



Broadcasting Regulatory Policy CRTC 2012-362

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Quality standards for English-language closed captioning

The Commission approves the mandatory quality standards for closed captioning set out in the appendix to this regulatory policy. These standards will come into effect on 1 September 2012.

The Commission directs the English-language Closed Captioning Working Group to submit an updated version of the Canadian Association of Broadcasters Closed Captioning Standards Manual by 4 August 2012 that reflects the changes identified in this regulatory policy.

Introduction

1. In Broadcasting Notice of Consultation 2011-488 (the Notice of Consultation), the Commission called for comments on the quality standards for English-language closed captioning proposed by the English-language Closed Captioning Working Group (EN-CCWG) in its final report submitted on 9 February 2011. The proposed standards were developed further to the Commission's directions in Broadcasting and Telecom Regulatory Policy 2009-430 (the Accessibility Policy).
2. The Commission received comments and replies from a number of parties. The public record for this proceeding is available on the Commission's website at www.crtc.gc.ca under "Public Proceedings."
3. In its final report to the Commission, dated 9 February 2011, the EN-CCWG indicated that it had reached consensus on some, but not all issues.
4. On 1 December 2011, the Commission issued Broadcasting Regulatory Policy 2011-741,¹ which set out the French-language closed captioning quality standards. In the Notice of Consultation, the Commission sought comments on the extent to which the standards proposed by the French-language Closed Captioning Working Group

¹ An amendment was issued on 21 February 2012. See Broadcasting Regulatory Policy 2011-741-1.

(FL-CCWG) should be applied to issues where the EN-CCWG did not achieve consensus.²

5. After examining the public record for this proceeding, the Commission considers that it is necessary to address the following questions:
- Should there be a distinction between mandatory standards and best practices?
 - What is an appropriate lag time for captioning of live programming?
 - What is an appropriate accuracy rate for captioning of live programming?
 - What is an appropriate standard to ensure that captions do not block out other on-screen information?
 - What is an appropriate speed for captioning in live programming and children's programming?
 - What is an appropriate timeframe within which to expect the correction of errors in live programs prior to rebroadcast?
 - Should there be a mandatory standard for emergency alerts?
 - In what format should captioning in new Canadian pre-recorded programming be provided?
 - How will the standards be monitored?
 - Should the mandate of the EN-CCWG be extended?

Should there be a distinction between mandatory standards and best practices?

Background

6. While the EN-CCWG did not make a distinction between mandatory standards and best practices in its final report, the Notice of Consultation sought comments on this issue.

Positions of parties

7. The English-language Broadcaster Group, in a joint submission with the Canadian Association of Broadcasters (CAB) and the Canadian Broadcast Corporation (CBC) (collectively, the EBG), submitted that it is essential that the standards set by this

² The determinations contained in Broadcasting Regulatory Policy 2011-741 are closely related to the determinations found in this regulatory policy and are therefore set out where appropriate.

process be of two types: best practices and mandatory standards that will be applied as conditions of licence.

8. In its initial submission, the EBG stated that it anticipated that broadcasters would be required by condition of licence to adhere to the Canadian Association of Broadcasters (CAB) Closed Captioning Standards Manual,³ which contains standards and best practices for closed captioning. The EBG further submitted that the CAB Manual would be revised to express the relevant standards in mandatory language, thereby giving them the force of conditions of licence.
9. The EBG later submitted that mandatory standards must be objective and “achievable, measurable and enforceable.” It therefore proposed that some standards be applied as best practices given that the achievability of those standards remains uncertain. Specifically, the EBG submitted that the standards for accuracy rate and lag time for live programming should not be mandatory at this time. Instead, the EBG argued that establishing expectations for these two areas would allow for a period of objective assessment of broadcasters’ performance, after which the Commission could evaluate whether or not conditions of licence are necessary and appropriate. Pelmorex Communications Inc. (Pelmorex) agreed with the EBG’s position.
10. The Independent Broadcasters Group (IBG) proposed the application of all of the standards as best practices. It noted that many aspects of the proposed standards would require human skill and interpretation in the generation of captioning. The IBG was of the view that the adoption of far-reaching, detailed rules that attempt to regulate every aspect of captioning would not be appropriate.
11. The IBG also submitted that general standards would not take into account the differing circumstances of individual broadcasters. It noted that implementation of such standards would likely be burdensome for smaller broadcasters and broadcasters with distinctive audiences and programming streams.
12. In a joint submission, the Canadian Association of the Deaf and the Canadian Hard of Hearing Association (CAD/CHHA) submitted that having only voluntary standards (i.e. best practices) for captioning would not work. They argued that standards for closed captioning must be enforceable and that it would be appropriate to have mandatory standards that reference regularly updated best practices.

Commission analysis and decisions

13. The Commission considers that mandatory standards, by their very nature, should be achievable, measurable and enforceable. In the case of the French-language market, the Commission approved mandatory standards for the following areas:

³ During the proceeding leading up to the Commission’s Accessibility Policy, the CAB submitted a manual entitled *Closed Captioning Standards and Protocol for Canadian English Language Television Programming Services – Third Edition 2008*.

