of the CVAA use the terms "video programming owner" ("VPO"), "video programming distributor" ("VPD"), and "video programming provider" ("VPP") without defining these terms.

 Accordingly, the Commission must define these terms for purposes of our implementing regulations.⁸
- 7. Video Programming Owner. As explained below, we define a VPO as "any person or entity that either (i) licenses the video programming to a video programming distributor or provider that makes the video programming available directly to the end user through a distribution method that uses Internet protocol; or (ii) acts as the video programming distributor or

provider, and also possesses the right to license the video programming to a video programming distributor or provider that makes the video programming available directly to the end user through a distribution method that uses Internet protocol." In the NPRM, the Commission proposed to define a VPO as "any person or entity that owns the copyright of the video programming delivered to the end user through a distribution method that uses IP." Several commenters support this proposal. DIRECTV, however, proposes that the Commission "should define 'owner' as the single entity that licenses the copyrighted work for distribution," and Consumer Groups argue that the definition of VPO proposed in the NPRM should be "more robust." We agree with DIRECTV that the definition proposed in the *NPRM* is problematic for present purposes because multiple copyright owners may possess particular rights in a single piece of video programming. In this context, we are interested in the person or entity that licenses the video programming to a video programming distributor or provider that makes the video programming available directly to the end user through a distribution method that uses IP. Defining a VPO in this manner will ensure that a single entity is responsible for fulfilling the VPO's responsibilities, which is beneficial from an enforcement perspective given that an alternative definition may create problems in identifying the responsible VPO. We expect that the VPO often, but not always, will be the copyright owner. Even in instances in which the VPO does not itself create captions for the programming, we expect that the VPO (as we define that term) will be better positioned than the VPD or VPP to obtain the captions, since by definition the VPO is higher up the distribution chain than the VPD or VPP. Accordingly, we adopt DIRECTV's proposed definition of VPO. We recognize, however, that there may be situations where the VPO is also the VPD or VPP (for example, if the VPO makes its video programming available through its own Web site), and we believe that our definition also should cover VPOs in such situations, even though there is no licensing agreement in such circumstances.9 Accordingly, we expand the definition of VPO proposed by DIRECTV to include any person or entity that acts as the video

programming distributor or provider, and also possesses the right to license the video programming to a video programming distributor or provider that makes the video programming available directly to the end user through a distribution method that uses Internet protocol. Thus, the definition of VPO is intended to include entities that have the right to license IP distribution of programming to others, but make the programming available through their own Web sites, as well as entities that license others to distribute the video programming to the end users.

8. Video Programming Distributor and Provider. We adopt the definition of VPD and VPP that the Commission proposed in the NPRM, with one modification. Specifically, we define a VPD or VPP as any person or entity that makes video programming available directly to the end user through a distribution method that uses IP. We have added the phrase "person or" to this proposed definition to parallel the VPO definition adopted herein, and to make explicit our coverage of an individual distributor or provider, to the extent one exists.

9. We affirm the NPRM's tentative conclusion to define VPDs and VPPs as meaning the same thing. Congress directed the Commission to "describe the responsibilities of video programming providers or distributors," leaving it to the Commission's discretion to determine whether to define the terms as interchangeable. Based on the existing record, we find that in the context of IP closed captioning, VPDs and VPPs are both people or entities that make video programming available directly to the end user through a distribution method that uses IP. We have no factual basis on which to distinguish between VPDs and VPPs and the record does not support different definitions. 10 Although we recognize that certain provisions in the CVAA reference VPPs but not VPDs, we disagree with TWC that Congress affirmatively decided that VPDs and VPPs are distinct categories with distinct responsibilities, and we do not see any support for that position in the legislative history. Thus, we find no legal or policy basis for interpreting VPDs and VPPs differently. In this regard, we note that several commenters in the record support our finding. And we also note that, although the Commission in the NPRM highlighted the fact that certain statutory provisions

⁷ See S. Rep. No. 111–386, 111th Cong., 2d Sess. at 1 (2010) ("Senate Committee Report"); H.R. Rep. No. 111–563, 111th Cong., 2d Sess. at 19 (2010) ("House Committee Report").

⁸ The definitions we adopt for the terms VPO, VPD and VPP in this *Report and Order* apply only to those terms as used with regard to Sections 202 and 203 of the CVAA, and not to those terms in other contexts, such as our television closed captioning or video description rules.

⁹ Where the VPO is also the VPD or VPP, it may not rely on a good faith use of the mechanism described in Section III.A.2, *infra*, because as the VPO, it should know whether its programming is shown on television with captions after the effective date of our new rules.

¹⁰ Since for the reasons stated in this paragraph, we define VPDs and VPPs as meaning the same thing, we will refer to them as "VPDs" throughout the rest of this *Report and Order*.

reference VPPs, but not VPDs, and asked specifically about the relevance of this, commenters did not provide any insight on this issue.

10. We note that commenters that suggest that VPD and VPP should mean different things propose definitions that would reach entities that we do not believe Congress intended to cover through the CVAA, such as an Internet service provider ("ISP") from which end users receive Internet access. Congress specifically excluded such entities from obligations under the CVAA for advanced communications services, and similarly we do not think that Congress intended to reach them here. We agree with ACA, ITTA, and NCTA that VPDs and VPPs should not include entities that are acting as ISPs, simply providing access to video programming distributed by another entity.¹¹ We find that regulating such entities as part of the IP closed captioning regime would be unworkable; for example, Section 202(b) of the CVAA requires VPDs and VPPs to make "a good faith effort to identify video programming subject to the" closed captioning requirements, a requirement that could not be met by an entity that merely provides Internet access and is not aware of the video programming content that it passes along the distribution chain.

11. For the reasons explained below, the IP closed captioning rules will not apply to a broadcaster's or MVPD's provision of programming that is subject to the Commission's television closed captioning rules. Section 79.1 imposes television closed captioning requirements on video programming distributors, which it defines as "[a]ny television broadcast station licensed by the Commission and any [MVPD] as defined in § 76.1000(e) of this chapter, and any other distributor of video programming for residential reception that delivers such programming directly to the home and is subject to the jurisdiction of the Commission." In the NPRM, the Commission proposed to define VPD in the IP closed captioning context as "any entity that makes available directly to the end user video programming through a distribution method that uses IP." Some commenters support the proposed definition. Others assert that rather than "IP" distribution, the Commission's regulations should focus more specifically on online or Internet distribution. These commenters express concern over the confusion that

would result from new rules that cover some of the same MVPD services, such as IPTV,¹² that are covered by the Commission's existing television closed captioning rules. We agree with ACA that we must presume Congress knew that MVPDs are subject to existing closed captioning rules. The television closed captioning rules are broader than the IP closed captioning rules adopted herein, insofar as the television closed captioning rules require closed captioning for all new nonexempt English- and Spanish-language video programming, whereas the CVAA only requires closed captioning of IPdelivered video programming if the programming is "published or exhibited on television with captions after the effective date" of the new rules. Congress did not give any indication that it intended the new IP closed captioning rules to override the existing television closed captioning rules where an MVPD provides its service via IP. Thus, we clarify that the new IP closed captioning rules do not apply to traditional managed video services that MVPDs provide to their MVPD customers within their service footprint, regardless of the transmission protocol used; rather, such services are already subject to § 79.1 of the Commission's rules.13

12. All video programming that is available on the Internet is IP-delivered, but not all video programming that is delivered via IP is Internet programming. We therefore decline to limit application of the IP closed captioning requirements to programming that VPDs deliver over the Internet. While some portions of the legislative history reference "Internet distribution," we agree with Consumer Groups that such references were not intended to limit the reach of Section 202(b) to Internet-delivered video programming. To the contrary, consistent with the language of the statute itself, the legislative history made repeated references to "Internet protocol." We agree with Consumer Groups that if Congress had intended the CVAA to apply more narrowly to a certain class of IP-delivered video programming, it would have said so. We note that, as technology evolves, a

decision to limit the application of the new IP closed captioning rules to "Internet" or "online" video programming could have unforeseen consequences. For the same reasons, we disagree with ACA's proposal that an MVPD be subject to the new IP closed captioning requirements only when it is "acting as an online video distributor outside its MVPD footprint." An MVPD that distributes video programming online within its MVPD footprint, but not as part of its MVPD service subject to § 79.1, will be subject to new § 79.4. In general, an MVPD will be subject to the new IP closed captioning rules if it is distributing IP-delivered video programming that is not part of the traditional managed video services that it provides its MVPD customers within its service footprint. The distinction that ACA proposes, which would exclude from coverage online video distribution within the MVPD's footprint, is unsupported by the CVAA and its legislative history.

13. We are not persuaded by the concerns of Consumers Groups that the proposed definition of VPD is both under-inclusive and over-inclusive. Specifically, Consumer Groups argue that the proposed definition is underinclusive, in that it includes the term "directly" and thus may not reach certain entities, and over-inclusive, in that it "may lay captioning responsibility at the feet of network providers and other entities that lack the ability to assist consumers in fixing videos with insufficient or missing captions." We do not believe that inclusion of the term "directly" in the definition of VPD is under-inclusive; rather, use of the word "directly" avoids placing requirements on certain entities, such as ISPs, that are not aware of the video programming content that they pass along the distribution chain. Our definition is also consistent with Section 202(b) of the CVAA, which requires the Commission's regulations to "clarify that * * * the terms 'video programming distributors' and 'video programming providers' include an entity that makes available directly to the end user video programming through a distribution method that uses Internet protocol." As to the argument that the proposed definition is overinclusive, we find that VPDs, as we have defined them, will in fact include the entities that are best suited to address consumer concerns in the first instance. We agree with Consumer Groups that an entity that merely caches Internet videos hosted on another Web site or server is not a VPD.

¹¹To the extent an ISP distributes video programming directly to end users, for example by making video programming available on its own Web site, the ISP is not merely providing access to the video programming distributed by another VPD, but rather, is acting as a VPD.

¹² Internet Protocol Television ("IPTV") is a technology used by some MVPDs to deliver television services. Video content typically travels over a managed, two-way IP network and can be delivered to the subscriber using a combination of fiber and Digital Subscriber Line ("xDSL") over copper technology.

¹³ By "traditional managed video service," we mean a service through which an MVPD offers multiple channels of video programming, including IP-based video offerings such as those provided by AT&T.

- 2. Responsibilities of Video Programming Owners, Distributors, and Providers
- 14. Section 202(b) of the CVAA requires the Commission's regulations to "describe the responsibilities of video programming providers or distributors and video programming owners." It also requires the Commission to "establish a mechanism to make available to video programming providers and distributors information on video programming subject to the Act on an ongoing basis." The purpose of the required "mechanism" is to enable VPDs to determine whether the video programming that they intend to make available via IP has been shown on television with captions after the effective date of the new rules. Section 202(b) further provides that the Commission's regulations for closed captioning of IP-delivered video programming:

Shall consider that the video programming provider or distributor shall be deemed in compliance if such entity enables the rendering or pass through of closed captions and makes a good faith effort to identify video programming subject to the Act using the mechanism [referenced above].

15. Video programming owner responsibilities. We adopt the NPRM's proposal to require VPOs to send program files to VPDs with all required captions.14 We find that placing such an obligation on VPOs is consistent with the CVAA and the record in this proceeding.15 Although we acknowledge that the Commission chose not to directly regulate video programming owners in the television context and that there are similarities between the television and IP captioning statutory schemes, the record in this proceeding reflects that "closed captioning over television and IP are fundamentally different and merit different regulatory approaches.

16. Our decision is consistent with the statutory language. Section 202(b) of the CVAA requires the Commission to revise its regulations to require closed captioning16 of IP-delivered video

programming that was shown on broadcast or MVPD-delivered television with captions after the effective date of the new regulations. While the CVAA does not direct the Commission to impose captioning obligations on VPOs, it clearly authorizes the Commission to promulgate rules directly affecting VPOs as well as VPDs.¹⁷ Direct regulation of VPOs closes a potential gap in the statutory scheme. Section 202(b) of the CVAA provides that a VPD "shall be deemed in compliance if such entity enables the rendering or pass through of closed captions and makes a good faith effort to identify video programming subject to the [CVAA] using the mechanism created" herein for identifying such programming.¹⁸ Under this provision, a VPD is responsible for rendering or pass through of closed captions and good faith efforts to identify programming subject to the CVAA, and is protected from liability for distributing programming without closed captions if those two requirements are met. We recognize that, in the absence of a requirement that VPOs provide captioning, VPDs and VPOs may nonetheless enter into private contracts placing such an obligation on VPOs. We find, however, that it is more efficient and less costly to place appropriate obligations on VPOs and on VPDs, rather than to expect the parties to enter into contracts mandating the same obligations. Thus, we believe that imposing responsibility

NPRM defined the term to mean, "The visual display of the audio portion of video programming." We have added the phrase pursuant to the technical specifications set forth in this part" to follow the approach used to define the term "closed captioning" for purposes of the Commission's television closed captioning requirements, 47 CFR 79.1(a)(4), and to clarify that the closed captioning requirements we adopt herein are subject to the applicable technical specifications.

¹⁷ Specifically, under the "requirements for regulations," the CVAA directs the Commission to "describe the responsibilities of video programming providers or distributors and video programming owners." See 47 U.S.C. 613(c)(2)(D)(iv) (emphasis added). See also 47 U.S.C. 613(c)(2)(D)(vii) (directing that the Commission's regulations provide that de minimis failure to comply with such regulations by a video programming provider or owner shall not be treated as a violation of the regulations.") (emphasis added); 47 U.S.C. 613(c)(2)(C) (authorizing the Commission to delay or waive its IP closed captioning regulations to the extent it finds the "regulations would be economically burdensome to providers of video programming or program owners") (emphasis added). The legislative history sheds no additional light on the issue of Congress's intent with respect to direct regulation of VPOs.

¹⁸ See 47 U.S.C. 613(c)(2)(D)(vi). The previous version of Section 713 of the Act, which addressed television closed captioning, did not contain a comparable limitation on the imposition of VPD responsibilities. The mechanism that the CVAA provides for is discussed later in this Section

on VPOs as well as VPDs is both consistent with the Commission's authority to identify the responsibilities of VPOs under the statute and necessary to further the statutory purpose of helping to "ensure that individuals with disabilities are able to fully utilize communications services and equipment and better access video programming."19

17. Further, we find that imposing responsibility on VPOs is consistent with the statutory directive to establish a "mechanism" to make available to VPDs information on video programming subject to the Act on an ongoing basis because it will help to ensure that the mechanism the statute provides for will function effectively. In contrast, leaving VPOs' responsibilities to be defined entirely by private contractual arrangements would be more costly and less efficient than appropriately allocating certain responsibilities among both VPOs and VPDs by Commission rule.

18. We also find that placing

obligations on VPOs will ensure that the Commission may hold a responsible party accountable for violations of the CVAA. For example, if a VPO erroneously certifies to a VPD that captions are not required for a particular program, and the VPD makes a good faith use of the "mechanism" discussed below, there would be no entity to hold legally accountable (e.g., with respect to a consumer complaint or enforcement action) in the absence of rules placing obligations on the VPO. We note that Consumer Groups state that, "to the extent that the Commission interprets the CVAA to require a safe harbor for VPDs and VPPs who pass through or render caption files, * * * we would support a decision by the Commission to make VPOs and their licensees and sublicensees responsible for captioning IP-delivered video programming to the extent the CVAA does not permit placing that responsibility with VPPs or VPDs." Thus, Consumer Groups support the approach we adopt here. In that regard, we note that Consumer Groups initially expressed concern about placing responsibilities on both VPDs and VPOs on the ground that consumers and the Commission would be faced with the potentially difficult task of identifying VPOs against whom to file a complaint or seek enforcement. To address these concerns, as explained below, we make clear that consumers will be free to file their complaints against VPDs, and the Commission will require VPDs to provide information on

¹⁴ We leave it to the parties to determine how or whether a VPO should convey to a VPD that captions are not required for a particular program because it has not been shown on television with captions, even though the VPO is providing a caption file. We strongly encourage VPDs to provide captioning for programming delivered via IP in all instances in which the VPO makes an appropriate captioning file available.

¹⁵ Of course, a VPD that is also a VPO is subject to the requirements of VPDs and the requirements of VPOs, such that it must produce the captions.

¹⁶ The rules we adopt here define "closed captioning" to mean, "The visual display of the audio portion of video programming pursuant to the technical specifications set forth in this part." The

¹⁹ Senate Committee Report at 1; House Committee Report at 19.

the VPO's identity if the VPD claims that the captioning problem was the fault of the VPO. Accordingly, we agree with Verizon that regulating VPOs as well as VPDs will not have a negative impact on consumers.

19. Our examination of the record in this proceeding likewise provides support for imposing duties directly on VPOs. Numerous commenters support the *NPRM*'s proposal to impose captioning obligations on content owners rather than assign such obligations exclusively to VPDs. Even one VPO recognizes that the Commission should allocate responsibilities among the parties in the chain of IP content delivery, with requirements placed on both VPOs and VPDs. Commenters argue that "VPOs are in the best position to assess whether captions are required for a particular program since they have knowledge of which content has been shown on television," and "as the copyright holders, the VPOs typically possess the necessary legal rights to modify the content and insert closed captions." We agree, and believe that these factors further justify placing the obligation to provide required captions on VPOs.²⁰ We also agree with Google that placing such obligations on VPDs would be unduly burdensome, as their systems generally do not enable them to review video content, determine whether captions are required, and then insert captions. Further, for the reasons above, we agree with commenters who suggest that imposing obligations on VPOs would be most consistent with the statute.

20. We agree with commenters who argue that key differences between the television and IP contexts justify different regulatory treatment of VPOs. Similar to the CVAA, the closed captioning statute governing broadcast television and MVPD services authorizes the Commission to regulate closed captioning of programming by providers and owners of video programming. The Commission decided in 1997 to place the responsibility for compliance with the closed captioning rules on video programming distributors, defined as all entities who

provide video programming directly to customers' homes, regardless of distribution technology used (i.e., broadcast or MVPD). The Commission reasoned in 1997 that placing compliance obligations on distributors would promote more efficient monitoring and enforcement of the closed captioning rules, because there would typically be a single entity to which complaints must be addressed, and there would be no need for tracking the entities responsible for producing programs alleged to violate the rules. The Commission expressed an expectation that distributors would privately negotiate with program owners regarding "an efficient allocation of captioning responsibilities" and that program owners would "cooperate with distributors to ensure that nonexempt programming is closed captioned in accordance with our rules." Thus, the Commission chose to limit regulatory oversight to distributors, notwithstanding that excluding program owners from the rules would leave a liability gap in the television/MVPD captioning context. In that regard, the Commission explained, "[d]istributors will not be held responsible for situations where a program source falsely certifies that programming delivered to the distributor meets our captioning requirements if the distributor is unaware that the certification is false."

21. Notwithstanding the statutory and regulatory similarities between IP and television closed captioning, we find that a different regulatory approach for the IP closed captioning regime than the television closed captioning regime is justified by fundamental differences between television and IP distribution. "[I]n the television context," as Microsoft explains, "a single broadcaster, MVPD, or similar entity is responsible for the delivery of video programming," whereas "video on the Internet often will pass through the hands of numerous parties on its way to the consumer" and VPDs in a chain often cannot identify one another, lack contractual relationships, and will not possess the rights necessary to caption a work. Indeed, Congress mandated that the Commission establish a mechanism to make available to VPDs information about whether programming has aired on television, a mechanism that is unnecessary in the television context. We believe that this characteristic of the IP distribution chain helps to justify imposing obligations directly on VPOs in the IP context, whereas the Commission reasonably believed that in the television/MVPD context it could

rely on video programming distributors or providers working with program suppliers with whom they have close contractual relationships. Even where a distribution chain is complex and the VPO itself does not create the closed captions, we expect that the VPO will be better positioned than the VPD to obtain the captions, since by definition the VPO is farther up the distribution chain than the VPD.

22. We also believe that the differences between video programming distributors vis-à-vis video programming owners in the television and IP closed captioning contexts help to justify different regulatory approaches. Importantly, the IP closed captioning provisions of the CVAA reach a broader class of VPDs than the video programming distributors subject to the Commissions' television closed captioning rules—i.e., broadcasters and MVPDs. This is significant because after the Commission placed sole liability on distributors in the television closed captioning context, we understand that in practice broadcasters and MVPDs typically placed certain obligations on content owners by contract. As explained above, we find that it is more efficient and less costly to place appropriate obligations on VPOs and on VPDs, rather than to expect the parties to enter into contracts placing certain obligations on VPOs. The record indicates that captioning problems in the television context are sometimes the fault of the content owner rather than the distributor, and so private contractual arrangements may indemnify television distributors in such instances. We are not confident that all VPDs of IP-delivered video programming (including online video distributors and other new media companies) have sufficient leverage and ability to obtain similar contract clauses or even have privity of contract with the entity with captioning rights. Thus, although the Commission concluded in the television context that holding distributors responsible for captioning would be the most efficient approach, in the IP closed captioning context we find it would be most effective to regulate both VPOs and VPDs.

23. We also note that distinctions between the two statutory schemes support adoptions of a different regulatory approach in the IP context. In that regard, Verizon points out that, unlike the statutory provisions governing television closed captioning, the CVAA "explicitly limits the video distributors and providers" responsibility to passing through the closed captions they receive from content owners." In other words, the

²⁰ We recognize that some of the above arguments may be premised on VPO copyright ownership, consistent with the VPO definition proposed in the NPRM, whereas we have decided to define a VPO based on its license to distribute programming to a VPD. Even if a VPO does not own the copyright to programming, however, we believe it will be in a better position than the VPD to determine whether the programming aired on television with captions and to obtain the rights necessary to add captions because it will be closer to the copyright owner than the VPD in the "potentially complicated chain of copyright ownership."

provisions governing television closed captioning allow the Commission to establish video programming distributor or provider responsibilities that encompass the actual provision of closed captioning, whereas the CVAA precludes imposing that direct responsibility.

24. We therefore disagree with commenters that argue that the Commission's proposals improperly allocate responsibility, and that the regulations should focus exclusively on the entity with the direct-to-consumer relationship rather than on the VPO. As discussed above, VPOs are better suited than VPDs to determine whether their programming has been shown on television with captions after the effective date, and VPOs more likely possess the rights necessary to caption their own content. Even if a VPO lacks the rights necessary to caption its content, by definition the VPO is higher up the distribution chain than the VPD, and thus is better positioned than the VPD to obtain required captions. We also disagree with MPAA and Time Warner that extending the existing television regime to the IP context is justified because it would be simpler. We believe that any benefit from such consistency is outweighed by the considerations set forth above, including the enforcement benefits of clearly defining the VPO as a single responsible person or entity. Further, we find unpersuasive MPAA's argument that a "potentially complicated chain of copyright ownership" mandates against direct regulation of VPOs. On the contrary, for the reasons above, we find that such complexity supports regulating VPOs directly in the IP context. We recognize that because the copyright ownership chain may be complicated, under some circumstances, the VPO as we have defined it may not possess captioning rights or be ideally positioned to determine whether programming it licenses is subject to the Act. Under such circumstances, however, we believe that the VPO is better positioned than the VPD to obtain required captions, and that it is necessary to impose captioning responsibility on a person or entity, rather than leaving a regulatory vacuum. As between the VPO and the VPD, we believe that the VPO who owns the programming or is closer in the chain of custody to the ownerwill be better positioned than the VPD to obtain the necessary rights and information and fulfill the responsibilities that we impose on VPOs, in particular providing captions, pursuant to our regulations.

25. Further, we reject commenters' arguments that imposing closed captioning obligations on content owners would raise First Amendment concerns. MPAA argues that regulating VPOs directly would represent a "major shift from the existing captioning regime," impermissibly and unnecessarily target a new category of speakers, and impose a greater burden on content owners' speech than is necessary to ensure the deaf community has online access to television content. As an initial matter, closed captioning requirements implicate the First Amendment only marginally at best. The DC Circuit has rejected the argument that captioning requirements regulate program content in violation of protected rights under the First Amendment, finding that closed captioning "would not significantly interfere with program content." 21 Indeed, because closed captioning involves a "precise repetition of the spoken words" communicated by the speaker, any First Amendment burden is only incidental.²² The DC Circuit's explanation that closed captioning is a "precise repetition" is consistent with our definition of closed captioning as the visual display of the audio portion of video programming. Here, the captioning requirement is triggered only after the programming has been shown on television with closed captions. In addition, the record does not reflect that the total burden on all speakers associated with imposing responsibilities on VPOs would be any greater than the total burden on all speakers associated with regulating only providers and distributors. VPOs have no greater First Amendment right than VPDs to be free of captioning duties,²³ and some VPDs are already subject to broadcast television captioning requirements and have not objected to

extension of such requirements to the IP context. The Commission would simply be allocating similar captioning burdens differently among video programming owners, distributors and providers in the IP context than in the traditional television context, in order to implement the statutory directives and objectives as described above. This allocation does not impermissibly burden VPOs' First Amendment rights.

26. Video programming distributor or provider responsibilities. We require VPDs to enable "the rendering or pass through" of all required captions to the end user, as proposed in the NPRM. In adopting this requirement, we note that it was generally unopposed in the record.²⁴ When a VPD initially receives a program with required captions for IP delivery, we will require the VPD to include those captions at the time it makes the program file available to end users.²⁵ Other than requiring a good faith use of the "mechanism" discussed below, we decline to impose specific obligations on VPDs to determine whether captions are required and to ensure that video programming has the required captions. Commenters express their objection to such additional obligations. We note, however, that the existence of an agreed-upon mechanism, discussed below, is not a defense for failure to enable the rendering or pass through of required captions to the end user if—at any time before or during the period in which the VPD made the video programming at issue available to end users through IP delivery—evidence shows that the VPD's reliance on the mechanism was not in good faith.

27. We find that as part of the VPDs' responsibilities under the Section 202(b) "render or pass through" obligation, they must ensure that any application, plug-in, 26 or device that they provide to the consumer is capable of rendering or passing through closed captions. In other words, if a VPD chooses to deploy an application, device, or plug-in to deliver video to consumers, the VPD must ensure that captions can actually be displayed on the screen—whether by causing the text to appear or by passing the text through to another component on the device that will accept and

²¹ Gottfried v. FCC, 655 F.2d 297, 311 n. 54 (1981), rev'd in part, 459 U.S. 498 (1983) (Supreme Court did not disturb dictum of D.C. Circuit suggesting the constitutionality of closed captioning regulations). See also MPAA v. FCC, 309 F.3d 796, 803 (D.C. Cir. 2002).

