

AWARD/CONTRACT		1. This Contract Is A Rated Order Under DPAS (15 CFR 700)		Rating DOA4	Page 1 Of 33 Pages
2. Contract (Proc. Inst. Ident.) No. W56HZV-13-C-0384		3. Effective Date 2013SEP25		4. Requisition/Purchase Request/Project No. SEE SCHEDULE	
5. Issued By U.S. ARMY CONTRACTING COMMAND JAMES J. GIACCHINA WARREN, MICHIGAN 48397-5000 HTTP://CONTRACTING.TACOM.ARMY.MIL		Code W56HZV	6. Administered By (If Other Than Item 5) DCMA DAYTON AREA C, BUILDING 30 1725 VAN PATTON DRIVE WRIGHT-PATTERSON AFB, OH 45433-5302		Code S3605A
e-mail address: JAMES.J.GIACCHINA@US.ARMY.MIL					
7. Name And Address Of Contractor (No., Street, City, County, State and Zip Code) TENNECO INC. CLEVITE ELASTOMERS 33 LOCKWOOD RD MILAN, OH 44846-9734				8. Delivery <input type="checkbox"/> FOB Origin <input checked="" type="checkbox"/> Other (See Below)	
				9. Discount For Prompt Payment	
Code 27387 Facility Code				10. Submit Invoices (4 Copies Unless Otherwise Specified) Item 12	
11. Ship To/Mark For SEE SCHEDULE				12. Payment Will Be Made By DFAS - COLUMBUS CENTER NORTH ENTITLEMENT OPERATIONS P.O. BOX 182266 COLUMBUS, OH 43218-2266	
13. Authority For Using Other Than Full And Open Competition: <input checked="" type="checkbox"/> 10 U.S.C. 2304(c)(1) <input type="checkbox"/> 41 U.S.C. 253(c)				14. Accounting And Appropriation Data SEE SECTION G	
15A. Item No.		15B. Supplies/Services		15C. Quantity	15D. Unit
SEE SCHEDULE					
				15E. Unit Price	
				15F. Amount	
				15G. Total Amount Of Contract → \$348,600.00	

16. Table Of Contents

(X)	Sec.	Description	Page(s)	(X)	Sec.	Description	Page(s)
Part I - The Schedule				Part II - Contract Clauses			
X	A	Solicitation/Contract Form	1	X	I	Contract Clauses	23
X	B	Supplies or Services and Prices/Costs	5	Part III - List Of Documents, Exhibits, And Other Attachments			
X	C	Description/Specs./Work Statement	10	X	J	List of Attachments	33
X	D	Packaging and Marking	15	Part IV - Representations And Instructions			
X	E	Inspection and Acceptance	16		K	Representations, Certifications, and Other Statements of Offerors	
X	F	Deliveries or Performance	17		L	Instrs., Conds., and Notices to Offerors	
X	G	Contract Administration Data	19		M	Evaluation Factors for Award	
X	H	Special Contract Requirements	22				

Contracting Officer Will Complete Item 17 (Sealed-Bid or Negotiated Procurement) Or 18 (Sealed-Bid Procurement) As Applicable

17. <input checked="" type="checkbox"/> Contractor's Negotiated Agreement (Contractor is required to sign this document and return 2 signed copies to issuing office.) Contractor agrees to furnish and deliver all items or perform all the services set forth or otherwise identified above and on any continuation sheets for the consideration stated herein. The rights and obligations of the parties to this contract shall be subject to and governed by the following documents: (a) this award/contract, (b) the solicitation, if any, and (c) such provisions, representations, certifications, and specifications, as are attached or incorporated by reference herein. (Attachments are listed herein.)		18. <input type="checkbox"/> Sealed-Bid Award (Contractor is not required to sign this document.) Your bid on Solicitation Number _____, including the additions or changes made by you which additions or changes are set forth in full above, is hereby accepted as to the items listed above and on any continuation sheets. This award consummates the contract which consists of the following documents: (a) the Government's solicitation and your bid, and (b) this award/contract. No further contractual document is necessary. (Block 18 should be checked only when awarding a sealed-bid contract.)	
19A. Name And Title Of Signer (Type Or Print)		20A. Name Of Contracting Officer JOHN M. HOPFNER JOHN.HOPFNER@US.ARMY.MIL (586)282-7359	
19B. Name of Contractor	19c. Date Signed	20B. United States Of America	20C. Date Signed
By _____ (Signature of person authorized to sign)		By _____ /SIGNED/ (Signature of Contracting Officer)	2013SEP25

CONTINUATION SHEET	Reference No. of Document Being Continued PIIN/SIIN W56HZV-13-C-0384 MOD/AMD	Page 3 of 33
---------------------------	---	----------------------------

Name of Offeror or Contractor: TENNECO INC.

Note: There is no "expected" or "target" length of time for proposal submission; size and content may be factors, therefore offerors are strongly cautioned to submit their proposals allowing adequate time for submission.

Solicitations may remain posted on the AFSI Open Solicitation Web page after the solicitation closes. Even though the system will allow you to submit a proposal after the closing date/time, your proposal will be considered late and may not be considered for award. If you are responding to a Request for Proposal, your offer will not be considered if it is submitted after the closing date and time unless one of the exceptions is met at FAR 15.208(b). If you are responding to a Request for Quotation, your quote may be considered if it is received after the closing date, and it will not unduly delay award.

(f) Any award issued as a result of this solicitation will be distributed electronically. Awards posted on ProcNet represent complete OFFICIAL copies of contract awards and will include the awarded unit price. This is the notice required by Executive Order 12600 (June 23, 1987) of our intention to release unit prices in response to any request under the Freedom of Information Act (FOIA), 5 USC 552. Unit price is defined as the contract price per unit or item purchased as it appears in Section B of the contract and is NOT referring to nor does it include Cost or Pricing data/information. If you object to such release, and you intend to submit an offer, notify the contracting officer in writing prior to the closing date identified in this solicitation and include the rationale for your objection consistent with the provisions of FOIA. A release determination will be made based on rationale given.

(g) If you have questions or need help using ProcNet, call our E-commerce Contracting Help Desk at (586) 282-7059, or send an email to usarmy.detroit.acc.mbx.wrn-web-page-request@mail.mil. If you have questions about the content of any specific item posted on the ProcNet, please call the contract specialist or point of contact listed for the item. For technical assistance in doing business with the Government, and doing business electronically, please visit the Procurement Technical Assistance Center website at <http://www.dla.mil/SmallBusiness/Pages/ProcurementTechnicalAssistanceCenters.aspx> to find a location near you.

