



Broadcasting Decision CRTC 2020-153

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Reference: Part 1 application posted on 17 June 2019

Ottawa, 15 May 2020

Rogers Media Inc.

Toronto, Ontario

Public record for this application: 2019-0459-0

CKIS-FM Toronto – Technical changes

*The Commission **denies** an application to change the authorized contours of the English-language commercial radio station CKIS-FM Toronto, Ontario.*

Background

1. In Broadcasting Decision 2002-59, the Commission approved an application by Rogers (Toronto) Limited (RTL) to change the authorized contours of the English-language commercial radio programming undertaking then known as CISS-FM Toronto (now CKIS-FM Toronto), Ontario, by increasing the effective radiated power (ERP) from 4,700 to 9,870 watts. According to RTL, this technical change was necessary to minimize co-channel interference from WBEE-FM Rochester, New York, and to improve the station's local signal east and west of Toronto.
2. In Broadcasting Decision 2002-243, the Commission approved an application by RTL to change the authorized contours of CISS-FM by decreasing the ERP from 9,870 to 9,100 watts.
3. According to the licensee, since CISS-FM used a horizontally polarized antenna and WBEE-FM uses a circularly polarized antenna, implementation of the approved technical change resulted in increased interference from WBEE-FM. Consequently, RTL reverted to operating CISS-FM under the technical parameters authorized by the Commission prior to the publication of Broadcasting Decisions 2002-59 and 2002-243.
4. Pursuant to section 22(1) of the *Broadcasting Act*, given that the Department of Industry never issued a certificate of technical acceptance of the technical amendments for which authority was granted by the Commission in the above-mentioned broadcasting decisions, the authority granted in those decisions was later rendered invalid. Consequently, the station now known as CKIS-FM is only authorized to operate under the technical parameters approved in Decision 90-693 (at an average ERP of 4,700 watts).

5. In 2016, in response to listener complaints about in-car HD radios switching by default from CKIS-FM's analogue signal to WBEE-FM's HD Radio signal, Rogers Media Inc. (Rogers) implemented an HD Radio service on CKIS-FM. According to the licensee, offering an HD Radio signal successfully resolved in-car HD tuning issues. This implementation of HD Radio service did not address analogue interference issues.

Application

6. Rogers filed an application to change the authorized contours of CKIS-FM by changing the class from B to C1, increasing the average ERP from 4,700 to 9,000 watts (maximum ERP from 13,000 to 21,000 watts), increasing the effective height of the antenna above average terrain (EHAAT) from 287.8 to 296 metres, and by updating the existing coordinates of the transmitter site. All other technical parameters would remain unchanged.
7. The licensee indicated that the requested technical changes are necessary to improve reception quality and listening experience within CKIS-FM's authorized service area as well as to reduce co-channel interference from WBEE-FM, which the applicant claims is significantly worse than predicted by theoretical interference models.¹
8. Rogers submitted that the requested technical changes, if granted, would not have a material impact on existing radio stations in the same market, since CKIS-FM would still broadcast at significantly lower power than many other commercial radio stations serving Toronto.
9. According to Rogers, CKIS-FM operates at a significant disadvantage when competing against traditional radio stations and exempt digital music services.² Rogers added that an improvement to CKIS-FM's analogue signal quality would not increase the station's revenues. Rather, this improvement would permit CKIS-FM to consistently offer a high-quality analogue listening experience, retain listeners accustomed to high-quality audio from digital sources, and maximize its audience share in its licensed service area. The licensee also expressed the view that the requested increase in power was a reasonable and appropriate way to mitigate against technical deficiencies, since it would facilitate fairer competition between CKIS-FM and exempt digital music services without impacting competing radio stations.

¹ "Theoretical" refers to contours generated using FM propagation curves (F-Curves).

² That is, non-Canadian digital music services and services operating as exempt services in accordance with the Exemption order for digital media broadcasting undertakings, set out in the appendix to Broadcasting Order 2012-409.

10. Finally, according to Rogers, all of the factors that the Commission considered when granting its approval in Broadcasting Decision 2002-59 remain unchanged:

- The service contours proposed by the licensee, which extend west into Oakville and east into Markham, are similar to those previously approved and encompass only areas in the Toronto Central Market Area as defined by Numeris that CKIS-FM is already licensed to serve.
- According to Rogers, in submitting this application it is once again attempting to reduce co-channel interference from WBEE-FM and improve the listening experience within its licensed service area.
- An average ERP of 9,000 watts remains significantly lower than the average ERP of many of CKIS-FM's competitors in the Toronto market.
- The requested increase in CKIS-FM's average ERP to 9,000 watts is lower than the average ERP of 9,870 watts that was approved in Broadcasting Decision 2002-59.