²² MPAA v. FCC, 309 F.3d 796, 803 (D.C. Cir. 2002) (noting a key difference for First Amendment purposes between video description (which regulates video content) and closed captioning (which involves a precise repetition of the spoken words)).

²³ See Turner Broadcasting Systems, Inc. v. FCC, 512 U.S. 622, 636 (1994) ("There can be no disagreement on an initial premise: Cable programmers and cable operators engage in and transmit speech, and they are entitled to the protection of the speech and press provisions of the First Amendment. Through 'original programming or by exercising editorial discretion over which stations or programs to include in its repertoire,' cable programmers and operators 'see[k] to communicate messages on a wide variety of topics and in a wide variety of formats''").

²⁴ We note that, as discussed in Section III.A.1 above, we rejected the proposals of a few commenters that we should impose separate responsibilities for VPDs and for VPPs, based on the different definitions of the terms that they advocated.

 $^{^{25}\,\}mathrm{This}$ time frame is different for archival programming, as discussed below.

²⁶ A "plug-in" is defined as "[a] program of data that enhances, or adds to, the operation of a (usually larger) parent program." See H. Newton, Newton's Telecom Dictionary 642 (20th ed. 2004).

display that text.27 This includes making the captioning readily available to users, because if users cannot turn on the captioning and otherwise control the captions, the rendering or passing through of captions will be meaningless. We find that this is a reasonable and necessary interpretation of the requirement that a VPD must enable "the rendering or pass through of closed captions," because otherwise captions of video programming that VPDs render or pass through via their associated applications or hardware may not be viewable by end users. Our interpretation of the "render or pass through" obligation is consistent with how our existing closed captioning rules operate. Thus, interpreting the "render or pass through" obligation in this way is consistent with Commission precedent. We note that this approach also is consistent with the Commission's approach in the ACS Order that, if a provider of advanced communications services makes software available to provide covered services, the provision of that software is subject to the applicable requirements.28 Importantly, just as the Commission found in the ACS Order that an advanced communications service provider or equipment manufacturer is not responsible for third-party applications and services, we find that a VPD is also not responsible for third-party services and applications. This means that if a consumer downloads software from a third party entity not affiliated with or used by the VPD in the delivery of its programming, and the consumer uses that software to access content provided

by the VPD, the VPD is not responsible for ensuring closed captioning support in that application. We note, however, that where a VPD requires a consumer to download software or software upgrades from a third party, and the consumer could not otherwise view closed captioning on video programming for which the VPD bears a closed captioning obligation, the VPD is responsible for ensuring the accessibility of such software or software upgrades. Finally, as part of its obligation to enable the rendering or pass through of closed captions, a VPD providing an application, plug-in, or device to consumers in order to deliver video programming must ensure that the application, plug-in, or device complies with the requirements discussed below related to interconnection mechanisms (to the extent the VPD supplies the consumer covered devices under Section 203) and display of captions.

28. Mechanism for information on video programming subject to the CVAA. Having set forth the allocation of responsibilities between VPDs and VPOs, we turn to the "mechanism" that the Commission must establish to make available to VPDs information on video programming that must be captioned when delivered via IP. The CVAA requires that the Commission's implementing regulations "(v) shall establish a mechanism to make available to video programming providers and distributors information on video programming subject to the Act on an ongoing basis," and "(vi) shall consider that the video programming provider or distributor shall be deemed in compliance if such entity * * * makes a good faith effort to identify video programming subject to the Act using the mechanism created in (v)." Without the good faith use of such a "mechanism," the Senate Committee Report explained that a VPD that is not also an MVPD may face difficulty in determining whether a particular program was shown on television with captions after the effective date of the new rules. As explained below, we will require each VPO and each VPD to which the VPO has provided or will provide video programming for IP delivery to agree upon a "mechanism" that will inform the VPD of which programming is subject to the IP closed captioning requirements on an ongoing basis. The "mechanism" must provide adequate information to enable the VPD to identify programming subject to the IP closed captioning requirements on an ongoing basis.

29. We interpret the word "mechanism" to mean any process, method or system agreed upon between

a VPO and a VPD that makes available to the VPD sufficient information to determine whether captioning is required of programming that it receives from the VPO and makes available directly to end users through a distribution method that uses IP. This interpretation is consistent with the statutory language, history, and purpose, and will provide maximum flexibility to VPOs and VPDs to comply with the CVAA's requirements. The CVAA does not define the term "mechanism." A common meaning of the term, however, is "a process or technique for achieving a result." 29 Assigning the term its common meaning in the CVAA is consistent with the legislative purpose and history. In that regard, the CVAA requires a "mechanism" so that VPOs will make information available to VPDs regarding whether IP-delivered programming is subject to the captioning requirements in recognition of the difficulties VPDs otherwise might face in obtaining such information. In addition, the statute requires that VPDs be "deemed in compliance" when they make a good faith effort to identify programming subject to the captioning requirements using the mechanism. Although the statutory reference to "a" mechanism might suggest that Congress contemplated a single method for making information available to VPDs, we find no support in the legislative history for such an interpretation, and nothing in the statutory scheme requires such a narrow interpretation. On the contrary, the broad interpretation we adopt will better serve the statutory purpose of maximizing the accessibility of IP-delivered video programming by providing flexibility for VPOs and VPDs to agree on processes or methods tailored to their needs, as well as by "encourag[ing] the development of technology to accurately identify video programming subject to this section."

30. Our broad interpretation of the statutory term "mechanism" also is justified by our examination of the record in this proceeding, which reflects sharply differing views as to whether a particular "mechanism" would work best, supporting our conclusion that one size may not fit all. While some

²⁷ For example, if a VPD provides an application that consumers can download onto their smartphones to view the VPD's programming, then the application must be capable of rendering or passing through closed captions. Likewise, if a VPD provides a device, such as a set-top box, to view the VPD's programming, that device must be capable of rendering or passing through closed captions. Additionally, if the VPD delivers its programming through a Web site, it must design its Web site to permit the user to enable the display of closed captions. Where the VPD passes the text through to another component on a physical device over which the VPD has no control, then the manufacturer of that device will have separate obligations to ensure the capability to display such captions under Section 203 of the CVAA. See infra Section IV. We note that if the VPD is reasonably relying on the captioning display functionality in a device over which it has no control to display captions, the VPD has no liability to the extent that the captioning functionality on the device fails or operates improperly. We also note that to the extent that the VPD believes that it would be economically burdensome for it to comply with this requirement in a specific instance, it may petition us accordingly

²⁸ See Implementation of Sections 716 and 717 of the Communications Act of 1934, as Enacted by the Twenty-First Century Communications and Video Accessibility Act of 2010, 26 FCC Rcd 14557, 14591 at para. 86 (2011) ("ACS Order").

²⁹ See Webster's New Collegiate Dictionary 737 (9th Ed. 1989).

³⁰ See Senate Committee Report at 14. Rather than limiting the definition of the statutorily-required mechanism to a specific process or method, we believe that our approach will enhance economic incentives for the development of technology, For example, under our rules, entities may choose to rely on a commercially available third-party database (to the extent one is developed) that accurately identifies video programming subject to the CVAA.

commenters are amenable to the system of certifications proposed in the *NPRM*, others argue that the proposed certification mechanism would be unworkable and unduly burdensome. Some commenters favor allowing a VPD to monitor a third-party database, and still others support leaving the choice for the parties to resolve by private contract. We believe that the broad interpretation we adopt, by permitting the parties to select the "mechanism" that is most suitable for them, will provide needed flexibility to VPOs and VPDs while ensuring that VPDs will be able to obtain the information necessary to determine when a program must be provided with captions.

31. We will require each VPO and each VPD to which the VPO has provided or will provide video programming for IP delivery to agree upon a "mechanism" that will inform the VPD of which programming is subject to the IP closed captioning requirements on an ongoing basis.31 This obligation will apply to programming that VPOs newly provide VPDs for IP delivery, as well as to programming that VPOs provided VPDs for IP delivery previously if it remains available to consumers, as explained below. Any mechanism agreed upon by a VPO and VPD must provide adequate information to enable the VPD to identify programming subject to the IP closed captioning requirements on an ongoing basis, consistent with the definition of "mechanism" that we adopt here. A VPD cannot rely in "good faith" on a mechanism that fails to provide adequate information for it to identify programming subject to the Act, and a VPD that does rely on such a mechanism despite its inadequacy will not be "deemed in compliance" within the meaning of Section 202(b) of the CVAA. If the parties agree upon a mechanism that involves certifications, they have the flexibility to determine whether certifications should apply to specific programming or whether to use a more general certification, for example, by addressing in a certification all programming covered by a particular contract. That is, we impose no requirement on the parties that the certifications apply on a program-byprogram basis or include a programspecific explanation as to whether captions are, or are not, required.

32. In the *NPRM*, the Commission proposed "to require VPOs providing video programming to VPDs for IP

delivery to provide each program either with captions simultaneously, or with a dated certification stating that captions are not required for a reason stated in the certification." Because we have decided to afford parties flexibility in choosing a mechanism, we decline to adopt a certification requirement. In the interest of providing certainty to those VPDs that may choose to use certification as the method of determining whether captioning is required, however, we declare that VPDs may rely in good faith on certifications, as long as they meet certain requirements. First, to the extent that a VPD relies on a certification by a VPO that the subject programming need not be captioned, such certification must include a clear and concise explanation of why captioning is not required. We believe that such an explanation is necessary to enable a VPD to rely on the certification in good faith, as it will enable the VPD to review the VPO's reasoning and evaluate whether the VPD may rely on the certification. Second, in order to rely on a certification in the event of a complaint. VPDs must be able to produce it to the Commission. Thus, VPDs should retain any certifications on which they may need to rely until one year after they cease making the subject programming available to end users via IP delivery. If these requirements are met, VPDs may rely in good faith on such certifications for purposes of the "deemed in compliance" provision of the statute. In other words, when faced with a complaint, VPDs relying upon certifications need not prove that the mechanism they chose was adequate. In addition, if VPDs wish to obtain Commission determinations that other proposed mechanisms provide adequate information for them to be able to rely on the mechanisms in good faith for purposes of the "deemed in compliance" provision, they may seek such a determination by filing an informal request, and providing sufficient information for the Commission to determine whether the proposed mechanism would provide the VPD with adequate information for it to identify programming subject to the Act.32

33. We note that an uncaptioned, archival IP-delivered program that is not subject to the IP closed captioning requirements as of the effective date of the new rules may later become subject

to the requirements, once it is shown on television with captions after the effective date. In the NPRM, the Commission proposed that VPOs be required to provide VPDs with updated certifications as to the captioning status of a previously delivered program (and a caption file, if not previously provided) within seven days of the program becoming subject to the IP closed captioning requirements, and that VPDs be required to make required captions available to end users within five days of the receipt of an updated certification. We decline to adopt this proposal in light of our decision to provide flexibility for VPOs and VPDs to agree to different mechanisms to enable VPDs to identify programming subject to the CVAA. We emphasize, however, that VPOs must provide updated information to VPDs concerning uncaptioned, archival IP-delivered programs pursuant to whatever "mechanism" they agree to use in order for VPDs to be able to rely on that mechanism in good faith, subject to the deadlines discussed below. For example, if the mechanism that a VPD and a VPO agree to use involves certifications, the VPO would have to provide the VPD with an updated certification to inform the VPD that a program in the VPD's library has been shown on television with captions after the applicable compliance deadline.

34. Based on examination of the record, we conclude that VPOs and VPDs must be provided with a reasonable period of time to develop processes or methods of addressing uncaptioned, archival IP-delivered content that is shown on television with captions after the effective date of the new rules. The record reflects that no process or method presently exists to enable VPOs to accurately identify such content, and that the task of developing one is likely to be complex. The record also reflects that the "costs and complexities involved in taking down a program already online and adding captions to it" would make compliance with our proposed seven- and five-day deadlines impossible at present. Accordingly, for a period of two years after this Report and Order is published in the **Federal Register**, we will not require captioning of uncaptioned, archival IP-delivered programming that is already in the VPD's library before it is shown on television with captions. We believe that two years will provide a reasonable period of time for VPDs to develop and implement a process to address such content. For such programming that is already in a VPD's library and is shown on television with

³¹ Should a captioning problem occur where the VPD and VPO have failed to agree upon an adequate mechanism, the Commission may hold both parties responsible.

³² See 47 CFR 1.41. Parties filing any request pursuant to the rules we adopt here may seek confidential treatment of information submitted with their request pursuant to the Commission's confidentiality rules. See 47 CFR 0.459.

captions on or after the date two years from Federal Register publication, the VPD must update its program file to enable the rendering or pass through of closed captions within 45 days of the program being shown on television with captions.³³ We believe that 45 days will provide sufficient time for VPDs to update program files to enable the rendering or pass through of closed captions, given that VPDs and VPOs will have two years to develop methods of complying with the 45-day deadline.34 We further note that 45 days is significantly longer than the objectedto NPRM proposal.35 We expect that, with the passage of time, parties will have established a better functioning mechanism for the update of archival content. Given this, we require that for programming that is already in a VPD's library and is shown on television with captions on or after the date three years from Federal Register publication, the VPD must update its program file to enable the rendering or pass through of closed captions within 30 days of the program being shown on television with captions. Further, we require that for programming that is already in a VPD's library and is shown on television with captions on or after the date four years from **Federal Register** publication, the VPD must update its program file to enable the rendering or pass through of closed captions within 15 days of the program being shown on television with captions. We expect that by four years after Federal Register publication, 15 days will be sufficient for VPDs to caption any archival content that remains uncaptioned.36

35. We reject the arguments of some commenters that our IP closed captioning rules should not apply to programming that is available from a VPD before it is shown on television

with captions. Section 202(b) of the CVAA requires the Commission to "revise its regulations to require the provision of closed captioning on video programming delivered using Internet protocol that was published or exhibited on television with captions after the effective date of such regulations." Some commenters maintain that the statute does not cover content delivered to the VPD and posted online prior to the effective date of the regulations, seemingly reading the term "delivered" in Section 202(b) to refer to the time of the VPO's delivery of content to the VPD rather than the time of publication or exhibition on television with captions. These commenters argue that requiring updates of such programming to include closed captions would be inconsistent with Congress's intent to apply the requirements prospectively only. We disagree. We interpret Section 202(b) to cover any programming delivered to consumers using IP, provided that the programming was published or exhibited on television with captions after the effective date of the regulations. We believe that this interpretation is consistent with the language, history, and purpose of the statute. The statutory phrase "after the effective date of such regulations" does not modify "programming delivered using Internet protocol"; rather, it modifies the phrase "published or exhibited on television with captions." Thus, whether the VPO delivered the programming to the VPD before or after the effective date of the regulations is irrelevant to whether the programming is covered by the statute. While the legislative history of the CVAA indicates Congress's intent "to apply the captioning requirement only prospectively," we believe that our reading is consistent with that intent: under our reading, captioning requirements do not apply to IPdelivered programming unless and until the programming is published or exhibited on television with captions after the effective date of our regulations. Our reading is also consistent with the statutory purpose of maximizing the availability of closed captions, whereas the reading advocated by some commenters would remove a significant amount of captioned television programming from the scope of the CVAA based upon whether a particular program happened to be in a VPD's archive before it was shown on television with captions. Accordingly, we do not see any statutory basis for exempting the existing IP-delivered programming from the IP closed

captioning requirements as some commenters request.

3. Quality of IP-Delivered Video Programming

36. The CVAA authorizes the Commission to impose requirements on the quality of video programming provided by VPOs for IP delivery, and on the quality of IP-delivered video programming that VPDs make available directly to end users.³⁷ The VPAAC recommended that the consumer experience with captions of IP-delivered video programming should be "equal to, if not better than," the television experience, and it specifically proposed the consideration of such factors as completeness, placement, accuracy, and timing in making this determination. The *NPRM* proposed to require captions to be of at least the same quality as the television captions for the programming, and that an evaluation of "quality" includes the consideration of such factors as completeness, placement, accuracy, and timing. While some commenters support the proposed quality standards, others express concern that such a requirement could make VPOs or VPDs responsible for factors that affect caption quality but are outside of their control, such as broadband connection speeds or the constraints of a particular apparatus.

37. We will require VPOs to provide VPDs with captions of at least the same quality as the television captions provided for that programming. We will also require VPDs to maintain (i.e., not degrade) the quality of the captions provided by VPOs in enabling the rendering or pass through of captions, and to transmit captions in a format reasonably designed to reach the end user in that quality. In evaluating whether the captions are of at least the same quality, the Commission will consider such factors as completeness, placement, accuracy, and timing.38 At the same time, recognizing the complex chain of video programming delivery from the VPO to the consumer, we will not hold VPDs or VPOs responsible for quality issues outside of their control such as broadband connection speeds or the constraints of a particular apparatus. This slight modification of the quality requirements proposed in the NPRM focuses on the quality of the captions that VPOs send, and on the quality of the captions that VPDs render or pass through, and is designed to address the

³³ Uncaptioned, archival programming will not be subject to the IP closed captioning requirements unless and until it is shown on television with captions on or after the two-year deadline. For the reasons discussed above, VPOs and VPDs will need two years to develop processes or methods of addressing such programming, and before such processes or methods are in place we do not believe it is reasonable to require them to keep track of whether such programming is shown on television with captions.

³⁴ Although we give VPOs and VPDs two years to develop a process for captioning archival content that is subject to the CVAA, we note that nothing in the statute precludes the VPO, during this period, from providing captions to the VPD for the archival content posted in the VPD's library.

³⁵ The lengthy compliance deadline adopted herein for programming already in a VPD's library is consistent with NCTA's request for a separate category in the schedule of deadlines for reruns.

³⁶ The Commission may reconsider the time frames set forth in this paragraph upon a showing that VPOs and VPDs are incapable of compliance within these time frames.

³⁷ See 47 U.S.C. 613(c)(2)(D)(iv) (authorizing the Commission to "describe the responsibilities of video programming providers or distributors and video programming owners").

 $^{^{38}}$ As we gain experience with the application of these rules, we may revisit the issue.

concern raised by commenters that VPDs and VPOs may be held responsible for variations in quality caused by outside factors. It also mitigates the concerns raised by certain commenters that quality requirements could be subjective and time-consuming because the quality standard is based on the objective quality characteristics of the actual closed captions used for the televised version of the programming, which are readily apparent. We reject commenters' argument that regulation of caption quality would raise First Amendment concerns. As explained above, the quality standards we adopt here are based upon the quality of the television captions provided for that programming. Thus, our quality standards impose no greater burden than our television closed captioning requirements, which the DC Circuit has already suggested are constitutional. We do not expect that this quality requirement will create disincentives to making video programming available online, since it merely requires VPOs to provide captions comparable to those available for television distribution. Although some commenters suggest that a decision to impose quality standards here would be inconsistent with the lack of television closed captioning quality standards, in fact, the Commission has a proceeding pending on the caption quality of television programming.³⁹ Further, the IP closed captioning regime differs from the television closed captioning regime since the television closed captioning rules require that captions be created in the first instance, whereas in the IP context, captions are only required for IP-delivered video programming that has already been published or exhibited on television with captions. We believe that quality standards are appropriate in the IP context to prevent VPOs or VPDs from degrading the quality of the captions that actually appeared on television when the same programming is distributed with captions via IP. The record provides no basis for concluding that it is unreasonable to expect VPOs and VPDs to at least maintain the same quality with respect to programming distributed via IP, since we will not hold VPOs and VPDs responsible for quality effects that result from outside factors. To the extent any VPO or VPD

believes that the quality requirement is economically burdensome, it may file an exemption petition.

38. We are not persuaded that any of the alternate approaches to caption quality proposed by commenters would be preferable to the approach adopted herein. Specifically, CEA proposes the adoption of "specific minimum technical requirements * * * if achievable," which proposal focuses improperly on the "achievability" language of Section 203 of the CVAA rather than on regulations specific to VPOs and VPDs pursuant to Section 202 of the CVAA. Other commenters also propose a "functional equivalence" quality standard, which Microsoft describes as having a focus on "[e]ssential equality in function rather than exact equality with respect to all the features and capabilities." We find that such an approach is amorphous and does not offer any benefits not provided by the quality standard adopted herein.

39. We encourage VPDs to improve caption quality to enhance accessibility, if doing so is not constrained or prohibited by copyright law or private agreement. AT&T expresses concern that "[e]ncouraging VPPs/VPDs to edit captions could create inconsistencies in the quality of programming from one medium to another," which is not an issue when the VPO handles edits for all media simultaneously. In the NPRM, the Commission explained that it did not intend to require VPDs to improve caption quality, but rather, to allow them to do so if they had any necessary permission. Some commenters express the view that copyright concerns should not prevent a VPD from improving caption quality. Some commenters argue that improving caption quality for an IP-delivered video program would be a non-infringing fair use of the video under copyright law. In contrast, other commenters assert that copyright law generally would prevent a VPD from improving caption quality. We see no need to determine in this proceeding whether a VPD may, consistent with copyright law, improve caption quality without the consent of a VPO. We expect that VPOs and VPDs will typically agree through their contractual negotiations about the appropriate extent, if any, of VPD improvement to a VPO's caption file.40

- 4. Video Programming Subject to Section 202(b)
- 40. In the paragraphs below, we define the types of programming that are subject to the IP closed captioning rules. We generally adopt the definitions proposed in the *NPRM* but modify some of them, as discussed below. As proposed in the *NPRM*, we also limit our rules to programming aired with captions on television in the United States.
- 41. Video programming. We adopt the NPRM's proposal to codify the CVAA's definition of "video programming" in our rules. Section 202(a) of the CVAA defines "video programming" as "programming by, or generally considered comparable to programming provided by a television broadcast station, but not including consumergenerated media (as defined in section 3)." 41 The Senate and House Committee Reports did not elaborate on the term "video programming," and commenters generally did not further explore the meaning of the term. We agree with the suggestion by Consumer Groups that programming "that was published or exhibited on television" by definition constitutes "video programming," since anything that was published or exhibited on television must be provided by, or be comparable to programming provided by, a television broadcast station.42
- 42. Consumer-generated media. We also adopt the *NPRM*'s proposal to codify the CVAA's definition of "consumer-generated media" in our rules. Section 3 of the Act, as revised by the CVAA, defines "consumer-generated media" as "content created and made available by consumers to online Web sites and services on the Internet, including video, audio, and multimedia content." The Senate and House Committee Reports did not elaborate on the definition, but certain commenters made proposals concerning the proper scope of "consumer-generated media" with regard to the new IP closed

³⁹ See Closed Captioning of Video Programming, Telecommunications for the Deaf, Inc. Petition for Rulemaking, FCC 05–142, 70 FR 56150, Sept. 26, 2005 (issued in response to a Petition for Rulemaking filed by the TDI Coalition on July 23, 2004). See also Consumer & Governmental Affairs Bureau Seeks to Refresh the Record on Notices of Proposed Rulemaking Regarding Closed Captioning Rules, DA 10–2050, 75 FR 70168, Nov. 17, 2010.

⁴⁰ In the *NPRM*, the Commission contemplated that a requirement for captions of IP-delivered video programming to be of at least the same quality as captions of television programming would require IP-delivered captions to include the same user tools, such as the ability to change caption font and size. We believe that the issue of user tools is better suited to our discussion of requirements for devices subject to Section 203 of the CVAA than the

present discussion of requirements for VPOs and VPDs pursuant to Section 202(b) of the CVAA.

⁴¹ 47 U.S.C. 613(h)(2). This definition of "video programming" is almost identical to the definition set forth in Section 602(20) of the Act. See 47 U.S.C. 522(20) (defining "video programming" as "programming provided by, or generally considered comparable to programming provided by, a television broadcast station").

⁴² The Act and our rules establish that programming aired by MVPDs is "video programming." See, e.g., 47 U.S.C. 522(13) (an MVPD "makes available for purchase * * * multiple channels of video programming"); 47 CFR 76.5(a) (cable television system is "designed to provide cable service which includes video programming"); id. 76.1000(e) (defining MVPD as an entity that makes available for purchase multiple channels of video programming).

captioning requirements. We agree with Consumer Groups that, when consumergenerated content is shown on television as part of a captioned fulllength program which a VPD then distributes over the Internet, the Internet version of the captioned full-length program must include captions. We conclude that in such a circumstance, the captioned full-length program does not constitute "consumer-generated media" merely because it includes certain content that was originally consumer-generated; rather, pursuant to the CVAA, captioning is required when the full-length program is delivered via IP because it is "video programming delivered using Internet protocol that was published or exhibited on television with captions after the effective date of such regulations." For example, if a consumer creates a video and makes it available on YouTube, and that video is then shown with captions as part of a news broadcast on television, then that full-length news broadcast (which includes the consumer-generated video) must include captions when a VPD distributes it via IP. We also agree with commenters who propose that "consumer-generated media" for these purposes should include content that is made available online by individual consumers without the consent of a VPO that has rights in the content, since in such situations VPOs do not maintain control over the programming and caption file, and VPDs do not maintain control over the distribution of the programming directly to the end user. Thus, it is not reasonable to expect VPOs and VPDs to bear any obligations for captioning content made available online by individual consumers without the necessary consent.

43. Players embedded in a Web site present a different situation. When a . VPD makes full-length video programming available to consumers to redistribute through a player embedded in a Web site, the player is controlled by the VPD, even though it appears as if it is playing video on the Web site through which the consumer redistributes it, such as a blog or a social networking Web site. When a VPD makes full-length video programming available to consumers to redistribute through such a player, the video programming is not consumer-generated media and the VPD must ensure that the player displays required captions pursuant to its "pass through or render" obligations discussed in paragraph 27 above.

44. Full-length programming. The NPRM proposed to define "full length programming" as "video programming that is not video clips or outtakes."

Consistent with our proposal in the NPRM, that the captioning requirements of Section 202(b) apply to full-length programming, and not to video clips or outtakes, we adopt the proposed definition with a slight modification to make our rules more clear. Specifically, we define "full-length video programming" as video programming that appears on television and is distributed to end users, substantially in its entirety, via IP. This definition thereby excludes video clips or outtakes of the video programming that appeared on television. We find that this decision is supported by commenters. Through the inclusion of "substantially in its entirety," we mean to reference video programming that is distributed via IP as a complete video programming presentation, such as an episode of a television show or a movie. At the same time, as explained below, when substantially all of a full-length program is available via IP, we will not consider that program to be a "clip," but rather, a "full-length program" subject to the IP closed captioning requirements.