End of Provision

A-2 52.201-4000 ARMY CONTRACTING COMMAND-WARREN (DTA) OMBUDSPERSON APR/2011

Information regarding the Ombudsperson for this contract is located at the following website:
<http://contracting.tacom.army.mil/acqinfo/ombudsperson.htm>

[End of Provision]

A-3 52.232-4087 PAYMENT UNDER WIDE AREA WORKFLOW (ACC WARREN) JAN/2012

TACOM-Warren uses Wide Area Workflow, Receipt and Acceptance (WAWF-RA) to electronically process vendor requests for payment. (See DFARS clause 252.232-7003, entitled Electronic Submission of Payment Requests and Receiving Reports). Under WAWF-RA, vendors electronically submit (and track) invoices, and receipt/acceptance documents/reports. Submission of hard copy DD250/invoices is no longer acceptable for payment purposes.

The contractor shall register to use WAWF-RA at <https://wawf.eb.mil> There is no charge to use WAWF. Direct any questions relating to system setup and vendor training to the Help Desk at Ogden, UT at 1-866-618-5988. Web-based training for WAWF is also available at <https://wawftraining.eb.mil>

To obtain payment, WAWF requires the contractor to input/indicate the various DoDAAC (Department of Defense Activity Address Code) codes that apply to the acquisition. These codes can be found on the cover page of contracts/orders as described below.

USE THE FOLLOWING CODES TO ROUTE YOUR INVOICES THROUGH WAWF:

- Your firms CAGE code (found in Block 15A of SF 33; Block 17a of SF 1449; Block 14 of SF 1442; Block 7 of SF 26)
- Issue and Admin DoDAAC Code (found in Block 7 of SF 33; Block 9 of SF 1449; Block 7 of SF 1442; Block 5 of SF 26)
- Ship-To DoDAAC Code (if deliverables are involved) (found in Section B of the contract where SF 33, SF 1442, or SF 26 is the cover page; Block 15 of SF 1449)
- Accept-By DoDAAC Code: If Inspection/Acceptance is Origin, use the Admin (DCMA)DoDAAC or the DoDAAC of the inspection/acceptance office if different than the Admin DoDAAC; if Destination, use the Ship-To DODAAC Code. If Accepted-By Other: enter the DoDAAC of the activity designated to perform acceptance.
- Payment DoDAAC Code. (found in Block 25 of SF 33; Block 18a of SF 1449; Block 27 of SF 1442; Block 12 of SF 26)

The paying office DoDAAC and mailing address is located on the first page of the award. To track the status of your invoice, click on the link, Pay status (myInvoice-External link) at the bottom of the left-hand menu.

If your paying office is Columbus, direct any payment-related questions to the Defense Finance Accounting Services (DFAS) Columbus at 1-

CONTINUATION SHEET	Reference No. of Document Being Continued PIIN/SIIN W56HZV-13-C-0384 MOD/AMD	Page 4 of 33
---------------------------	--	----------------------------

Name of Offeror or Contractor: TENNECO INC.

888-756-4571. Please have your order number and invoice ready when calling about payment status. If your paying office is other than Columbus, contact your contract administrator for the customer service phone/fax numbers.

[End of Clause]

CONTINUATION SHEET

Reference No. of Document Being Continued

Page 5 of 33

PIIN/SIIN W56HZV-13-C-0384

MOD/AMD

Name of Offeror or Contractor: TENNECO INC.

SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS

(NOTE: DUE TO AN ADMINISTRATIVE ELECTRONIC ISSUE, CLINS 0003,0004 and 0005 WERE NOT USED FOR THIS CONTRACT - AND CLINS 0006, 0007 AND 0008 WERE USED IN THEIR PLACE)

*** END OF NARRATIVE B0001 ***

CONTINUATION SHEET

Reference No. of Document Being Continued
 PIIN/SIIN W56HZV-13-C-0384 MOD/AMD

Name of Offeror or Contractor: TENNECO INC.

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT								
0001	BASE EFFORT												
0001AA	<p><u>ELASTOMER TRACK IMPROVEMENT SERVICES</u></p> <p>GENERIC NAME DESCRIPTION: BASE EFFORT CLIN CONTRACT TYPE: Cost No Fee PRON: R33MC008R3 PRON AMD: 01 ACRN: AA AMS CD: 622601H9100</p> <p>The Contractor shall provide all services necessary to develop, fabricate, and test the supplies to accomplish the Scope of Work (SOW) Base Effort described in Section C of this solicitation. Delivery shall be in accordance with the requirements detailed in Section F and the inspection of the shall be in accordance with the requirements detailed in Section E.</p> <p>(End of narrative B001)</p> <p><u>Inspection and Acceptance</u> INSPECTION: Destination ACCEPTANCE: Destination</p> <p><u>Deliveries or Performance</u></p> <table border="0"> <tr> <td>DLVR SCH</td> <td></td> <td>PERF COMPL</td> </tr> <tr> <td><u>REL CD</u></td> <td><u>QUANTITY</u></td> <td><u>DATE</u></td> </tr> <tr> <td>001</td> <td>1</td> <td>25-SEP-2014</td> </tr> </table> <p>\$ 348,600.00</p>	DLVR SCH		PERF COMPL	<u>REL CD</u>	<u>QUANTITY</u>	<u>DATE</u>	001	1	25-SEP-2014	1	LO	\$ 348,600.00
DLVR SCH		PERF COMPL											
<u>REL CD</u>	<u>QUANTITY</u>	<u>DATE</u>											
001	1	25-SEP-2014											
0002	UNEXERCISED OPTION 1												
0002AA	<p><u>OPTION 1 - ELASTOMER TRACK IMPROVEMENT SERVICES</u></p> <p>GENERIC NAME DESCRIPTION: UNEXERCISED OPTION 1 CLIN CONTRACT TYPE: Cost No Fee</p> <p>In the event the PCO exercises the option in accordance with Section H, the contractor shall furnish all the supplies and services to accomplish the Scope of Work (SOW) described in Section C.5 Option Effort of this contract. Delivery shall be in accordance with the requirements detailed in Section F and the inspection shall be in accordance with the requirements detailed in Section</p>	1	LO	\$ 349,400.00									

CONTINUATION SHEET	Reference No. of Document Being Continued PIIN/SIIN W56HZV-13-C-0384 MOD/AMD	Page 9 of 33
---------------------------	--	----------------------------

Name of Offeror or Contractor: TENNECO INC.

B.1 Estimated Cost and Payment

B.1.1 The estimated cost for performance of the work required under this contract is stated in Section B, CLIN 0001 which shall constitute the estimated cost for the purpose of the Contract Clause hereof entitled "LIMITATION OF COST" (FAR 52.232-20).

B.1.2 Allowable cost shall be determined, and payment thereof shall be provided, in accordance with the Contract Clause hereof entitled "ALLOWABLE COST AND PAYMENT" (FAR 52.216-7).

B.2 Payment

B.2.1 The Contractor may submit public vouchers monthly for payment under this contract.

B.2.2 If Option 1 is exercised (Ref. C.5 & H.1.1), the Option CLIN and SubCLIN will be funded to pay the Contractor, in the amount maximum of \$349,400.00.