- lag time for live programming
- accuracy rate for live programming
- captions that block other on-screen information
- correcting errors prior to re-broadcast
- speed of captions during live programming and children's programming
- captioning of emergency alerts
- monitoring

14. With respect to the broadcasters' arguments that standards should be tested in real-life situations before they are implemented as mandatory standards, the Commission notes that the EN-CCWG and the broadcasting industry has had over four years since the establishment of the EN-CCWG to find concrete solutions to areas of concern related to closed captioning, to perform objective assessments, and to collect and provide clear evidence as to what appropriate standards would be. Since the EN-CCWG was unable to arrive at consensus, the Commission will now establish closed captioning quality standards based on the evidence before it.
15. The Commission considers it appropriate to distinguish between standards related to stylistic issues, and achievable, measurable and enforceable standards that address the main areas of concern of the user-group communities. The Commission is satisfied that the areas identified as appropriate for mandatory standards in Broadcasting Regulatory Policy 2011-741 address these concerns and should be also subject to mandatory standards in the English-language market.⁴
16. The mandatory standards, which will be applied as conditions of licence, are listed in the appendix to this regulatory policy (the Appendix).
17. As set out in Broadcasting Regulatory Policy 2011-741-1, it is the Commission's general practice to suspend conditions of licence mandating adherence to codes of conduct administered by the Canadian Broadcast Standards Council (CBSC) for CBSC members in good standing, as a means of relying on industry self-regulation. Such an approach is consistent with the Commission's objectives of streamlining the regulatory process and increasing reliance on a supervisory approach. Accordingly, if the broadcasting industry were to propose a comparable self-regulatory mechanism that met with Commission approval to administer the closed captioning standards, the Commission would be prepared to consider applications to suspend

⁴ There is one exception. The French-language standards include a standard for speaker identification. It provides that, whenever there is a change in speaker, captions must be preceded by a chevron or a hyphen. This matter was not raised for English-language captions, and the Commission does not consider it necessary to include it in the mandatory standards.

the application of the conditions of licence concerning closed captioning quality standards for broadcasters participating in such a mechanism.

18. Several criteria that the Commission considered integral to effective self-regulation in the context of codes of conduct would also apply to a self-regulatory mechanism for closed captioning. Accordingly, the Commission considers that an effective self-regulatory mechanism would have to meet, at a minimum, all of the following criteria:

- commitment from the industry to the self-regulatory body and the closed captioning standards
- expertise in the area of closed captioning standards
- membership that reflects the various public, industry, professional, consumer and social interest groups to ensure fair and adequate representation
- an independent and sustainable source of sufficient funding to ensure resources are available for effective self-regulation
- a clearly stated mandate to include industry and public awareness activities
- effective complaints mechanisms to monitor adherence and compliance with the standards and respond to complaints⁵
- a provision for reporting to the Commission

What is an appropriate lag time for captioning of live programming?

Background

19. Lag time is the term used to identify the delay between the time a word is heard and the corresponding caption appears on screen.⁶ This is an issue with the captioning of live programming only since pre-recorded programming is captioned before it is broadcast and the captioning can be synchronized with the audio.

20. The EN-CCWG did not reach consensus in this area. In the EN-CCWG's final report, consumer representatives proposed that the maximum lag time for live programming not exceed five seconds, and it should not exceed three seconds 80% of the time. In contrast, the broadcasting representatives of the EN-CCWG did not propose a maximum lag time.

⁵ See the Commission's comments in Public Notice 1986-351 regarding factors important to the success of a complaints mechanism.

⁶ When the lag time is too long, captions no longer correspond to what is happening on screen. This makes it difficult to follow the story, identify the speaker, or remain engaged in the program.

21. The Commission approved a mandatory standard for the French-language market whereby the lag time for live programming between the audio and the captions must not exceed five seconds, averaged over the program.

Positions of parties

22. The EBG submitted that, under the best of conditions, human and technical factors dictate that a five to six second lag time can be expected in closed captioning of live programming such as news. However, in difficult situations, that speed would not be achievable. For the current and upcoming licence terms, the EBG committed, as a best practice, to a six-second lag time for Canadian-produced live news and news-like programming, excluding debates and discussions. The EBG submission was supported by TELUS Communications Company (TELUS) and the IBG.
23. The EBG argued that there are some cases in which captionists do not attempt word-for-word transcription. This includes programming such as live sports when the audio is very rapid, or programming that engages in lively discussion. It submitted that measurement of lag time is very difficult in such situations because the audio and the captioning will not contain the same words. Accordingly the EBG submitted that an average lag time standard should not apply in these instances.
24. The IBG expressed concern that a maximum lag time of five seconds (and three seconds 80% of the time) is not achievable on a consistent basis and therefore not appropriate. It was of the view that the focus should be on the skill and training of the captionist rather adherence to a fixed rule. The IBG further submitted that it would be appropriate for more study to be undertaken to determine an appropriate objective for broadcasters. Aboriginal Peoples Television Network (APTN) supported IBG's position on this last point.
25. Pelmorex committed to achieve an average lag time of six seconds. It submitted that some types of unscripted live reporting programming are particularly challenging in terms of lag time and that an average lag time standard should not apply to such programming. This programming includes interviews from remote locations where the interviewee may talk very quickly, fast-paced live reports during severe weather events, sports, debates and discussions.
26. The CAD/CHHA shared the position of consumer representatives in the EN-CCWG's final report that the lag time must not exceed five seconds, and that it should not exceed three seconds at least 80% of the time. The CAD/CHHA argued that the broadcasters have not proven that a five-second maximum is unachievable.
27. The CAD/CHHA submitted that broadcasters should always provide the captionist with a direct audio feed (using audio couplers) of the live program that he or she is captioning. They also submitted that broadcasters should only hire certified captionists who are qualified to provide "broadcast quality" captioning.

28. The CAD/CHHA acknowledged that broadcasting distribution undertakings (BDUs) share some of the responsibility for lag time due to technical issues. They submitted that research must be done to determine the various causes of lag time and to develop standards or best practices to resolve those issues.

