

June 27, 2012

**ATTACHMENT 0011**  
**TECHNICAL INFORMATION QUESTIONNAIRE (TIQ)**  
M1061A1 Antilock Brake System

**FAILURE TO PROVIDE A RESPONSE TO EVERY QUESTION ON THIS TIQ MAY RESULT IN A REJECTION OF YOUR PROPOSAL UNDER PHASE I – TECHNICAL FACTOR OF THIS SOLICITATION. OFFEROR IS NOT LIMITED TO THE SPACE PROVIDED TO ANSWER ANY QUESTION.**

**A. GENERAL**

Trailer Manufacturer \_\_\_\_\_

Mailing Address \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Personnel Responding to Questionnaire

Name \_\_\_\_\_

Title \_\_\_\_\_

Company Responsibility/Position \_\_\_\_\_

Telephone/Fax Numbers \_\_\_\_\_

E-mail address \_\_\_\_\_

**B. SUBSTANTIATING DOCUMENTATION**

In addition to responding to the questions below, the offeror shall provide the following as substantiating documentation for C. through E. of this questionnaire:

1. A bill of materials for the proposed Antilock Brake System (ABS) containing all manufacturer, industrial specification, and military specification part numbers.
2. Identification of all modifications and redesigns to the trailer necessary to meet the ABS requirements of Attachment 0001, MIL-DTL-62073H Amendment 1(AT) Section 3.5.7.2.4.

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3. Engineering drawings depicting all mechanical and electrical interface requirements for new and altered components. Contractor format is acceptable.
4. Red-lined markups of TDP 8750137 (Attachment 0002) depicting installation of the proposed ABS into the trailer configuration in a, from-to condition.
5. ABS component commercial literature and specification sheets or any other information that would substantiate the information provided.

US Federal Motor Vehicle Safety Standards (FMVSS) can be obtained at the following website: <http://www.gpo.gov/fdsys/pkg/CFR-2010-title49-vol6/pdf/CFR-2010-title49-vol6-sec571-121.pdf>

### **C. ANTILOCK BRAKE SYSTEM CONFIGURATION**

Is the proposed Antilock Brake System equipped with:

1. Sensors that determine rate of angular rotation of the wheels in accordance with FMVSS 121 paragraph S4(1)?  **Yes** /  **No**
2. Conductors that transmit rate of wheel angular rotation signals to one or more controlling device in accordance with FMVSS 121 paragraph S4(2)?  **Yes** /  **No**
3. One or more controlling devices which interpret the rate of angular rotation and generate responsive controlling output signals in accordance with FMVSS 121 paragraph S4(2)?  **Yes** /  **No**
4. Conductors that transmit responsive controlling signals to one or more modulators in accordance with FMVSS 121 paragraph S4(3)?  **Yes** /  **No**
5. One or more modulators which adjust brake actuating forces in response to controlling signals to automatically control the degree of rotational wheel slip during braking in accordance with FMVSS 121 paragraph S4(2)?  **Yes** /  **No**
6. A wheel control configuration in accordance with FMVSS 121 paragraph S5.2.3.1(b)?  **Yes** /  **No**

### **D. ANTILOCK BRAKE SYSTEM INTEGRATION**

If a sensor-equipped axle is purchased from a subcontractor, commercial literature for the axle will be used to substantiate sensor integration questions below (1. & 2.).

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1. Are mounting locations identified for ABS wheel speed sensors to configure the trailer in accordance with FMVSS paragraph S5.2.3.1(b)?  **Yes** /  **No**
2. Are sensor enabling features (e.g. tone rings) identified and positioned to configure the trailer in accordance with FMVSS paragraph S5.2.3.1(b)?  **Yes** /  **No**
3. Is a mounting location identified for an ABS controlling device(s) to configure the trailer in accordance with FMVSS paragraph S5.2.3.1(b)?  **Yes** /  **No**
4. Is electrical power provided to the ABS controlling device(s) to configure the trailer in accordance with FMVSS paragraph S5.2.3.1(b)?  **Yes** /  **No**
5. Are all ABS electrical wire harness routes identified to configure the trailer in accordance with FMVSS paragraph S5.2.3.1(b)?  **Yes** /  **No**
6. Are all ABS pneumatic plumbing routes identified to configure the trailer in accordance with FMVSS paragraph S5.2.3.1(b)?  **Yes** /  **No**
7. Are all ABS hydraulic plumbing routes identified to configure the trailer in accordance with FMVSS paragraph S5.2.3.1(b) ?  **Yes** /  **No**
8. Are the electronics designed for a fording depth of 60 inches and capable of meeting environmental requirements of Attachment 0001, MIL-DTL-62073H Amendment 1(AT) Section 3.8?  **Yes** /  **No**
9. Does the diagnostic capability without off board device required in RFP section C.1.2.1, include the capability to detect a problem in the following items individually: wheel speed sensors, module(s), modulator(s)?  
 **Yes** /  **No**
10. Operation at 12 and 24 Volts in accordance with Attachment 0001, MIL-DTL-62073H Amendment 1(AT) Section 3.5.7.2.4?  **Yes** /  **No**

#### **E. TRAILER CONFIGURATION WITH ANTILOCK BRAKES**

Does the trailer configuration with the proposed ABS integration maintain:

1. Maximum trailer deck height in accordance with TDP drawing 8750137 (Attachment 0002)?  
 **Yes** /  **No**

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2. Minimum ground clearance in accordance with TDP drawing 8750137 (Attachment 0002)?  **Yes** /  **No**
  
3. Approach angle in accordance with TDP drawing 8750137 (Attachment 0002)?  
 **Yes** /  **No**
  
4. Departure angle in accordance with TDP drawing 8750137 (Attachment 0002)?  
 **Yes** /  **No**
  
5. Minimum turning radius in accordance with Attachment 0001, MIL-DTL-62073H Amendment 1(AT) Section 3.5.7.6?  
 **Yes** /  **No**