45. We define "video clips" as excerpts of full-length video programming, consistent with the proposals of some commenters. We believe that this definition is consistent with what consumers commonly think of as "video clips." When substantially all of a full-length program is available via IP, we will not consider that program to be a "clip," but rather, a "full-length program" subject to the IP closed captioning requirements. For example, an entity covered by our new rules would not be permitted simply to shave off a few minutes (or brief segments) from a full-length half hour program just to avoid fulfilling its captioning obligations. Our decision that substantially all of a full-length program does not constitute a "clip" is consistent with congressional intent to increase the accessibility of video programming to individuals who are deaf or hard of hearing. We also agree with members of the industry and consumer groups that a full-length program posted online in multiple segments, to enable consumers to more readily access a particular segment of the program, constitutes full-length programming and will have to be captioned under our new rules. Thus, for example, a VPD that divides a program into various segments for easy viewing and posts the segments on the Internet would still have to ensure the pass through or rendering of the captions for each of these segments. Individuals should not be denied access to captioned IP-delivered programming

because it is available online only in segmented format.

46. We note that in the *NPRM*, the Commission had proposed to define "video clips" as "small" sections of a larger video programming presentation, consistent with the Comcast-NBCU Order. We now reject that approach. The word "small" in the proposed definition of "video clips" could inadvertently create a class of programming that is neither a "video clip" nor a "full-length program," because a particular clip may not be "small" but also may not be a fulllength video program. We believe that the definition of "video clips" adopted herein addresses that concern because it eliminates any need to evaluate whether a particular video clip constitutes a small section of a larger video programming presentation. Further, we encourage VPOs and VPDs to provide closed captions for IP-delivered video clips where they are able to do so. We emphasize that, "if there is clear evidence that an entity has developed a pattern of attempting to use video clips to evade its captioning obligations," we may find a violation of our rules.

47. We reject proposals that the Commission limit the definition of "video clips" to promotional materials that do not exceed a certain duration or fraction of the program. There is no evidence in the CVAA or its legislative history that Congress intended to exclude "video clips" only if they are promotional in nature, and we do not see any evidence that Congress sought to exclude only clips of a certain duration or percentage of the full-length program. 43

48. Finally, we emphasize that the legislative history states that Congress "intends, at this time, for the regulations to apply to full-length programming and not to video clips or outtakes." We believe that this legislative language, which references the present time only, signals Congress's intent to leave open the extent to which such programming should be covered under this section at some point in the future. Accordingly, we may determine, at a later time, that congressional intent "to help ensure that individuals with disabilities are able to * * * better access video programming" may warrant applying these captioning requirements beyond

⁴³ We also reject the proposal of Consumer Groups that "video clips" must be no longer than 30 seconds in duration, and the proposal of DIRECTV that video clips must not exceed one quarter of the program's overall length, as Consumer Groups and DIRECTV fail to justify the strained readings of the terms "video clips" and "full-length programming" on which their proposals rely.

full-length programming, by for example including video clips within the captioning requirements or defining the term more narrowly. It is particularly important that news content, which plays the vital role of ensuring an informed citizenry, be made accessible to all citizens. As Representative Markey and Senator Pryor recognize, "Americans increasingly are accessing online news, information and entertainment in * * * segments * * *." We therefore encourage the industry to make captions available on all TV news programming that is made available online, even if it is made available through the use of video clips as defined above. If we find that consumers who are deaf or hard of hearing are not getting access to critical areas of programming, such as news, because of the way the programming is posted (e.g., through selected segments rather than full-length programs), we may reconsider this issue to ensure that our rules meet Congress's intent to bring captioning access to individuals viewing IP-delivered programming.

49. We adopt the definition of "outtakes" that the Commission proposed in the *NPRM*. The Commission proposed to define "outtakes" as content that is not used in an edited version of video programming shown on television. Of the few commenters that discuss this proposed definition, all express their support. We agree with Consumer Groups that "bloopers" and other incidental material shown on television with captions do not fall within the definition of "outtakes" prescribed herein, when such content is, in fact, used in an edited version of video programming shown on television.

50. Foreign programming. We affirm the NPRM's tentative conclusion that the CVAA requires closed captioning of IP-delivered video programming that was published or exhibited on television in the United States with captions after the effective date of the regulations. The Commission stated in the NPRM that the best reading of the CVAA seemed to be that closed captioning is required on IP-delivered video programming that was published or exhibited on television in this country with captions after the effective date of the regulations. Industry commenters generally agree with the Commission that programming that has been shown on television with captions only in another country should not be subject to the new requirements for IP closed captioning. Consumer Groups argue, however, that the IP closed captioning requirements should apply to programming that is shown on

television in another country with captions after the effective date of the new rules, because "the CVAA's captioning requirements contain no textual limitation on programming published or exhibited on television in other countries," and because "Consumer Groups see no tenable rationale for excluding the broad range of foreign programming that is available via Internet distribution in the United States." We disagree. Although the text of the CVAA does not explicitly exclude from coverage programming shown only in another country, we conclude that Congress did not intend to reach such programming through the CVAA, which commenters have explained could create many difficulties, such as the need to reconcile different captioning requirements applicable in different countries and monitor foreign television broadcasts. Had Congress intended to create such a broad range of issues, such as those that would arise with programming shown in a foreign country, it would have said so expressly. Moreover, examination of the record reflects that there are sound reasons for excluding foreign television programming from the scope of the CVĀA.

B. Compliance Deadlines

51. Section 202(b) of the CVAA requires the Commission's regulations for closed captioning of IP-delivered video programming to "include an appropriate schedule of deadlines for the provision of closed captioning, taking into account whether such programming is prerecorded and edited for Internet distribution, or whether such programming is live or near-live and not edited for Internet distribution.' We adopt the proposal from the NPRM to implement the schedule of compliance deadlines set forth by the VPAAC, which is as follows: (1) For programming that is prerecorded and not edited for Internet distribution, a compliance deadline of six months after the rules are published in the Federal **Register**; (2) for programming that is live or near-live, a compliance deadline of 12 months after the rules are published in the Federal Register; and (3) for programming that is prerecorded and edited for Internet distribution, a compliance deadline of 18 months after the rules are published in the **Federal Register.** Having reviewed the record, we conclude that adoption of the schedule of compliance deadlines proposed in the NPRM will provide the industry with a sufficient time frame within which to develop processes or methods for addressing such programming, and will provide

consumers with access to accessible programming in the near future. We reiterate that the schedule of deadlines proposed in the NPRM was agreed on by the VPAAC, which includes representatives from industries that will be subject to our new rules, as well as consumer groups that have a strong interest in ensuring that our rules are implemented as quickly as possible. Based on our review of the record, we conclude that compliance deadlines of six, 12, and 18 months after Federal Register publication are reasonable in light of the varying degrees of difficulty involved in closed captioning of IPdelivered prerecorded and unedited, live or near-live, and prerecorded edited video programming. The compliance deadlines are applicable only to initial compliance with the rules.44 Once a deadline has been reached for a particular category of programming, that content must be captioned immediately when delivered via IP, with the exception of updates to content already in a VPD's library.⁴⁵ Once the applicable deadline has been reached for a certain program, VPOs and VPDs must fulfill their responsibilities to ensure that the program has captions when delivered to end users via IP.

52. Opponents of the compliance deadlines adopted herein have not demonstrated that the deadlines would be problematic on an industry-wide basis. We find that the lengthier deadlines proposed by some commenters are not justified because of support for the proposed deadlines in the record and by the VPAAC, which demonstrates that the proposed deadlines appear to be achievable on an industry-wide basis. Further, we note that entities that find it economically

⁴⁴ Programming will not be subject to the IP closed captioning requirements unless and until it is shown on television with captions on or after the deadlines established here. Our choice of compliance deadlines recognizes that VPOs and VPDs will need to use the time between publication of our rules in the Federal Register and the compliance deadlines to develop processes or methods of addressing such programming. Before such processes or methods are in place we do not believe it is reasonable to require them to keep track of whether such programming is shown on television with captions. This approach is consistent with the CVAA's mandate that we include "an appropriate schedule of deadlines for the provision of closed captioning." 47 U.S.C. 613(c)(2)(B).

⁴⁵ For such updated content, the captioning requirement will not be triggered for a period of two years from the date of **Federal Register** publication, as discussed above, and at that point we will impose a 45-day deadline from the date on which the programming is shown on television. Beginning three years from the date of the **Federal Register** publication, this deadline will be reduced to 30 days, and beginning four years from the date of the **Federal Register** publication, this deadline will be reduced to 15 days.

burdensome to meet the deadlines may petition for an exemption. The CVAA directs us, in adopting a schedule of deadlines, to "tak[e] into account whether such programming is prerecorded and edited for Internet distribution, or whether such programming is live or near-live and not edited for Internet distribution." Thus, by adopting multiple deadlines for different types of programming, the schedule of deadlines adopted herein takes into account the concerns that Congress directed the Commission to consider. We encourage VPOs and VPDs to make captioned programming available in advance of the applicable deadlines, to the extent they are able to

53. As we discuss above, VPDs that provide applications, plug-ins, or devices to consumers have an obligation under Section 202 to ensure that those applications, plug-ins, or devices render or pass through closed captions to subscribers. In many cases, compliance with this obligation would require the VPD to design consumer devices or software running on such devices to render or pass through closed captions. If a VPD uses software to enable the rendering or pass through of captions, the VPD is responsible only for software it deploys after the applicable compliance dates discussed in paragraph 51 above. We believe this limitation is warranted as we do not believe it is appropriate to require VPDs to provide new versions of software if the VPD did not otherwise intend to do so.46 If a VPD relies on hardware to enable the rendering or pass through of closed captions, the VPD must meet the compliance deadline of January 1, 2014. We believe this time period is appropriate because it is consistent with our analysis under Section 203.47 We note that, while the achievability standard of Section 203 of the CVAA does not apply to Section 202, VPDs that find it economically burdensome to meet their obligations may file an exemption petition, as discussed below.48

54. The CVAA also requires the Commission's regulations to "contain a definition of 'near-live programming' and 'edited for Internet distribution." In the NPRM the Commission sought comment on definitions of "live programming," "near-live programming," "prerecorded programming," and "edited for Internet distribution." We explain below how we have defined these terms. The Commission proposed to apply these definitions solely to rules applicable to IP closed captioning pursuant to the CVAA. We conclude that the definitions we adopt herein for the terms "live programming," "near-live programming," "prerecorded programming," and "edited for Internet distribution" apply solely to our regulation of IP closed captioning, as explained further below.

55. Live Programming. We adopt the definition of "live programming" proposed in the NPRM. The Commission proposed to define "live programming" as video programming that is shown on television substantially simultaneously with its performance. This definition is comparable to the definition of "live programming" adopted in the recent Video Description Order, which was "programming aired substantially simultaneously with its performance," 49 with a slight modification to clarify that in the IP closed captioning context, the performance occurs substantially simultaneously to its airing on television, not necessarily to the IP distribution. The Commission explained in the NPRM that the phrase "substantially simultaneously" contemplates that live programming may include a slight delay when it is shown on television. Some commenters express their support for the proposed definition of "live programming." Examples of programming that may fit within the definition of "live programming" are news, sporting events, and awards shows.

56. We decline to adopt rules specifically addressing simulcast programming, that is, programming that is shown simultaneously on television and the Internet. Rather, live and nearlive television programming that is simulcast shall be subject to the live and near-live programming compliance deadline, and prerecorded programming that is simulcast shall be subject to the prerecorded programming compliance deadlines. As we explained in the

NPRM, we do not believe that the VPAAC, by mentioning simulcast programming in its definition of "live programming," meant to encompass a 'simulcast'' in which prerecorded programming is shown on television and the Internet simultaneously.⁵⁰ We do not believe that our decision to apply the "live" and "near-live" deadlines to the simulcast of live and near-live programming will, as NAB claims, create a significant barrier to the distribution of live or near-live programming over the Internet. Rather, we expect that the compliance deadline of 12 months from the date of publication in the Federal Register for "live" and "near-live" programming will provide a sufficient period of time within which VPOs and VPDs can develop processes or methods to ensure the immediate closed captioning of simulcasts of live and near-live programming. We note that programming aired on television substantially simultaneously with its performance would not lose its status as "live programming" by being simulcast via IP. We disagree with NCTA's suggestion that simultaneous streaming of prerecorded programming on television and the Internet should have the same compliance schedule as live programming. NCTA has not explained why a longer deadline is necessary for the simulcast of pre-recorded programming, and the record contains no evidence justifying a longer deadline.

57. Near-Live Programming. We adopt the same definition of "near-live programming" that the Commission adopted in the Video Description Order, with one modification discussed below.51 In the NPRM, the Commission proposed to define "near-live programming" as "video programming that is substantively recorded and produced within 12 hours of its distribution to television viewers." Instead, we will define "near-live programming" as "video programming

 $^{^{\}rm 46}\,\rm We$ will consider upgrades to VPD software to be new applications. If a VPD is unable to meet all of the captioning requirements for such upgrades, it may request an exemption due to economic burden, as discussed in Section III.C.1 below.

⁴⁷ The same rationale for the two-year apparatus deadline applies to these VPD requirements.

⁴⁸ We clarify that when a VPD seeks an economic burden exemption from the requirements discussed in this paragraph, we will consider the exemption petition with regard to the specific feature(s) and device(s) for which implementing the captions purportedly would be economically burdensome, as discussed in Section IV.B (Achievability, Purpose-Based Waivers, and Display-Only Monitor Exemption), below.

⁴⁹ Video Description: Implementation of the Twenty-First Century Communications and Video Accessibility Act of 2010, FCC 11-126, 76 FR 55585, Sept. 8, 2011 ("Video Description Order").

⁵⁰ We understand that a simulcast may involve either live programming or prerecorded programming. It strains common understanding of the phrase "live programming" to think that the VPAAC intended to extend the definition of that phrase to programming that is shown on television and the Internet simultaneously.

 $^{^{51}\,\}mathrm{The}\;\mathrm{VPAAC}\;\mathrm{did}$ not agree on a single definition of "near-live programming," with consumer group members supporting a definition of "near-live programming" as "any programming that was produced from start to finish within 12 hours of being published or exhibited on television,'' and industry members supporting a definition that would reference programming that was "substantively produced" within the 12 hour limit. See VPAAC Report at 29, 34-35. Consumer Groups, in their comments to this proceeding, now express support for 24 hours as the dividing time for this type of programming.

that is performed and recorded less than 24 hours prior to the time it was first aired on television."

58. The Video Description Order defined "near-live programming" as "programming performed and recorded" less than 24 hours prior to the time it was first aired." Industry and consumer group commenters support using that definition in the current proceeding. The NPRM noted certain differences between the video description and closed captioning contexts, but on further review, we find that those differences do not justify the adoption of a different definition of "near-live programming" in the IP closed captioning context as compared to the video description context. Thus, we conclude that there is no need to adopt a significantly different definition of "near-live programming" in the IP closed captioning context than in the video description context. We make one modification to the Video Description Order's definition to clarify that "nearlive programming," in the context of IP closed captioning, is video programming that is performed and recorded less than 24 hours prior to the time it was first aired on television.⁵² We recognize that in the context of IP closed captioning, some "near-live" programming, such as a late-night talk show that is performed and recorded earlier the same day, may include some prerecorded elements, for example, a late-night talk show might include a segment that was performed and recorded more than 24 hours prior to its distribution on television. The presence of such prerecorded elements does not change the nature of the "near-live" programming.

59. Prerecorded Programming. We adopt the proposal from the NPRM to define "prerecorded programming" as video programming that is not "live" or "near live." No commenter provided any substantive evaluation of the proposed definition of "prerecorded programming." By defining "prerecorded programming" as video programming that is not "live" or "near live," we will ensure that video programming fits within one category or the other.

60. Edited for Internet Distribution. We adopt the proposal from the NPRM to define video programming that is

"edited for Internet distribution" as video programming for which the television version is substantially edited prior to its Internet distribution. We think this definition appropriately captures that class of edited video programming that might require a lengthier compliance deadline to facilitate the development of necessary procedures. No commenter proposed an alternate definition of "edited for Internet distribution." As stated in the NPRM, we agree with the VPAAC that examples of "substantial edits" include the deletion of scenes or alterations to the televised version of musical scores, and that changes to the number or duration of advertisements would not constitute "substantial edits." We do not agree with NAB that distinguishing between "prerecorded programming" and "edited for Internet distribution" would be unworkable 53 because the VPAAC provided clear examples and explanations of what constitutes substantial edits and what does not.

C. Exemption Process

1. Case-by-Case Exemptions

61. Section 713(d)(3) of the Act originally authorized the Commission to grant an individual exemption from the television closed captioning rules upon a showing that providing closed captioning "would result in an undue burden." Congress provided guidance to the Commission on how it should evaluate such captioning exemptions by setting forth, in Section 713(e) of the Act, four "factors to be considered" in determining whether providing closed captioning "would result in an undue economic burden:" (1) the nature and cost of the closed captions for the programming; (2) the impact on the operation of the provider or program owner; (3) the financial resources of the provider or program owner; and (4) the type of operations of the provider or program owner.

62. In the CVAA, Congress amended Section 713(d)(3) of the Act by replacing the term "undue burden" with the term "economically burdensome," and by adding certain guidance on the exemption procedures. Amended Section 713(d)(3) provides as follows:

[A] provider of video programming or program owner may petition the Commission for an exemption from the requirements of this section, and the Commission may grant such petition upon a showing that the requirements contained in this section would be economically burdensome. During the pendency of such a petition, such provider or owner shall be exempt from the requirements of this section. The Commission shall act to grant or deny any such petition, in whole or in part, within 6 months after the Commission receives such petition, unless the Commission finds that an extension of the 6-month period is necessary to determine whether such requirements are economically burdensome.54

The Senate Committee on Commerce, Science, and Transportation encouraged the Commission, in determining whether the requirements enacted under Section 202(b) are "economically burdensome," to consider the factors listed in pre-existing Section 713(e) of the Act, listed above.

63. We adopt the proposal in the NPRM and create a process by which VPDs and VPOs may petition the Commission on a case-by-case basis for a full or partial exemption of their IP closed captioning obligations, which the Commission may grant upon a finding that the requirements would be economically burdensome. This process is comparable to the Commission's procedures for assessing exemption requests from our television closed captioning rules prior to the amendment of Section 713(d)(3), and nearly identical to the procedures for exemptions based on economic burden that the Commission recently adopted for video description.⁵⁵ We will provide in our rules that the petitioner must support a petition for exemption with sufficient evidence to demonstrate that compliance with the requirements for closed captioning of video programming delivered via Internet protocol would be economically burdensome. The term "economically burdensome" means imposing significant difficulty or expense. In addition to the four statutory factors enumerated above, the petitioner must describe any other factors it deems relevant to the

⁵² We recognize that NCTA expresses its support for the Commission's proposed definition in the NPRM of "near-live programming," which was video programming that is substantively recorded and produced within 12 hours of its distribution to television viewers. We believe that the definition from the Video Description Order is clearer, however, and would not lead to potentially subjective determinations of what constitutes nearlive programming.

⁵³ We understand that rights issues may, for example, necessitate changes in music scores from the television version to the IP version of a television program, which may also necessitate changes to the captioning from one version to the other. See VPAAC Report at 30. Regardless of whether the VPO itself makes these changes or the VPD is authorized to make the changes, we find that the need for such changes justifies a longer compliance deadline for prerecorded edited video programming than for prerecorded unedited video programming.

⁵⁴ 47 U.S.C. 613(d)(3). Because the statutory provision regarding exemptions due to economic burden references only VPPs and VPOs, our rule implementing this provision also will reference VPPs and VPOs, but not VPDs. We note, however, that the exclusion of VPDs has no practical effect as we have defined VPD and VPP as having the same meaning.

⁵⁵ See 47 CFR 79.1(f), 79.3(d). See also Interpretation of Economically Burdensome Standard; Amendment of Section 79.1(f) of the Commission's Rules; Video Programming Accessibility, Order and Notice of Proposed Rulemaking, 26 FCC Rcd 14941, 14957–62, paras. 30–39 (2011) ("Interim Standard Order and NPRM").

Commission's final determination and any available alternatives that might constitute a reasonable substitute for the IP closed captioning requirements, for example, text or graphic display of the content of the audio portion of the programming. The Commission will place exemption petitions on public notice, and any interested person may file comments or oppositions to the petition within 30 days after release of the public notice of the petition. Within 20 days after the close of the period for filing comments or oppositions, the petitioner may reply to any comments or oppositions filed. Upon a finding of good cause, the Commission may lengthen or shorten any comment period and waive or establish other procedural requirements. Those filing petitions and responsive pleadings must include a detailed, full showing, supported by affidavit, of any facts or considerations relied on.

64. We disagree with those commenters who contend that Congress expressly amended Section 713(d) to lower the applicable burden, and that the "economically burdensome" standard is broader than the previous "undue burden" standard. In the recent Interim Standard Order, the Commission interpreted on a provisional basis the term 'economically burdensome" as used in Section 202 of the CVAA to be synonymous with the term "undue burden" that was formerly used in Section 713(e) of the Act. 56 The Commission stated "that Congress, when it enacted the CVAA, intended for the Commission to continue using the undue burden factors contained in Section 713(e), as interpreted by the Commission and reflected in Commission rules and precedent, for individual exemption petitions, rather than to make a substantive change to this standard." Among other things, in that proceeding the Commission cited to the legislative history of the 1996 amendments to the Act, in which Congress clearly distinguished between the more extensive factors that should be used to evaluate categorical exemptions adopted by regulation under Section 713(d)(1) of the Act and the factors that should be used to evaluate the individual exemption requests submitted under Section 713(d)(3) of the Act. Accordingly, we disagree with any

suggestion that the Commission should apply the broader standards applicable to categorical exemption requests to our consideration of individual exemption requests in the IP closed captioning context. Rather, we interpret the term "economically burdensome" in Section 713(d)(3) of the Act, as amended by the CVAA, to be synonymous with the term "undue burden" as this section was originally drafted.

65. Thus, consistent with the analyses in the Interim Standard Order and the Video Description Order, we adopt the process proposed in the NPRM for caseby-case exemptions based on economic burden with a few minor modifications. 57 First, in the NPRM the Commission proposed the following language in what is now numbered new § 79.4(d)(3) of our rules: "The Commission will evaluate economic burden with regard to the individual outlet or programming." In the context of the IP closed captioning rules, the "individual outlet" references the VPO or VPD. To be consistent with § 79.1(f)(3) as it now exists in the Commission's rules and as the Commission has proposed amending it in the Interim Standard Order and NPRM and with § 79.3(d)(3) as adopted in the Video Description Order, we will omit the phrase "or programming." 58 As we explained in the 1997 Closed Captioning Order, in evaluating economic burden, we "examine the overall budget and revenues of the individual outlet and not simply the resources it chooses to devote to a particular program." Consistent with that directive, when deciding whether to grant a petition for an exemption from the IP closed captioning rules, we will consider the overall budget and revenues of the individual outlet and its ability to provide closed captioning, and not simply the resources it chooses to devote to a particular program. Second, in the NPRM the Commission proposed

to codify the following language in our rules governing exemption petitions based on economic burden: "The Commission shall act to deny or approve any such petition, in whole or in part, within 6 months after the Commission receives such petition, unless the Commission finds that an extension of the 6-month period is necessary to determine whether such requirements are economically burdensome." Consistent with the Interim Standard Order and NPRM and the adopted rules in the Video Description Order, we find it unnecessary to codify in our rules the time limit for Commission action on exemption petitions, since the 6-month deadline for Commission action is codified in the CVAA and thus it applies regardless of whether it is codified in our rules. Third, in the NPRM the Commission proposed to include the following language in what is now numbered new § 79.4(d)(11): "During the pendency of an economic burden determination, the Commission will consider the video programming provider or owner subject to the request for exemption as exempt from the requirements of this section." 59 To be consistent with § 79.1(f)(11) as proposed in the Interim Standard Order and NPRM and with § 79.3(d)(11) as adopted in the Video Description Order, we will omit the words "provider or owner" from $\S 79.4(e)(11)$ as proposed in the NPRM. By revising the proposed language to omit those words, we intend to clarify that the outlet seeking an exemption is relieved of its closed captioning obligations only for the specific programming for which it requested an exemption.

66. Finally, we will require electronic filing of individual closed captioning exemption requests, and will require electronic filing of comments on and oppositions to such petitions. We hereby delegate to the Chief, Consumer and Governmental Affairs Bureau, authority to establish by Public Notice the electronic filing procedures for individual exemption requests. Such a requirement is consistent with the 2011 Electronic Filing Report and Order, in which the Commission adopted a requirement to use electronic filing whenever technically feasible.60 Although the *NPRM* proposed to require

⁵⁶ In the Notice of Proposed Rulemaking that accompanied the Interim Standard Order, the Commission sought comment on making permanent this provisional interpretation of "economically burdensome." See Interim Standard Order and NPRM, 26 FCC Rcd at 14961–62, paras. 38–39. The Commission has received one comment in response, which supports this interpretation.

⁵⁷ We note that Consumer Groups make additional proposals about case-by-case exemption petitions. Because we intend to address exemption petitions on a case-by-case basis, we decline to adopt the categorical findings suggested by Consumer Groups. Further, neither the language nor the history of the CVAA indicates that Congress intended to require a heightened *prima facie* showing for such petitions, as suggested by Consumer Groups.

⁵⁸ The Commission's television closed captioning rules currently require consideration of the extent to which the provision of closed captions will create an undue burden with regard to the individual outlet. See 47 CFR 79.1(f)(3). The Interim Standard Order and NPRM proposes to amend this section by replacing the term "undue burden" with the term "economically burdensome," in accordance with the changes made in the CVAA. See Interim Standard Order and NPRM, 26 FCC Rcd at 14989 (App. B—Proposed Rules); 47 CFR 79.3(d)(3).

 $^{^{59}}$ Of course, the programming will still be subject to the closed captioning requirements under 47 CFR 79.1 when provided on broadcast television or by an MVPD, notwithstanding its exemption from the IP closed captioning requirements under 47 CFR 79.4.

⁶⁰ Commission's Rules of Practice, Procedure, and Organization, FCC 11–16, 76 FR 24383, May 2, 2011 ("2011 Electronic Filing Report and Order").

paper filings, we find that an electronic filing requirement would be most consistent with the Commission's stated goals of efficiency and modernization and would streamline the petition process for all parties. Persons who file comments or oppositions to the petition must serve the petitioner with copies of those comments or oppositions and must include a certification that the petitioner was served with a copy, and any petitioner filing a reply to comments or oppositions must serve the commenting or opposing party with a copy of the reply and must include a certification that the party was served with a copy. We clarify that pursuant to § 79.4(d)(7), comments or oppositions and replies shall be served upon a party, its attorney, or its other duly constituted agent by delivery or mailing a copy to the party's last known address, or by service via email as provided in the final rules.

