

August 25, 2005

Director, Spectrum and Radio Policy,
Telecommunications Policy Branch
Industry Canada
1604A
300 Slater Street,
Ottawa, Ontario
K1A 0C8

Re: Consultation on a Renewed Spectrum Policy Framework for Canada and
Continued Advancements in Spectrum Management.

Dear Madam / Sir:

Daniels Electronics Ltd. is pleased to submit our comments regarding the
May 2005 Notice No. DGTP-001-05. If you have any questions regarding our
comments please do not hesitate to contact me at 1-800-664-4066 ext 228.

Sincerely,
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Consultation on a Renewed Spectrum Policy Framework for Canada and Continued Advancements in Spectrum Management

*Daniels Electronics Ltd. comments are in the context of licensed LMR and Public Safety radio applications.

- (1) What steps can Canada take to further harmonize spectrum allocations, policies, standards and regulations to the greatest extent possible?

Daniels believes the government should simplify the approval processes allowing common approvals between countries. I.e. FCC approval, IC approval or other G8 approval (ETSI, ANZAC) should be sufficient within Canada. The government should also consider a broader application of “self declarations”, but only with the development of bi-lateral policy. At the same time the government should consider significantly higher penalties for non-compliance.

- (2) How can Canadian interests be further advanced in the international for a responsible for developing standards and regulations for new wireless technologies and services?

Daniels believes the government should take an active part in such standards activities that directly affect Canadian users. A good example is the TIA APCO P25 standard for Public Safety. The government does not effectively coordinate, promote (fund) or authorize its own agencies (RCMP, Parks, Foreign Affairs, Coast Guard, etc...) in developing consistent policy for advancing technology standards. Canada appears to be under represented at standards organizations, particularly from a user perspective.

- (3) *What additional spectrum should the Department make available for licence-exempt devices and what regulatory and technical provisions should be adopted for their use? Does this include consideration of currently licensed spectrum, and if so, what provisions could be adopted to facilitate transition to licence-exempt operation or band sharing between licensed and licence-exempt operation? Would a device registration process provide sufficient safeguards to licensed operations?*

Daniels believes the government should restrict the usage of spectrum for licence-exempt transmitters. Further to this we believe the government should adopt mandatory minimum specification requirements for receivers in public safety licenced bands.

- (4) *Would it be realistic to open some of the FCFS fixed microwave spectrum as licence-exempt operations where it may not align with the US market (e.g. some of the reserved 23 GHz band)? How could these installations be controlled so they do not interfere with US-licensed services along the border?*

Daniels has no comment.

- (5) *What means could be developed to ensure that licence-exempt consumer equipment in the field operates within established limits (e.g. e.i.r.p, antenna directivity, channel bandwidth, out-of-band emissions) and what flexibility should be permitted?*

Clear and tough enforcement, dedicate the manpower and demand strong penalties for non-compliance. Do not consider licence-exempt practices without putting in place appropriate

penalties. Canada has not implemented effective radio equipment importation rules. All radio emission equipment should have importation documents (with each shipment) clearly identifying the class / type of equipment and the penalties for non-compliance.

- (6) *Should the Department consider existing or new licence-exempt bands with a view to facilitating longer communications ranges for licence-free devices or system applications unique to the Canadian environment, such as rural and remote broadband fixed wireless access?*

Public Safety needs special consideration, allowing consumer equipment to overlap with emergency services would not be beneficial; practices to prohibit this should be considered. Although it is recognized that adopting specific technologies is difficult, we believe the government should force interoperable standards for public safety applications.

- (7) *For which services and in which situations should greater flexibility of spectrum use be afforded?*

Daniels believes that applications that are currently voice based as well as those used in rural settings should have flexibility to adopt new technologies that will enhance the service offering without a major relicensing effort.

- (8) *Under what situations and criteria would it be appropriate to consider extending this greater flexibility to existing licences?*

Daniels believes the government should allow this for Public Safety, rural telecommunications and other applications that provide greater information throughput.