Commission analysis and decisions

29. In the Commission's view, the EBG and Pelmorex have not provided sufficient evidence for the Commission to establish a different lag time for live unscripted programming. The Commission considers that averaging lag time over the length of the program provides sufficient flexibility to account for instances where the lag may be longer due to the nature of the audio being captioned.
30. The Commission recognizes that, while there are some English-language broadcasters who use voice recognition technology to provide closed captioning, the majority of English-language broadcasters provide captions through stenography. Creating and delivering live captioning using stenography requires the completion of a number of steps. Based on the current technology and techniques for live closed captioning, the Commission considers that, at this time, it is not reasonable to impose a mandatory standard whereby the lag time between the audio and the captions must be three seconds or less. For the same reasons, the Commission considers that it is appropriate to allow a slightly longer lag time for live English-language programming than what was approved for the French-language market (which generally uses voice recognition technology and tends to have a lower lag time). The Commission also encourages broadcasters to work with the captioning community to find ways of improving captioning lag time.
31. Accordingly, the Commission approves a mandatory standard for live programming whereby the lag time between the audio and the captions must not exceed six seconds, averaged over the duration of the program. A mandatory standard to this effect is included in the Appendix.

What is an appropriate accuracy rate for captioning of live programming?

Background

32. The purpose of an accuracy rate is to establish a realistic and achievable level of high quality captioning.
33. In the EN-CCWG's final report, the consumer representatives proposed that a 98% accuracy standard for live programming should be adopted as a best practice and that it should be reviewed annually. The broadcasting representatives of the EN-CCWG did not propose a maximum error rate. They did, however, propose to adopt the definition of an "error" that was discussed during EN-CCWG meetings. Under this definition, an error would include incorrect spelling, incorrect names, punctuation errors, omissions, substitutions and homophones. There was consensus among EN-CCWG members that 100% accuracy must be achieved for pre-recorded programming.

34. For the French-language market, the Commission approved the following two mandatory standards:

Live programming

Broadcasters must reach an accuracy rate of at least 85% averaged over the program, as measured by the following calculation method:

$$\% \text{ of accuracy} = \frac{N - \text{Sup} - \text{Sub} - \text{I}}{N} \times 100$$

N: number of words in the audio

Sup: number of suppressed words (words present in the audio but absent from the captions)

Sub: number of substituted words (words in the audio replaced with others words in the captions)

I: number of inserted words (words present in the captions but absent from the audio)

Pre-recorded programming

Captioning for pre-recorded programs must target an accuracy rate of 100%, including spelling.

Positions of parties

35. The EBG argued that, when introducing a fundamental requirement such as an accuracy rate, the standard should first be implemented as an expectation. The standard would become a condition of licence after its reasonableness and achievability have been accurately assessed. The EBG committed to the following accuracy rate as a best practice:

- 95% accuracy in Canadian-produced live news and news-like programming when stenography is used
- 85% on the same programming when voice recognition technology is used

The accuracy rate is defined as the percentage of correct (non-error) words in a program, i.e. Accuracy rate = (words – errors) / 100.

36. The EBG agreed that the definition of an error, as set out in the French-language standard, is acceptable, except for circumstances where word-for-word captioning is not appropriate. It submitted that word-for-word captioning may not be appropriate in cases where the audio exceeds 200 words per minute (wpm) for non-children's programming and 130 wpm for children's programming. In such cases, the EBG submitted that it is necessary to edit the audio in order to make captions comprehensible.

37. The EBG proposed the following definition of an error, which addresses situations where it considered that word-for-word transcription is not appropriate:

A captioning error is defined as any of the following three deviations from word-by-word transcription of the spoken audio that diminishes the intelligibility of the program:

- 1) Deletion errors where a correct word is omitted.
- 2) Substitution errors where an incorrect word is substituted for a correct word
- 3) Insertion errors where an extra word not in the audio track is added to the captioning, except in cases
 - where word-by-word transcription would result in a speed of captioning greater than the agreed words per minute
 - where it is not reasonable to expect every word to be live captioned, e.g. when two people are speaking at once
 - where proper names have a number of potential spellings.

An omission, deletion or substitution is not considered an error if corrected quickly during the broadcast so that intelligibility is restored.

38. The IBG agreed with the EBG that it would be imprudent to adopt an accuracy rate, especially as a mandatory requirement, without first assessing whether it is achievable. The IBG was of the view that the Commission should adopt a non-mandatory performance objective and evaluate broadcasters' performance over time in meeting this objective. The IBG's submission was supported by the APTN.

39. Pelmorex generally supported the EBG submission, including the proposed definition and formula.

40. MTS Allstream Inc.⁷ submitted that the definition of an error and the accuracy rate approved for the French-language market may need to be further refined given that stenographer-produced captioning, the norm in the English-language market, tends to be more accurate than captioning produced using voice recognition technology, which is the norm in the French-language market.

41. The CAD/CHHA was of the view that the same quality standards should apply to any English-language caption provider, regardless of how the captions are produced (whether stenography, voice recognition or other new technology).

⁷ On 1 January 2012, MTS Allstream Inc. changed its name to MTS Inc.