B.3 Funding

B.3.1 The contractor shall notify the Government in accordance with the Contract Clause entitled "Limitation of Cost," whenever there is reason to believe that the funds allotted to this contract are either insufficient or excessive for the performance of the work required.

*** END OF NARRATIVE B0002 ***

CONTINUATION SHEET**Reference No. of Document Being Continued**

Page 10 of 33

PIIN/SIIN W56HZV-13-C-0384

MOD/AMD

Name of Offeror or Contractor: TENNECO INC.

SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

	<u>Regulatory Cite</u>	<u>Title</u>	<u>Date</u>
C-1	52.204-4003 (TACOM)	START OF WORK MEETING	SEP/2013

The contractor shall hold a start of work meeting at its facility, unless some other location is designated in the contract, within 15 days after contract award. The Start of Work Meeting is to assure a clear and mutual understanding of the contract terms, conditions, line items, technical requirements and sequence of events needed for successful execution of the subject contract effort. The contractor shall participate with Government to arrange a schedule and agenda for the meeting.

The contractor shall at a minimum invite the Government contracting personnel (PCO/Contract Specialist). At the discretion of the PCO, other Government technical personnel (Contracting Officer's Representative (COR) identified in Section G or in an appointment letter, Quality Assurance personnel, DCMA, etc.) may also be invited to the meeting. All Government invitees shall be given at least 14 days advance notice of the time, date, and location of the start of work meeting. The preferred method of notification is by email. The contractor shall provide the Government with minutes of the Start of Work Meeting within 14 days after the meeting is held.

[End of Clause]

C-2	52.237-4000 (TACOM)	CONTRACTOR MANPOWER REPORTING (CMR)	FEB/2013
-----	------------------------	-------------------------------------	----------

The Office of the Assistant Secretary of the Army (Manpower & Reserve Affairs) operates and maintains a secure Army data collection site where the contractor will report ALL contractor labor hours (including subcontractor labor hours) required for performance of services provided under this contract via secure data collection site. The contractor is required to completely fill in all required data fields in the format using the following web address: <https://cmra.army.mil>. The required information includes the following:

- (1) Contracting Office, Contracting Officer, Contracting Officer's Technical Representative;
- (2) Contract number, including task and delivery order number;
- (3) Beginning and ending dates covered by reporting period;
- (4) Contractor name, address, phone number, e-mail address, identity of contractor employee entering data;
- (5) Direct labor hours (including sub-contractors);
- (6) Direct labor dollars paid this reporting period (including sub-contractors);
- (7) Total payments (including sub-contractors);
- (8) Predominant Federal Service Code (FSC) reflecting services provided by contractor (and separate predominant FSC for each sub-contractor if different);
- (9) Data collection cost;
- (10) Organizational title associated with the Unit Identification Code (UIC) for the Army Requiring Activity (the Army Requiring Activity is responsible for providing the contractor with its UIC for the purposes of reporting this information);
- (11) Locations where contractor and sub-contractors perform the work (specified by zip code in the United States and nearest city, country, when in an overseas location, using standardized nomenclature provided on website);
- (12) Presence of deployment or contingency contract language; and
- (13) Number of contractor and sub-contractor employees deployed in theater this reporting period (by country).

Reporting inputs will be for the labor executed during the period of performance during each Government fiscal year (FY), which runs October 1 through September 30. While inputs may be reported any time during the FY, all data shall be reported no later than October 31 of each calendar year, beginning with 2013. Contractors may direct questions to the help desk at : <https://cmra.army.mil>.

End of Clause]

STATEMENT OF WORK

Project Title: Abrams T-158LL Track System Durability Improvements

Name of Offeror or Contractor: TENNECO INC.

C.0 The contractor will provide research, development, and engineering support to TARDEC's Track & Suspension Team in the following areas: compounding, laboratory testing, prototype component production, track component fabrication, track system assembly, vehicle testing support, and failure mode analysis in order to increase the durability of Abrams track components by 25% (base effort), and potentially by 50% (option effort).

C.0.1 Background

The Abrams Main Battle Tank (MBT) running gear system continues to be an expensive and high maintenance item for the US Army. The combat vehicle running gear system typically is composed of the track, road wheels, idler wheel, drive sprocket, support rollers, track tensioner, suspension, and drive hub. It has been determined that the track system elastomer components are one of the primary "life limiters" for the entire running gear system. The elastomer components in a typical tracked combat vehicle running gear system are: the track bushings (TB), road wheel backer pads (RWBP), track ground pads (GP), and road wheel (RW) tires.

C.0.2 Purpose

The purpose of this effort is to develop, fabricate and test new and optimized Abrams MBT track bushings (TB), road wheel backer pads (RWBP) and ground pads (GP) components that will (i) extend the current durability performance by 25% in the base effort (and by 50% in the event the option is exercised), over the current durability performance level; and (ii) not detrimentally affect the performance of other running gear components.

C.1 BASE EFFORT

C.1.0 The contractor shall develop, fabricate, and test new elastomeric track components for the 70-ton Abrams Main Battle Tank (MBT) application. The new elastomeric components shall be developed for the T-158LL track system, a sample of which is already in the contractor's possession. The contractor shall apply technical expertise to achieve improvement in materials, design and compounding, and shall furnish specialized laboratory testing, prototype part manufacturing, and the assembly of prototype T-158LL track systems for vehicle testing. The contractor shall leverage its experience with novel TB, RWBP and GP material and design improvements. The contractor shall use the chart found in SEPERATLY ATTACHED Section J, Attachment 0001, Figure 1 as component durability goals.

C.1.1 The contractor shall develop all track system elastomer improvements with the understanding that the entire running gear acts as a system. New elastomer components introduced into the prototype T-158LL track systems shall not detrimentally affect other stated running gear components by their introduction into the system.

C.1.2 The contractor shall develop and optimize fiber and nano-particle reinforced elastomers for the TB, RWBP and GP application to obtain the stated component durability goals and running gear system compatibility. The contractor shall perform development and leverage specialized laboratory testing to identify potential track part elastomer candidates. Progress on design, test development, testing and data collection shall be reported to the Contracting Officer's Representative (COR) quarterly. The contractor shall coordinate R&D activities to produce material comparisons to recommend the down selection of optimized elastomer candidates to the COR at the Critical Design Review (CDR). Approval to proceed for track part manufacturing shall be obtained at the CDR. The CDR will be held within six (6) months from the date of contract award.

C.1.3 The contractor shall optimize (i) base polymer selection and (ii) compound optimization activities and designs used in the Abrams T-158LL track application for the two (2) T-158LL prototype track strands.

C.1.4 The contractor shall fabricate two prototype T-158LL track strands. One track strand shall be fabricated with the DTL style bushing and optimized base polymer and compound. The second (2nd) track strand shall be fabricated with the double trapezoidal (2TPZ) style bushing design. Each track strand shall be fabricated with the same two (2) prototype and one (1) baseline RWBP compounds. The contractor shall fabricate two (2) prototype GP compounds. The quantities and configuration of the prototype track pitches and ground pads are found in SEPERATLY ATTACHED Section J, Attachment 0001, Figure 2.