Intervention

11. The Commission received one intervention offering general comments from Dufferin Communications Inc. (Dufferin), to which the licensee did not reply.³

Commission's analysis and decisions

12. After examining the record for this application in light of applicable regulations and policies, the Commission considers that the issues to be addressed are the following:

- whether Rogers has demonstrated a compelling technical or economic need justifying the requested technical changes;
- whether the changes are an appropriate technical solution;
- whether the requested technical changes represent an appropriate use of spectrum; and
- whether approval of the requested technical changes would have an undue negative financial impact on incumbent stations.

³ In its intervention, Dufferin indicated that it had requested a technical change for CIRR-FM Toronto and expressed concern that the application addressed in this decision, if addressed prior to its own, could impact the application for technical changes for CIRR-FM. This did not occur, as the Dufferin application was addressed first, and the Commission's decision was published in Broadcasting Decision 2020-39.

Demonstration of technical or economic need

13. When a licensee of a radio station files an application for a technical change, the Commission generally requires the licensee to present compelling technical or economic evidence justifying the technical change. In this case, Rogers indicated that the purpose of its application is solely to correct technical deficiencies, and it did not submit financial projections in support of this application.
14. With respect to technical need, Rogers stated that the issue of co-channel interference from WBEE-FM is well documented and has caused degradation of their signal since at least 2001, when the applicant originally applied for the power increase granted in Broadcasting Decision 2002-59. According to the licensee, the requested technical changes will reduce the population impacted by this co-channel interference by more than half.
15. In support of its application, Rogers submitted an interference study and a log of 165 listener-submitted complaints. The licensee added that CKIS-FM is particularly at risk for interference from WBEE-FM due to thermal ducting.
16. With respect to the interference study and the log of complaints, the Commission considers that both of these pieces of evidence indicated that signal interference had negative impacts on listenership in the eastern and western regions of Toronto, outside of CKIS-FM's primary (3 mV/m) service contour.⁴ For instance, 67% of the listener-submitted complaints originated from locations outside the station's primary service contour. Although other complaints originated from within the station's primary service contour, the causes of the signal reception issue were often unspecified and the locations provided were often imprecise. Moreover, any radio station is subject to a certain degree of signal reception issues within its primary service contours, especially in a dense urban area such as central Toronto.
17. With respect to thermal ducting, no accepted mathematical modelling technique exists to quantify its impact. The realistic⁵ interference maps provided by the licensee indicate significant interference zones within both the current and proposed secondary (0.5 mV/m) service contours for CKIS-FM, and these maps also indicate that approximately half of the total population currently experiencing interference is located within the interference zone that the station accepted, in accordance with *BPR-3: Application Procedures and Rules for FM Broadcasting Undertakings*, when it was first licensed in Decision 90-693. The Commission also considers, based on these same maps, that co-channel interference impacts a negligible percentage of listeners within the station's primary service contour.

⁴ An FM station's market is defined by the *Radio Regulations, 1986* as the station's 3 mV/m contour or the central area as defined by Numeris, whichever is smaller. In the Toronto market, 3 mV/m contours are typically smaller than the central area as defined by Numeris.

⁵ "Realistic" refers to contours generated using the CRC-Predict propagation model.

18. Based on the evidence provided, the Commission considers that CKIS-FM is subject to co-channel interference within its secondary service contour, and that the licensee's focus in submitting this application is to improve signal reception for the population within that contour. The Commission also considers that Rogers has not provided compelling evidence of signal interference within CKIS-FM's primary service contour.
19. In light of the above, the Commission finds that Rogers has not demonstrated a compelling technical need justifying the requested technical changes.

Appropriateness of the proposed technical solution

20. The licensee indicated that the requested technical changes are necessary to improve the quality of CKIS-FM's signal in lakefront communities east and west of Toronto that are especially prone to co-channel interference from WBEE-FM due to thermal ducting. Despite the failure of previous attempts to mitigate co-channel interference by increasing the ERP to more than 9,000 watts,⁶ Rogers submitted that the requested technical changes represent an appropriate technical solution, since its newly proposed antenna system will be able to overcome this interference. According to the licensee's estimates, 1% of the population within CKIS-FM's primary service contour currently experiences signal interference, and the requested technical changes would decrease this percentage to 0.2%.
21. The Commission considers that, although increasing power generally solves interference issues, the proposed solution would provide a negligible improvement to reception within CKIS-FM's primary service contour. In the Commission's view, this indicates that the licensee's intention in implementing these technical changes would be to improve reception within CKIS-FM's secondary service contour.
22. Following examination of the listener-submitted complaint log provided by Rogers, the Commission also considers that, if the requested technical changes were approved, a significant amount of interference would continue to occur at locations situated within the proposed service contours and at locations identified by listeners as areas in which they experienced interference.
23. Cross-border broadcasting is governed by bilateral agreements between Canada and the United States, and WBEE-FM is authorized to continue operating under its current technical parameters.⁷ The Commission also notes that the Department of Industry's database for interference reporting has no record of complaints submitted by Rogers on behalf of CKIS-FM.