42. The CAD/CHHA and Media Access Canada (MAC) submitted that, from the user's perspective, an error consists of spelling errors, garbled captions, cut off captions, dropped captions and all else that contributes to the negative aspects of a viewing experience. The CAD/CHHA also submitted that it is impossible to catalogue every kind of error to which captioning is subject. Instead, broad categories should be used.
43. The CAD/CHHA argued that captions that are produced using voice recognition software are not currently of "broadcast quality" and require more investigation and testing before they can be accorded broadcast quality status. Further, in their view, an accuracy rate of 85% is unacceptable as it would permit a drastic reduction from the current level of quality. CAD/CHHA submitted that there is no evidence to demonstrate that a 95% accuracy level cannot be achieved.
44. The CAD/CHHA and MAC submitted that captionists should be members of an association and have their Certified Real-time Reporter (CRR) designation, at a minimum. The CAD/CHHA also suggested that the CAB Manual should define broadcast quality for live captioning as captioning done by a captionist holding the National Court Reporters Association's CRR designation.
45. In response, the EBG noted that the test used for certification of captionists consists of a five minute professionally recorded audio dictation. The EBG submitted that such a test does not accurately reflect the pressures of a real-life captioning situation. The EBG further submitted that certification would add a level of bureaucracy without ensuring the quality of real-world captions and therefore does not represent the best means by which to improve closed captioning.

Commission analysis and decisions

46. With regard to the CAD/CHHA and MAC's suggestion that captionists should be members of an association and have a CRR designation, the Commission is of the view that its role is to set the standards without dictating the means by which those standards are met. The Commission considers that it is the broadcasters' responsibility to ensure that the captioning standards are met. They may choose to do so by including contractual obligations with a third-party captioning company, hiring in-house resources, instigating or participating in a certification process or other methods.
47. As indicated in Broadcasting Regulatory Policy 2011-741, the Commission considers that there is no reason why the captioning for pre-recorded programming should not accurately reflect the audio. However, the Commission is of the view that imposing a strict 100% accuracy rate, as proposed by the EN-CCWG, would be inappropriate given that even the most minor error would cause a licensee to be in non-compliance. The Commission considers that the wording set out in the Appendix will ensure that the captioning of pre-recorded programming is of high quality while allowing for unforeseen technical or other problems that can occur

from time to time. The Commission expects such problems to be rare and, when they occur, to be addressed promptly.

48. Accordingly, the Commission approves a mandatory standard for pre-recorded programming that is the same as that approved in Broadcasting Regulatory Policy 2011-741.
49. With respect to captioning live programming, the EN-CCWG has had over four years to find concrete solutions for areas of concern, to perform objective assessments, and to collect and provide clear evidence as to what would constitute appropriate standards.
50. The Commission considers that parties did not submit sufficient evidence during this process to show that unscripted live programming, such as sports programming, programming that engages in lively discussion, or unscripted weather reports cannot be comprehensibly captioned and thus should not be subject to the same accuracy rate as all other live programming. The Commission therefore considers that the accuracy rate for live programming should apply to all live programming and not only to live Canadian news and news-like programming.
51. The EBG committed to achieve a 95% accuracy rate for Canadian-produced live news or news-like programming when stenography is used and an 85% accuracy rate for the same programming when voice recognition is used. The Commission is not convinced that establishing two different accuracy rates for live programming in the English-language market is appropriate. The Commission considers that having two separate accuracy rates for live programming based on captioning technology used in the English-language market will result in a two-tier system that will add an unnecessary level of complexity and may have the unintended result of discouraging the improvement of captioning quality. The Commission considers that a 95% accuracy rate for live programming is appropriate and would provide sufficient flexibility, given that accuracy rate will be averaged over the duration of the program.
52. With respect to the definition of an error, the Commission notes that there was general consensus among the broadcasters that the method of calculating an error approved by the Commission for the French-language market would be appropriate for the English-language market, with some exceptions when word-for-word transcription would not be appropriate. Although the EBG argued that the Commission should make provision for cases when verbatim captioning is not possible, the Commission considers that there was insufficient evidence submitted to demonstrate that it is unreasonable to strive for verbatim captioning at all times. It is of the view that broadcasters should always strive to provide verbatim captioning. In addition, the CAD/CHHA agreed that broad categories should be used when defining a captioning error. Therefore, the Commission considers that the method of calculating an error approved in Broadcasting Regulatory Policy 2011-741 should apply to the English-language market without changes. This method is clear, measurable and responsive to viewers' perception of quality.

53. In light of the above, the Commission considers that adopting a 95% accuracy rate for live programming, regardless of the technology used to provide the closed captioning, is appropriate. It is of the view that averaging accuracy rate over the length of a program will provide sufficient flexibility for licensees. A mandatory standard to this effect is included in the Appendix.

What is an appropriate standard to ensure that captions do not block out other on-screen information?

Background

54. When captions block out crucial elements and information on-screen such as action, sports scores and weather information, it can make it difficult for the viewer to follow what is happening. At present, captions are generally the last graphics added to the screen during the production process.

55. In the EN-CCWG final report, consumer representatives submitted that captions should be placed on the screen first and that other on-screen information should be built around the captions. They also submitted that screens should be re-designed to ensure there is always room for captions. The broadcasting representatives of the EN-CCWG submitted that captioning must work around information already embedded as part of the screen, such as weather, tickers, advertising or other information. They considered that screen re-design could negatively impact the commercial viability of their services, as screen design is a feature that broadcasters use to attract audiences.

56. For the French-language market, the Commission approved a mandatory standard for both live and pre-recorded captioning regarding the positioning of on-screen information. This standard provides that captions must be positioned to avoid covering action, visual elements or any information required to understand the message. If, despite the broadcaster's efforts, it is not possible to present captions without obstructing other graphic elements on screen, captions must take precedence.

Positions of parties

57. The EBG, IBG, Pelmorex and the CAD/CHHA generally supported the use of the same standard for the English-language market as was approved for the French-language market. The EBG noted that the standard approved for the French-language market sets out the objective of the standard without dictating the means by which it is to be achieved.