C.1.5 The contractor shall also provide spare track pitches as outlined in SEPERATLY ATTACHED Section J, Exhibit, A Figure 2. The contractor shall assemble the prototype track systems as outlined in SEPERATLY ATTACHED Section J, Attachment 0001, Figure 3.

C.1.6 These two prototype T-158LL track strands shall be assembled with standard production T-158LL hardware (i.e. end connectors, corrosion protection, Cosmoline, etc) and in accordance with track assembly specifications outlined in MIL STD 11891G.

C.1.7 The Government will be responsible for supplying, at the test site and during track assembly, Government Furnished Property, a total of fifty-two (52) T-158LL production track pitches. Twenty-six (26) of the production pitches will be inserted into strand # 1 and twenty-six (26) be inserted into strand # 2 to collect direct baseline durability data.

C.1.8 The contractor shall deliver the two prototype T-158LL track strands to the Government test site location specified by the COR. The fabrication and delivery of the two prototype track strands shall be completed within ten (10) months from the date of contract award.

CONTINUATION SHEET**Reference No. of Document Being Continued**

Page 12 of 33

PIIN/SIIN W56HZV-13-C-0384

MOD/AMD

Name of Offeror or Contractor: TENNECO INC.

C.1.8.1 The Government will be responsible for performing the track installation and vehicle testing of the prototype track system at a Government test site location.

C.1.8.2 The contractor shall be present at the Government test site location during the initial installation and break-in phase of the prototype T-158LL track strands to ensure product conformance and assembly "best practices" are utilized. (Reference C.4 below.)

C.2.1 The T-158LL prototype track system shall be tested by the Government at a Government test facility utilizing the Abrams TRADOC OPMODE test protocol. The Abrams MBT shall be approximately 70 tons in weight. It is expected that a Government APIVT test vehicle shall be used for the evaluation.

C.2.2 The Government will install and remove all track and ground pads from the test vehicle. Removal and installation of track components will be at the discretion of the Government and test site personnel. The Government will ship track specimens to the contractor (i) in the event of a premature track failure; and (ii) at the end of the vehicle test for contractor to perform wear and FMEA analysis.

C.2.3 The contractor shall conduct material and component tests and perform a failure modes and effects analysis (FMEA) of the TB, RWBP, and GP components. Using data from material and component tests, evaluate the reasons for any component and system failures and propose suggestions to enhance performance for a potential next phase of work. The contractor shall provide the FMEA and recommendations in accordance with CRDL A003, "Design and Material" recommendations.

C.3 DELIVERABLES

C.3.1 Contractor's Progress Status and Management Report in accordance with CDRL A001 shall be submitted quarterly. The quarterly report shall be in accordance with the format and scope specified in the applicable Data Item Description (DD Form DI-MGMT-80227). The first submission of Progress Status and Management Report shall be no later than sixty (60) days after contract award.

C.3.1.1 At a minimum, each report submitted shall address technical progress made during the reporting period, describe any problems encountered, discuss plans for the following report period, and identify funding spent to date versus the planned funding line. All reports shall be furnished to the COR in accordance with the requirements, quantities, and schedules set forth in the Contract Data Requirements List (DD Form 1423, CDRL A001) and in accordance with the DI-MGMT-80227(T)).

C.3.2 The contractor shall submit technical reports on test development activity, data from material testing and laboratory testing and validation in accordance with DI-MISC-80711A, CDRL A002. The technical reports shall be submitted quarterly from date of contract award.

C.3.3 The contractor shall document all prototype T-158LL track design, material, and manufacturing work. The contractor shall communicate these to the COR and provide detailed reports in accordance with DI-MISC-80711A, CDRL A003. The report shall be submitted no later than sixty (60) days prior to the completion of this contract.

C.3.4 The Contractor shall submit a draft final technical report for the base effort in accordance with CRDL A004 no later than sixty (60) days prior to the completion of this contract. The COR shall review the draft technical report and return it to the Contractor within fifteen (15) days of receipt with comments. The Contractor shall submit one (1) final Technical Report (with the completed SF 298) within thirty (30) days after receipt of draft comments. (In the event the Contracting Officer exercises Option One, also refer to C.7.4 below.)

C.3.5 The contractor shall deliver two prototype track strands and track pads as stated in section C.1.4. This shall be completed 30 days prior to the end of the contract period.

C.3.6 The base effort shall be completed in twelve (12) months from the date of contract award.

C.4 CONTRACTOR TRAVEL

C.4.1 The contractor shall travel to TARDEC, three (3) times during the base effort for a period of one to two days each, to (i) discuss developments in component testing, design and material development activities, (ii) attend the CDR, and (iii) discuss the results of the final report and potential next phase of work.

C.4.1.2 The contractor shall travel to the Government Test facility at the initial installation and break-in phase of the track. Duration shall not exceed four (4) days.

C.4.1.3 The contractor shall also travel to the Government Test facility when the vehicle test mileage reaches 50% of the base effort objective mileage. Duration shall not exceed four (4) days.

C.4.1.4 The contractor shall also travel to the Government Test facility when the vehicle test mileage reaches 100% of the base effort objective mileage or track system failure whichever should occur first. Duration shall not exceed four (4) days.

C. CONTRACT OPTION

CONTINUATION SHEET**Reference No. of Document Being Continued**

Page 13 of 33

PIIN/SIIN W56HZV-13-C-0384

MOD/AMD

Name of Offeror or Contractor: TENNECO INC.

C.5 OPTION ONE In the event the Contracting Officer exercises the option in clause H.1 of this contract, then the contractor shall be responsible to perform the following additional tasks, beginning the day after expiration of the base contract performance period.

C.5.0 The contractor shall conduct a meeting with the Government COR to outline the results of the base effort vehicle testing and recommendations and R&D plan to achieve the required level of durability for the option effort (reference paragraph C.0.2 above). This meeting shall be held at the Government's facility, and shall last no longer than two (2) days. During this meeting the contractor along with the Government COR shall perform an assessment of the base effort vehicle testing in order to down-select the best performing track system components during the base effort vehicle testing. These components shall then be further refined to meet the stated durability objectives outlined in C.0.2 and C.5 under the option effort. This meeting will occur within fourteen (14) days after commencement of the option performance period.

C.5.1 The contractor shall optimize compounds and designs created and tested during the base contract performance period for the TB, RWBP and the GP to obtain the stated component durability goals (reference paragraph C.0.2 above) and running gear system compatibility. The contractor shall perform R&D activities and leverage specialized laboratory testing to optimize track material selection for the respective track components. Progress on optimization activities which improve durability of the TB, RWBL and GP achieved in the base effort shall be reported to the COR quarterly. The contractor shall coordinate R&D activities to produce material comparisons to recommend the down selection of optimized elastomer compounds to be reviewed with the COR at the Critical Design Review (CDR) this will be held within five (5) months from the commencement of the option performance period. Approval to proceed for track part manufacturing shall be obtained at the FDR. The FDR will be held within seven (7) months from the commencement of the option performance period.