2. Categorical Exemptions

67. In Section 202(b) of the CVAA, Congress provided that the Commission "may exempt any service, class of service, program, class of program, equipment, or class of equipment for which the Commission has determined that the application of such regulations would be economically burdensome for the provider of such service, program, or equipment." In the context of television closed captioning, the Commission has recognized that the term "economically burdensome" is applied differently to case-by-case exemptions than it is to rulemaking decisions to exempt categories of programming. Existing rules for closed captioning of television programming contain a number of categorical exemptions. In the *NPRM*, the Commission sought comment on whether any of the categorical exemptions found in the television closed captioning rules should apply to IP closed captioning.

68. We decline at this time to apply any of the categorical exemptions found in the television closed captioning rules to the IP closed captioning rules. Thus, programming that appears on television with captions after the effective date of the IP closed captioning rules will be subject to the rules even if the programming was exempt from the television closed captioning requirements but was nevertheless captioned voluntarily. Programming that is exempt from the television closed captioning requirements and that never appears on television with captions is not subject to the IP closed captioning requirements, which by definition do not apply to programming that appears on television only without captions. The

record does not contain sufficient evidence to demonstrate that it would be economically burdensome to require captioning of programming that would fit within one of the television exemptions, if that programming was shown on television with captions after the effective date of our new rules. This approach we adopt is consistent with the CVAA, which requires "closed captioning on video programming delivered using Internet protocol that was published or exhibited on television with captions after the effective date of such regulations." If Congress intended to limit the IP closed captioning rules to programming that 'was *required to be* published or exhibited on television with captions," it would have said so.

69. We emphasize an important difference between exemptions for closed captioning of IP-delivered video programming and exemptions for closed captioning of television programming. In the television context, programming that is exempt from the closed captioning requirements may never have been associated with a closed captioning file. In contrast, the IP closed captioning rules only apply to programming that was captioned on television, and thus, they do not require the creation of closed captions where captions did not already exist. We acknowledge that a particular program may be shown on television both without captions by an entity that is exempt under the television closed captioning rules, and with captions by an entity that is not exempt. Once the program is shown on television with captions after the effective date of our new rules, all VPDs must enable the rendering or pass through of closed captions to the end user, except for any VPD that obtains an individual exemption due to economic burden pursuant to the procedures adopted above.

70. We reject the categorical exemptions proposed by CTIA, NCTA, and Starz. CTIA requests an exemption from the requirements of Section 202 of the CVAA for mobile service providers. NCTA suggests that a new network that is exempt from the television closed captioning requirements should also be exempt from the IP closed captioning requirements. Starz requests "that the Commission clarify that VPOs need not caption other programming streamed through VPOs' Web sites" besides linear and video-on-demand programming streamed to authenticated subscribers. We find that these requested categorical exemptions are overly broad and not sufficiently supported by the record, the statute, or legislative history. None of

these parties demonstrates that compliance with the IP closed captioning requirements would be an economic burden for an entire category of entities. Further, we will consider on a case-by-case basis petitions requesting an exemption based on economic burden filed by a particular mobile service provider, new network, or other person or entity.

71. We also adopt the NPRM proposal not to delay implementation of, or waive, the rules as applied to live programming, except by adopting the VPAAC recommendation to provide a lengthier compliance deadline for live programming than that provided for prerecorded programming that is not edited for Internet distribution. Section 202(b) of the CVAA permits the Commission to delay or waive the applicability of its IP closed captioning rules "to the extent the Commission finds that the application of the regulation to live video programming delivered using Internet protocol with captions after the effective date of such regulations would be economically burdensome to providers of video programming or program owners." The VPAAC considered the special nature of live programming by proposing a longer compliance deadline for live programming than for prerecorded and unedited video programming, which we adopt above. We do not see any justification for a further delay or waiver of the Commission's new IP closed captioning rules as applied to live programming at this time.

D. De Minimis Failure To Comply and Alternate Means of Compliance

72. De Minimis Failure to Comply. Section 202(b) of the CVAA requires the Commission's IP closed captioning regulations to "provide that *de minimis* failure to comply with such regulations by a video programming provider or owner shall not be treated as a violation of the regulations." 61 The statute and legislative history did not elaborate upon the meaning of "de minimis failure to comply." In the NPRM, the Commission proposed that, to determine whether a failure to comply is de minimis, it would "consider the particular circumstances of the failure to comply, including the type of failure, the reason for the failure, whether the failure was one-time or continuing, and

⁶¹ Because the statutory provision regarding *de minimis* failures to comply references only VPPs and VPOs, our rule implementing this provision also will reference VPPs and VPOs, but not VPDs. We note, however, that the exclusion of VPDs has no practical effect as we have defined VPD and VPP as having the same meaning.

the time frame within which the failure was remedied.'

73. We adopt the proposed rule, which provides that a video programming provider or owner's de minimis failure to comply with § 79.4 of our rules shall not be treated as a violation of the requirements.62 We intend to apply the de minimis standard in a flexible manner, consistent with our approach in the television realm, rather than specifying particular criteria that we will apply to make a de minimis determination. In the television context, "[i]n considering whether an alleged violation has occurred, [the Commission] will consider any evidence provided by the video programming distributor in response to a complaint that demonstrates that the lack of captioning was de minimis and reasonable under the circumstances." 63 This approach is also supported by the record. Thus, we decline to adopt specific criteria that we will consider in evaluating whether a failure to comply is de minimis.

74. Alternate Means of Compliance. Section 202(b) of the CVAA provides that "[a]n entity may meet the requirements of this section through alternate means than those prescribed by regulations pursuant to subsection (b), as revised pursuant to paragraph (2)(A) of this subsection, if the requirements of this section are met, as determined by the Commission." 64 Should an entity seek to use an "alternate means" to comply with the IP closed captioning requirements, that entity may either (i) request a Commission determination that the proposed alternate means satisfies the statutory requirements through a request pursuant to § 1.41 of our rules; or (ii) claim in defense to a complaint or enforcement action that the Commission should determine that the party's actions were permissible alternate means of compliance. Rather than specify what may constitute a permissible "alternate means," we conclude that the best means of implementing this provision is to address any specific requests from parties subject to the new IP closed

captioning rules when they are presented to us.

E. Complaint Procedures

75. In the *NPRM*, the Commission proposed to adopt procedures for complaints alleging a violation of the IP closed captioning rules that are analogous to the procedures the Commission uses for complaints alleging a violation of the television closed captioning rules, with certain modifications. Commenters generally support the Commission's proposed approach of modeling the IP closed captioning complaint process on the existing television closed captioning complaint process. As explained below, we adopt these proposals with certain enhancements and changes.65

76. Timing of Complaint. In the *NPRM*, the Commission asked whether to impose the same 60-day time frame for complaints involving IP-delivered video programming as for complaints involving programming aired on television. We recognize that determining the date on which IPdelivered video programming was noncompliant may be more difficult than determining the date on which television programming was noncompliant, since television programming often airs at specified times whereas IP-delivered video programming may be available continuously. If IP-delivered video programming is available without required captioning, then it is noncompliant during the entire time that it is available. A number of commenters support the adoption of a filing deadline for complaints alleging violations of the IP closed captioning rules based on the date on which the consumer experienced the captioning problem, explaining that it would provide VPDs and VPOs with some certainty as to previously distributed content, and would ensure that the complaint process occurs when evidence is fresh. Some commenters support a 60-day time frame, while others support a shorter or longer time frame.

77. We adopt the proposed 60-day time frame and require that complaints be filed within 60 days after the complainant experiences a problem with the captioning of IP-delivered video programming. We recognize that

problems with captions of IP-delivered video programming often may be ongoing, in that a program may remain online without captions for a period of time. We will require the consumer to file a complaint within 60 days of any date on which the consumer accessed the programming and did not receive compliant captions. The Commission will accept a consumer's allegations as to the timeliness of a complaint as true, unless a VPO or VPD demonstrates otherwise. Establishing a deadline based on the date the complainant accessed noncompliant programming will provide certainty to VPOs and VPDs and ensure that the evidence available at the time of the complaint remains fresh. The 60-day time frame, in particular, has worked well in the television context, and we therefore find it appropriate to use the same deadline here.

78. We find that it is important to provide a limit on the time within which a complaint must be filed, so that evidence is available to adjudicate the complaint properly. For example, even if a particular program remains available via IP, technical problems with the consumer's device or Internet connection on a specific date might have been the cause of a particular captioning problem, and it might be difficult to make that determination if too much time has elapsed. We disagree with Consumer Groups that the time frame should begin at the last time the violating video was distributed to any consumer. Some video programming may be available online for years, and so it may be difficult to investigate a complaint filed by a consumer years after the captioning problem occurred.

79. Option to File Complaints with the Commission or with the VPD. Similar to the television closed captioning rules, we will create a process for complainants to file their complaints either with the Commission or with the VPD responsible for enabling the rendering or pass through of the closed captions for the video programming. First, we adopt a process by which complainants may file complaints with the Commission, and those complaints may be directed against a particular VPD or VPO. Second, to encourage the prompt resolution of complaints in the marketplace, we also adopt a process by which complainants may first file their complaints with the VPD, and if complainants are not satisfied by that process, they may then file their complaints with the Commission. These procedures are discussed further below. We do not create a process by which complainants may first file their complaints with the VPO, because VPOs

 $^{^{62}}$ This language is intended to make clear that deminimis violations will not lead to enforcement

^{63 1998} Closed Captioning Recon. Order.

⁶⁴ As explained in the NPRM, the statute and legislative history did not elaborate upon the meaning of "alternate means" in this provision, although the House Committee explained that in the context of Section 203, alternate means was intended "to afford entities maximum flexibility in meeting the requirement that video programming delivered using Internet protocol be captioned," and that the Commission should "provide some flexibility where technical constraints exist.'

 $^{^{\}rm 65}\,\rm The$ complaint procedures discussed in this Report and Order address the process by which the Commission's Consumer and Governmental Affairs Bureau processes complaints. This process differs from that of the Commission's Enforcement Bureau which investigates whether a violation has occurred and, if so, what penalty to assess, regardless of whether a complaint has been filed.

generally do not maintain direct relationships with consumers and may lack the ability to provide consumers with means of access such as the contact information we require below of VPDs.

80. In the *NPRM*, the Commission asked whether we should permit those filing complaints alleging a violation of the IP closed captioning rules to file the complaint directly with the VPD first, or whether it is instead preferable to require all complaints to come directly to the Commission in the first instance. Some commenters support a Commission procedure for filing complaints with the VPD first. Permitting the filing of complaints directly with the VPD, and allowing the VPD to attempt to resolve the complaint with the consumer before the Commission engages in enforcement proceedings, would benefit VPDs by minimizing their involvement in complaint proceedings at the Commission and may benefit consumers by fostering a prompt resolution of their complaints. Thus, we adopt procedures to permit complainants to file their complaints either with the Commission or with the VPD responsible for enabling the rendering or pass through of the closed captions for the video programming.66

81. Consumers who file their complaints first with the Commission may name a VPD or VPO in the complaint, since both entities are subject to the IP closed captioning rules. The Commission will forward such complaints to the named VPD and/or VPO, as well as to any other VPD or VPO that Commission staff determines may be involved, as discussed further below. If a complaint is filed first with the VPD, our rules will require the VPD to respond in writing to the complainant within thirty (30) days after receipt of a closed captioning complaint.⁶⁷ If a VPD fails to respond to the complainant within thirty (30) days, or the response does not satisfy the consumer, the complainant may file the complaint

with the Commission within thirty (30) days after the time allotted for the VPD to respond. If the consumer then files the complaint with the Commission (after filing with the VPD), the Commission will forward the complaint to the named VPD, as well as to any other VPD or VPO that Commission staff determines may be involved.68 If the Commission is aware that a complaint has been filed simultaneously with the Commission and the VPD, the Commission may allow the process involving the VPD and the consumer to reach its conclusion before moving forward with its complaint procedures, in the interest of efficiency. 69

82. The flexible complaint process adopted herein will benefit consumers because it enables them to file their complaints with the Commission naming either the VPD or the VPO. We reiterate our expectation that consumers generally will name the VPD in their complaints, since that is the entity that distributes the programming to consumers. Nevertheless, if a consumer names a VPD in its complaint but the Commission determines that its investigation should be directed against the VPO, the Commission will forward the complaint to the VPO without any further involvement of the consumer.70 In addition, if a VPD receives a complaint from the Commission that it believes the Commission should have directed to the VPO, the VPD may say so in its response to the complaint. In such instances, however, the VPD's response must also indicate the identity and contact information of the VPO to which the VPD believes the complaint should be directed. Since consumers may file any IP closed captioning complaint with the VPD or name the VPD in any complaint filed with the Commission, we find that Consumer Groups' concern that consumers may be

unable to determine the entity against which they should file a complaint is unfounded, because consumers are not required to name or otherwise identify the applicable VPO. The complaint process will be aided further by the Commission's ability to request additional information from any relevant entities when, in the estimation of Commission staff, such information is needed to investigate the complaint or adjudicate potential violation(s) of Commission rules.

83. Complaint Response Time. Upon receipt of a complaint from the Commission, we will require the VPD and/or VPO to respond in writing to the Commission and the complainant within 30 days. We conclude that the record does not support deviating from the 30-day time frame contained in the television closed captioning rules for responding to complaints. While Consumer Groups propose that the Commission instead require VPDs to respond to complaints within 15 calendar days, we agree with other commenters that such a short deadline would be unworkable. Although in the NPRM the Commission proposed to provide explicitly in our rules that the Commission may specify response periods longer than 30 days on a caseby-case basis, we find it unnecessary to do so because the Commission may waive its rules for good cause, sua sponte or pursuant to a waiver request, and it can grant motions for extension of time.

84. In response to a complaint, VPDs and VPOs must file with the Commission sufficient records and documentation to prove that the responding entity was (and remains) in compliance with the Commission's rules. Conclusory or insufficiently supported assertions of compliance will not carry a VPD's or VPO's burden of proof. If the responding entity admits that it was not or is not in compliance with the Commission's rules, it shall file with the Commission sufficient records and documentation to explain the reasons for its noncompliance, show what remedial steps it has taken or will take, and show why such steps have been or will be sufficient to remediate the problem.

85. Resolution of Complaints. We decline at this time to specify a time frame within which the Commission must act on IP closed captioning complaints. While we recognize the importance of prompt actions on complaints, no such time frame exists for television closed captioning complaints, and we agree with commenters who explain that it would be difficult at this juncture to predict

⁶⁶ The record does not support the creation of a process by which consumers file complaints directly with the VPO. We find it unlikely in any event that a consumer would choose to file a complaint with a VPO, with which it has no direct relationship, instead of with a VPD from which it receives IP-delivered video programming. Of course, any consumer that wishes to contact a VPO to share a captioning concern may do so.

⁶⁷ If a VPD receives a complaint directly from a consumer but believes that the captioning problem was caused by the VPO, the VPD may indicate in its response to the consumer that the consumer may choose to file a complaint with the Commission against the VPO. To the extent a VPD believes that fault for the captioning problem lies elsewhere, the VPD should make this clear, and provide any other relevant information, in its written response to the consumer.

 $^{^{68}\, \}text{These}$ procedures are consistent with procedures in our existing television closed captioning rules.

⁶⁹ We note Consumer Groups' proposal that Commission enforcement proceedings and VPD attempts at remediation should occur concurrently. In response, AT&T explains that the proposal of Consumer Groups would violate the Administrative Procedure Act and the Constitutional guarantee of due process. The Commission may not be aware that a complaint has been filed simultaneously with the Commission and with a VPD, but when so informed, the Commission will provide the VPD with the 30-day period after the VPD received the complaint to resolve the complaint with the complainant first, in the interest of efficiency.

⁷⁰ While the complaint procedures proposed in the NPRM would provide the Commission with needed flexibility to reach the responsible entity or entities, we do not intend to burden parties by engaging in simultaneous investigations, where a complaint can best be resolved by focusing the Commission's investigation on a single party or on one party followed by another party.

the length of time the Commission will need to resolve IP closed captioning complaints. In evaluating a complaint, the Commission will review all relevant information provided by the complainant and the subject VPDs or VPOs, as well as any additional information the Commission deems relevant from its files or public sources. When the Commission requests additional information, parties to which such requests are addressed must provide the requested information in the manner and within the time period the Commission specifies.

86. Sanctions or Remedies. We decline to create sanctions or remedies for IP closed captioning enforcement proceedings that deviate from the Commission's flexible, case-by-case approach governed by § 1.80 of our rules. We do not find warranted the proposal of Consumer Groups that the Commission assess a new violation for each complaint, with a minimum forfeiture level of \$10,000 per violation. The record does not support either the \$10,000 minimum forfeiture level proposed by the Consumer Groups or establishing a base forfeiture level for IP closed captioning complaints at this time. Further, since closed captioning requirements for IP-delivered video programming are new, the Commission may benefit from conducting investigations before codifying a base forfeiture for addressing violations. As stated in the NPRM, we will adjudicate complaints on the merits and may employ the full range of sanctions and remedies available to the Commission under the Act.

87. Content of Complaints. Given the variety of issues that could cause IP closed captioning not to reach an end user (for example, a VPO's failure to provide captions, a VPD's failure to render or pass through captions, captions of an inadequate quality, a problem with the device used to view the captions, or the fact that captions were not required because the programming had not been shown on television with captions after the effective date of the new rules), we think it is important that we receive complaints containing as much information as possible that will enable their prompt and accurate resolution. Accordingly, complaints should include the following information: 71 (a) The

name, postal address, and other contact information of the complainant, such as telephone number or email address; 72 (b) the name and postal address, Web site, or email address of the VPD and/ or VPO against which the complaint is alleged, and information sufficient to identify the video programming involved; (c) information sufficient to identify the software or device used to view the program; (d) a statement of facts sufficient to show that the VPD and/or VPO has violated or is violating the Commission's rules, and the date and time of the alleged violation; ⁷³ (e) the specific relief or satisfaction sought by the complainant; and (f) the complainant's preferred format or method of response to the complaint. Consumer Groups also suggest that the Commission should permit consumers to submit photographic or video evidence of the captioning problem when filing a complaint. If a consumer wishes to submit such evidence, Commission staff will consider the evidence as part of the complaint proceeding. If a complaint is filed with the Commission, the Commission will forward complaints meeting the abovespecified requirements to the appropriate party or parties. If a complaint does not contain all of the information specified in this paragraph and Commission staff determines that certain information is essential to resolving the complaint, Commission staff may work with the complainant to ascertain the necessary information and supplement the complaint. The Commission retains discretion not to investigate complaints that lack the above-specified information and complaints for which the Commission is unable to ascertain such information after further inquiries to the complainant.

88. Written Complaints. We conclude that complaints filed either with the Commission or with the VPD must be in writing. Consumer Groups propose that the Commission should permit the filing of complaints by "any reasonable means," and it also proposes that the Commission accommodate evidence for closed captioning complaints submitted

in American Sign Language. NAB disagrees, proposing instead that the means of filing complaints should mirror the television closed captioning rules. We find no reason to deviate from the requirement in the television closed captioning rules that a complaint must be in writing, and we thus adopt that proposed requirement, which has worked well in the television context. We clarify that, if a complainant calls the Commission for assistance in preparing a complaint (by calling either 1-888-CALL-FCC or 1-888-TELL-FCC (TTY)), and Commission staff documents the complaint in writing for the consumer, that constitutes a written complaint. A written complaint filed with the Commission must be transmitted to the Consumer and Governmental Affairs Bureau through the Commission's online informal complaint filing system, U.S. Mail, overnight delivery, or facsimile. After the rules become effective, the Consumer and Governmental Affairs Bureau will release a consumer advisory with instructions on how to file complaints in various formats, including via the Commission's Web

89. Revisions to Form 2000C. The Commission directs the Consumer and Governmental Affairs Bureau to revise the existing complaint form for disability access complaints (Form 2000C) in accordance with this Report and Order, to foster the filing of IP closed captioning complaints. In the NPRM, the Commission asked if it should revise the existing complaint form for disability access complaints (Form 2000C) to request information specific to complaints involving IP closed captioning, and industry and consumer groups support this proposal. Should the complaint filing rules adopted in this Report and Order become effective before the revised Form 2000C is available to consumers, IP closed captioning complaints may be filed in the interim by fax, mail, or email.

90. Contact Information. We will require VPDs to make contact information available to end users for the receipt and handling of written IP closed captioning complaints. Given that we will permit consumers to file their IP closed captioning complaints directly with a VPD, we think it is important that consumers have the information necessary to contact the VPD. At this time, we decline to specify how VPDs must provide contact information for the receipt and handling of written IP closed captioning complaints, but we expect that VPDs will prominently display their contact

⁷¹ While we proposed in the NPRM to require complaints to include this information, we recognize that some of the requested information may not be readily ascertained by consumers. For example, it may be difficult for consumers to determine the identity of the VPO, the postal address of the VPD or VPO, and the type of software or device the consumer used to view IP-delivered

video programming. Accordingly, we provide that complaints *should* (but are not required to) include the specified information. The Commission will best be in a position to investigate complaints that include the maximum information requested.

 $^{^{72}}$ We have enhanced this category of information from what was proposed in the *NPRM*, to facilitate contacting the complainant by means other than postal mail.

⁷³ We have modified this requirement from what was proposed in the NPRM, in recognition of the finding that the date and time of the alleged violation should be included with all IP closed captioning complaints.

information in a way that it is accessible to all end users of their services. We agree with AT&T that "a general notice on the VPP's/VPD's Web site with contact information for making inquiries/complaints regarding closed captioning over IP video" would be sufficient, but we emphasize that such notice should be provided in a location that is conspicuous to viewers. We also agree with Consumer Groups that creating a database comparable to the television database of video programming distributor contact information may be infeasible in the IP context, given the potentially large number of VPDs that may emerge over time. Therefore, we decline at this time to create a database of IP video providers and their closed captioning contacts; if we find that VPDs are not providing their contact information in a sufficient manner, however, we may revisit this issue. Very few commenters provided their views on what contact information we should require. Accordingly, we will parallel the requirements for television video programming distributor contact information for the receipt and handling of written closed captioning complaints. Thus, we will require VPDs of IPdelivered video programming to make the following contact information accessible to end users: the name of a person with primary responsibility for IP closed captioning issues and who can ensure compliance with our rules; and that person's title or office, telephone number, fax number, postal mailing address, and email address. VPDs shall keep this information current and update it within 10 business days of any change.

91. We will not, however, require VPDs to make contact information available for the *immediate* receipt and handling of closed captioning concerns of consumers. The television closed captioning rules require video programming distributors to "make available contact information for the receipt and handling of immediate closed captioning concerns raised by consumers while they are watching a program," so that distributors can work with consumers to resolve the program at that time. We draw this distinction for these rules because we are concerned that Web sites and other sources of IP-delivered video programming may not be wellpositioned to respond to a consumer's immediate closed captioning concerns.

IV. Section 203 of the CVAA

92. The CVAA amends Section 303(u) of the Act to "require that, if technically feasible, apparatus designed to receive

or play back video programming transmitted simultaneously with sound * and us[ing] a picture screen of any size be equipped with built-in closed caption decoder circuitry or capability designed to display closedcaptioned video programming." In the discussion that follows, we first provide our interpretation of the statutory term "apparatus." We then analyze additional provisions of Section 203 of the statute, including the provisions that "apparatus" that use a screen of any size are covered and that our requirements only apply to the extent they are technically feasible. Further, we address the statutory provisions for waivers of closed captioning obligations that are not "achievable" or are not appropriate given the primary purpose of the device being used to view video programming, as well as the statutory exemption for display-only monitors. We then address the specific, functional requirements covered devices will be required to satisfy. Additionally, we incorporate the statutory language regarding recording devices, including the obligations that they receive, store, and play back closed captioning, address interconnection mechanisms, and make minor changes to our existing closed captioning rules for analog and digital television receivers. Finally, we address how parties may meet these requirements through alternate means of compliance, specify the time frames by which manufacturers must meet their obligations under these rules, and describe how consumers may file complaints for violations of these rules.

A. Apparatus Subject to Section 203 of the Act

93. The CVAA does not define the term "apparatus," requiring the Commission to interpret the term to determine the exact meaning and extent of the statute's reach. Taking into account the statutory language and purpose, the record in this proceeding, and the conclusions the Commission reached in the ACS Order,⁷⁴ we

interpret this language to apply to hardware (that is, physical devices such as set-top boxes, PCs, smartphones, and tablets) designed to receive or play back video programming transmitted simultaneously with sound and any integrated software (that is, software installed in the device by the manufacturer before sale or that the manufacturer requires the consumer to install after sale). Commenters unanimously agree that physical devices capable of displaying video are covered by the statutory term "apparatus." Given the fact that the means by which a device actually displays video—the "video player"—may be comprised of hardware, software, or a combination of both, we do not believe that it would be appropriate to define "apparatus" solely in terms of hardware. Rather, in order to effectuate the statutory goals, we define "apparatus" to include the physical device and the video players that manufacturers install into the devices they manufacture (whether in the form of hardware, software, or a combination of both) before sale, as well as any video players that manufacturers direct consumers to install.⁷⁵ Thus, "apparatus" includes integrated video players, i.e., video players that manufacturers embed in their devices, video players designed by third parties but installed by manufacturers in their devices before sale, and video players that manufacturers require consumers to add to the device after sale in order to enable the device to play video.⁷⁶ In addition, if a manufacturer offers updates or upgrades to a video player component of a device, it also must ensure that those updates or upgrades are capable of displaying closed captions.⁷⁷ Further, if a manufacturer

⁷⁴ The ACS Order applies the accessibility requirements of Section 716 of the CVAA to noninterconnected VoIP services, electronic messaging services, and interoperable video conferencing services. ACS Order, 26 FCC Rcd at 14564, para. 13, implementing Public Law 111-260 sec. 104; 47 U.S.C. 617-619. In applying the provisions of the CVAA to entities that make or produce end user equipment, including tablets, laptops, and smartphones responsible for the accessibility of the hardware and manufacturer-provided software used for email, SMS text messaging, and other advanced communications services, the Commission addressed many issues of first impression related both to the CVAA and to the regulation of high-tech devices not traditionally reached by the Commission's accessibility rules. We find the ACS Order a useful guide to interpreting similar

provisions and issues in this proceeding. Accordingly, we refer to the *ACS Order* at various points in the following discussion.