58. The EBG and IBG also suggested that the Commission should take into account the circumstances and resources of independent broadcasters when applying standards and should be prepared to make exceptions to these standards. Pelmorex argued that, when using voice recognition technology, captions cannot be moved around the screen.

59. The CAD/CHHA submitted that broadcasters can most effectively achieve consistent best placement of captions through two methods: design of the on-screen materials to ensure the least obtrusive placement of captions, and inserting standards specification in captioning procurement contracts.

Commission analysis and decisions

60. The Commission notes that there was general agreement among parties that the standard approved for the French-language market would be appropriate for the English-language market at this time. The Commission also notes that some parties cited individual circumstances as reasons to stay away from a “one-size-fits-all” approach. The parties did not submit evidence to support their assertion that it is impossible to move the location of captions on a screen, regardless of the technology used to generate the captions.

61. The Commission considers that it is appropriate to establish a single standard that will be applied to all licensees rather than several different standards based on individual circumstances. The Commission notes that the mandatory standards will be applied as conditions of licence. Accordingly, if a licensee is of the view that its particular circumstances warrant the Commission’s reconsideration of the standard in its case, it may apply to the Commission for a modified condition of licence. Clear and detailed evidence would be required in such circumstances.

62. The Commission considers that the standard approved for the English-language market must ensure that captions do not block other on-screen information. A mandatory standard to this effect is included in the Appendix. In addition, the Commission encourages broadcasters to continue to work with associations representing Deaf and hard of hearing users to investigate ways of incorporating a more inclusive approach to screen design to maximize the effectiveness of captioning.

What is an appropriate speed for captioning of live programming and children’s programming?

Background

63. In the Accessibility Policy, the Commission directed the captioning working groups to establish appropriate standards for the speed of roll-up captioning and children’s programming.

64. In its final report, the EN-CCWG proposed that children’s programming be captioned at a rate of 120-130 wpm. For programming other than children’s programming, the EN-CCWG proposed a standard whereby roll-up captions would follow the audio track – verbatim, closely and accurately. The EN-CCWG added that, when the audio reaches a certain rate of speed, it may be necessary to edit the captions in order to make the captions comprehensible, but the editing of roll-up captions should only be used sparingly.

65. For the French-language market, the Commission approved a mandatory standard whereby captions must be verbatim representations of the audio, regardless of the age of the target audience. In addition, speech must only be edited as a last resort, when technical limitations or time and space restrictions will not accommodate all of the spoken words at an appropriate presentation rate.

Positions of parties

66. In its submission, the EBG noted that EN-CCWG reached consensus on this matter but submitted that the standard should read as follows:

- For prepared captions, the rate of speed should not exceed 200 wpm for adult programming and be between 120-130 wpm for children's programs.
- For live programming, captions should be written at the speed the audio is delivered, unless the audio reaches the speeds noted above. In that case it will be necessary to edit the audio in order to make the captions comprehensible.

Commission analysis and decisions

67. The Commission is concerned that specifying a maximum wpm rate for non-children's programming may have the unintended result of exempting some live programming from the standard. In this regard, the Commission notes that programming, such as live sports, could be considered too fast paced to attempt verbatim captioning. The Commission considers however, that as proposed by the EN-CCWG in its final report, all live programming, including live unscripted programming, should be captioned verbatim and that captions should be edited as a last resort.

68. The Commission considers that the standard proposed by the EN-CCWG in its final report would achieve the same objective as the standard approved for the French-language market and is appropriate for the English-language market. To ensure that the standards are interpreted the same way in both language markets, the Commission considers that it is appropriate to adopt the same wording for the English-language market as was approved for the French-language market. The Commission also considers that what the EN-CCWG proposed as "an appropriate presentation rate" for children's programming is reasonable and appropriate to use in the definition related to this mandatory standard. A mandatory standard to this effect is included in the Appendix.

What is an appropriate timeframe within which to expect the correction of errors in live programs prior to rebroadcast?

Background

69. In the Accessibility Policy, the Commission stated that captioning errors in live programming should be corrected before such programming is rebroadcast. This issue was not addressed in the final report submitted by the EN-CCWG.

70. For the French-language market, the Commission approved a mandatory standard stating that, when a broadcaster rebroadcasts a program that was initially aired live, it must correct errors in the captioning if:

- the content is rebroadcast as is, i.e. subsequent broadcasts are recordings of the original broadcast;
- in the case of category 1 News or category 3 Reporting and Actualities programs, the time between the end of the original broadcast and the rebroadcast is equal to at least two times the total duration of the program; and
- in the case of all other live programs, the program is rebroadcast more than 24 hours after the end of the original broadcast.

Positions of parties

71. The EBG submitted that the wording approved for the French-language market might be appropriate for the English-language market as long as it was applied as a best practice. The EBG further submitted that the standard approved by the Commission for the French-language market is not achievable in the English-language market due to the number of steps involved in the correction process. The EBG also argued that a mandatory standard in this area could not apply to unscripted live programs such as sports.

72. Pelmorex supported the EBG submission. It also submitted that live weather, news and reporting is unscripted and therefore is very similar to live sports and other unscripted live programming. Pelmorex explained that re-captioning repeats of live unscripted segments would present the same substantial challenges as re-captioning other live unscripted broadcasts. Pelmorex therefore argued that timelines for correction of captioning must make a distinction between scripted and unscripted category 1 News and category 3 Reporting and Actualities programming.