C.5.2 The contractor shall fabricate prototype T-158LL track strands in quantities as outlined below. (Reference Figure 3 found in Attachment 0001.) Each track strand shall be fabricated with the same one (1) bushing configuration, one (1) RWBP compound and the baseline track system. The contractor shall fabricate one (1) prototype GP compound. The quantities and configuration of the prototype track pitches and ground pads are found in SEPERATLY ATTACHED Section J, Attachment 0001, Figure 4.

C.5.3 The contractor shall provide track pitch spares as outlined in SEPERATLY ATTACHED Section J, Attachment 0001, Figure 4. The contractor shall assemble the prototype track pitches in 6-8 segments for shipment to the Yuma Proving Grounds (YPG).

Reference SEPERATLY ATTACHED Section J, Attachment 0001, Figure 5.

C.5.4 The contractor shall deliver sixty-four (64) track pitches of prototype T-158LL, T-3150F1 and 124 GP's of the T-3150FI will be assembled with standard production T-158LL hardware (i.e. end connectors, corrosion protection, Cosmoline, etc) and in accordance with track assembly specifications outlined in MIL STD 11891G. Sixty-four (64) track pitches of prototype T-158LL, T-3150F2 and 124 GP's of the T-3150F2 will be assembled with standard production T-158LL hardware (i.e. end connectors, corrosion protection, Cosmoline, etc) and in accordance with track assembly specifications outlined in MIL STD 11891G.

C.5.5 The Government will be responsible for supplying, at the test site and during track assembly, Government Furnished Property, a total of fifty-two (52) T-158LL production track pitches. Twenty-six (26) of the production pitches will be inserted into strand F1 and twenty-six (26) be inserted into strand F2 to collect baseline durability data.

C.5.6 The Government will be responsible for performing the track installation and vehicle testing of the prototype track system at a Government test site location.

C.5.7 The contractor shall be present at the Government test site location during the initial installation and break-in phase of the prototype T-158LL track strands to ensure product conformance and assembly "best practices" are utilized. (Reference C.8 below.)

C.5.8 The T-158LL prototype track system shall be tested at a Government test facility utilizing the Abrams TRADOC OPMODE test protocol. The Abrams MBT shall be approximately 70 tons in weight.

C.5.9 The Government will install and remove all track and ground pads from the test vehicle. Removal and installation of track components will be at the discretion of the Government and test site personnel. The Government will ship track specimens to the contractor (i) in the event of a premature track failure; and (ii) at the end of the vehicle test for FMEA analysis.

C.6.0 The contractor shall conduct material and component tests and perform a failure modes and effects analysis (FMEA) of the TB, RWBP, and GP components. Using data from material and component tests, evaluate the reasons for any component and system failures and propose suggestions to enhance performance for a potential next phase of work. The contractor shall provide the FMEA and recommendations in accordance with CRDL A003, "Design and Material" recommendations.

C.7 OPTION ONE DELIVERABLES

C.7.1 The contractor shall deliver sixty-four (64) track pitches of prototype T-158LL, T-3150F1 and 124 GP's of the T-3150FI will be assembled with standard production T-158LL hardware (i.e. end connectors, corrosion protection, Cosmoline, etc) and in accordance with track assembly specifications outlined in MIL STD 11891G. Sixty-four (64) track pitches of prototype T-158LL, T-3150F2 and 124 GP's of the T-3150F2 will be assembled with standard production T-158LL hardware (i.e. end connectors, corrosion protection, Cosmoline, etc) and

CONTINUATION SHEET	Reference No. of Document Being Continued	Page 14 of 33
	PIIN/SIIN W56HZV-13-C-0384 MOD/AMD	
Name of Offeror or Contractor: TENNECO INC.		

in accordance with track assembly specifications outlined in MIL STD 11891G.

C.7.1.1 Contractor's Progress Status and Management Report in accordance with CDRL A001 shall be submitted quarterly. The quarterly report shall be in accordance with the format and scope specified in the applicable Data Item Description (DD Form DI-MGMT-80227). The first submission of Progress Status and Management Report shall be no later than sixty (60) days after start date of option effort.

C.7.1.2 At a minimum, each report submitted shall address technical progress made during the reporting period, problems encountered, plans for the following report, and funding spent to date versus the planned funding line. All reports shall be furnished to the Government in accordance with the requirements, quantities, and schedules set forth in the Contract Data Requirements List (DD Form 1423, CDRL A001) and in accordance with the DI-MGMT-80227(T).

C.7.1.3 The contractor shall submit technical reports on test development activity, data from material testing and laboratory testing and validation in accordance with DI-MISC-80711A, CDRL A002. The technical reports shall be submitted quarterly after start date of option effort.

C.7.1.4 The contractor shall document all prototype T-158LL track design, material, and manufacturing work. The contractor shall communicate these to the COR and provide detailed reports in accordance with DI-MISC-80711A, CDRL A003. The report shall be submitted no later than sixty (60) days prior to the completion of the option effort.

C.7.1.5 The contractor shall submit a draft final technical report for the option effort in accordance with CRDL A004 no later than sixty (60) days prior to the completion of the contract option period. The COR shall review the draft technical report and return it to the Contractor within fifteen (15) days of receipt with comments. The Contractor shall submit one (1) final Technical Report (with the completed SF 298) within thirty (30) days after receipt of draft comments.

C.7.1.6 The contractor shall deliver two prototype track strands and track pads as stated in section C.1.4. This shall be completed 30 days prior to the end of the contract period.

C.7.1.7 If the option is exercised, the option effort shall be completed in twelve (12) months, commencing from the end of the base contract performance period.

C.8 CONTRACTOR TRAVEL

C.8.1 The contractor shall travel to TARDEC, three (3) times during the option effort for a period of one to two days each, to (i) discuss developments in component testing, design and material development activities, (ii) attend the CDR, and (iii) discuss the results of the final report and potential next phase of work.

C.8.1.2 The contractor shall travel to the Government Test facility at the initial installation and break-in phase of the track. Duration shall not exceed seven (7) days.

C.8.1.3 The contractor shall also travel to the Government Test facility when the vehicle test mileage reaches 50% of the base effort objective mileage. Duration shall not exceed four (4) days.

C.8.1.4 The contractor shall also travel to the Government Test facility when the vehicle test mileage reaches 100% of the base effort objective mileage or track system failure whichever should occur first. Duration shall not exceed four (4) days.

C.9 MANPOWER REPORTING

C.9.1 The contractor shall report all contractor labor hours (including subcontractor labor hours) required for performance of services provided under this contract for the U.S. Army via a secure data collection site. The contractor is required to completely fill in all required data fields using the Army CMR site, which you can access by clicking on the "Department of Army CMRA" link from the following gateway web address: <http://www.ecmra.mil/>.