⁷⁵ We note that manufacturers of covered apparatus pursuant to this section must also comply with the performance and display requirements set forth below.

 $^{^{76}}$ As provided in the ACS Order, "[m]anufacturers are responsible for the software components of their [devices] whether they preinstall the software, provide the software to the consumer on a physical medium such as a CD, or require the consumer to download the software." ACS Order, 26 FCC Rcd at 14582, para. 69.

⁷⁷ We reject commenters' arguments that Section 203 is limited to enabling the display of closed captioning solely to video programming provided pursuant to Section 202 of the CVAA. Section 203 broadly requires covered devices to be equipped and capable of displaying closed captioned video programming. 47 U.S.C. 303(u)(1)(A). The legislative history states that the CVAA was enacted to "ensure that devices consumers use to view video programming are able to display closed captions." Moreover, as a technical and practical matter, once a device implements the closed captioning capability for a particular format of content, then the origin of that content is

selects a third-party operating system that includes a video player, that video player will also be considered part of the "apparatus."

94. Our approach is consistent with the statute, which uses broad terminology, applying to "apparatus designed to receive and play back video programming transmitted simultaneously with sound." In addition to the statute's broad language, the legislative history suggests that the statute was intended to have a broad scope. For example, the House and Senate Committee Reports describe the goal of Section 203(a) as "ensur[ing] that devices consumers use to view video programming are able to display closed captions." As explained above, applying our rules solely to hardware would not fulfill this goal because the ability to display closed captions may be implemented through hardware, software or a combination of both. Thus, defining apparatus to include "integrated software" is necessary to achieve Congress's goal to ensure individuals with disabilities are able to fully access video programming. We recognize that this places the burden on manufacturers to ensure that all the software they choose to build into or preinstall in their devices complies with our closed captioning rules. We conclude, however, that this is necessary to implement the statute and effectuate congressional intent. The approach we adopt is also consistent with the approach the Commission followed in the ACS Order. 78 We decline to include within the scope of our interpretation of the statutory term "apparatus" third-party software that is downloaded or otherwise added to the device independently by the consumer after sale and that is not required by the manufacturer to enable the device to play video.79 Given our interpretation of

immaterial. Under current technology, there would be no way for the device manufacturer to limit captioning only for a particular type of content.

the statute to cover integrated software, as well as our decision under Section 202 (as discussed above) that VPDs must ensure that any video player they provide to the consumer is capable of rendering or passing through closed captions, we believe that the rules we adopt will cover the majority of situations in which consumers view video, and therefore do not believe that it is necessary to hold manufacturers responsible for such "third-party software" or to regulate software companies directly.80 In interpreting the scope of the statute in this manner, we have balanced the needs of consumers with the need to minimize burdens on the industry to ensure that our rules do not impede innovation in the device and software markets.

95. Designed to Receive or Play Back Video Programming. Our decision to cover "integrated video players" is consistent with the statutory language of Section 203 of the CVAA which covers those apparatus "designed to receive or play back video programming transmitted simultaneously with sound." Under our interpretation, if a device is sold with (or updated by the manufacturer to add) an integrated video player capable of displaying video programming, that device is "designed to receive or play back video programming" and subject to our rules adopted pursuant to Section 203. Some commenters argue that we should evaluate whether a device is covered by focusing on the original design or intent of the manufacturer of the apparatus and not the consumer's ultimate use of that apparatus. We disagree. We believe that to determine whether a device is designed to receive or play back video programming, and therefore covered by the statute, we should look to the device's functionality, i.e. whether it is capable of receiving or playing back video programming. We are persuaded that adopting this bright-line standard based on the device's capability will provide more certainty for manufacturers.81 In any event, to the

manufacturer will ensure that the device does not block the transmission of captioning.

extent a device is built with a video player, it would be reasonable to conclude that viewing video programming is one of the intended uses of the device. From a consumer perspective, it would also be reasonable to expect that a device with a video player would be capable of displaying captions.

96. Picture Screen of Any Size. The statute applies to apparatus "if such apparatus * * * uses a picture screen of any size." We interpret the term "use" to mean that the apparatus works in conjunction with a picture screen. We reject the argument that Section 203 applies only to devices that include screens, as neither the statute nor the legislative history compels such a narrow construction. The original Television Decoder Circuitry Act's captioning requirement covered an apparatus only if "its television picture screen is 13 inches or greater in size." The Commission previously interpreted the narrower phrase used in the Television Decoder Circuitry Act ("its television screen") to permit coverage of devices that are not connected to a picture screen. In the 2000 DTV Closed Captioning Order, the Commission explained that separating the tuning and receive function from the display function of a device is common, allows consumers to customize their systems, and should not eliminate the obligation to provide closed captioning.82 Commenters have failed to persuade us that this reasoning should not apply here as well.83 Moreover, we find that reading Section 203(a) to apply only to devices with built-in screens would undermine the goals of the statute, as it would exclude one of the most common

device that originally included no video player but that the manufacturer requires the consumer to update or upgrade to enable video reception or play-back will be covered by our rules (our rules, of course, equally cover updates or upgrades to existing video players). Looking solely at the manufacturer's original intent, therefore, would be too narrow an approach. However, we would not hold manufacturers liable for failure to include closed captioning capability in devices manipulated or modified by consumers in the aftermarket to provide services not intended by the manufacturer.

⁷⁸ In the *ACS Order*, the Commission adopted rules holding "entities that make or produce end user equipment, including tablets, laptops, and smartphones, responsible for the accessibility of the hardware and manufacturer-provided software used for email, SMS text messaging, and other ACS. We also hold these entities responsible for software upgrades made available by such manufacturers for download by users." *See ACS Order*, 26 FCC Rcd at 14588–89, para. 13.

⁷⁹ This is also consistent with the ACS Order, which stated "[a]dditionally, we conclude that, except for third-party accessibility solutions, there is no liability for a manufacturer of end user equipment for the accessibility of software that is independently selected and installed by the user, or that the user chooses to use in the cloud." See ACS Order, 26 FCC Rcd at 14588, para. 13. We expect, however, that to the extent that third-party software provides closed captioning support, the

⁸⁰ To the extent, in the future, there is evidence to suggest that our rule no longer ensures that the goals of the statute are met—for example, if video programming is increasingly provided using third-party software unaffiliated with both VPDs and device manufacturers—we may revisit this issue. See ACS Order, 26 FCC Rcd at 14586, para. 72 ("[T]he Commission will have an occasion to examine whether application of the CVAA's requirements directly to developers of consumerinstalled software is warranted, and make any necessary adjustments to our rules to achieve accessibility in accordance with the intent of the CVAA.").

⁸¹ As noted above, our rules cover manufacturerprovided updates and upgrades to devices; thus, a

⁸² Closed Captioning Requirements for Digital Television Receivers, FCC 00-259, 65 FR 58467, Sept. 29, 2000 ("2000 DTV Closed Captioning Order") (implementing the previous version of 47 U.S.C. 303(u)).

⁸³ We note that a separate provision of the CVAA provides that apparatus "that use a picture screen that is less than 13 inches in size" be subject to closed captioning requirements only if such requirements are "achievable," 47 U.S.C. 303(u)(2)(a), but we interpret the reference to "a picture screen that is less than 13 inches in size" in that provision to express Congress's intent to recognize the potential difficulties of achieving compliance with respect to devices that use small screens, and do not find it to be inconsistent with the reasoning set forth above.

means by which consumers view programming. Thus, we find that it is reasonable to conclude that Congress's intent in Section 203(a) of the CVAA was to eliminate the screen-size limitation, not to narrow the classes of apparatus covered. Therefore, devices designed to work in conjunction with a screen, though not including a screen themselves, such as set-top boxes, personal computers, and other receiving devices separated from a screen must be equipped with closed caption decoder circuitry or capability designed to display closed-captioned video programming, unless that device is otherwise exempted pursuant to the limitations and exceptions described

97. Technically Feasible. Under the CVAA, the requirements of Section 203 only apply to the extent they are "technically feasible." Because neither the statute nor the legislative history provides guidance as to the meaning of "technically feasible," the Commission is obligated to interpret the term to best effectuate the purpose of the statute. To assist us in our analysis, we look to how the Commission in the past has interpreted this and other, similar terms in the context of accessibility for people with disabilities. For example, in the context of Section 255 of the Act, the Commission defined "readily achievable" to mean, in part, "technically feasible," and then defined that term by rulemaking to encompass a product's technological and physical limitations.84 The Commission further found that a requirement should not be considered technically infeasible simply because it would be costly to

implement, or that it involved physical modifications or alterations to the design of a product.

98. We find that for the "technically feasible" qualifier to be triggered, it must be more than merely difficult to implement captioning capability on the apparatus; 85 rather, manufacturers must show that changes to the design of the apparatus to incorporate closed captioning capability are not physically or technically possible.86 We believe that, as a general matter, if it is technically feasible for a manufacturer to include a video player in an apparatus, it is technically feasible for that manufacturer to include closed captioning functionality as well. That is, if an apparatus includes the complex functionality of a video player, which requires a relatively significant amount of processing power, it is technically feasible to include a significantly less computationally demanding functionality such as closed captioning, which requires significantly less processing power. We recognize that at least some models of apparatus of all classes that provide video in the market today—for example, televisions, set-top boxes, computers, smartphones, and tablets—also enable the rendering or pass through of closed captioning. On the strength of this marketplace evidence, we reject CTIA's argument that there is insufficient evidence that closed captioning capabilities are "technically feasible for all mobile devices capable of video playback across a diverse IP-delivered video programming ecosystem." CTIA did not substantiate its claims with any specific evidence to support its claim of technical infeasibility. Thus, we find no justification in the record to exempt *all* mobile devices capable of video playback from the closed captioning

requirements. If new apparatus or classes of apparatus for viewing video programming emerge on which it would not be technically feasible to include closed captioning, parties may raise that argument as a defense to a complaint or, alternatively, file a request for a ruling under § 1.41 of the Commission's rules before manufacturing or importing the product.

99. Removable media players. We decline to exclude removable media play back apparatus,87 such as DVD and Blu-ray players, from the scope of the rule. Section 203 covers "apparatus designed to receive or play back video programming transmitted simultaneously with sound." Section 203 of the CVAA amends Section 303(u) of the Act, which previously limited the decoder capability mandate only to those "apparatus designed to receive television pictures broadcast simultaneously with sound." The phrase "or play back" in Section 203 makes clear that Congress no longer intended to only cover devices that receive programming. Section 203 expands the prior statutory mandate to include not only apparatus that "receive" programming, but also apparatus designed to "play back" programming, whether or not such apparatus is also capable of receiving the programming. Some commenters argue that the word "transmitted" indicates content that is streamed, downloaded, or broadcast via "wire or radio," thus excluding such removable media devices. We are not persuaded by this argument. The reading these commenters advocate ignores Congress's use of the word "or," and instead would require devices to both "receive and play back" video programming in order to be covered under the statute. We think the better interpretation of the word "transmitted" in context is that Congress's substitution of the words "television pictures broadcast * * * *" with the corresponding words "video programming transmitted * * *," while retaining the phrase "simultaneously with sound," was intended to expand the scope of the statute beyond devices that receive broadcast television without narrowing the statute's prior coverage. For these reasons, we believe the better reading of the phrase "transmitted simultaneously with sound" in this context is to describe how the video programming is conveyed from the device (e.g., DVD player) to the end user (simultaneously with sound), rather

⁸⁴ See Implementation of Section 255 and 251(a)(2) of the Communications Act of 1934, as enacted by the Telecommunications Act of 1996, Report and Order and Further Notice of Inquiry, 16 FCC Rcd 6417, at 6444-6445, para. 63 (1999) ("Section 255 Report and Order") ("[W]hile technical infeasibility is a consideration, we agree with commenters that it does not exist merely because a particular feature has not yet been implemented by any other manufacturer or service provider. We also caution that technical infeasibility should not be confused with cost factors. In other words, a particular feature cannot be characterized as technically infeasible simply because it would be costly to implement * * also agree with several commenters that technical infeasibility encompasses not only a product's technological limitations, but also its physical limitations. We note, however, that manufacturers and service providers should not make conclusions about technical infeasibility within the "four corners" of a product's current design. Section 255 requires a manufacturer or service provider to consider physical modifications or alterations to the existing design of a product. Finally, we agree with commenters that manufacturers and service providers cannot make bald assertions of technical infeasibility. Any engineering or legal conclusions that implementation of a feature is technically infeasible should be substantiated by empirical evidence or documentation.").

⁸⁵ We therefore reject CEA's proposal that insufficient processor or memory, or lack of appropriate standards such as for 3D video, may make implementing captioning or a particular feature of captioning on a particular apparatus technically infeasible. Under the interpretation of technically feasible established by the Commission in the Section 255 Report and Order, expanding the processor or memory or developing standards for a new product such as 3D video would be technically feasible absent additional evidence demonstrating the technical barriers to doing so.

⁸⁶ Our approach to technical feasibility is also consistent with uses of that term in the direct broadcast satellite and common carrier context. See Implementation of the Satellite Home Viewer Improvement Act of 1999: Broadcast Signal Carriage Issues/Retransmission Consent Issues, FCC 00–417, 66 FR 7410, Jan. 23, 2001; 47 CFR 54.5; 47 CFR 51.5. We disagree with CTIA's statement that these definitions can be synthesized here to mean "demonstrably capable of accomplishment without technical or operational concerns" because the definitions cited herein for technical feasibility all call for overcoming technical and operational concerns when it is possible to do so.

⁸⁷ "Removable" media describes a form of media storage, such as DVDs and flash drives, which can be removed from a computer or other equipment while the system is running.

than describe how the video programming arrived at the device (e.g., DVD player). Accordingly, we agree with the Consumer Groups and Ronald H. Vickery that the better interpretation of Section 203 is that it covers removable media play back apparatus, such as DVD players, which are commonly used by consumers to view video programming. In this regard, we note that even though not required by law, many video programs on DVDs contain closed captions, and our interpretation will ensure that those captions can be viewed.

100. Although we recognize that DVDs and other removable media often contain subtitles, we do not believe that subtitles generally meet the functional requirements necessary to accomplish the goals of the statute. Specifically, we recognize that some removable media include either subtitles or "subtitles for the deaf and hard of hearing" ("SDH") in place of closed captions. Subtitles are similar to closed captions in that they display the dialogue of a program as printed words on the screen, but often do not also identify speakers and background noises, such as sound effects, or the existence of music and laughter, information that is often critically important to understanding a program's content. SDH are a version of subtitles that sometimes includes visual text to convey more than just the program's dialogue, for example, speaker identification. However, when these subtitles are viewed on removable media devices, such devices do not typically offer consumers the user controls available when closed captions are provided in accordance with the EIA-708 technical standard used for digital television programming.88 We agree that these user control features for manipulating closed captions must be supported in all devices, including those that use removable media, and accordingly require built-in closed caption capability designed to display closed-captioned video programming in these devices in accordance with our rules.

101. Professional and commercial equipment. We agree with CEA that we

should exclude commercial video equipment, including professional movie theater projectors, and similar types of professional equipment, from our Section 203 rules. The legislative history of the CVAA explains that Section 203(a) was intended to "ensure[] that devices consumers use to view video programming are able to display closed captions * * * ." We believe that based on the legislative history, Congress intended the Commission's regulations to cover apparatus that are used by consumers. Accordingly, we find that because professional or commercial equipment is not typically used by the public, it is beyond the scope of this directive. Significantly, no commenters argued that the Commission's rules should cover this equipment. We note, however, that other federal laws may impose accessibility obligations to ensure that professional or commercial equipment is accessible to employees with disabilities, or enables the delivery of accessible services.

B. Achievability, Purpose-Based Waivers, and Display-Only Monitor Exemption

102. As noted above, except for an exemption for display-only monitors, we decline to grant blanket waivers or exempt any device or class of devices from our rules as requested by several industry coalitions. Other than making broad assertions, no commenters that urge us to make such exceptions provide any technical basis or other evidence to support their contentions that certain classes of devices warranted an exemption.89 We believe Congress intended the rules implementing Section 203 to cover a broad range of consumer devices, and we agree with the Consumer Groups that it would be inappropriate to waive the rules for broad classes of devices, many of which have already demonstrated the ability both to receive video programming and display closed captioning. In fact, the very purpose of Section 203 was to expand coverage of the original Television Decoder Circuitry Act's captioning requirement covering television sets with screens greater than 13 inches, to include consumer devices of various sizes and types (both wired and wireless), whose usage is rapidly expanding. Moreover, we lack a record on which to grant a blanket waiver or

exemption for any particular model of device or class of equipment.

103. Congress, however, included two limitations in Section 203. First, for devices using screens less than 13 inches in size, only those features that are "achievable" must be implemented. Second, the statute provides that manufacturers may seek waivers based on the primary purpose or essential utility of the device. We will follow the model established in the ACS Order and take a flexible, case-by-case approach in addressing any waiver requests. As discussed below, we also implement the statute's categorical exemption for display-only monitors.

104. Achievability. Section 203 amends Section 303(u) of the Communications Act to require that, "notwithstanding [the provisions of Section 303(u)(1)], apparatus described [in Section 303(u)(1)] that use a picture screen that is less than 13 inches in size [must] meet the requirements of [these regulations] only if the requirements of such subparagraphs are achievable (as defined in section 716)." Section 716 of the CVAA defines achievability as, "with reasonable effort or expense, as determined by the Commission" based on four factors: (1) The nature and cost of the steps needed to meet the requirements of this section with respect to the specific equipment or service in question; (2) the technical and economic impact on the operation of the manufacturer or provider and on the operation of the specific equipment or service in question, including on the development and deployment of new communications technologies; (3) the type of operations of the manufacturer or provider; and (4) the extent to which the service provider or manufacturer in question offers accessible services or equipment containing varying degrees of functionality and features, and [those services or equipment are] offered at

differing price points. 105. In the ACS Order, the Commission applied the Section 716 achievability standard to advanced communications services and equipment and discussed each of the four factors. There, the Commission concluded that it is appropriate to weigh each of the four factors equally, and that achievability should be evaluated on a case-by-case basis. We agree with CEA that we should adopt the same approach for closed captioning as it will provide the greatest possible flexibility for manufacturers. When faced with a complaint for violation of our rules under Section 203, a manufacturer may raise as a defense that a particular apparatus does not comply with the rules because compliance was

⁸⁸ Section 15.122 of the Commission's rules incorporates by reference EIA–708–B, "Digital Television Closed Captioning," Electronics Industries Alliance (Dec. 1999) ("EIA–708–B"), which provides comprehensive instructions for the encoding, delivery, and display of closed captioning information for digital television systems. The standard provides for a larger set of captioning user options than the analog captioning standard, EIA–608, permitting users to control the size, font, color and other caption features. 47 CFR 15.122. See also, 2000 DTV Closed Captioning Order. As discussed below and indicated in the Final Rules, we are relocating § 15.122 to § 79.102.

⁸⁹ Granting such blanket waivers would defeat the purpose of the CVAA to expand the ability of people who are deaf or hard of hearing to access video programming on modern devices used in the twenty-first century.

not achievable under the statutory factors. Alternatively, a manufacturer may seek a determination from the Commission before manufacturing or importing the apparatus as to its claims that compliance with all of our rules is not achievable. 90 In evaluating evidence offered to prove that compliance was not achievable, the Commission will be informed by the analysis in the ACS Order. To the extent that implementation of particular aspects of closed captioning functionality is not achievable on a particular apparatus for a particular manufacturer, it does not necessarily follow that no part of our closed captioning rules is achievable for that manufacturer on that apparatus. Rather, seeking to bring as much of the captioning experience to the greatest number of consumers possible, we will treat the functional captioning requirements we discuss below as severable, and require manufacturers to seek exemptions based on the achievability of individual features.91 We remind parties that the achievability limitation is applicable only with regard to apparatus using screens less than 13 inches in size. For apparatus that use a screen size that is 13 inches or larger, a manufacturer may seek relief from the Commission based on a showing of technical infeasibility, which applies to apparatus of any size.92

106. Purpose-Based Waivers. Section 203 grants the Commission the discretion to waive the requirements of Section 203 for any apparatus or class of apparatus that are "primarily designed for activities other than receiving or playing back video programming transmitted simultaneously with sound" or "for equipment designed for multiple purposes, capable of receiving or playing video programming transmitted simultaneously with sound but whose essential utility is derived from other purposes." The statute does not define 'primarily designed," nor does it define "essential utility" except to state that it may be derived from more than one purpose. Both the House and Senate

Committee Reports state that waiver under these provisions is available "where, for instance, a consumer typically purchases a product for a primary purpose other than viewing video programming, and access to such programming is provided on an incidental basis." We expect that such waiver requests will be highly fact specific and unique to each device presented. Accordingly, we will address any waivers under these sections on a case-by-case basis. We expect that, over time, the Commission will develop a body of precedent that will prove instructive to manufacturers and consumers alike.

107. Based on our analysis above, we reject the broad, unspecific requests made by several commenters. CTIA, for example, requests that all mobile devices be exempted from these regulations until such time as the market for video to mobile devices "becomes stable," and in order to promote the growth of the mobile video market. We decline to do so here, as the mobile marketplace is incredibly diverse, and while the above assertion may be true for a particular device, it is unsupported with regard to the entire mobile industry. TechAmerica requests that the Commission "exercise its waiver authority freely," and grant blanket waivers to smartphones "as their essential utility is to function as a communications device," and to consider similar treatment for tablets. We disagree, as TechAmerica's request conflates the primary purpose waiver standard for single-purpose devices with incidental video capability and the essential utility standard, under which both communications and viewing video programming may be purposes which comprise a device's essential utility. Further, TechAmerica makes a sweeping request, asking the Commission to view all smartphones equivalently, which as we discuss above, does not comport with the factbased, case-by-case approach we adopt. In addition, TechAmerica's request is in opposition to notable marketplace evidence that many mobile devices already support captioning. TIA comments that the Commission should grant broad, categorical waivers, in an effort to give manufacturers certainty, to "gaming consoles, cellular telephones, and tablets." Based on our reasoning above, we find that this request too is overbroad and lacks the facts and circumstances necessary to grant a waiver. Nevertheless, we reiterate that these waivers are available

prospectively, for manufacturers seeking certainty prior to the sale of a device. 93

108. Display-Only Monitor Exemption. Section 203(a)(2)(B) states that "any apparatus or class of apparatus that are display-only video monitors with no playback capability are exempt from the requirements" to implement closed captioning. We conclude this requirement is selfexplanatory and that in most instances the operation of this provision will be clear. Accordingly, we incorporate the language of the statutory provision directly into our rules. Consumer Groups proposed that we define display-only monitors as monitors that are dependent on another device subject to our closed captioning rules. This proposed definition is too narrow, however, because it fails to account for display-only monitors that work in conjunction with devices not subject to our closed captioning rules, such as commercial video equipment. CEA suggested that devices that can accept "only a baseband or uncompressed video stream," 94 such as many computer monitors, are appropriately classified as display-only monitors. This definition is also too narrow, because a monitor could conceivably accept a compressed video stream and still be considered a display-only monitor. We therefore decline to adopt these qualifications. To the extent a manufacturer would like a Commission determination as to whether its device qualifies for this exemption it may make such a request.95

C. Display of Captions

109. Section 203 of the CVAA requires that the Commission's rules "provide performance and display standards for such built-in decoder circuitry or capability designed to display closed captioned video programming * * *." We adopt functional requirements that will ensure that consumers' online captioning experience is equivalent to their television captioning experience. When

⁹⁰ Any such requests should follow the procedures for an informal request for Commission action pursuant to § 1.41 of our rules and the requirements of § 79.103(b)(3). 47 CFR 1.41, Final Rules § 79.103(b)(3).

⁹¹ For example, we can envision that in certain circumstances it may not be achievable to implement variable opacity for captions or the caption background on specific devices, but it would nevertheless be achievable to implement the ability to change the caption color and the font size over an opaque or transparent background, depending on the specific capabilities and characteristics of a device's screen and processing power.

⁹² See 47 CFR 1.41 (Informal requests for Commission action).

 $^{^{93}\,}See$ 47 CFR 1.41 (Informal requests for Commission action).

⁹⁴ A "baseband signal" is defined as "transmission of a digital or analog signal at its original frequencies, *i.e.*, a signal in its original form, not changed by modulation." *See* H. Newton, *Newton's Telecom Dictionary* 101 (20th ed. 2004). An "uncompressed signal" is a signal that has not been compressed. "Compression" is defined as "the art and science of squeezing out unneeded information in a picture, or a stream of pictures (a movie) or sound before sending or storing it." *See* H. Newton, *Newton's Telecom Dictionary* 199 (20th ed. 2004).

 $^{^{95}}$ A manufacturer may seek a Commission declaration that a monitor is exempt under this provision pursuant to § 1.41 of the Commission's rules. See 47 CFR 1.41.

the Commission adopted the digital closed captioning standards, it noted the "substantial benefits for consumers" that are provided when video programming apparatus support user options that enable closed caption displays to be customized to suit the needs of individual viewers. For example, the Commission explained that "the ability to alter colors, fonts, and sizes * * * can benefit a person with both a hearing disability and a visual disability in a way not possible with the current analog captions." After also noting the benefits that adjustable caption sizes can afford younger children learning how to read, the Commission concluded that "[o]nly by requiring decoders to respond to these various features can we ensure that closed captioning will be accessible for the greatest number of persons who are deaf and hard of hearing, and thereby achieve Congress's vision that to the fullest extent made possible by technology, people who are deaf and hard of hearing have equal access to the television medium." More than a decade ago, consumers urged the Commission to "ensure that the promised benefits of [DTV] actually accrue to persons who are deaf, late deafened, hard of hearing or deaf-blind" and to create a "level viewing field" through the adoption of the EIA-708 captioning standard.96 Most recently, the Consumer Groups reiterated that the Commission should consider ways to ensure that caption users are able to benefit from advanced technologies in designing our rules for apparatus to have captioning capability under Section 203.

110. To assist the Commission in interpreting this provision, Congress directed the VPAAC to identify "performance requirement[s] for protocols, technical capabilities, and technical procedures needed to permit content providers, content distributors, Internet service providers, software developers, and device manufacturers to reliably encode, transport, receive, and render closed captions of video programming * * * delivered using Internet protocol." The VPAAC Report identifies the rules, technologies, and procedures necessary to provide consumers with a captioning experience equivalent to the experience provided when the content was aired on television using the CEA-608/708 standard.97 Specifically, the VPAAC

identified four components that make up the television "caption experience," seven technical requirements necessary to implement that experience, and a list of optional best practices that may be implemented to deliver the highest possible captioning experience.