73. The CAD/CHHA did not agree with applying the same standard to the English-language market that was approved for the French-language market. It argued that it is unnecessarily strict to require that, in order for errors to be corrected, rebroadcast programming must be re-aired exactly as it originally aired. The CAD/CHHA was of the view that breaking news and live sporting events or political events can be rebroadcast with slightly different spoken content in order to update information and that the changes can be reflected in the captioning. The CAD/CHHA also submitted that it is not necessary to allow the broadcaster twice the time of the program to correct errors. It further argued that, in cases where live programming is scripted and is continually repeated throughout the broadcast day (such as programming found on some sports channels), the correction of errors should be done immediately.

Commission analysis and decisions

74. The Commission considers that parties submitted insufficient evidence to suggest that errors made during unscripted programming such as live sports programming or programming that engages in lively discussion, cannot be corrected within the timeframes approved by the Commission for the French-language market.
75. The Commission emphasizes that this standard would apply only when a program is rebroadcast *in its entirety*, not when a segment is reused in another program. In cases where a segment is used in another program, the Commission agrees with the EBG that it would be difficult and ineffective for captionists to switch their software and attention between live captioning and simply sending the text file on a moment-by-moment basis. The Commission is of the view that this type of situation constitutes a new closed captioning situation and the captionist would be captioning the entire program as a new program. However, the Commission considers that broadcasters and captionists should take into account errors made during the original broadcast of a segment or program and take necessary precautions to ensure those errors are avoided in subsequent broadcasts of that segment or program. They must therefore make necessary adjustments to the captioning dictionary, and research unfamiliar names and terminology.
76. Accordingly, the Commission considers that the standard that the Commission approved in Broadcasting Regulatory Policy 2011-741 on this matter should also be applied as a standard in the English-language market. A mandatory standard to this effect is included in the Appendix.

Should there be a mandatory standard for emergency alerts?

Background

77. In the Accessibility Policy, the Commission directed the EN-CCWG to review its emergency broadcast standards to determine whether it is appropriate to include a provision that a sign-language message be broadcast during emergency programming. The EN-CCWG did not address the issue of emergency alert messages or the provision of sign-language in its final report.
78. In Broadcasting Regulatory Policy 2011-741, the Commission approved a best practice related to the provision of sign-language for emergency alerts, as well as a mandatory standard related to the captioning of emergency alerts. They are as follows:

Best practice – Sign language

In the event of a community emergency, broadcasters must ensure that a sign-language message is broadcast as soon as possible within their programming.

Mandatory standard - Closed captioning of emergency alerts

With the exception of emergency alerts issued by the National Alert Aggregation and Dissemination system, in the event of a community emergency, broadcasters are required to provide all relevant information in both vocal and written formats and must insert the captions in their programming as soon as possible, using the method described in the Universal Standards.⁸

Positions of parties

79. The EBG, Pelmorex and the CAD/CHHA agreed that the best practice for sign language and the mandatory standard for closed captioning that were approved for the French-language market would be appropriate for the English-language market.

Commission analysis and decisions

80. The Commission is of the view that applying the same approach to captioning and sign language for emergency messages that applies to the French-language market to the English-language market would reflect the consensus in the submissions and ensure consistency between the French- and English-language markets in this important area. Accordingly, the Commission establishes a mandatory standard for the closed captioning of emergency alerts, which is included in the Appendix, and a best practice regarding the use of sign language.

In what format should captioning of new Canadian pre-recorded programming be provided?

Background

81. In the Accessibility Policy, the Commission directed the EN-CCWG to amend the closed captioning quality standards to stipulate that all Canadian pre-recorded programming must be captioned in pop-on format.
82. In a letter dated 21 July 2010, Canadian television broadcasters asked the Commission to clarify its definition of pre-recorded programming, taking into account the time required for the production of pop-on captioning for programs that are received close to air-time.
83. In a letter dated 30 July 2010, the Commission replied that the key objective of the requirement regarding pop-on captioning is to ensure that such captioning is provided for pre-recorded Canadian dramas and documentaries. However, it recognized that there may be instances where pre-recorded programming other than drama and documentaries (such as rebroadcasts of news programming, daily soap

⁸ “The Universal Standards” refers to the final report provided by the FL-CCWG submitted in March 2011. For the English-language market, these standards are found in the CAB Manual.

operas and talk shows) must rely on real-time roll-up captioning due to time constraints between the receipt and broadcast of the program.

84. In the Notice of Consultation, the Commission noted that the standard proposed in the EN-CCWG's final report does not reflect the clarification provided by the Commission in its 30 July 2010 letter in regard to the type of programming that must be provided in pop-on captions.
85. In the EN-CCWG final report to the Commission, there was no consensus between consumer representatives and broadcasting representatives on this issue.⁹
86. The Commission notes that users of captioning in the French-language market did not express a preference on the format of captions, so this issue was not addressed for French-language programming.

Positions of parties

87. The EBG proposed to define pre-recorded programming required to use pop-on captions in a manner that would include the timing of its delivery. Pre-recorded programs would be defined as programs that have been delivered in their entirety – lacking only the closed captioning information – at least 96 hours before they are to be broadcast. The EBG further argued that the standard should specify that pop-on captions are to be used for new Canadian pre-recorded programming in categories 2(b) Long-form documentaries and 7 Drama and comedy.
88. Pelmorex supported the EBG definition of pre-recorded programming. It agreed that the definition should not include live programming such as news and sports, which rely on real-time roll-up captions, and that are re-broadcast at a later time or date.
89. The CAD/CHHA submitted that only live programs should be captioned in roll-up format; all other programming should be captioned in pop-on format. The CAD/CHHA also suggested that, when a broadcaster acquires programming through a simulcast feed delivered in real-time, it must make its best efforts to source and/or produce or subcontract for a version of the program that uses pop-on captions.

