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Bid Fax: (306) 975-5397

**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**

**Vendor/Firm Name and Address**  
**Raison sociale et adresse du**  
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101 - 22nd Street East  
Suite 110  
Saskatoon  
Saskatche  
S7K 0E1

<b>Title - Sujet</b> Modular Field Laboratory	
<b>Solicitation No. - N° de l'invitation</b> K4E21-150031/A	<b>Amendment No. - N° modif.</b> 003
<b>Client Reference No. - N° de référence du client</b> K4E21-150031	<b>Date</b> 2015-12-10
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$STN-190-4833	
<b>File No. - N° de dossier</b> STN-5-38035 (190)	<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 2015-12-15</b>	
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input checked="" type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Mack, Wayne	<b>Buyer Id - Id de l'acheteur</b> stn190
<b>Telephone No. - N° de téléphone</b> (306) 241-6435 ( )	<b>FAX No. - N° de FAX</b> (306) 975-5397
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b> Environment Canada 11 Innovation Blvd Saskatoon, SK S7N 3H5	

**Instructions: See Herein**

**Instructions: Voir aux présentes**

<b>Delivery Required - Livraison exigée</b>	<b>Delivery Offered - Livraison proposée</b>
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<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>

## Questions and Answers:

### Question 1)

The trailer is to be used in winter in Saskatchewan the weather can be very cold -40C or less, the original tender called for 1" insulation in the walls? This will require a very large furnace, we would recommend increasing the insulation to foam in place urethane with a minimum of 5".

### Answer 1)

We agree that there should be more insulation than specified in the original specifications. Install appropriate R-value insulation to maintain 22C when the temperature is between -40C to +30C.

### Question 2)

The air make up requirements for fume hood (420cfm) and air changes for a lab 6-12 air changes per hour for the room (+/- 25' x 9'x 7') 11025 to 18900cfh or 184 to 315 cfm. If fume hood and room air ventilation are running at same time, the air supply requirement will be 605 to 735 cfm. Since the lab is to be operational in winter -40C or cooler temperature can be assumed. If 605 to 735 CFM of cold air at minus 40C temperature is introduced into the lab will make working inside the lab impossible specially with only 1" of insulation in the walls. Does this problem have to be addressed. If so how much shore power amperage will be available, or does the winter heat to be provided by the generator only or a combination gas furnace and generator.

### Answer 2)

Additional heating will be provided by shore power or generator.

### Question 3)

Acid is being generated as a waste product, is this acid going to be discharged into the waste tank?

### Answer 3)

We do not expect too much acid to be going into the waste tank as we are just using the tank as precautionary measure when transferring from one bottle to another.

### Question 4)

The specification was written in such a way that it was believed the requirement was for a commercial enclosed trailer 8'6" wide x 30' interior 33' + tongue with equipment added. The amendment indicates otherwise. In view of the requirement and possibly the need to address the questions under 1,2 and 3 above, more time is needed to address the items of amendment 1 and the above questions.

### Answer 4)

We have discussed the width of the trailer and would like to make a change of minimum width of 8'5" to maximum 9'0". This supercedes the minimum 9.5 feet to 10 feet maximum indicated in Amendment #1

### Question 5)

Because of insulation requirements in walls and ceiling of 1" styrofoam, winter operation was not taken into consideration, based on insulation it was assumed that it was for warm temperature use. There is a serious concern as to the exterior operating temperature minimum temperature and desired interior temperature when the fans are working, also the heating requirements with 1" of styrofoam will be outrageous. For instance if exterior temperature is -40C and the desired interior temperature is 22C with the required insulation 19 kw of heat, Could you provide coldest exterior temperature and desired interior temperature in winter and in summer.

### Answer 5)

Install appropriate R-value insulation to maintain 22C when the temperature is between -40C to +30C.

**Question 6)**

The same applies for make up air, during winter months, make up air will have to be heated in order to have comfortable interior temperature during fume hood operation.

**Answer 6)**

We have removed the requirement for make-up air.

**Question 7)**

The spec provided in the tender requirement indicated that it would be a standard enclosed trailer with equipment addition. Depending on temperature requirements, required dimension, insulation requirements etc... that trailer has to be custom built.

**Answer 7)**

Yes it is custom trailer.

**Question 8)**

In order to reduce heating requirements would you change the insulation requirement from 1" polystyrene to foam in place urethane with R value to suit installed heating and interior temperature during winter operation.

**Answer 8)**

Install appropriate R-value insulation to maintain 22C in the winter.

**Question 9)**

Depending on heating requirements, how is the heating to be provided, propane and electric, electric only by generator or shore line generator combination. Depending on temperature requirements and insulation up to 40kw of heating could be required (135,000 BTUS)

**Answer 9)**

Primary heating is from propane and additional heating will be provided by shore power or generator.

**Question 10)**

How are we to address amperage requirements of the trailer?

**Answer 10)**

Power source is from 220V shore line. Minimum 70AMP load center (is in specifications)

**Question 11)**

Replacing the outside exhaust of the fume hood with a re-circulating unit with filters, this would eliminate the need of providing make up air warming during winter operation and cooling during summer operation.

**Answer 11)**

We have removed the requirement for make-up air.

**Question 12)**

Insulating the walls ceiling and floor with superior insulation, 4"-5" foam urethane R-25to31 would also reduce the need of BTU's to warm the inside in winter and to cool during summer

**Answer 12)**

Install appropriate R-value insulation to maintain 22C in the winter.

**Question 13)**

Replacing trailer type doors with manufactured insulated doors would reduce the need of BTU

**Answer 13)**

Install appropriate insulated door to maintain 22C in the winter and reduce need for more BTU.

**Question 14)**

In a laboratory the room air changes suggested are 6-12 changes per hour, during extremely cold months and extremely hot months, the air re-circulation could be reduced to 6 changes per hours, thus reducing the cooling and heating requirements. This could be achieved with variable speed controller for the exhaust fan

**Answer 14)**

We have removed the requirement for make-up air.

**Question 15)**

Locate the clean and spent water tanks inside in a mildly heated enclosure fed by shore power during non-operation period would allow the use of the water system at all time. The only time when the water system would have to be drained is when shore power is not available

**Answer 15)**

Agree

**Question 16)**

With these options, the size of furnace, AC, generator could be reduced, the size of electric panel also.

**Answer 16)**

Agree. Install appropriate R-value insulation to maintain 22C in the winter and reduce need for external power from generator or shore power.

**Question 17)**

Can you be more specific as to the fume hood required, specification of hood itself, hoods will depend on what product and material is tested and what work must be done inside hood. Your client should have specification on the type of hood that is required with possibly model number or specification on what is tested so that we can offer a product that will perform. Or can offer a very basic model?

**Answer 17)**

A basic hood that will meet the current specification in the tender document is acceptable.