111. The VPAAC identified the four components of the captioning "experience" as:

- The presentation format of the captioning; *e.g.*, within or on separate caption "windows," text that appears all at once (pop-on), text that scrolls up as new text appears (roll-up), or the display of each new letter or word as it arrives (paint-on);
- Semantically significant formatting, such as italics, colors, and underlining;
- The timing of the presentation of caption text with respect to the video; and
- The consumer's ability to control the caption display, including the ability to turn it on and off, and to select font sizes, styles, and colors, and background color and opacity.

The VPAAC further identified specific technical requirements as necessary to implement the captioning experience detailed in the VPAAC Report:

- Support for displaying fonts in the full CEA-708 64-color palette and allowing users to override the default font color with one of the eight standard caption colors.
- Support for users to vary character opacity between at least three settings, including opaque (100% opacity) and semi-transparent (at 75% or 25% opacity);
- Support for the various font types contained in CEA-708 as well as the ability for users to assign fonts from the selection included with their device to each of these default fonts;
- Support for displaying the caption background in the full CEA-708 64-color palette and allowing users to override the default caption background color with one of the eight standard colors, and support for users to vary the caption background opacity between at least four settings, opaque (100% opacity), semi-transparent (at 75% or 25% opacity), and transparent (0% opacity);
- Support for character edge attributes including: none, raised, depressed, uniform, or drop shadowed;
- Support for displaying the caption window in the full CEA-708 64-color palette and allowing users to override the default caption background window

with one of the eight standard colors,

 Support for selecting among multiple language tracks, where available, and a requirement that simplified or reduced caption text be identified as such or as "easy reader" captions.

Additionally, the VPAAC Report states that video player tools must permit the user to preview setting changes, remember settings between viewing sessions, and provide the ability to turn captions on and off as easily as muting the audio or adjusting the volume.

112. The VPAAC Report represents the consensus view of a wide, diverse cross-section of the industry and consumer interests. Therefore, their consensus approach to these issues provides a compelling guide for our actions here. Specifically, based on the consensus view that online captioning must, at minimum, replicate the television experience, and absent any guidance in the statute or legislative history, and absent any comment on the record indicating that some other goal should be used, we adopt that goal as the Commission's goal here. However, we find that we need not specifically incorporate into our rules all four components of the captioning experience detailed in the VPAAC Report. Instead, we find that all but one of the components is subsumed in the specific technical requirements also set forth in the VPAAC Report. First, we find that the second and fourth components, support for semantically significant formatting and control of caption appearance, are encompassed by and expanded on by the seven technical requirements. Therefore, to avoid redundancy, we do not include them in our rules. We find that it is inappropriate to include the third component of the experience, addressing the timing of captions with video, here. We conclude that ensuring that timing data is properly encoded and maintained through the captioning interchange and delivery system is an obligation of Section 202 VPDs, and not of device manufacturers.98 Therefore,

⁹⁶ Reply Comments of Telecommunications for the Deaf, Inc., Closed Captioning Requirements for Digital Television Receivers, ET Docket No. 99–254 at 2–3 (filed Nov. 15, 1999).

 $^{^{97}\,}See$ VPAAC Report at 13. CEA-608 is the technical standard used for analog closed

and support for users to vary the caption window opacity between at least four settings, opaque (100% opacity), semitransparent (at 75% or 25% opacity), and transparent (0% opacity);

• Support for selecting among multiple language tracks, where

captioning, and CEA-708 is technical standard for digital closed captioning. See Final Rules 47 CFR 79.101 (previously 47 CFR 15.119, CEA-608), 79.102 (previously § 15.122, CEA-708) for the current captioning requirements, respectively.

⁹⁸ The VPAAC Report expands on the timing requirements, explaining, "all processing through the distribution chain, including transcoding, must provide a timing experience that is equal to or an improvement to the timing of captions provided in the captioning shown on television." VPAAC Report at 14. We find that this direction from the VPAAC Report places no responsibility on device manufacturers, and so we do not include any such requirement in our rules for devices.

we incorporate into our rules the first component of the caption experience, the presentation of captions on the screen, as a discrete rule in addition to the seven technical requirements.⁹⁹

113. We believe that by incorporating the precise language of the VPAAC Report, we will ensure that manufacturers will clearly understand their obligations regarding the features they are required to implement and support. The NPRM proposed to incorporate into our rules these functionality requirements in a slightly simplified form and without specifying the exact nature of the support for each requirement. Some commenters advocate that we adopt rules that merely state that captioning should be "functionally equivalent" to that on television. AT&T contends that the NPRM's proposed rules were too specific and should be more flexible. ČEA, however, argues that a mandate of "at least the same quality" as television would be ambiguous, preferring instead that the Commission adopt minimum technical requirements that will help ensure functional equivalency, preserve flexibility, and provide certainty to manufacturers. In the context of Section 203 of the CVAA, we are persuaded by CEA's argument and find that it is necessary to adopt a set of specific minimum functional requirements rather than the simplified language of the NPRM. By doing so, we believe that we will make it easier for manufacturers to determine how to comply with our rules as well as facilitate the ability of the Commission to evaluate compliance in the event of a complaint. We agree with Consumer Groups that the record contains no evidence that specifying what functions devices must implement will negatively impact the ability of captions to be delivered to those devices. CTIA expresses concern that some features will not be supportable on devices with limited screen sizes, low resolutions, or limited processing. However, as discussed above, parties can seek relief for any features that they believe can not be implemented. 100

D. Recording Devices

114. In addition to devices that consumers use to directly view video programming, those that record video programming must also have closedcaptioning capability. Specifically, Section 203(b) of the CVAA directs the Commission to "require that, if achievable * * *, apparatus designed to record video programming transmitted simultaneously with sound, * [must] enable the rendering or the pass through of closed captions * * * . Commenters largely did not address recording devices, except to caution the Commission against regulating the subcomponents of recording devices, rather than the devices themselves. Therefore, we adopt the proposal in the NPRM to incorporate the statutory language of Section 203(b) directly into our rules. Consistent with our discussion above, we expect identifying apparatus designed to record to be straightforward. We note that when devices such as DVD, Blu-ray, and other removable media recording devices are capable of recording video programming, they also qualify as recording devices under Section 203(b) and therefore must enable viewers to activate and de-activate the closed captions as video programming is played back.

E. Interconnection Mechanisms

115. Section 203(b) of the CVAA directs the Commission to require that "interconnection mechanisms and standards for digital video source devices are available to carry from the source device to the consumer equipment the information necessary to permit or render the display of closed captions and to make encoded video description and emergency information audible." 101 The NPRM sought comment on how to implement this provision. Based on the record at this time, we conclude that current interconnection mechanisms satisfy the requirements of the CVAA, and clarify that the statute requires manufacturers to implement closed captioning on every video output of a covered device. Thus, we adopt a rule requiring that all video outputs of covered apparatus shall be capable of conveying from the source device to the consumer equipment the information necessary to permit or render the display of closed captions. As discussed below, we find that it is

sufficient, for purposes of this provision, if the video output of a digital source device renders the closed captioning in the source device. Accordingly, we find that the manner in which the HDMI connection carries captions satisfies the statutory requirement for interconnection mechanisms. At the same time, however, we note that other interconnection mechanisms, such as MoCA and DLNA, currently support the pass-through of closed captions to consumer display devices and we encourage this practice. Although we do not impose any additional regulations on interconnection mechanisms at this time, we note that we are interpreting an ambiguous statutory provision and, although we believe our interpretation is reasonable based on the record before us, we may revisit the issue if we find that our decision, in practice, does not provide the benefits to consumers that were intended by Congress.

116. As the statute states, "interconnection mechanisms" carry information from source devices to consumer equipment. Interconnection mechanisms consist of an output, a transmission path, and an input. We generally refer to these mechanisms by their output standard or the cable or cord they utilize, such as "coaxial cable," "Ethernet," or "HDMI." In discussing how to implement this statutory mandate, commenters predominantly focus on one particular digital output, the HDMI connector. HDMI is the preeminent audio-video interconnection standard used by manufacturers to enable uncompressed video signals to be carried from a source device (such as an MVPD set-top box) to consumer equipment (such as a television). 102 Industry commenters explain that with respect to the HDMI connector, "the captions and video are decoded in the source device and carried as opened captions to the display, which acts only as a monitor." When captions are transmitted in an "open" manner, such as is the case with HDMI, they are "rendered" by the source device, embedded (decoded and mixed) into the video stream, then carried by the HDMI connector to the receiving device in a manner that does not allow the consumer to access or utilize the captioning decoding and rendering functionality of the receiving device. When captions are "closed," they are transmitted as data alongside the video stream, and permit consumers to access and utilize the captioning

⁹⁹ We find it necessary to make a small change to the text regarding presentation of captions. As the VPAAC Report describes the experience as requiring the use of one of the presentation styles, where no more than one style is in use at a time, it delimits the list with an "or." VPAAC Report at 13. However, manufacturers must support all three styles in order to enable such choice, and therefore our rule delimits the list with an "and." Final Rules 47 CFR 79.103(c)(1).

¹⁰⁰ Section 203 requires manufacturers only to implement captioning to the extent that it is technically feasible. Moreover, for small-screen devices, manufacturers need only include those features that are achievable. Finally, pursuant to Section 202, VPDs may seek exemptions if

complying with any of these requirements would be economically burdensome.

¹⁰¹The portions of 303(z)(2) which deal with video description and emergency information will be implemented separately by the Commission, 18 months after the submission of a separate VPAAC Report. See Public Law 111–260, sec. 203(d)(2).

¹⁰² HDMI stands for "High Definition Multimedia Interface." Over 2 billion HDMI equipped devices have been deployed worldwide.

functionality of the receiving device. Set-top boxes with standard definition analog outputs are generally capable of passing closed captions to consumer equipment for decoding and display by that device. However, high-definition analog outputs and HDMI were not developed with this capability, and as consumers increasingly transition to high-definition video sources and digital interconnection, standard definition analog outputs are declining in use. As a result, if an HDMI or high definition analog connection is being used, consumers must use their set-top box's closed captioning functionality rather than the functionality contained in their television or continue to watch video programming in standard definition.

117. The question is thus whether the manner in which the HDMI connector carries captions satisfies the statutory requirement. For the reasons stated below, we conclude that it does. We find the CVAA's requirement that interconnection mechanisms be "available to carry from the source device to the consumer equipment the information necessary to permit or render the display of closed captions" to be ambiguous. The statute does not expressly address what is meant by information necessary to "permit" the display of closed captions or information necessary to "render" the display of closed captions." In context, we interpret the language requiring carriage of information to "render" the display of closed captions to require that the interconnection mechanism carry the requisite data to allow caption functionality in the receiving device. In other words, the source device transmits captions in a closed manner to the receiving equipment (e.g., a television set), which is capable of performing the rendering of the captions for display. The use of the phrase "or permit" indicates an alternative means by which an interconnection device may satisfy the statute. Read in context, we believe Congress intended to give the term "permit" a different meaning than the term "render." We thus interpret the alternative requirement to "permit" the display of closed captions to mean that the interconnection mechanism may carry the information necessary for the rendered captions to be displayed on the receiving device, without regard to the receiving device's caption functionality. We believe that our interpretation is reasonable because we give effect to Congress's use of the disjunctive "or," and because our interpretation achieves the statutory purpose of ensuring consumer access to

closed captions. Based on this interpretation, we find that rendering captions in the source device, then transmitting the captions in an open manner to the receiving device, such as in the case of HDMI, satisfies the statute because caption text is viewable on the video programming. Further, we conclude that the availability of closed captioning should not be limited to particular outputs, as consumers should not be limited in their viewing of content due to the lack of closed captioning support on a particular output.

118. Although many consumers may prefer to use the closed captioning features of their display devices, we believe there are other considerations, raised in the record, that support our reading of the statute. The record shows that it may be impractical to require all interconnection mechanisms, including HDMI, to pass-through the closed captions to receiving equipment given commenters' concerns about the time and expense associated with such a requirement. Our interpretation provides flexibility for manufacturers and avoids unnecessary burdens, while at the same time we believe it fulfills the statutory purpose of ensuring access to closed captions. Moreover, although we recognize that some consumers have had frustrations with using the caption functionality in the source device, as HDMI Licensing notes, this is not an issue related to the HDMI interface, but rather caused by poor implementation in some set-top boxes. In this regard, we note that all apparatus, including set-top boxes, are subject to the performance rules we adopt today. We also note that the CVAA contains provisions to address the difficulty consumers face in enabling closed captioning on source devices. 103 Together, technologies like HDMI Consumer Electronics Control (or CEC) and Commission implementation of the statutory provision requiring that "built in access to * * * closed captioning [be available through] a mechanism that is reasonably comparable to a button, key, or icon" may result in the resolution of at least one source of consumer complaints. The record also shows that there are at least two interconnection mechanisms currently available in the market that already support caption functionality in receiving devices.

119. In reaching our conclusion, we also note that the problems some consumers discussed in the record

relating to HDMI may be ameliorated by the fact that all cable operatorprovisioned HD set-top boxes are currently required to include a connection capable of delivering recordable HD video and closed captioning data in a closed manner. In addition, although we refrain from requiring pass-through of closed captioning on HDMI, we recognize the widespread consumer reliance on HDMI and therefore we encourage HDMI Licensing, the HDMI specification licensing agent, to include closed captioning provisions in future versions. 104

F. Changes to Television Rules and Movement of Device Rules to Part 79

120. Section 203 of the CVAA replaces Section 303(u) of the Act, 105 which originally gave the Commission authority to require closed captioning on television receivers with a screen size 13 inches or greater. Under the revised provision, our television closed captioning rules are no longer limited to apparatus with screen sizes 13 inches or greater, though those with smaller screen sizes are required to comply only if compliance is achievable. As proposed in the NPRM, we will revise our television captioning rules accordingly. Additionally, as proposed in the *NPRM*, we will relocate the closed captioning device rules, §§ 15.119 and 15.122, and their associated incorporations by reference, into Part 79 of the Commission's rules, which will also list the obligations of owners, providers, and distributors of video programming adopted pursuant to Section 202 of the CVAA. 106

Continued

¹⁰³ See Public Law 111–260, secs. 204 (User interfaces on digital apparatus), 205 (Access to video programming guides and menus provided on navigation devices).

¹⁰⁴We recognize that HDMI was designed for a purpose other than carrying encoded information. We also note, however, that HDMI has already been modified to provide a data connection capable of transmitting encoded data between devices. See Frequently Asked Questions for HDMI 1.4, http://www.hdmi.org/manufacturer/hdmi_1_4/hdmi_1_4_faq.aspx. In addition, HDMI Licensing acknowledges that the HDMI standard could be updated to include this functionality within about three years.

¹⁰⁵ 47 U.S.C. 303(u). Section 203(b) of the CVAA also adds a new Section 303(z) to address recording devices and interconnection mechanisms. 47 U.S.C. 303(z). Further, Section 203(c) of the CVAA revises Section 330(b) to address Sections 303(u) and (z), to provide authority for performance and display standards, and to address video description. 47 U.S.C. 330(b).

¹⁰⁶ Part 15 of the Commission's rules requires devices to be authorized prior to the initiation of marketing, either through the Verification process or through a Declaration of Conformity or Certification. See 47 CFR 15.101, et seq. However, those rules are concerned only with the device's performance as an unintentional radiator into the radio-frequency spectrum. Since closed-captioning functionality exists separately from the RF receiving and tuning functionality of a device, and new IP-

G. Alternate Means of Compliance

121. Section 203(e) of the CVAA provides that "an entity may meet the requirements of Sections 303(u), 303(z), and 330(b) of the [Act] through alternate means than those prescribed by regulations * * * if the requirements of those sections are met, as determined by the Commission." Therefore, parties may meet all of the requirements we discuss in sections IV and V of this Report and Order, as well as our existing rules regarding television receivers and converter boxes, via alternate means. Should an entity seek to use an "alternate means" to comply with the applicable requirements, that entity may either (i) request a Commission determination that the proposed alternate means satisfies the statutory requirements through a request pursuant to § 1.41 of our rules; or (ii) claim in defense to a complaint or enforcement action that the Commission should determine that the party's actions were permissible alternate means of compliance. Rather than specify what may constitute a permissible "alternate means," we conclude that the best means of implementing this provision is to address any specific requests from parties when they are presented to us.

H. Deadlines for Compliance

122. We conclude that two years is the appropriate amount of time to design and implement the functionality required by Section 203 of the CVAA, as discussed in Section IV of this Report and Order, and to bring that functionality to market. The CVAA does not specify the time frame by which the Section 203 requirements must become effective, but nearly all commenters who addressed the issue support a twoyear implementation period. As the Commission has repeatedly determined, manufacturers generally require approximately two years to design, develop, test, manufacture, and make available for sale new products. Accordingly, we establish a compliance date for covered devices of January 1, 2014. We agree with Consumer Groups that incorporating captioning functionality later in the design cycle of a feature-rich device may prove more

based devices may not include receivers of the type Part 15 regulates, we find it unnecessary to require a Declaration of Conformity or Certification regarding the closed-captioning functionality of the devices we cover here, or to trigger certification or verification for a device solely because it includes closed-captioning functionality. We therefore find it inappropriate to continue to house these rules in Part 15. Of course, to the extent that a Section 203 device is otherwise covered by Part 15, that device must continue to comply with the Commission's rules in Part 15.

difficult than implementing such functionality at the commencement of design. Although the compliance deadline is two years away, consistent with the ACS Order, beginning on the effective date of these regulations, i.e., 30 days after the date this Report and Order and rules are published in the Federal Register, we expect manufacturers to take accessibility into consideration as early as possible during the design process for new and existing equipment and to begin taking steps to bring closed captioning to consumers as required by our rules.

I. Complaints

123. Consistent with prior Commission practice and the Commission's television and IP closed captioning complaint rules, we adopt the following procedures for the filing of written complaints alleging violations of the Commission's rules requiring apparatus designed to receive, play back, or record video programming to be equipped with built-in closed caption decoder circuitry or capability designed to display closed-captions. Such complaints should include the following information: 107 (a) The name, postal address, and other contact information of the complainant, such as telephone number or email address; (b) the name and contact information, such as postal address, of the apparatus manufacturer or provider; (c) information sufficient to identify the software or device used to view or to attempt to view video programming with closed captions; (d) the date or dates on which the complainant purchased, acquired, or used, or tried to purchase, acquire, or use the apparatus to view closed captioned video programming; (e) a statement of facts sufficient to show that the manufacturer or provider has violated or is violating the Commission's rules; (f) the specific relief or satisfaction sought by the complainant; and (g) the complainant's preferred format or method of response to the complaint.¹⁰⁸ A written complaint filed with the Commission must be transmitted to the Consumer and Governmental Affairs Bureau through the Commission's online

informal complaint filing system, U.S. Mail, overnight delivery, or facsimile. 109 The Commission may forward such complaints to the named manufacturer or provider, as well as to any other entity that Commission staff determines may be involved, and may request additional information from any relevant parties when, in the estimation of Commission staff, such information is needed to investigate the complaint or adjudicate potential violations of Commission rules. After the closed caption decoder rules adopted in this Report and Order become effective, the Consumer and Governmental Affairs Bureau will release a consumer advisory with instructions on how to file complaints in various formats, including via the Commission's Web site. 110

V. Technical Standards for IP-Delivered Video Programming

124. For the reasons set forth below, we adopt the Society of Motion Picture and Television Engineers ("SMPTE") Timed Text format (SMPTE ST 2052-1:2010: "Timed Text Format (SMPTE-TT)" 2010) ("SMPTE-TT") as a safe harbor interchange and delivery format. Section 202 of the CVAA requires that the Commission describe the responsibilities of video programming providers or distributors and video programming owners. Section 203 of the CVAA requires that the Commission's rules "provide performance and display standards for such built-in decoder circuitry or capability designed to display closed captioned video programming * * * *." We believe to best implement these statutory provisions, it is necessary to establish a safe harbor standard. IP-delivered video programming currently uses multiple closed captioning formats. In contrast, the Commission requires CEA-608 as the technical standard for analog television closed captioning, and CEA-708 as the technical standard for digital television closed captioning. As no such Commission requirement exists for IP closed captioning, parties must agree on

¹⁰⁷We recognize that some of the requested information may not be readily ascertained by consumers, such as the contact information of the apparatus manufacturer. Accordingly, we provide that complaints should (but are not required to) include the specified information. The Commission will best be in a position to investigate complaints that include the maximum information requested.

¹⁰⁸ The complainant's preferred format or method of response may be by letter, facsimile transmission, telephone (voice/TRS/TTY), email, or some other method that would best accommodate the complainant.

¹⁰⁹We clarify that, if a complainant calls the Commission for assistance in preparing a complaint (by calling either 1–888–CALL–FCC or 1–888–TELL–FCC (TTY)), and Commission staff documents the complaint in writing for the consumer, that constitutes a written complaint.

¹¹⁰ The Commission further directs the Consumer and Governmental Affairs Bureau to revise the existing complaint form for disability access complaints (Form 2000C) in accordance with this Report and Order, to facilitate the filing of closed caption decoder complaints. Should the closed caption decoder rules adopted in this Report and Order become effective before the revised Form 2000C is available to consumers, closed caption decoder complaints may be filed in the interim by fax. mail. or email.

both an interchange format, in which the VPO sends a caption file to the VPD, and a delivery format, in which the VPD sends captions to an apparatus on which the end user views video programming if captions are to be usable by the receiving party

by the receiving party. 125. The VPAAC proposed that the Commission require a single standard interchange format so that video programming does not need to be recaptioned to comply with different standards. The VPAAC proposed SMPTE-TT as the standard interchange format. For the delivery format, if a VPD is not affiliated with the manufacturer of the device on which the consumer views video programming, the VPAAC also recommended the use of SMPTE-TT.¹¹¹ The VPAAC recommended using the SMPTE-TT standard in each case because it "best meets all the requirements" established by the participants on the VPAAC and because it "is already being employed in production environments to repurpose television content for Internet use." In the NPRM, contrary to the VPAAC's proposal, the Commission proposed not to adopt a specific interchange format, in an effort to foster technological innovation. The NPRM additionally sought comment on whether the Commission should require a particular delivery format. In response, a number of commenters argue that the Commission should specify SMPTE-TT as the mandatory interchange format. For both the interchange and delivery format, several commenters propose various safe harbor approaches, under which use of SMPTE-TT as the interchange and/or delivery format would be deemed compliant. Among the asserted benefits of adopting SMPTE-TT as a safe harbor interchange format is that it would minimize the need for VPOs to author multiple standards and potentially re-caption programming. Similarly, CEA argues that "where IP-delivered video content is rendered by a consumer device using a standardized video player * * * a single minimum delivery format ensures that a manufacturer of such apparatus can readily support and render IP captions." Further, unlike adopting SMPTE–TT as the mandatory interchange or delivery format, commenters explain that a safe harbor

approach would balance goals of efficiency, certainty, and consumer access with needed flexibility to continue to innovate. 112

126. Although some commenters advocate that we not specify an interchange or delivery format, a large number of commenters from all segments of the industry argue that the complete absence of a standard would hinder the deployment of IP closed captioning because parties would lack certainty as to what is expected. In addition to the VPAAC's endorsement of the SMPTE-TT standard, many commenters confirm the benefits of SMPTE-TT, and the industry does not seem to have coalesced around any other standard in such a manner. We find that the safe harbor approach for use of SMPTE-TT as the interchange and delivery standard, as numerous commenters propose, would provide certainty while enabling the industry to continue to innovate and permitting parties to agree to use an alternative standard. To use a different standard, parties would not need to first request Commission approval. We note, however, where use of an alternate standard results in noncompliant captions, both parties may be held responsible for violation of our rules. The flexibility in such a safe harbor approach will address many of the concerns expressed by parties against the adoption of a particular standard, because the parties will retain the option of using an alternative standard if that standard better meets their needs and achieves the required result. For all of the above reasons, we adopt SMPTE-TT as a safe harbor interchange and delivery format. Thus, we will provide in our rules that if a VPO provides captions to a VPD using the SMPTE-TT format, then the VPO has fulfilled its obligation to deliver captions to the VPD in an acceptable format. We will also provide in our rules that devices that implement SMPTE-TT will be deemed in compliance with our rules, while simultaneously allowing devices to achieve the same functionality without

implementing that standard. 113 We intend to monitor the marketplace and, to the extent that additional open standards from recognized industry standard-setting organizations appear appropriate, we will consider incorporating those standards into our rules as additional safe harbors.

VI. Procedural Matters

A. Final Regulatory Flexibility Analysis

127. As required by the Regulatory Flexibility Act of 1980, as amended ("RFA"), the Commission has prepared the following Final Regulatory Flexibility Analysis ("FRFA") relating to this Report and Order in MB Docket No. 11–154. An Initial Regulatory Flexibility Analysis ("IRFA") was incorporated in the *NPRM* in this proceeding. The Federal **Communications Commission** ("Commission") sought written public comment on the proposals in the NPRM, including comment on the IRFA. The Commission received no comments on the IRFA, although some commenters discussed the effect of the proposals on smaller entities, as discussed below. This present Final Regulatory Flexibility Analysis ("FRFA") conforms to the RFA.

Need for, and Objectives of, the Report and Order

128. Pursuant to our responsibilities under the Twenty-First Century Communications and Video Accessibility Act of 2010 ("CVAA"), this Report and Order adopts rules governing the closed captioning requirements for the owners, providers, and distributors of video programming delivered using Internet protocol ("IP"). This *Report and Order* also adopts rules governing the closed captioning capabilities of certain apparatus on which consumers view video programming. Closed captioning is the visual display of the audio portion of video programming, which provides access to individuals who are deaf or hard of hearing. Prior to the adoption of the CVAA, the Communications Act of 1934, as amended (the "Act"), required the use of closed captioning on

¹¹¹ The VPAAC Report separates delivery of content where parties are affiliated and unaffiliated. Where parties are affiliated by contract or ownership, the VPAAC report determined that no standard-setting by the Commission was advisable. Where delivery is between unaffiliated parties, creation of a relationship may be more burdensome than adopting the recommendations of the Commission for exchanging captioning data.

