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**Bid Fax: (819) 997-9776**

## SOLICITATION AMENDMENT MODIFICATION DE L'INVITATION

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

**Comments - Commentaires**  
E-mail/Courriel : mark.walton@tpsgc-pwgsc.gc.ca

**Vendor/Firm Name and Address**  
**Raison sociale et adresse du**  
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**Issuing Office - Bureau de distribution**  
Scientific, Medical and Photographic Division /  
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11 Laurier St./ 11 rue, Laurier  
6B1, Place du Portage  
Gatineau, Québec K1A 0S5

<b>Title - Sujet</b> NUCLEAR MAGNETIC RESONANCE SPECTROM	
<b>Solicitation No. - N° de l'invitation</b> W8486-162889/A	<b>Amendment No. - N° modif.</b> 002
<b>Client Reference No. - N° de référence du client</b> W8486-162889	<b>Date</b> 2015-08-28
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$\$\$PV-903-67656	
<b>File No. - N° de dossier</b> pv903.W8486-162889	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> <b>on - le 2015-09-08</b>	<b>Time Zone</b> <b>Fuseau horaire</b> Eastern Daylight Saving Time EDT
<b>F.O.B. - F.A.B.</b> Specified Herein - Précisé dans les présentes <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input type="checkbox"/> <b>Other-Autre:</b> <input checked="" type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Walton, Mark	<b>Buyer Id - Id de l'acheteur</b> pv903
<b>Telephone No. - N° de téléphone</b> (819) 956-3813 ( )	<b>FAX No. - N° de FAX</b> ( ) -
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b> DEPARTMENT OF NATIONAL DEFENCE c/o QETE WAREHOUSE 819-994-1819 RAMP 8, ROOM C-113 45 SACRE COEUR BOULEVARD GATINEAU Quebec J8X 1C6 Canada	

**Instructions: See Herein**

**Instructions: Voir aux présentes**

<b>Delivery Required - Livraison exigée</b>	<b>Delivery Offered - Livraison proposée</b>
<b>Vendor/Firm Name and Address</b> <b>Raison sociale et adresse du fournisseur/de l'entrepreneur</b>	
<b>Telephone No. - N° de téléphone</b> <b>Facsimile No. - N° de télécopieur</b>	
<b>Name and title of person authorized to sign on behalf of Vendor/Firm</b> <b>(type or print)</b> <b>Nom et titre de la personne autorisée à signer au nom du fournisseur/</b> <b>de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</b>	
<b>Signature</b>	<b>Date</b>

This amendment is raised to distribute replies to bidders' questions, as detailed below. All other terms and conditions of the original solicitation and of solicitation amendment 001 dated August 19, 2015 remain unchanged, including the revised closing date and time of Tuesday, September 8, 2015.

**2.2.1.1 - Why does DND need the spectrometer transmitter range to go up to 65MHz when it has a 0.47 T (<sup>1</sup>H @ 20 MHz) magnet?**

Correct, 20 MHz is required for the proton probe, while for fluorine, 19 MHz is needed so variability in the transmitter range is a plus. DND will accept a transmitter which can be used uniquely at 20 and 19MHz.

**Is the 1 ppm resolution mentioned here related to the transmitter frequency or to a spectrum line-shape resolution – if it is for line-shape resolution, is this a request for a high-homogeneity magnet?**

The 1 ppm resolution is for the transmitter frequency.

**2.2.2.1 – What is a 20 Hz transmitter? Typically ADC is 3 MHz**

This is a typing error, it should have read "20 MHz transmitter". DND should be able to select the desired frequency so in reality, it is a selective transmitter.

**2.2.2.2 and 3 – A single probe with a tuning capacitor can easily observe <sup>1</sup>H and <sup>19</sup>F – are 2 separate probes really a requirement?**

One or two separate probes but preference is for a tunable one allowing <sup>1</sup>H and <sup>19</sup>F.

**2.2.2.5 -100 to +200°C in the probe is an issue – non-standard specialty probe system would be required for this temperature range. Also dry nitrogen gas would be required at the customer site.**

This should be reflected in the bid (ex. by providing & quoting the non-standard probe system for proton and fluorine) as well as any special requirement (ex. dry compressed air/liquid). Please describe the temperature range.

**2.2.2.6 – What is the difference between a 20 MHz <sup>1</sup>H NMR probe and a “20 MHz absolute probe”?**

- 20 MHz <sup>1</sup>H NMR probe – uses a ratio probe (short dead time)
- 20 MHz absolute probe – uses an absolute probe (longer dead time for higher sensitivity) for spin finishes and coatings.

**2.2.2.10 – Will our current probe for 20 mm tubes be a suitable replacement for the 18 mm tube size mentioned in the requirements.**

18 or 20 mm are fine, as long as they fit inside the magnet air gap.

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**2.2.3.5 – What is this software for multi-compound analysis – is it multi-component analysis of exponential NMR signals?**

Yes, this is a software capable of breaking down relaxation decays into individual components (usually greater than 2).

**2.2.4.2 and 3 – solid/liquid content standards and 8 spin finish calibration samples – currently these are not available.**

These are usually required for calibration/shimming purposes – if the bidder feels that their equipment does not requires calibration or regular shimming using standard then this should be clearly specified and certified in their bid.

**3.1 – 30 day delivery may not be plausible of some of the above requirements are set in stone and custom probe and magnet engineering must be performed.**

DND is flexible for delivery time. The RFP will be amended accordingly.