⁶ As mentioned in the background to this decision, the Commission granted approval for the licensee to increase the ERP to 9,870 watts in Broadcasting Decision 2002-59 and to decrease the ERP to 9,100 watts in Broadcasting Decision 2002-243; however, these changes aggravated interference from WBEE-FM, and CKIS-FM reverted to its original operating parameters.

⁷ That is, WBEE-FM is authorized to operate at the maximum of its class B allotment.

24. In light of the above, with respect to improving CKIS-FM's signal within its primary service contour, the Commission finds that the requested technical changes are not appropriate on a technical basis. Rather, they represent an appropriate technical solution to improve the station's signal only within its current secondary service contour.

Appropriate use of spectrum

25. Given that there would be no change in the frequency on which CKIS-FM operates, the Commission considers that the requested technical changes represent an appropriate use of spectrum.

Impact on incumbent stations

26. Approval of the requested technical changes would result in an increase in the population served by CKIS-FM within that station's primary service contour by 32% and within its secondary service contour by 6%. However, the proposed expansion of the station's service area would not extend into a market that the station is not licensed to serve. Rather, the increase in population would be within the Toronto Central Market Area.

27. The Toronto radio market is the largest radio market in the country in terms of revenues and is one of the most profitable radio markets in terms of average profitability margins. Moreover, total revenues in the Toronto market have increased over the last few years.

28. Although the Commission considers that the licensee may have understated the financial ramifications of the requested technical changes, the Commission also considers that the Toronto market is performing well and that any potential impact would be borne by a large number of stations.

29. In light of the above, the Commission finds that approval of the requested technical changes would not have a negative financial impact on incumbent stations.

Conclusion

30. Although the Commission approved a similar application for this station in Broadcasting Decision 2002-59, the Commission must consider each application on its merits, based on the circumstances specific to the application. With respect to this application, although the requested technical changes would not have an undue negative financial impact on incumbent stations and would represent an appropriate use of spectrum, Rogers did not demonstrate a compelling technical or economic need, and the requested technical changes do not represent an appropriate technical solution to reception issues within CKIS-FM's primary service contour. Accordingly, the Commission does not consider it appropriate to deviate from its general approach of requiring each applicant to demonstrate a compelling technical or economic need justifying requested technical changes.

31. In light of all of the above, the Commission **denies** the application by Rogers Media Inc. to change the authorized contours of the English-language commercial radio programming undertaking CKIS-FM Toronto.

Other matters

32. According to the licensee, CKIS-FM is currently programmed as a Contemporary Hit Radio station that targets a younger audience accustomed to the high-quality audio offered by digital music services. Rogers added that, in order to attract and retain listeners, and to compete with higher-powered traditional radio stations as well as exempt digital media services, CKIS-FM must be able to offer a high-quality signal.

33. With respect to competition from higher-powered traditional radio stations, the Commission, in considering this application, found that the requested technical changes would result in a negligible improvement to CKIS-FM's signal quality within the market it is primarily licensed to serve, and that Rogers had not demonstrated a compelling technical need justifying approval of the changes.

34. With respect to competition from exempt digital media services, the Commission is of the view that this is an issue that impacts all traditional radio stations. Consequently, the Commission considers that the issue of competition with exempt digital media services falls outside the scope of this application and must be addressed as part of a broader public proceeding that would take into account the radio industry as a whole.

Secretary General

Related documents

- *CIRR-FM Toronto and CIDC-FM Orangeville – Technical changes*, Broadcasting Decision CRTC 2020-39, 31 January 2020
- *Amendments to the Exemption order for new media broadcasting undertakings (now known as the Exemption order for digital media broadcasting undertakings)*, Broadcasting Order CRTC 2012-409, 26 July 2012
- *CISS-FM Toronto – Technical change*, Broadcasting Decision CRTC 2002-243, 23 August 2002
- *Increase in power for CISS-FM*, Broadcasting Decision CRTC 2002-59, 28 February 2002
- *Consideration of Eleven Competitive Applications For a New FM Radio Station to serve Toronto or the Oshawa/Durham area, Ontario*, Decision CRTC 90-693, 8 August 1990