C.9.2 Reporting inputs will be for the labor executed during the period of performance during each Government fiscal year (FY), which runs October 1 through September 30. While inputs may be reported any time during the FY, all data shall be reported no later than October 31 of each calendar year, beginning with 2013. Contractors may direct questions to the Army CMR help desk, which can be contacted using the "Send an email" link on the right side of the sign-in screen at the Army CMR site.

C.9.3 Additional information can be found in the clause in this contract entitled CONTRACTOR MANPOWER REPORTING (52.237-4000).

CONTINUATION SHEET**Reference No. of Document Being Continued****Page 15 of 33****PIIN/SIIN** W56HZV-13-C-0384**MOD/AMD****Name of Offeror or Contractor:** TENNECO INC.

SECTION D - PACKAGING AND MARKING

D.1 PACKAGING & PACKING

D.1.1 The Contractor shall package and pack all deliverables under this contract in accordance with standard commercial practice in order to assure arrival at Destination without damage or loss.

D.2 MARKING

D.2.1 Materials and Hardware Marking: The Contractor shall mark or tag all materials and hardware required to be delivered under this contract with the following information:

1. TACOM CONTRACT NUMBER
2. CONTRACTOR'S NAME
3. CONTRACTOR'S ADDRESS
4. A DESCRIPTION OF MATERIAL/HARDWARE

*** END OF NARRATIVE D0001 ***

CONTINUATION SHEET**Reference No. of Document Being Continued****Page 16 of 33****PIIN/SIIN** W56HZV-13-C-0384**MOD/AMD****Name of Offeror or Contractor:** TENNECO INC.

SECTION E - INSPECTION AND ACCEPTANCE

	<u>Regulatory Cite</u>	<u>Title</u>	<u>Date</u>
E-1	52.246-9	INSPECTION OF RESEARCH AND DEVELOPMENT (SHORT FORM)	APR/1984
E-2	52.246-16	RESPONSIBILITY FOR SUPPLIES	APR/1984

E.1 INSPECTION & ACCEPTANCE POINT

E.1.1 Inspection and acceptance of all deliverables under this contract shall be made at DESTINATION by the Contracting Officer or his duly authorized representative. The determination that the deliverables are complete and conform to the requirements of the contract will be made by the Contracting Officer's Representative (COR), to assure the work and the results thereof are in accordance with the terms of the contract.

*** END OF NARRATIVE E0001 ***

CONTINUATION SHEET**Reference No. of Document Being Continued**

Page 17 of 33

PIIN/SIIN W56HZV-13-C-0384

MOD/AMD

Name of Offeror or Contractor: TENNECO INC.

SECTION F - DELIVERIES OR PERFORMANCE

	<u>Regulatory Cite</u>	<u>Title</u>	<u>Date</u>
F-1	52.242-15	STOP-WORK ORDER (AUG 1989) -- ALTERNATE I (APR 1984)	APR/1984
F-2	52.242-17	GOVERNMENT DELAY OF WORK	APR/1984
F-3	52.247-34	F.O.B. DESTINATION	NOV/1991

DELIVERIES AND PERFORMANCE

F.1 DELIVERY

F.1.1 All deliveries shall be made in accordance with the Contract, or as otherwise directed by the Contracting Officer or authorized representative and shall be packaged and marked in accordance with Section D.

F.1.2 Any deliverables requiring a physical address shall be shipped to:

U.S. ARMY TARDEC
William Bradford, COR
AMSRD-TAR-R, MAIL STOP 159
6501 EAST 11 MILE ROAD
WARREN, MI 48397-5000

*All shipments shall be coordinated with the COR prior to delivery.

F.2 METHOD OF DELIVERY

F.2.1 All deliveries shall be made on a FOB DESTINATION basis.

F.3 BASE EFFORT PERFORMANCE - CLINs 0001 AND 0006

F.3.1 The period of performance for the base effort of this Contract will be twelve (12) months after Contract award date, including submission of final technical report.

F.3.2 The Contractor shall prepare and submit a final technical report in contractor format addressing all of the work performed against the Scope of Work during the contract in accordance with the requirements of Exhibit A, Contract Data Requirements List, Data Item A004(DD Form 1423-1). Acceptance of the final report will constitute completion of the basic contract period.

F.4 OPTION EFFORT PERFORMANCE - CLIN 0002

F.4.1 Unexercised Option 1. If exercised, the period of performance for Option 1 will be completed in maximum twelve (12) months, commencing from the end of the base contract performance period.

F.4.2 The Contractor shall prepare and submit a final technical report in contractor format addressing all of the work performed against the Scope of Work during the contract in accordance with the requirements of Exhibit A, Contract Data Requirements List, Data Item A004(DD Form 1423-1). Acceptance of the final report will constitute completion of the basic contract period.

F.5 Contractor's Progress, Status and Management Reports: The Contractor shall prepare and submit reports in accordance with the requirements of Exhibit A, CDRL, Data Item Number A001.

F.6 R&D Plans/Test Reports: The Contractor shall prepare and submit R&D Plans/Test Reports in accordance with the requirements of Exhibit A, CDRL, Data Item Number A002.

F.7 Design/Material Recommendations: The Contractor shall prepare and submit Design/Material Recommendations in accordance with the requirements of Exhibit A, CDRL, Data Item Number A003.

F.8 Contractor Manpower Report - CLIN 0007

F.8.1 The contractor shall submit contractor manpower reporting data in accordance with C-2, TACOM Clause 52.237-4000. Report shall be entered on the following website by 31 October each year: <https://cmra.army.mil>

F.9 Final Patent Report - CLIN 0008

F.9.1 The contractor shall submit a Report of Inventions and Subcontracts, Form DD882, within 3 months after contract completion to the Contracting Officer's Representative (COR) and the Contract Specialist.

CONTINUATION SHEET

Reference No. of Document Being Continued

Page 18 of 33

PIIN/SIIN W56HZV-13-C-0384

MOD/AMD

Name of Offeror or Contractor: TENNECO INC.

*** END OF NARRATIVE F0001 ***

Name of Offeror or Contractor: TENNECO INC.

SECTION G - CONTRACT ADMINISTRATION DATA

PRON/ AMS CD/ LINE MIPR/	OBLG	JO NO/	ACCT ASSIGN	ACRN	OBLIGATED
<u>ITEM</u> <u>GFBS ATA</u>	<u>STAT</u>	<u>ACCT ASSIGN</u>	<u>ACRN</u>	<u>ACRN</u>	<u>AMOUNT</u>
0001AA R33MC008R3 622601H9100	2	R.0005705.2.2		AA	\$ 348,600.00
TOTAL					\$ 348,600.00

<u>ACRN</u> <u>ACCOUNTING CLASSIFICATION</u>	OBLIGATED
<u>ACRN</u>	<u>AMOUNT</u>
AA 021 201320142040 A60FL 622601H91RK20 2550 L033705868 R.0005705.2.2	021001 \$ 348,600.00
TOTAL \$ 348,600.00	

LINE	<u>ACRN</u> <u>EDI/SFIS ACCOUNTING CLASSIFICATION</u>	OBLIGATED
<u>ITEM</u>	<u>ACRN</u> <u>EDI/SFIS ACCOUNTING CLASSIFICATION</u>	<u>AMOUNT</u>
0001AA	AA 021 201320142040 A60FL 622601H91RK20 2550 L033705868 R.0005705.2.2	021001

<u>Regulatory Cite</u>	<u>Title</u>	<u>Date</u>
G-1 252.232-7006	WIDE AREA WORKFLOW PAYMENT INSTRUCTIONS	MAY/2013

(a) Definitions. As used in this clause--

"Department of Defense Activity Address Code (DoDAAC)" is a six position code that uniquely identifies a unit, activity, or organization.