¹¹² We note that some commenters propose a variation on the safe harbor approach, under which the Commission would deem compliant the use of a standard adopted in an open process by a recognized industry standard-setting organization, without specifying the format. TWC proposes another alternate approach to the interchange format, by which the Commission would specify functions that captions must support rather than specifying standards. At this time, we decline to adopt any of the proposed alternative approaches, as we find that the adoption of SMPTE—TT as a safe harbor interchange and delivery format best provides the industry with both clarity and flexibility.

¹¹³ When implementing SMPTE-TT as a means of being deemed in compliance with the requirements for captioning functionality, we expect manufacturers will look to the practices of the industry, especially when standardized or adopted by an industry body, such as the recommended practice for conversion of CEA-608 data to SMPTE-TT to determine the reasonable extent to which features must be supported. See Society of Motion Picture Television Engineers recommended practice "Conversion from CEA-608 Data to SMPTE-TT," RP 2052-10-2010 (2010). We expect a similar recommended practice regarding the conversion of CEA-708 data to SMPTE-TT to be developed.

television, but not on IP-delivered video programming that was not part of a broadcaster or multichannel video programming distributor ("MVPD") service. That changed with the enactment of the CVAA, which directed the Federal Communications Commission ("Commission") to revise its regulations to require closed captioning of IP-delivered video programming that is published or exhibited on television with captions after the effective date of the new regulations. Further, the CVAA directed the Commission to impose closed captioning requirements on certain apparatus that receive or play back video programming, and on certain recording devices. The rules we adopt herein will better enable individuals who are deaf or hard of hearing to view IP-delivered video programming, as Congress intended. Moreover, we believe these benefits of our rules to deaf or hard of hearing consumers will outweigh the affected entities' costs of compliance.

129. As discussed in Section III of the Report and Order, we adopt the following closed captioning requirements for the owners, providers, and distributors of IP-delivered video programming under Section 202(b) through (c) of the CVAA. Specifically,

we adopt rules that will:

• Specify the obligations of entities subject to Section 202(b) by:

Requiring video programming owners ("VPOs") to send required caption files for IP-delivered video programming to video programming distributors and providers ("VPDs") along with program files;

Requiring VPDs to enable the rendering or pass through of all required captions to the end user, including through the hardware of software that a VPD makes available for this purpose;

Requiring VPOs and VPDs to agree upon a mechanism to make available to VPDs information on video programming that is subject to the IP closed captioning requirements on an ongoing basis; and

Requiring VPOs to provide VPDs with captions of at least the same quality as the television captions for the same programming, and requiring VPDs to maintain the quality of the captions

provided by the VPO.

• Create a schedule of deadlines under which:

O All prerecorded programming that is not edited for Internet distribution and is subject to the new requirements must be captioned if it is shown on television with captions on or after the date six months after publication of these rules in the **Federal Register**;

- All live and near-live programming subject to the new requirements must be captioned if it is shown on television with captions on or after the date 12 months after publication of these rules in the Federal Register;
- O All prerecorded programming that is edited for Internet distribution and is subject to the new requirements must be captioned if it is shown on television with captions on or after the date 18 months after publication of the rules in the **Federal Register**; and
- Archival content must be captioned according to the following deadlines: Beginning two years after publication of these rules in the **Federal Register**, all programming that is subject to the new requirements and is already in the VPD's library before it is shown on television with captions must be captioned within 45 days after it is shown on television with captions. Beginning three years after publication of these rules in the Federal Register, such programming must be captioned within 30 days after it is shown on television with captions. Beginning four years after publication of these rules in the Federal Register, such programming must be captioned within 15 days after it is shown on television with captions.
- Craft procedures by which VPDs and VPOs may petition the Commission for exemptions from the new requirements based on economic burden;
- Not treat a *de minimis* failure to comply with the new rules as a violation, and permit entities to comply with the new requirements by alternate means, as provided in the CVAA; and
- Adopt procedures for complaints alleging a violation of the new requirements.
- 130. In addition, we adopt the following closed captioning requirements for the manufacturers of devices used to view video programming under Section 203 of the CVAA. Specifically, we adopt rules that will:
- Establish what apparatus are covered by Section 203:
- All physical devices designed to receive and play back video programming, including smartphones, tablets, personal computers, and television set-top boxes;
- All "integrated software" in covered devices (that is, software installed in the device by the manufacturer before sale or that the manufacturer requires the consumer to install after sale); and
- All recording devices and removable media players;

- Exclude professional and commercial equipment from the scope of Section 203;
- Exempt display-only monitors as set forth in Section 203, and establish procedures for finding a lack of achievability or technical feasibility;

• Establish the requirements for devices covered by Section 203:

 Specify how covered apparatus must implement closed captioning by adopting functional display standards;

Require apparatus to render or pass-through closed captioning on each

of their video outputs;

- Decline to grant blanket waivers or exempt any device or class of devices from our rules based on achievability or the waiver provisions set forth in Section 203;
- Establish general complaint procedures and modify our existing television receiver closed captioning decoder requirements to conform to screen size and achievability provisions; and
- Establish a deadline for compliance of January 1, 2014 by which devices must comply with the requirements of Section 203.

Finally, we adopt a safe harbor for use of a particular interchange and delivery format.

Legal Basis

131. The authority for the action taken in this rulemaking is contained in the Twenty-First Century Communications and Video Accessibility Act of 2010, Public Law 111–260, 124 Stat. 2751, and Sections 4(i), 4(j), 303, 330(b), 713, and 716 of the Communications Act of 1934, as amended, 47 U.S.C. 154(i), 154(j), 303, 330(b), 613, and 617.

Summary of Significant Issues Raised by Public Comments in Response to the IRFA

- 132. No comments were filed in response to the IRFA. In response to the NPRM, commenters express their approval of proposals that gave appropriate consideration to smaller entities.
- 133. The American Cable Association ("ACA") and the National Association of Broadcasters ("NAB") also express concerns about the burdens of the mechanism proposed in the *NPRM* on smaller entities. As explained in the *Report and Order*, instead of adopting the proposed mechanism, we will permit VPOs and VPDs to agree upon a mechanism. This flexibility will alleviate the concerns of ACA and NAB.

134. Further, ACA argues that MVPDs, especially smaller operators, should not have to comply with multiple sets of rules aimed at achieving

the same purpose. In response, the *Report and Order* clarifies that the IP closed captioning rules will not apply to a broadcaster's or MVPD's provision of programming that is subject to the Commission's television closed captioning rules.

Description and Estimate of the Number of Small Entities to Which the Proposals Will Apply

135. The RFA directs the Commission to provide a description of and, where feasible, an estimate of the number of small entities that will be affected by the proposed rules if adopted. The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction." In addition, the term 'small business" has the same meaning as the term "small business concern" under the Small Business Act. A "small business concern" is one which: (1) Is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration ("SBA").

136. Small Businesses, Small Organizations, and Small Governmental Jurisdictions. Our action may, over time, affect small entities that are not easily categorized at present. We therefore describe here, at the outset, three comprehensive, statutory small entity size standards. First, nationwide, there are a total of approximately 27.5 million small businesses, according to the SBA. In addition, a "small organization" is generally "any not-for-profit enterprise which is independently owned and operated and is not dominant in its field." Nationwide, as of 2007, there were approximately 1,621,315 small organizations. Finally, the term "small governmental jurisdiction" is defined generally as "governments of cities, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand." Census Bureau data for 2011 indicate that there were 89,476 local governmental jurisdictions in the United States. We estimate that, of this total, a substantial majority may qualify as "small governmental jurisdictions." Thus, we estimate that most governmental jurisdictions are small.

137. Cable Television Distribution Services. Since 2007, these services have been defined within the broad economic census category of Wired Telecommunications Carriers; that category is defined as follows: "This industry comprises establishments primarily engaged in operating and/or providing access to transmission

facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies." The SBA has developed a small business size standard for this category, which is: all such firms having 1,500 or fewer employees. Census data for 2007, which supersede data contained in the 2002 Census, show that there were 1,383 firms that operated that year. Of those 1,383, 1,368 had fewer than 100 employees, and 15 firms had more than 100 employees. Thus under this category and the associated small business size standard, the majority of such firms can be considered small.

138. Cable Companies and Systems. The Commission has also developed its own small business size standards, for the purpose of cable rate regulation. Under the Commission's rules, a "small cable company" is one serving 400,000 or fewer subscribers, nationwide. Industry data indicate that, of 1,076 cable operators nationwide, all but eleven are small under this size standard. In addition, under the Commission's rules, a "small system" is a cable system serving 15,000 or fewer subscribers. Industry data indicate that, of 6,635 systems nationwide, 5,802 systems have fewer than 10.000 subscribers, and an additional 302 systems have 10,000-19,999 subscribers. Thus, under this second size standard, most cable systems are

139. Cable System Operators. The Communications Act of 1934, as amended, also contains a size standard for small cable system operators, which is "a cable operator that, directly or through an affiliate, serves in the aggregate fewer than 1 percent of all subscribers in the United States and is not affiliated with any entity or entities whose gross annual revenues in the aggregate exceed \$250,000,000." The Commission has determined that an operator serving fewer than 677,000 subscribers shall be deemed a small operator, if its annual revenues, when combined with the total annual revenues of all its affiliates, do not exceed \$250 million in the aggregate. Industry data indicate that, of 1,076 cable operators nationwide, all but ten are small under this size standard. We note that the Commission neither requests nor collects information on whether cable system operators are affiliated with entities whose gross annual revenues exceed \$250 million, and therefore we are unable to estimate more accurately the number of cable

system operators that would qualify as small under this size standard.

140. Direct Broadcast Satellite ("DBS") Service. DBS service is a nationally distributed subscription service that delivers video and audio programming via satellite to a small parabolic "dish" antenna at the subscriber's location. DBS, by exception, is now included in the SBA's broad economic census category, "Wired Telecommunications Carriers," which was developed for small wireline firms. Under this category, the SBA deems a wireline business to be small if it has 1,500 or fewer employees. To gauge small business prevalence for the DBS service, the Commission relies on data currently available from the U.S. Census for the year 2007. According to that source, there were 3,188 firms that in 2007 were Wired Telecommunications Carriers. Of these, 3,144 operated with less than 1,000 employees, and 44 operated with more than 1,000 employees. However, as to the latter 44 there is no data available that shows how many operated with more than 1,500 employees. Based on this data, the majority of these firms can be considered small. Currently, only two entities provide DBS service, which requires a great investment of capital for operation: DIRECTV and EchoStar **Communications Corporation** ("EchoStar") (marketed as the DISH Network). Each currently offers subscription services. DIRECTV and EchoStar each report annual revenues that are in excess of the threshold for a small business. Because DBS service requires significant capital, we believe it is unlikely that a small entity as defined by the SBA would have the financial wherewithal to become a DBS service provider.

141. Satellite Telecommunications Providers. Two economic census categories address the satellite industry. The first category has a small business size standard of \$15 million or less in average annual receipts, under SBA rules. The second has a size standard of \$25 million or less in annual receipts.

142. The category of Satellite Telecommunications "comprises establishments primarily engaged in providing telecommunications services to other establishments in the telecommunications and broadcasting industries by forwarding and receiving communications signals via a system of satellites or reselling satellite telecommunications." Census Bureau data for 2007 show that 512 Satellite Telecommunications firms operated for that entire year. Of this total, 464 firms had annual receipts of under \$10 million, and 18 firms had receipts of

\$10 million to \$24,999,999. Consequently, the Commission estimates that the majority of Satellite Telecommunications firms are small entities that might be affected by our action.

143. The second category, i.e. "All Other Telecommunications" comprises "establishments primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation. This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems. Establishments providing Internet services or voice over Internet protocol (VoIP) services via client-supplied telecommunications connections are also included in this industry." For this category, Census Bureau data for 2007 show that there were a total of 2,383 firms that operated for the entire year. Of this total, 2,346 firms had annual receipts of under \$25 million and 37 firms had annual receipts of \$25 million to \$49,999,999. Consequently, the Commission estimates that the majority of All Other Telecommunications firms are small entities that might be affected by our action.

144. Television Broadcasting. The SBA defines a television broadcasting station as a small business if such station has no more than \$14.0 million in annual receipts. Business concerns included in this industry are those "primarily engaged in broadcasting images together with sound." The Commission has estimated the number of licensed commercial television stations to be 1,390. According to Commission staff review of the BIA Kelsey Inc. Media Access Pro Television Database (BIA) as of January 31, 2011, 1,006 (or about 78 percent) of an estimated 1,298 commercial television stations in the United States have revenues of \$14 million or less and, thus, qualify as small entities under the SBA definition. The Commission has estimated the number of licensed noncommercial educational ("NCE") television stations to be 391. We note, however, that, in assessing whether a business concern qualifies as small under the above definition, business (control) affiliations must be included. Our estimate, therefore, likely overstates the number of small entities that might be affected by our action, because the revenue figure on which it is based does not include or aggregate revenues from

affiliated companies. The Commission does not compile and otherwise does not have access to information on the revenue of NCE stations that would permit it to determine how many such stations would qualify as small entities.

145. In addition, an element of the definition of "small business" is that the entity not be dominant in its field of operation. We are unable at this time to define or quantify the criteria that would establish whether a specific television station is dominant in its field of operation. Accordingly, the estimate of small businesses to which rules may apply do not exclude any television station from the definition of a small business on this basis and are therefore over-inclusive to that extent. Also, as noted, an additional element of the definition of "small business" is that the entity must be independently owned and operated. We note that it is difficult at times to assess these criteria in the context of media entities and our estimates of small businesses to which they apply may be over-inclusive to this

146. Open Video Services. Open Video Service (OVS) systems provide subscription services. The open video system ("OVS") framework was established in 1996, and is one of four statutorily recognized options for the provision of video programming services by local exchange carriers. The OVS framework provides opportunities for the distribution of video programming other than through cable systems. Because OVS operators provide subscription services, OVS falls within the SBA small business size standard covering cable services, which is "Wired Telecommunications Carriers." The SBA has developed a small business size standard for this category, which is: All such firms having 1,500 or fewer employees. To gauge small business prevalence for the OVS service, the Commission relies on data currently available from the U.S. Census for the year 2007. According to that source, there were 3,188 firms that in 2007 were Wired Telecommunications Carriers. Of these, 3,144 operated with less than 1,000 employees, and 44 operated with more than 1,000 employees. However, as to the latter 44 there is no data available that shows how many operated with more than 1,500 employees. Based on this data, the majority of these firms can be considered small. In addition, we note that the Commission has certified some OVS operators, with some now providing service. Broadband service providers ("BSPs") are currently the only significant holders of OVS

certifications or local OVS franchises.

The Commission does not have financial or employment information regarding the entities authorized to provide OVS, some of which may not yet be operational. Thus, at least some of the OVS operators may qualify as small entities. The Commission further notes that it has certified approximately 45 OVS operators to serve 75 areas, and some of these are currently providing service. Affiliates of Residential Communications Network, Inc. ("RCN") received approval to operate OVS systems in New York City, Boston, Washington, DC, and other areas. RCN has sufficient revenues to assure that they do not qualify as a small business entity. Little financial information is available for the other entities that are authorized to provide OVS and are not yet operational. Given that some entities authorized to provide OVS service have not yet begun to generate revenues, the Commission concludes that up to 44 OVS operators (those remaining) might qualify as small businesses that may be affected by the rules and policies adopted herein.

147. Cable and Other Subscription Programming. The Census Bureau defines this category as follows: "This industry comprises establishments primarily engaged in operating studios and facilities for the broadcasting of programs on a subscription or fee basis * * *. These establishments produce programming in their own facilities or acquire programming from external sources. The programming material is usually delivered to a third party, such as cable systems or direct-to-home satellite systems, for transmission to viewers." To gauge small business prevalence in the Cable and Other Subscription Programming industries, the Commission relies on data currently available from the U.S. Census for the year 2007. According to that source, which supersedes data from the 2002 Census, there were 396 firms that in 2007 were engaged in production of Cable and Other Subscription Programming. Of these, 386 operated with less than 1,000 employees, and 10 operated with more than 1,000 employees. However, as to the latter 10 there is no data available that shows how many operated with more than 1,500 employees. Thus, under this category and associated small business size standard, the majority of firms can be considered small.

148. Motion Picture and Video Production. The Census Bureau defines this category as follows: "This industry comprises establishments primarily engaged in producing, or producing and distributing motion pictures, videos, television programs, or television commercials." We note that firms in this category may be engaged in various industries, including cable programming. Specific figures are not available regarding how many of these firms produce and/or distribute programming for cable television. To gauge small business prevalence in the Motion Picture and Video Production industries, the Commission relies on data currently available from the U.S. Census for the year 2007. The size standard established by the SBA for this business category is that annual receipts of \$29.5 million or less determine that a business is small. According to the 2007 Census, there were 9,095 firms that in 2007 were engaged in Motion Picture and Video Production. Of these, 8,995 had annual receipts of \$24,999,999 or less, and 100 had annual receipts ranging from not less that \$25,000,000 to \$100,000,000 or more. Thus, under this category and associated small business size standard, the majority of firms can be considered small.

149. Motion Picture and Video Distribution. The Census Bureau defines this category as follows: "This industry comprises establishments primarily engaged in acquiring distribution rights and distributing film and video productions to motion picture theaters, television networks and stations, and exhibitors." We note that firms in this category may be engaged in various industries, including cable programming. Specific figures are not available regarding how many of these firms produce and/or distribute programming for cable television. To gauge small business prevalence in the Motion Picture and Video Distribution industries, the Commission relies on data currently available from the U.S. Census for the year 2007. Based on the SBA size standard of annual receipts of 29.5 million dollars, and according to that 2007 Census source, which supersedes data from the 2002 Census, there were 450 firms that in 2007 were engaged in Motion Picture and Video Distribution. Of that number, 434 received annual receipts of \$24,999,999 or less, and 16 received annual receipts ranging from \$25,000,000 to \$100,000,000 or more. Thus, under this category and associated small business size standard, the majority of firms can be considered small.

150. Small Incumbent Local Exchange Carriers (LECs). We have included small incumbent local exchange carriers in this present RFA analysis. As noted above, a "small business" under the RFA is one that, inter alia, meets the pertinent small business size standard (e.g., a telephone communications business having 1,500 or fewer

employees), and "is not dominant in its field of operation." The SBA's Office of Advocacy contends that, for RFA purposes, small incumbent local exchange carriers are not dominant in their field of operation because any such dominance is not "national" in scope. We have therefore included small incumbent local exchange carriers in this RFA analysis, although we emphasize that this RFA action has no effect on Commission analyses and determinations in other, non-RFA contexts.

151. Incumbent Local Exchange Carriers (Incumbent LECs). Neither the Commission nor the SBA has developed a small business size standard specifically for incumbent local exchange services. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees. Census Bureau data for 2007, which now supersede data from the 2002 Census, show that there were 3,188 firms in this category that operated for the entire year. Of this total, 3,144 had employment of 999 or fewer, and 44 firms had had employment of 1,000 or more. According to Commission data, 1,307 carriers reported that they were incumbent local exchange service providers. Of these 1,307 carriers, an estimated 1,006 have 1,500 or fewer employees and 301 have more than 1,500 employees. Consequently, the Commission estimates that most providers of local exchange service are small entities that may be affected by the rules and policies adopted. Thus under this category and the associated small business size standard, the majority of these incumbent local exchange service providers can be considered small providers.

152. Competitive Local Exchange Carriers (Competitive LECs), Competitive Access Providers (CAPs), Shared-Tenant Service Providers, and Other Local Service Providers. Neither the Commission nor the SBA has developed a small business size standard specifically for these service providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees. Census Bureau data for 2007, which now supersede data from the 2002 Census, show that there were 3,188 firms in this category that operated for the entire year. Of this total, 3,144 had employment of 999 or fewer, and 44 firms had had employment of 1,000 employees or

more. Thus under this category and the associated small business size standard, the majority of these Competitive LECs, CAPs, Shared-Tenant Service Providers, and Other Local Service Providers can be considered small entities. According to Commission data, 1,442 carriers reported that they were engaged in the provision of either competitive local exchange services or competitive access provider services. Of these 1,442 carriers, an estimated 1,256 have 1,500 or fewer employees and 186 have more than 1,500 employees. In addition, 17 carriers have reported that they are Shared-Tenant Service Providers, and all 17 are estimated to have 1,500 or fewer employees. In addition, 72 carriers have reported that they are Other Local Service Providers. Of the 72, seventy have 1,500 or fewer employees and two have more than 1,500 employees. Consequently, the Commission estimates that most providers of competitive local exchange service, competitive access providers, Shared-Tenant Service Providers, and Other Local Service Providers are small entities that may be affected by rules adopted pursuant to the NPRM. 153. Radio and Television

Broadcasting and Wireless Communications Equipment Manufacturing. The Census Bureau defines this category as follows: "This industry comprises establishments primarily engaged in manufacturing radio and television broadcast and wireless communications equipment. Examples of products made by these establishments are: transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, and radio and television studio and broadcasting equipment." The SBA has developed a small business size standard for Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing, which is: all such firms having 750 or fewer employees. According to Census Bureau data for 2007, there were a total of 939 establishments in this category that operated for part or all of the entire year. According to Census Bureau data for 2007, there were a total of 919 firms in this category that operated for the entire year. Of this total, 771 had less than 100 employees and 148 had more than 100 employees. Thus, under that size standard, the majority of firms can be considered small.

154. Audio and Video Equipment Manufacturing. The SBA has classified the manufacturing of audio and video equipment under the NAICS Codes classification scheme as an industry in which a manufacturer is small if it has less than 750 employees. Data contained in the 2007 U.S. Census indicate that 491 establishments operated in that industry for all or part of that year. In that year, 376 establishments had between 1 and 19 employees; 80 had between 20 and 99 employees; and 35 had more than 100 employees. Thus, under the applicable size standard, a majority of manufacturers of audio and video equipment may be considered small.

155. Internet Publishing and Broadcasting and Web Search Portals. The Census Bureau defines this category to include "* * * establishments primarily engaged in (1) publishing and/ or broadcasting content on the Internet exclusively or (2) operating Web sites that use a search engine to generate and maintain extensive databases of Internet addresses and content in an easily searchable format (and known as Web search portals). The publishing and broadcasting establishments in this industry do not provide traditional (non-Internet) versions of the content that they publish or broadcast. They provide textual, audio, and/or video content of general or specific interest on the Internet exclusively. Establishments known as Web search portals often provide additional Internet services, such as email, connections to other Web sites, auctions, news, and other limited content, and serve as a home base for Internet users."

156. In this category, the SBA has deemed an Internet publisher or Internet broadcaster or the provider of a Web search portal on the Internet to be small if it has fewer than 500 employees. For this category of manufacturers, Census data for 2007, which supersede similar data from the 2002 Census, show that there were 2,705 such firms that operated that year. Of those 2,705 firms, 2,682 (approximately 99%) had fewer than 500 employees and, thus, would be deemed small under the applicable SBA size standard. Accordingly, the majority of establishments in this category can be considered small under that standard.

157. Closed Captioning Services.
These entities would be indirectly affected by our action. The SBA has developed two small business size standards that may be used for closed captioning services. The two size standards track the economic census categories, "Teleproduction and Other Postproduction Services" and "Court Reporting and Stenotype Services."

158. The first category of Teleproduction and Other Postproduction Services "comprises establishments primarily engaged in providing specialized motion picture or

video postproduction services, such as editing, film/tape transfers, subtitling, credits, closed captioning, and animation and special effects." The relevant size standard for small businesses in these services is an annual revenue of less than \$29.5 million. For this category, Census Bureau Data for 2007 indicate that there were 1,605 firms that operated in this category for the entire year. Of that number, 1,597 had receipts totaling less than \$29,500,000. Consequently we estimate that the majority of Teleproduction and Other Postproduction Services firms are small entities that might be affected by our action.

159. The second category of Court Reporting and Stenotype Services "comprises establishments primarily engaged in providing verbatim reporting and stenotype recording of live legal proceedings and transcribing subsequent recorded materials." The size standard for small businesses in these services is an annual revenue of less than \$7 million. For this category, Census Bureau data for 2007 show that there were 2,706 firms that operated for the entire year. Of this total, 2,590 had annual receipts of under \$5 million, and 19 firms had receipts of \$5 million to \$9,999,999. Consequently, we estimate that the majority of Court Reporting and Stenotype Services firms are small entities that might be affected by our action.

Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

160. The rules adopted in the *Report* and *Order* generally require VPOs to send required caption files for IP-delivered video programming to VPDs along with program files. The rules also require VPDs to enable the rendering or pass through of all required captions to the end user. Further, the rules impose closed captioning requirements on certain apparatus that receive or play back video programming, and on certain recording devices.

161. The rules will require VPOs and VPDs to agree upon a "mechanism" that will make available to the VPD information on video programming subject to the IP closed captioning requirements on an ongoing basis. The "mechanism" may involve a system of certifications that are kept up-to-date, or it may involve the use of a third-party database, private contractual arrangements, or another "mechanism" agreed upon by the parties.

162. The *Report and Order* creates a process by which VPDs and VPOs may petition the Commission for a full or partial exemption of the requirements

for closed captioning of IP-delivered video programming, which the Commission may grant upon a finding that the requirements would be economically burdensome. Further, the Report and Order creates a process by which manufacturers of apparatus may petition the Commission for a full or partial exemption of the requirements to implement closed captioning in their apparatus, which the Commission may grant upon a finding that implementation would not be achievable, technically feasible, that the apparatus is a display only monitor, or that purpose of the apparatus is such that the rules are inapplicable. The Report and Order also adopts procedures for complaints alleging a violation of the IP closed captioning rules, and it requires VPDs to make contact information available to end users for the receipt and handling of written IP closed captioning complaints.

Steps Taken To Minimize Significant Economic Impact on Small Entities and Significant Alternatives Considered

163. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): (1) The establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.

164. These rules may have a significant economic impact in some cases, and that impact may affect a substantial number of small entities. Although alternatives to minimize economic impact have been considered, we note that our action is governed by the congressional mandate contained in Sections 202(b), (c), and 203 of the CVAA. The Report and Order adopts procedures enabling the Commission to grant exemptions to the rules governing closed captioning of IP-delivered video programming pursuant to Section 202 of the CVAA, where a petitioner has shown that compliance would present an economic burden (i.e., a significant difficulty or expense), and pursuant to Section 203 of the CVAA, where a petitioner has shown that compliance is not achievable (i.e., cannot be accomplished with reasonable effort or expense) or not technically feasible. This exemption process will allow the

Commission to address the impact of the rules on individual entities, including smaller entities, and to modify the application of the rules to accommodate individual circumstances. Further, the *Report and Order* provides that a de minimis failure to comply with the requirements adopted pursuant to Section 202 of the CVAA shall not be treated as a violation, and it provides that parties may use alternate means of compliance to the rules adopted pursuant to either Section 202 or Section 203 of the CVAA. Individual entities, including smaller entities, may benefit from these provisions.

