

Planetworks Reference: 600-71

Jason Hest, Manager, Network Operations
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Subject: Safety Code 6 Testing – Selected Vessels and Terminals

Dear Jason,

Thank you for considering Planetworks. Please find our services proposal attached.

Background: Planetworks is an independent professional engineering company with no vendor affiliations offering a wide range of wireless and IT-based consulting services. As part of the wireless services portfolio, Planetworks offers radio safety consulting services including RF Safety Awareness Training and Safety Code 6 Certifications for sites with transmitting antennas. Unlike other firms which provide Safety Code 6 Certifications by calculating the expected emissions, Planetworks measures the actual emissions on-site using Industry Canada approved test meters calibrated to Health Canada's Safety Code 6 specification. Since 2008, Planetworks has certified more than 500 radio sites utilizing this method. Please visit our website at www.planetworks.ca for further information.

Statement of Work: Some level of concern has been expressed regarding RF power density levels generated by WiFi systems installed on-board vessels and at terminals. Additional concerns have been also been expressed regarding power density levels associated with vessel radar systems.

Planetworks will perform on-site testing of vessels and terminals to identify RF power density levels. In addition to an overall sweep of the vessel or terminal locations, Planetworks will also conduct detailed testing at specific WiFi locations to characterize the RF levels in the immediate vicinity of the access points.

Proposed Method: The testing will take Planetworks approximately 2-3 hours for each vessel and terminal tested. Planetworks will require access to vessels and terminals at a mutually agreed date and time to conduct these tests.

Once on site, the Planetworks tester will conduct a sweep and record instantaneous peak emissions by walking the area and "sniffing" the emissions with the test equipment. The purpose

of this test is to establish those areas that are “hot” and require secondary testing or spatial averaging tests to determine the average field strength. The tester conducts the spatial averaging tests by setting the test equipment on a tri-pod with the probe approximating head height and running a six-minute test. It is expected that a number of these spatial average tests will be conducted at several access point locations to characterize the behaviour in the vicinity of the access point.

The test equipment yields emission measurements as a percentage attainment against limits set by Health Canada for continuous safe exposure. All measurements will be evaluated against Safety Code 6 (2015) for uncontrolled environments.

Planetworks will deliver a formal report, signed and sealed by a Professional Radio Engineer, typically within two weeks of conducting the test. This report will provide measured values by location and state that the tested area is:

- safe and no remedial actions are required, or,
- unsafe and will define remedial actions necessary to meet Safety Code 6.

Fees and Terms: The fees for a Safety Code 6 characterization and certification is for two vessels and two terminals. It is felt that this characterization data from this testing will be sufficient to permit BC Ferries to apply the finding against other vessels or terminals. However, Planetworks would be happy to amend the quote to perform testing on additional vessels or terminals if required.

Planetworks invoices at the beginning of every month for services delivered during the preceding month. Payment is net 30 days.

Personnel: Planetworks proposes the services of Karl Reardon P.Eng. Karl is a professional radio engineer and has provided radio safety consulting and Safety Code 6 certifications to numerous BC-based clients including Simon Fraser University, Metro Vancouver, E-Comm911, Rogers, Telus, Wind, and many Lower Mainland landlords.

If you have any questions or concerns regarding this proposal, you may contact me at

or via email at

Sincerely,

Marina Knez
Operations Manager
Planetworks Consulting Corporation