"Document type" means the type of payment request or receiving report available for creation in Wide Area WorkFlow (WAWF).

"Local processing office (LPO)" is the office responsible for payment certification when payment certification is done external to the entitlement system.

(b) Electronic invoicing. The WAWF system is the method to electronically process vendor payment requests and receiving reports, as authorized by DFARS 252.232-7003, Electronic Submission of Payment Requests and Receiving Reports.

(c) WAWF access. To access WAWF, the Contractor shall--

- (1) Have a designated electronic business point of contact in the System for Award Management at <https://www.acquisition.gov>; and
- (2) Be registered to use WAWF at <https://wawf.eb.mil/> following the step-by-step procedures for self-registration available at this Web site.

(d) WAWF training. The Contractor should follow the training instructions of the WAWF Web-Based Training Course and use the Practice Training Site before submitting payment requests through WAWF. Both can be accessed by selecting the "Web Based Training" link on the WAWF home page at <https://wawf.eb.mil/>.

(e) WAWF methods of document submission. Document submissions may be via Web entry, Electronic Data Interchange, or File Transfer Protocol.

(f) WAWF payment instructions. The Contractor must use the following information when submitting payment requests and receiving reports in WAWF for this contract/order:

- (1) Document type. The Contractor shall use the following document type(s).
 - Cost Voucher
 - (2) Inspection/acceptance location. The Contractor shall select the following inspection/acceptance location(s) in WAWF, as specified by the contracting officer.
 - Destination/Destination

CONTINUATION SHEET**Reference No. of Document Being Continued**

Page 20 of 33

PIIN/SIIN W56HZV-13-C-0384

MOD/AMD

Name of Offeror or Contractor: TENNECO INC.

(3) Document routing. The Contractor shall use the information in the Routing Data Table below only to fill in applicable fields in WAWF when creating payment requests and receiving reports in the system.

Routing Data Table*

Field Name in WAWF	Data to be entered in WAWF
Pay Official DoDAAC	Indicate the Code found in Block 12 of SF 26 (Cover Page of Contract)
Issue By DoDAAC	Indicate the Code found in Block 5 of SF 26
Admin DoDAAC	Indicate the Code found in Block 6 of SF 26
Inspect By DoDAAC	Indicate Code W91ATL
Ship To Code	Indicate Code W91ATL
Ship From Code	N/A
Mark For Code	N/A
Service Approver (DoDAAC)	Indicate the Code found in Block 5 of SF 26
Service Acceptor (DoDAAC)	Indicate the Code found in Block 12 of SF 26
Accept at Other DoDAAC	N/A
LPO DoDAAC	N/A
DCAA Auditor DoDAAC	N/A
Other DoDAAC(s)	N/A

(4) Payment request and supporting documentation. The Contractor shall ensure a payment request includes appropriate contract line item and subline item descriptions of the work performed or supplies delivered, unit price/cost per unit, fee (if applicable), and all relevant back-up documentation, as defined in DFARS Appendix F, (e.g. timesheets) in support of each payment request.

(5) WAWF email notifications. The Contractor shall enter the email address identified below in the "Send Additional Email Notifications" field of WAWF once a document is submitted in the system.

- Contract Specialist email located in Block 5 of SF 26
- Contracting Officer's Representative (COR) email located in Section G
- Administrative Contracting Officer (ACO) email located in Section G

(g) WAWF point of contact. (1) The Contractor may obtain clarification regarding invoicing in WAWF from the following contracting activity's WAWF point of contact.

- Administrative Contracting Officer (ACO) email located in Section G

(2) For technical WAWF help, contact the WAWF helpdesk at 866-618-5988.

(End of clause)

G-2 52.242-4016 COMMUNICATIONS

FEB/2013

Communications on technical matters pertaining to the contract shall be direct between the contractor and the Contracting Officer Representative (COR). Communications for the COR shall be addressed to:

Name: Mr. William Bradford
E-mail: william.g.bradford16.civ@army.mil

The Administrative Contracting Officer's (ACO) name and email address are also provided if known at this time:

ACO: Mr. Andrew C. Bush
E-mail: Andrew.Bush@dcma.mil

Please see the appointment letters prepared at time of contract award for functions the Technical Representative and ACO will perform on this contract.

[End of Clause]

CONTINUATION SHEET**Reference No. of Document Being Continued****Page 21 of 33**

PIIN/SIIN W56HZV-13-C-0384

MOD/AMD

Name of Offeror or Contractor: TENNECO INC.

G-3 252.204-0005 PAYMENT INSTRUCTIONS FOR THE DEFENSE FINANCE AND ACCOUNTING SERVICE SEP/2009
(DFARS PGI) (DFAS) - Line Item Specific: by Cancellation Date

The payment office shall make payment using the ACRN with the earliest cancellation date first, exhausting all funds in that ACRN before disbursing funds from the next. In the event there is more than one ACRN associated with the same cancellation date, the payment amount shall be disbursed from each ACRN with the same cancellation date in the same proportion as the amount of funding obligated for each ACRN with the same cancellation date.

[End of Clause]

G-4 52.227-4004 RELEASE OF INFORMATION OCT/2012
(TACOM)

The contractor shall ensure that he complies with the requirements of Chapter 5, page 22, paragraph 5-48, of AR 360-1, The Army Public Affairs Program, dated 15 Sep 2000, prior to contemplated release of any procurement information. Approval of the Contracting Officer is required prior to release of any such information. AR 360-1 may be found at

www.asaie.army.mil/Public/IE/Toolbox/documents/r360_1.pdf

[End of Clause]

G.1 Contractor Special Billing Instructions

G.1.1 The contractor shall bill to the six-digit (SubLIN) and ACRN in accordance with DFARS 252.232-7003, "Electronic Submission of Payment Requests and Receiving Reports."

G.2 DFAS: Special Payment Instructions

G.2.1 DFAS will make payments as billed.

G.3 Wide Area Workflow (WAWF) Notification

G.3.1 The Contractor must notify the Contracting Officer's Representative (COR) by email whenever an invoice or public voucher is placed into WAWF for processing and payment. This notification is to ensure timely processing and payment for the invoice or public voucher.