Commission analysis and decisions

90. In the Accessibility Policy, the Commission stated that it is preferable for Canadian pre-recorded programming to be provided in pop-on format. Further, in its letter dated 30 July 2010, the Commission stated that all new Canadian pre-recorded

⁹ The consumer representatives submitted that, with the exception of children's programming, all pre-recorded programming should be captioned in pop-on format. The broadcasting representatives of the EN-CCWG submitted that pop-on captions are to be used for new Canadian pre-recorded programming in categories 2(b) Long-form documentaries and 7 Drama and comedy, so long as broadcasters have sufficient time for pop-on captions to be produced between the delivery and airing of that program.

programs – not only new Canadian dramas and long-form documentaries – are to use pop-on captions, when time constraints are not an issue.

91. The Commission recognizes that there are instances where such programming does not lend itself well to pop-on captioning due to time constraints, such as when the time between the delivery and airing of the program is not sufficient for the production of pop-on captions.
92. Accordingly, the Commission approves a standard whereby pop-on captions are to be used for all new Canadian pre-recorded programming. For the purpose of this standard, pre-recorded programs will be defined as programs that have been delivered in their entirety – lacking only the closed captioning information – at least 96 hours before they are to be broadcast. A mandatory standard to this effect is included in the Appendix.

How should compliance be monitored?

Background

93. While the Commission did not specifically direct the EN-CCWG in the Accessibility Policy to consider monitoring, the Commission notes that this issue was raised by parties and considers it is appropriate to address monitoring in this regulatory policy. The EN-CCWG did not address monitoring in its final report.
94. For the French-language market, the Commission set out a mandatory standard requiring broadcasters to:
 - calculate the accuracy rate for two programs containing live content every month; and
 - provide the Commission with documented evidence of efforts made in-house and requests to captioning providers for ways to improve the accuracy of captioning every two years.
95. In addition, the Commission stated that it would ask French-language broadcasters to submit their monthly accuracy calculations when and if it deems it appropriate, such as when the Commission becomes aware of compliance issues. The Commission stated that it would address alleged non-compliance by individual broadcasters based on complaints, in the same manner as it does in the case of other programming-related complaints, and that it may consider the imposition of further monitoring requirements if it appears that there is repeated non-compliance.

Positions of parties

96. The EBG submitted that monitoring of closed captioning performance standards can and should be undertaken by broadcasters, who can report as required to the Commission. It noted that this is the established procedure followed by the Commission in respect to conditions of licence, such as Canadian content and

Canadian programming expenditure requirements. The EBG considered that the Commission has the ability to monitor compliance and there is no administrative or substantive benefit to changing practices at this time.

97. The CAD/CHHA and MAC submitted that there is a need to empower the closed captioning accessibility community to monitor and measure accessible content in Canadian broadcasting and report annually to the Commission and stakeholders.
98. In response, the EBG submitted that the creation of an independent monitoring body is unnecessary and inappropriate. The EBG also argued that the CAD/CHHA and MAC's proposal does not have the support of the broadcasting industry and that self-regulation can only work when fully supported by the regulated industry.

Commission analysis and decisions

99. In the Commission's view, a monitoring framework must ensure compliance with closed captioning quality standards. The Commission considers that the monitoring standards set out for the French-language market in Broadcasting Regulatory Policy 2011-741-1 for the French-language market achieve this goal. These standards also serve to ensure that techniques and technologies associated with the quality of closed captioning continue to evolve, because they motivate broadcasters to make efforts both in-house and with captioning providers to find ways of improving the accuracy of captioning. In addition, the Commission considers that the approach approved in Broadcasting Regulatory Policy 2011-741-1 provides for transparency while placing the administrative burden and costs on those parties associated with monitoring. In light of these benefits, the Commission considers that the monitoring standards for the French-language market are also appropriate for the English-language market. Accordingly, the Commission adopts the mandatory standard for monitoring set out in the Appendix.
100. The Commission will request that a broadcaster submit its monthly accuracy rate calculations when it deems it appropriate, such as in the event the Commission becomes aware of compliance issues. It will address any alleged non-compliance by individual broadcasters on a complaints basis, as it does in the case of programming-related complaints. The Commission will consider the imposition of further monitoring requirements if it appears that there is repeated non-compliance. A mandatory standard to this effect is set out in the Appendix of this policy.

Should the mandate of the EN-CCWG be extended?

Background

101. In the Notice of Consultation, the Commission sought comments on the appropriateness of extending the mandate of the EN-CCWG. It also asked whether further action is required to develop concrete, workable solutions with respect to other outstanding captioning quality issues, including the reduction of errors and technical problems such as dropped or garbled captioning, or captioning that is cut off by commercials or to address captioning issues in a digital environment.

Positions of parties

102. The EBG submitted that it does not believe that there will be a need in the near future to resume the working group discussions. The EBG submitted that the next stage in the process should consist of amending the CAB Manual to reflect the decisions taken in this proceeding and to better reflect the realities of the new technical environment.
103. Pelmorex was of the view that no additional standards were required and supported the recommendations of the EBG, noting the broadcasting industry's focus should now move to implementing the approved standards.
104. The CAD/CHHA argued that additional work is still required to develop concrete, workable solutions with respect to outstanding captioning quality issues identified in the Notice of Consultation. The CAD/CHHA suggested that the closed captioning accessibility community (including CAD, CHHA and other disability-related organizations that represent those who rely on closed captioning) be provided with the resources to complete the work of standards development.
105. MAC submitted that the accessibility community has moved the captioning agenda forward, both in the development of standards and best practices as well as in business innovation. It requested that the Commission direct the accessibility community to continue work on standards and best practices.