165. To fulfill the statutory mandate that the Commission "establish a mechanism to make available to video programming providers and distributors information on video programming subject to the Act on an ongoing basis," the NPRM proposed a system of certifications and updated certifications. Due to concerns that such a system may be burdensome for entities that must comply, including smaller entities, in the Report and Order the Commission instead adopted a flexible process by which VPOs and VPDs must agree upon a "mechanism" to make available to the VPD information on video programming subject to the IP closed captioning requirements on an ongoing basis.

Federal Rules That May Duplicate, Overlap, or Conflict With the Proposed Rules

166. None.

Report to Congress

167. The Commission will send a copy of the *Report and Order*, including this FRFA, in a report to be sent to Congress pursuant to the Congressional Review Act. In addition, the Commission will send a copy of the *Report and Order*, including this FRFA, to the Chief Counsel for Advocacy of the SBA. The *Report and Order* and FRFA (or summaries thereof) will also be published in the **Federal Register**.

B. Congressional Review Act

168. The Commission will send a copy of this *Report and Order* in MB Docket No. 11–154 in a report to be sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act, *see* 5 U.S.C. 801(a)(1)(A).

VII. Ordering Clauses

169. Accordingly, it is ordered that, pursuant to the Twenty-First Century Communications and Video Accessibility Act of 2010, Public Law 111–260, 124 Stat. 2751, and the authority found in Sections 4(i), 4(j),

303, 330(b), 713, and 716 of the Communications Act of 1934, as amended, 47 U.S.C. 154(i), 154(j), 303, 330(b), 613, and 617, this *Report and Order is adopted*, effective thirty (30) days after the date of publication in the **Federal Register**, except for §§ 79.4(c)(1)(ii), 79.4(c)(2)(ii)–(iii), 79.4(d)(1)–(4) and (d)(6)–(9), 79.4(e)(1)–(6), and 79.103(b)(3)–(4), which shall become effective upon announcement in the **Federal Register** of OMB approval and an effective date of the rule(s).

170. It is ordered that, pursuant to the Twenty-First Century Communications and Video Accessibility Act of 2010, Public Law 111–260, 124 Stat. 2751, and the authority found in Sections 4(i), 4(j), 303, 330(b), 713, and 716 of the Communications Act of 1934, as amended, 47 U.S.C. 154(i), 154(j), 303, 330(b), 613, and 617, the Commission's rules are hereby amended as set forth in the Final Rules.

171. It is further ordered that we delegate authority to the Media Bureau and the Consumer and Governmental Affairs Bureau to consider all requests for declaratory rulings pursuant to § 1.2 of the Commission's rules, 47 CFR 1.2, all waiver requests, and all informal requests for Commission action pursuant to § 1.41 of the Commission's rules, 47 CFR 1.41, filed under these rules and pursuant to Sections 202(b) and 203 of the CVAA.

172. It is further ordered that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, shall send a copy of this Report and Order in MB Docket No. 11–154, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

173. It is further ordered that the Commission shall send a copy of this Report and Order in MB Docket No. 11–154 in a report to be sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act, see 5 U.S.C. 801(a)(1)(A).

List of Subjects

47 CFR Part 15

Communications equipment, Incorporation by reference, Labeling, and Reporting and recordkeeping requirements.

47 CFR Part 79

Cable television operators, Incorporation by reference, Multichannel video programming distributors (MVPDs), Satellite television service providers, Television broadcasters. Federal Communications Commission.

Marlene H. Dortch,

Secretary.

Final Rules

For the reasons stated in the preamble, the Federal Communications Commission amends 47 CFR parts 15 and 79 as follows:

PART 15—RADIO FREQUENCY DEVICES

■ 1. The authority citation for part 15 continues to read as follows:

Authority: 47 U.S.C. 154, 302a, 303, 304, 307, 336, 544a, and 549.

§ 15.38 [Amended]

- \blacksquare 2. In § 15.38, remove and reserve paragraph (b)(10).
- 3. Redesignate § 15.119 as § 79.101.
- 4. Add and reserve § 15.119.
- 5. Redesignate § 15.122 as § 79.102.
- 6. Add and reserve § 15.122.

PART 79—CLOSED CAPTIONING AND VIDEO DESCRIPTION OF VIDEO PROGRAMMING

■ 7. The authority citation for part 79 is revised to read as follows:

Authority: 47 U.S.C. 151, 152(a), 154(i), 303, 307, 309, 310, 330, 544a, 613, 617.

■ 8. Amend § 79.1 by revising paragraphs (a)(4) and (c) to read as follows:

§ 79.1 Closed captioning of video programming.

(a) * * *

(4) *Closed captioning*. The visual display of the audio portion of video programming pursuant to the technical specifications set forth in this part.

(c) Obligation to pass through captions of already captioned programs. All video programming distributors shall deliver all programming received from the video programming owner or other origination source containing closed captioning to receiving television households with the original closed captioning data intact in a format that can be recovered and displayed by decoders meeting the standards of this part unless such programming is recaptioned or the captions are reformatted by the programming distributor.

■ 9. Add § 79.4 to read as follows:

§ 79.4 Closed captioning of video programming delivered using Internet protocol.

(a) *Definitions*. For purposes of this section the following definitions shall

apply:

- (1) Video programming. Programming provided by, or generally considered comparable to programming provided by, a television broadcast station, but not including consumer-generated media.
- (2) Full-length video programming. Video programming that appears on television and is distributed to end users, substantially in its entirety, via Internet protocol, excluding video clips or outtakes.
- (3) Video programming distributor or video programming provider. Any person or entity that makes available directly to the end user video programming through a distribution method that uses Internet protocol.

(4) Video programming owner. Any

person or entity that either:

(i) Licenses the video programming to a video programming distributor or provider that makes the video programming available directly to the end user through a distribution method that uses Internet protocol; or

(ii) Acts as the video programming distributor or provider, and also possesses the right to license the video programming to a video programming distributor or provider that makes the video programming available directly to the end user through a distribution method that uses Internet protocol.

(5) Internet protocol. Includes Transmission Control Protocol and a successor protocol or technology to

Internet protocol.

(6) Closed captioning. The visual display of the audio portion of video programming pursuant to the technical specifications set forth in this part.

(7) Live programming. Video programming that is shown on television substantially simultaneously with its performance.

(8) Near-live programming. Video programming that is performed and recorded less than 24 hours prior to the time it was first aired on television.

(9) Prerecorded programming. Video programming that is not "live" or "near-

live."

(10) Edited for Internet distribution. Video programming for which the television version is substantially edited prior to its Internet distribution.

(11) Consumer-generated media. Content created and made available by consumers to online Web sites and services on the Internet, including video, audio, and multimedia content.

(12) *Video clips*. Excerpts of full-length video programming.

(13) *Outtakes*. Content that is not used in an edited version of video programming shown on television.

(14) Nonexempt programming. Video programming that is not exempted under paragraph (d) of this section and, accordingly, is subject to closed captioning requirements set forth in this section.

(b) Requirements for closed captioning of Internet protocol-delivered video programming. All nonexempt full-length video programming delivered using Internet protocol must be provided with closed captions if the programming is published or exhibited on television in the United States with captions on or after the following dates:

(1) September 30, 2012, for all prerecorded programming that is not edited for Internet distribution, unless it is subject to paragraph (b)(4) of this

section.

(2) March 30, 2013, for all live and near-live programming, unless it is subject to paragraph (b)(4) of this section.

- (3) September 30, 2013, for all prerecorded programming that is edited for Internet distribution, unless it is subject to paragraph (b)(4) of this section.
- (4) All programming that is already in the video programming distributor's or provider's library before it is shown on television with captions must be captioned within 45 days after the date it is shown on television with captions on or after March 30, 2014 and before March 30, 2015. Such programming must be captioned within 30 days after the date it is shown on television with captions on or after March 30, 2015 and before March 30, 2016. Such programming must be captioned within 15 days after the date it is shown on television with captions on or after March 30, 2016.

(c) Obligations of video programming owners, distributors and providers.

- (1) Obligations of video programming owners. Each video programming owner must:
- (i) Send program files to video programming distributors and providers with captions as required by this section, with at least the same quality as the television captions provided for the same programming. If a video programming owner provides captions to a video programming distributor or provider using the Society of Motion Picture and Television Engineers Timed Text format (SMPTE ST 2052-1:2010, incorporated by reference, see § 79.100), then the VPO has fulfilled its obligation to deliver captions to the video programming distributor or provider in an acceptable format. A video

programming owner and a video programming distributor or provider may agree upon an alternative technical format for the delivery of captions to the video programming distributor or provider.

(ii) With each video programming distributor and provider that such owner licenses to distribute video programming directly to the end user through a distribution method that uses Internet protocol, agree upon a mechanism to inform such distributors and providers on an ongoing basis whether video programming is subject to the requirements of this section.

(2) Obligations of video programming distributors and providers. Each video programming distributor and provider

must:

(i) Enable the rendering or pass through of all required captions to the end user, maintaining the quality of the captions provided by the video programming owner and transmitting captions in a format reasonably designed to reach the end user in that quality. A video programming distributor or provider that provides applications, plug-ins, or devices in order to deliver video programming must comply with the requirements of § 79.103(c) and (d).

(ii) With each video programming owner from which such distributor or provider licenses video programming for distribution directly to the end user through a distribution method that uses Internet protocol, agree upon a mechanism to inform such distributor or provider on an ongoing basis whether video programming is subject to the requirements of this section, and make a good faith effort to identify video programming subject to the requirements of this section using the agreed upon mechanism. A video programming distributor or provider may rely in good faith on a certification by a video programming owner that the video programming need not be captioned if:

(A) The certification includes a clear and concise explanation of why captioning is not required; and

(B) The video programming distributor or provider is able to produce the certification to the Commission in the event of a complaint.

(iii) Make contact information available to end users for the receipt and handling of written closed captioning complaints alleging violations of this section. The contact information required for written complaints shall include the name of a person with primary responsibility for Internet protocol captioning issues and who can ensure compliance with these rules. In

addition, this contact information shall include the person's title or office, telephone number, fax number, postal mailing address, and email address. Video programming distributors and providers shall keep this information current and update it within 10 business days of any change.

(3) A video programming provider's or owner's de minimis failure to comply with this section shall not be treated as a violation of the requirements.

(d) Procedures for exemptions based on economic burden.

- (1) A video programming provider or owner may petition the Commission for a full or partial exemption from the closed captioning requirements of this section, which the Commission may grant upon a finding that the requirements would be economically burdensome.
- (2) The petitioner must support a petition for exemption with sufficient evidence to demonstrate that compliance with the requirements for closed captioning of video programming delivered via Internet protocol would be economically burdensome. The term "economically burdensome" means imposing significant difficulty or expense. The Commission will consider the following factors when determining whether the requirements for closed captioning of Internet protocoldelivered video programming would be economically burdensome:

(i) The nature and cost of the closed captions for the programming;

- (ii) The impact on the operation of the video programming provider or owner;
- (iii) The financial resources of the video programming provider or owner;

(iv) The type of operations of the video programming provider or owner.

- (3) In addition to these factors, the petitioner must describe any other factors it deems relevant to the Commission's final determination and any available alternatives that might constitute a reasonable substitute for the closed captioning requirements of this section including, but not limited to, text or graphic display of the content of the audio portion of the programming. The Commission will evaluate economic burden with regard to the individual outlet.
- (4) The petitioner must electronically file its petition for exemption, and all subsequent pleadings related to the petition, in accordance with $\S 0.401(a)(1)(iii)$ of this chapter.

(5) The Commission will place the

petition on public notice.

(6) Any interested person may electronically file comments or oppositions to the petition within 30

- days after release of the public notice of the petition. Within 20 days after the close of the period for filing comments or oppositions, the petitioner may reply to any comments or oppositions filed.
- (7) Persons who file comments or oppositions to the petition must serve the petitioner with copies of those comments or oppositions and must include a certification that the petitioner was served with a copy. Any petitioner filing a reply to comments or oppositions must serve the commenting or opposing party with a copy of the reply and shall include a certification that the party was served with a copy. Comments or oppositions and replies shall be served upon a party, its attorney, or its other duly constituted agent by delivering or mailing a copy to the party's last known address in accordance with § 1.47 of this chapter or by sending a copy to the email address last provided by the party, its attorney, or other duly constituted agent.

(8) Upon a finding of good cause, the Commission may lengthen or shorten any comment period and waive or establish other procedural requirements.

- (9) Persons filing petitions and responsive pleadings must include a detailed, full showing, supported by affidavit, of any facts or considerations relied on.
- (10) The Commission may deny or approve, in whole or in part, a petition for an economic burden exemption from the closed captioning requirements of this section.
- (11) During the pendency of an economic burden determination, the Commission will consider the video programming subject to the request for exemption as exempt from the requirements of this section.

(e) Complaint procedures.

Complaints concerning an alleged violation of the closed captioning requirements of this section shall be filed in writing with the Commission or with the video programming distributor or provider responsible for enabling the rendering or pass through of the closed captions for the video programming within sixty (60) days after the date the complainant experienced a problem with captioning. A complaint filed with the Commission must be directed to the Consumer and Governmental Affairs Bureau and submitted through the Commission's online informal complaint filing system, U.S. Mail, overnight delivery, or facsimile.

(2) A complaint should include the following information:

(i) The name, postal address, and other contact information of the complainant, such as telephone number or email address;

- (ii) The name and postal address, Web site, or email address of the video programming distributor, provider, and/ or owner against which the complaint is alleged, and information sufficient to identify the video programming involved;
- (iii) Information sufficient to identify the software or device used to view the program;
- (iv) A statement of facts sufficient to show that the video programming distributor, provider, and/or owner has violated or is violating the Commission's rules, and the date and time of the alleged violation;
- (v) The specific relief or satisfaction sought by the complainant; and
- (vi) The complainant's preferred format or method of response to the complaint (such as letter, facsimile transmission, telephone (voice/TRS/ TTY), email, or some other method that would best accommodate the complainant).
- (3) If a complaint is filed first with the Commission, the Commission will forward complaints satisfying the above requirements to the named video programming distributor, provider, and/ or owner, as well as to any other video programming distributor, provider, and/ or owner that Commission staff determines may be involved. The video programming distributor, provider, and/ or owner must respond in writing to the Commission and the complainant within 30 days after receipt of the complaint from the Commission.
- (4) If a complaint is filed first with the video programming distributor or provider, the video programming distributor or provider must respond in writing to the complainant within thirty (30) days after receipt of a closed captioning complaint. If a video programming distributor or provider fails to respond to the complainant within thirty (30) days, or the response does not satisfy the consumer, the complainant may file the complaint with the Commission within thirty (30) days after the time allotted for the video programming distributor or provider to respond. If a consumer re-files the complaint with the Commission (after filing with the distributor or provider) and the complaint satisfies the above requirements, the Commission will forward the complaint to the named video programming distributor or provider, as well as to any other video programming distributor, provider, and/ or owner that Commission staff determines may be involved. The video programming distributor, provider, and/ or owner must then respond in writing to the Commission and the complainant

within 30 days after receipt of the complaint from the Commission.

(5) In response to a complaint, video programming distributors, providers, and/or owners shall file with the Commission sufficient records and documentation to prove that the responding entity was (and remains) in compliance with the Commission's rules. Conclusory or insufficiently supported assertions of compliance will not carry a video programming distributor's, provider's, or owner's burden of proof. If the responding entity admits that it was not or is not in compliance with the Commission's rules, it shall file with the Commission sufficient records and documentation to explain the reasons for its noncompliance, show what remedial steps it has taken or will take, and show why such steps have been or will be sufficient to remediate the problem.

(6) The Commission will review all relevant information provided by the complainant and the subject video programming distributors, providers, and/or owners, as well as any additional information the Commission deems relevant from its files or public sources. The Commission may request additional information from any relevant entities when, in the estimation of Commission staff, such information is needed to investigate the complaint or adjudicate potential violation(s) of Commission rules. When the Commission requests additional information, parties to which such requests are addressed must provide the requested information in the manner and within the time period the Commission specifies.

(7) If the Commission finds that a video programming distributor, provider, or owner has violated the closed captioning requirements of this section, it may employ the full range of sanctions and remedies available under the Communications Act of 1934, as amended, against any or all of the

violators.

(f) Private rights of action prohibited. Nothing in this section shall be construed to authorize any private right of action to enforce any requirement of this section. The Commission shall have exclusive jurisdiction with respect to any complaint under this section.

■ 10. Add § 79.100 to read as follows:

§ 79.100 Incorporation by reference.

(a) The materials listed in this section are incorporated by reference in this part. These incorporations by reference were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist on the date of the approval, and notice

of any change in these materials will be published in the Federal Register. The materials are available for purchase at the corresponding addresses as noted, and all are available for inspection at the Federal Communications Commission, 445 12th St. SW., Reference Information Center, Room CY–A257, Washington, DC 20554, (202) 418-0270, and at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: http://www.archives.gov/ federal register/code of federal regulations/ibr locations.html.

(b) Global Engineering Documents, 15 Inverness Way East, Englewood, CO 80112, (800) 854–7179, or at http://

global.ihs.com:

(1) EIA-708-B: "Digital Television (DTV) Closed Captioning," 1999, IBR approved for § 79.102.

(2) [Reserved]

(c) Society of Motion Picture & Television Engineers (SMPTE), 3 Barker Ave., 5th Floor, White Plains, NY 10601, or at the SMPTE Web site: http://www.smpte.org/standards/:

(1) SMPTE ŠT 2052–1:2010: "Timed Text Format (SMPTE–TT)" 2010, IBR approved for §§ 79.4 and 79.103.

(2) [Reserved]

■ 11. Amend newly redesignated § 79.101 by revising paragraphs (a) and (m) to read as follows:

§ 79.101 Closed caption decoder requirements for analog television receivers.

(a)(1) Effective July 1, 1993, all television broadcast receivers with picture screens 33 cm (13 in) or larger in diameter shipped in interstate commerce, manufactured, assembled, or imported from any foreign country into the United States shall comply with the provisions of this section.

Note to paragraph (a)(1): This paragraph places no restriction on the shipping or sale of television receivers that were manufactured before July 1, 1003

(2) Effective January 1, 2014, all television broadcast receivers shipped in interstate commerce, manufactured, assembled, or imported from any foreign country into the United States shall comply with the provisions of this section, if technically feasible, except that television broadcast receivers that use a picture screen less than 13 inches in size must comply with the provisions of this section only if doing so is achievable pursuant to § 79.103(b)(3).

(m) Labeling and consumer information requirements. (1) The box or other package in which the

individual television receiver is to be marketed shall carry a statement in a prominent location, visible to the buyer before purchase, which reads as follows:

This television receiver provides display of television closed captioning

in accordance with FCC rules.

(2) Receivers that do not support color attributes or text mode, as well as receivers that display only upper-case characters pursuant to paragraph (g) of this section, must include with the statement, and in the owner's manual, language indicating that those features are not supported.

■ 12. Amend newly redesignated § 79.102 by adding paragraph (a)(3) and revising paragraph (b) to read as follows:

§ 79.102 Closed caption decoder requirements for digital television receivers and converter boxes.

(a) * * *

(3) Effective January 1, 2014, all digital television receivers and all separately sold DTV tuners shipped in interstate commerce or manufactured in the United States shall comply with the provisions of this section, if technically feasible, except that digital television receivers that use a picture screens less than 13 inches in size must comply with the provisions of this section only if doing so is achievable pursuant to § 79.103(b)(3).

(b) Digital television receivers and tuners must be capable of decoding closed captioning information that is delivered pursuant to EIA-708-B: "Digital Television (DTV) Closed Captioning" (incorporated by reference,

see § 79.100).

■ 13. Add § 79.103 to read as follows:

§ 79.103 Closed caption decoder requirements for all apparatus.

(a) Effective January 1, 2014, all digital apparatus designed to receive or play back video programming transmitted simultaneously with sound, if such apparatus is manufactured in the United States or imported for use in the United States and uses a picture screen of any size must be equipped with builtin closed caption decoder circuitry or capability designed to display closedcaptioned video programming pursuant to the provisions of this section, if technically feasible, except that apparatus that use a picture screen less than 13 inches in size must comply with the provisions of this section only if doing so is achievable as defined in this section.

Note to paragraph (a): Apparatus includes the physical device and the video players that manufacturers install

into the devices they manufacture before sale, whether in the form of hardware, software, or a combination of both, as well as any video players that manufacturers direct consumers to install after sale.

(b) Exempt apparatus. (1) Displayonly monitors. Apparatus or class of apparatus that are display-only video monitors with no playback capability are not required to comply with the

provisions of this section.

(2) Professional or commercial equipment. Apparatus or class of apparatus that are professional or commercial equipment not typically used by the public are not required to comply with the provisions of this section.

(3)(i) Achievable. Manufacturers of apparatus that use a picture screen of less than 13 inches in size may petition the Commission for a full or partial exemption from the closed captioning requirements of this section pursuant to § 1.41 of this chapter, which the Commission may grant upon a finding that the requirements of this section are not achievable, or may assert that such apparatus is fully or partially exempt as a response to a complaint, which the Commission may dismiss upon a finding that the requirements of this section are not achievable.

(ii) The petitioner or respondent must support a petition for exemption or a response to a complaint with sufficient evidence to demonstrate that compliance with the requirements of this section is not "achievable" where "achievable" means with reasonable effort or expense. The Commission will consider the following factors when determining whether the requirements of this section are not "achievable:"

(A) The nature and cost of the steps needed to meet the requirements of this section with respect to the specific equipment or service in question;

(B) The technical and economic impact on the operation of the manufacturer or provider and on the operation of the specific equipment or service in question, including on the development and deployment of new communications technologies;

(C) The type of operations of the manufacturer or provider; and

(D) The extent to which the service provider or manufacturer in question offers accessible services or equipment containing varying degrees of functionality and features, and offered at differing price points.

(4) Waiver. Manufacturers of apparatus may petition the Commission for a full or partial waiver of the closed captioning requirements of this section, which the Commission may grant, upon

a finding that the apparatus meets one of the following provisions:

(i) The apparatus is primarily designed for activities other than receiving or playing back video programming transmitted simultaneously with sound; or

(ii) The apparatus is designed for multiple purposes, capable of receiving or playing back video programming transmitted simultaneously with sound but whose essential utility is derived from other purposes.

(c) Specific technical capabilities. All apparatus subject to this section shall implement the following captioning

functionality:

- (1) Presentation. All apparatus shall implement captioning such that the caption text may be displayed within one or separate caption windows and supporting the following modes: text that appears all at once (pop-on), text that scrolls up as new text appears (rollup), and text where each new letter or word is displayed as it arrives (paint-
- (2) Character color. All apparatus shall implement captioning such that characters may be displayed in the 64 colors defined in CEA-708 and such that users are provided with the ability to override the authored color for characters and select from a palette of at least 8 colors including: white, black, red, green, blue, yellow, magenta, and

(3) Character opacity. All apparatus shall implement captioning such that users are provided with the ability to vary the opacity of captioned text and select between opaque and semi-

transparent opacities.

(4) Character size. All apparatus shall implement captioning such that users are provided with the ability to vary the size of captioned text and shall provide a range of such sizes from 50% of the default character size to 200% of the default character size.

(5) Fonts. All apparatus shall implement captioning such that fonts are available to implement the eight fonts required by CEA-708 and § 79.102(k). Users must be provided with the ability to assign the fonts included on their apparatus as the default font for each of the eight styles contained in § 79.102(k).

(6) Caption background color and opacity. All apparatus shall implement captioning such that the caption background may be displayed in the 64 colors defined in CEA-708 and such that users are provided with the ability to override the authored color for the caption background and select from a palette of at least 8 colors including: white, black, red, green, blue, yellow,

magenta, and cyan. All apparatus shall implement captioning such that users are provided with the ability to vary the opacity of the caption background and select between opaque, semitransparent, and transparent background opacities.

(7) Character edge attributes. All apparatus shall implement captioning such that character edge attributes may be displayed and users are provided the ability to select character edge attributes including: no edge attribute, raised edges, depressed edges, uniform edges,

and drop shadowed edges.

(8) Caption window color. All apparatus shall implement captioning such that the caption window color may be displayed in the 64 colors defined in CEA-708 and such that users are provided with the ability to override the authored color for the caption window and select from a palette of at least 8 colors including: white, black, red, green, blue, yellow, magenta, and cyan.

All apparatus shall implement captioning such that users are provided with the ability to vary the opacity of the caption window and select between opaque, semi-transparent, and transparent background opacities.

(9) Language. All apparatus must implement the ability to select between caption tracks in additional languages when such tracks are present and provide the ability for the user to select simplified or reduced captions when such captions are available and identify such a caption track as "easy reader."

(10) Preview and setting retention. All apparatus must provide the ability for the user to preview default and user selection of the caption features required by this section, and must retain such settings as the default caption configuration until changed by the user.

(11) Safe Harbor. Apparatus which implement Society of Motion Picture and Television Engineers Timed Text format (SMPTE ST 2052-1:2010 incorporated by reference, see § 79.100) with respect to the functionality in paragraphs (c)(1) through (10) of this section shall be deemed in compliance with paragraph (c) of this section.

Note to paragraph (c): Where video programming providers or distributors subject to § 79.4 of this part display or render captions, they shall implement the functional requirements contained in paragraphs (c)(1) through (10) of this section unless doing so is economically burdensome as defined in § 79.4(d).

(d) Interconnection. All video outputs of covered apparatus shall be capable of conveying from the source device to the consumer equipment the information necessary to permit or render the display of closed captions.

■ 14. Add § 79.104 to read as follows:

§ 79.104 Closed caption decoder requirements for recording devices.

(a) Effective January 1, 2014, all apparatus designed to record video programming transmitted simultaneously with sound, if such apparatus is manufactured in the United

States or imported for use in the United States, must comply with the provisions of this section except that apparatus must only do so if it is achievable as defined in § 79.103(b)(3).

(b) All apparatus subject to this section must enable the rendering or the pass through of closed captions such that viewers are able to activate and deactivate the closed captions as the video programming is played back as described in § 79.103(c).

(c) All apparatus subject to this section must comply with the interconnection mechanism requirements in § 79.103(d).

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