- (9) *Should the Department extend transferability and divisibility privileges to other licensees? If so, which should be considered the highest priority and what timing would be appropriate?*

Daniels has no comment

- (10) *Are the current privileges associated with both spectrum and site licences sufficiently defined (this may include technical and operation parameters) to facilitate access to spectrum, the ease of trading the spectrum and the flexibility to offer a range of advanced wireless services?*

Daniels has no comment.

- (11) *In which areas do you see the Department further improving the FCFS process?*

Daniels has no comment.

- (12) *Are there other principles such as non-exclusivity, which can be applied to the FCFS process for authorization of spectrum on an area basis in situations where it would be normally anticipated that a competitive process would be required?*

Daniels has no comment.

- (13) *Is there a need to review and improve the current practice of placing roll-out requirements on licensees?*

Daniels has no comment.

(14) *Should the Department expand the use of mechanisms to make available unused spectrum, like it did with the new party cellular policy given in RP-019, which enables an entity to obtain a licence for otherwise unserved or underserved areas?*

Daniels has no comment.

(15) *Given the increased usage privileges offered to licensees, should the Department continue to include deployment requirements as a condition of licence or, alternatively, rely on market forces to ensure that the spectrum moves to the highest valued use and user?*

The government should always consider the deployment requirements as a condition of licensing.

(16) *Which technologies have the most promise of facilitating the use and management of the radiofrequency spectrum?*

In general technologies that are interoperable and provide backwards compatibilities should always be considered. Network based radio control topologies would appear to have a significant indirect impact on spectrum.

(17) *Are there other technologies or technical issues that the Department should be investigating?*

Within the USA it appears that there is a subtle effort to encrypt all public safety / critical infrastructure communications networks. It is not clear if Canada has policy or a long term vision for this trend and its implementation.

(18) *Which technologies seem the most appropriate in meeting the challenge of accommodating additional mobile and wireless access users in the VHF/UHF bands?*

APCO P25 and future interoperable migrations to narrow band (6.25 kHz.) technologies would appear to address thin route voice and data needs. This would appear to be a technology for the next 10 -15 years. High capacity data requirements require higher bandwidth; it is not clear how the government could allocate spectrum in these congested bands. It would appear that the emerging 700 MHz. bands will allow the additional capacity.

(19) *Should the definition of "rural" (and "remote") to describe areas with unserved or underserved communications, be based on population density as measured by Statistics Canada? What would be a practical approach for implementation?*

Daniels has no comment.

(20) *What policy and regulatory treatment would create conditions that best promote the extension of modern communication services to rural (and remote) areas?*

(a) *For example, should spectrum policies vary by geographic area according to the relative level of spectrum congestion or the demand for spectrum?*

Yes

(b) *In what manner should the technical and/or operational parameters for spectrum management policies and standards for wireless installations be relaxed in rural (and remote) areas?*

Make the standards appropriate for the location. Why force narrowbanding when there is only one transmitter in the region now and for the foreseeable future?

(21) Should the Department require that the licensing process for public safety systems consider the needs of the broader public safety community over larger geographical areas?

Yes

(22) Should the Department adopt standards which include the aspect of interoperability of public safety mobile systems?

Yes, interoperable standards must be adopted; this ensures coordination, scales of economy and longer term product viability.

(a) Should these standards be open standards to ensure that equipment from various vendors can operate on the same system?

Absolutely.

(b) Should the Department, through its regulations or licensing process, ensure that interoperability is included as an aspect of the design of public safety systems?

Yes, public safety interoperability should be regulated or licensed and referenced to documented standards.

(23) Should the Department identify common spectrum in the VHF and UHF bands (i.e. common to both Canada and the United States) to be used and shared in border areas for interoperability purposes, recognizing that currently spectrum in the VHF band is not aligned and that spectrum in both the VHF and the UHF bands is highly congested in densely populated areas?

Absolutely.