

October 20, 2017

Mr. Marc Girouard,  
Director, Coordination and Terrestrial Engineering  
Innovation, Science and Economic Development Canada  
235 Queen Street  
Ottawa, Ontario K1A 0H5

(Submitted by email: [marcg.girouard@canada.ca](mailto:marcg.girouard@canada.ca))

Dear Mr. Girouard,

**Re: HD Radio Laboratory Testing**

As you know, the Radio Advisory Board of Canada, via its Radio Working Group (which is a subcommittee of the RABC Broadcast Committee), is currently investigating the possible improvement to Broadcasting Circular-21 *Experimental HD Radio (Hybrid and Extended Hybrid) in the FM Broadcasting Band*.

One of the tasks that the Radio Working Group has set upon itself is to provide advice to ISED regarding how to improve the existing regulations (BC-21) and how to better define new regulations in order to help the transition to HD Radio, while providing adequate protection to existing analog FM services.

The purpose of this letter to request that ISED lead and fund the necessary studies and/or lab work required to identify the appropriate coordination parameters. The Department may be able to leverage internal (CRC) and/or external resources to complete the measurements. These studies and/or lab work are extremely important to develop the correct parameters for BC-21 that will: 1) help protect existing FM Broadcasting as HD Radio is deployed; 2) facilitate the deployment of HD Radio in Canada to its full capacity; and 3) negotiate international coordination in order to properly protect Canadian radio stations.

The RABC intends to provide the Department with a preliminary plan including the minimum objectives and requirements for the lab tests by the end of November. We would respectfully request that the Department plan complete the lab tests and provide the results to RABC in February 2018.

As identified by the Working Group, the coordination and field testing processes requested by the BC-21 do not currently provide enough information regarding the following topics.

- Adequate Desired to Undesired (D/U) protection ratios between:
  - HD Radio to Analog FM
  - Analog FM to HD Radio
  - HD Radio to HD Radio
- Standard test plan (as requested by BC-21) to evaluate:
  - Potential interference to Analog FM radio from HD Radio

- Potential interference to HD Radio from Analog FM radio
- Recommended practices regarding intra HD Radio to Analog host interference, based on: HD Radio injection levels, FM modulation, RDS, etc.
- Optionally: rules for the usage of on-channel repeater.

Although the RABC subcommittee is closely monitoring the investigations and research done in the USA, we could not identify detailed test measurements addressing the above-mentioned topics. Additionally, we believe that the Canadian industry should undertake its own testing to qualify the above related to the Canadian broadcasting environment.

The RABC Radio Working Group is presently looking to develop the laboratory test methodologies required to provide those answers, but the actual tests themselves will require access to laboratory, test equipment, encoding equipment (HD Radio and analog FM) as well as qualified staff to complete those tests.

We strongly believe that fulfillment of this request is critical to ensuring a harmonised introduction and deployment for the voluntary use of HD Radio in Canada. At the moment, interested broadcasters are limiting their investment and deployment due to the lack of a clear methodology and regulation regarding HD Radio. The goal is also to ensure that HD Radio services will become fully protected in the Canadian market.

Finally, on behalf of our members, I would like to recognize the participation of members of the Department in the activities of the Radio Working Group. Your participation is greatly appreciated.

Sincerely,



J. David Farnes  
General Manager