Commission analysis and decisions

106. There are proposals for the work to formally continue without the participation of representatives from all stakeholder groups. The Commission is of the view that this would not be appropriate. In Broadcasting Public Notice 2007-54, the Commission stated that the closed captioning working groups should be composed of representatives of private and public television broadcasters, including representatives from the CBC, educational, over-the-air, specialty, pay, pay-per-view and video-on-demand sectors. The working groups should also include representatives from consumer and advocacy groups representing persons who are Deaf or hard of hearing, as well as captioning providers. In light of the above, and given that the EN-CCWG members either do not believe that further working group meetings are necessary or do not wish to continue the working group as it is currently constituted, the Commission considers that the mandate of the current working group should not be extended.
107. If the Commission finds that a closed captioning working group needs to be re-established in the future, it will require the broadcasting industry to ensure that any such group includes representation from all broadcasters, distributors, providers, user associations and manufacturers of captioning equipment who wish to participate. Such a group would need to include broadcaster and distributor representatives that have an appropriate level of technical expertise as well as decision-making authority.

108. Prior to the dissolution of the EN-CCWG, the Commission directs the working group to file with the Commission an updated version of the CAB that reflect the changes identified in this regulatory policy no later than **4 August 2012**. The EN-CCWG should ensure that mandatory standards are clearly identified as such.

Implementation

109. The Commission establishes **1 September 2012** as the date on which the mandatory standards set out in the appendix to this regulatory policy will come into effect. Consequently, the first reports from broadcasters subject to the quality standards regarding efforts to improve the accuracy of captioning will be due on **31 August 2014**.

Conclusion

110. The Commission considers that the EN-CCWG has made significant progress with respect to establishing quality standards for closed captioning. These standards will enhance the accessibility of English-language programming for Canadians who are Deaf or hard of hearing.

Secretary General

Related documents

- *Quality standards for French-language closed captioning*, Broadcasting Regulatory Policy CRTC 2011-741, 1 December 2011, as amended by *Quality standards for French-language closed captioning – Enforcement, monitoring and the future mandate of the French-language Closed Captioning Working Group*, Broadcasting Regulatory Policy 2011-741-1, 21 February 2012
- *Call for comments on proposed French-language closed captioning quality standards*, Broadcasting Notice of Consultation CRTC 2011-489, 15 August 2011, as amended by Broadcasting Notice of Consultation CRTC 2011-489-1, 14 September 2011, and Broadcasting Notice of Consultation CRTC 2011-489-2, 3 October 2011
- *Call for comments on proposed English-language closed captioning standards*, Broadcasting Notice of Consultation CRTC 2011-488, 15 August 2011, as amended by Broadcasting Notice of Consultation CRTC 2011-488-1, 16 September 2011
- *Accessibility of telecommunications and broadcasting services*, Broadcasting and Telecom Regulatory Policy CRTC 2009-430, 21 July 2009
- *A new policy with respect to closed captioning*, Broadcasting Public Notice CRTC 2007-54, 17 May 2007

Appendix to Broadcasting Regulatory Policy 2012-362

English-language Closed Captioning Mandatory Quality Standards

1) Lag time

For live programming, the lag time between the audio and the captions must not exceed six seconds, averaged over the program.

2) Accuracy rate for pre-recorded programming

Captioning for pre-recorded programs must target an accuracy rate of 100%, including spelling.

3) Accuracy rate for live programming

Broadcasters must reach an accuracy rate of at least 95% averaged over the program, as measured by the following calculation method:

$$\text{Accuracy rate} = (\text{words} - \text{errors}^*) / \text{Words} \times 100$$

*For the purpose of this standard, an error includes word substitutions, word omissions, and word insertions.

4) Monitoring of accuracy rate

Every month each broadcaster must calculate the accuracy rate for two programs containing live content.

Every two years, broadcasters must provide the Commission with a report describing their efforts made in-house and requests to caption providers in order to improve the accuracy rate.

5) Rebroadcast of programs initially aired live

When a broadcaster rebroadcasts a program that was initially aired live, it must correct errors in the captioning if:

- the content is rebroadcast as is, i.e. subsequent broadcasts are recordings of the original broadcast;
- in the case of Category 1 (News) or Category 3 (Reporting and Actualities) programs, the time between the end of the original broadcast and the rebroadcast is equal to at least two times the total duration of the program; and
- in the case of all other live programs, the program is rebroadcast more than 24 hours after the end of the original broadcast.

6) On-screen information

Positioning: For both live and pre-recorded captioning, captions must be positioned to avoid covering action, visual elements or any information required to understand the message.

Conflict between captions and on-screen information: If, despite the broadcaster's efforts, it is impossible to present captions without obstructing other graphic elements on screen (e.g. sports scores, weather data, breaking news), captions take precedence.

7) Speed

Captions must be verbatim representations of the audio, regardless of the age of the target audience.

Speech must only be edited as a last resort, when technical limitations or time and space restrictions will not accommodate all of the spoken words at an appropriate presentation rate.

For the purpose of this standard, "appropriate presentation rate" is defined as 120-130 words per minute for children's programming.

8) Captioning format for Canadian pre-recorded programming

Pop-on captions are to be used for all new Canadian pre-recorded programming. Pre-recorded programs are those that have been delivered in their entirety – lacking only the closed captioning information – 96 hours before they are to be broadcast.

9) Closed captioning of emergency alerts

With the exception of emergency alerts issued by the National Alert Aggregation and Dissemination system, in the event of a community emergency, broadcasters are required to provide all relevant information in both vocal and written formats and must insert the captions in their programming as soon as possible, using the method described in the CAB Closed Captioning Manual.