The COR needs to review the invoice or public voucher for approval.

*** END OF NARRATIVE G0001 ***

CONTINUATION SHEET**Reference No. of Document Being Continued**

Page 22 of 33

PIIN/SIIN W56HZV-13-C-0384

MOD/AMD

Name of Offeror or Contractor: TENNECO INC.

SECTION H - SPECIAL CONTRACT REQUIREMENTS

<u>Regulatory Cite</u>	<u>Title</u>	<u>Date</u>
H-1	52.204-4005 REQUIRED USE OF ELECTRONIC CONTRACTING	AUG/2012

(a) All contract awards, modifications and delivery orders issued by Army Contracting Command - Warren (DTA) will be issued electronically. The contractor has the option to receive these actions either via the Worldwide Web (WWW) or Electronic Data Interchange (EDI). Many provisions/clauses that appear "by reference," meaning only clause titles and regulation site are listed; their full texts can be found at the website <http://farsite.hill.af.mil/>

(b) In order to be eligible to receive an award under this solicitation, the successful offeror must be registered with the Department of Defense (DOD) System for Award Management (SAM). The SAM registration process may be done electronically at the World Wide Web (WWW) site: <https://www.sam.gov/portal/public/SAM>. (In order to be registered to use EDI, you must use the long form for registration. Certification information, including information on the EDI 838 TPP, must be furnished to the Contracting Officer within 60 calendar days after contract award to complete networking requirements within the Government.)

(c) Worldwide Web Distribution. The contractor will receive an electronic Notice of the Award, Modification, or Delivery Order via e-mail. If you choose the WWW option, you must download the file from the appropriate Army Contracting Command - Warren webpage:

Warren: http://contracting.tacom.army.mil/CFDATA/AWARDS/AWARD_RPT01.cfm
Rock Island - JMTC: <https://acquisition.army.mil/asfi/>
Red River Army Depot: <https://acquisition.army.mil/asfi/>
Anniston Army Depot: <https://acquisition.army.mil/asfi/>

(d) Electronic Data Interchange. If you choose to receive contract awards, modifications and delivery orders through EDI, they will be delivered electronically via the Federal Acquisition Network (FACNET). Federal Standard Version 3050 of Standard X12 from the American National Standards Institute (ANSI) will be used as the format for these electronic transactions.

(1) You must complete the EDI 838 Trading Partner Profile, and must agree (i) to subcontract with a DoD certified VAN or Value Added Service (VAS) provider, or (ii) to become DoD certified as a Value Added Network (VAN). The EDI 838 Training Partner Profile is contained in the basic SAM registration form and includes portions of the registration form which are titled "Optional".

(2) You must select a VAN from the official DoD approved list. DoD Certified VANs are listed at <http://www.acq.osd.mil/dpap/ebiz/VANs.htm>. If your VAN is later removed from the official list, or if you voluntarily drop your initially selected VAN, then you must switch to a VAN that remains on the official DoD approved list. You must maintain an active account on a DoD approved VAN for the entire duration of the contract, beginning no later than the 60th day after award.

(e) Unless otherwise specified elsewhere in the contract, all data items you are required to provide under this contract must be submitted electronically. Please go to the following webpage for detailed information about submitting your offer electronically: <http://contracting.tacom.army.mil/acqinfo/ebidnotice.htm>

(f) Additional information can be obtained by sending a message to: usarmy.detroit.acc.mbx.wrn-web-page@mail.mil or by calling (586) 282-7059.

H.1 OPTION

H.1.1 The Contracting Officer has a unilateral right to exercise Option 1 for a price not to exceed the amount specified in CLIN 0002. If Option 1 is exercised, the contractor will perform the work specified in paragraphs C.5, and their subdivisions, in the statement of work hereof. The contracting officer may exercise Option 1 in whole or in part, and in one or more increments, at any time within 12 months after the date of contract award. If exercised, the option period of performance shall be for no more than 12 months, commencing from the end of the base contract performance period. The parties understand and agree that although Option 1 may be exercised at any time within 12 months after the date of contract award, performance of Option 1 cannot begin until the base effort has been completed.

*** END OF NARRATIVE H0001 ***

CONTINUATION SHEET

Reference No. of Document Being Continued

Page 23 of 33

PIIN/SIIN W56HZV-13-C-0384

MOD/AMD

Name of Offeror or Contractor: TENNECO INC.

SECTION I - CONTRACT CLAUSES

	<u>Regulatory Cite</u>	<u>Title</u>	<u>Date</u>
I-1	52.202-1	DEFINITIONS	JAN/2012
I-2	52.203-3	GRATUITIES	APR/1984
I-3	52.203-5	COVENANT AGAINST CONTINGENT FEES	APR/1984
I-4	52.203-6	RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT	SEP/2006
I-5	52.203-7	ANTI-KICKBACK PROCEDURES	OCT/2010
I-6	52.203-8	CANCELLATION, RESCISSION, AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY	JAN/1997
I-7	52.203-10	PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY	JAN/1997
I-8	52.203-12	LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS	OCT/2010
I-9	52.204-4	PRINTED OR COPIED DOUBLE-SIDED ON POSTCONSUMER FIBER CONTENT PAPER	MAY/2011
I-10	52.204-10	REPORTING EXECUTIVE COMPENSATION AND FIRST-TIER SUBCONTRACT AWARDS	JUL/2013
I-11	52.204-13	SYSTEM FOR AWARD MANAGEMENT MAINTENANCE	JUL/2013
I-12	52.209-6	PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT	AUG/2013
I-13	52.209-9	UPDATES OF PUBLICLY AVAILABLE INFORMATION REGARDING RESPONSIBILITY MATTERS	JUL/2013
I-14	52.211-15	DEFENSE PRIORITY AND ALLOCATION REQUIREMENTS	APR/2008
I-15	52.215-14	INTEGRITY OF UNIT PRICES (OCT 2010) -- ALTERNATE I (OCT 1997)	OCT/1997
I-16	52.215-15	PENSION ADJUSTMENTS AND ASSET REVERSIONS	OCT/2010
I-17	52.215-18	REVERSION OR ADJUSTMENT OF PLANS FOR POSTRETIREMENT BENEFITS (PRB) OTHER THAN PENSIONS	JUL/2005
I-18	52.215-23	LIMITATIONS ON PASS-THROUGH CHARGES	OCT/2009
I-19	52.216-11	COST CONTRACT--NO FEE	APR/1984
I-20	52.219-8	UTILIZATION OF SMALL BUSINESS CONCERNS	JUL/2013
I-21	52.219-9	SMALL BUSINESS SUBCONTRACTING PLAN	JUL/2013
I-22	52.222-21	PROHIBITION OF SEGREGATED FACILITIES	FEB/1999
I-23	52.222-26	EQUAL OPPORTUNITY	MAR/2007
I-24	52.222-35	EQUAL OPPORTUNITY FOR VETERANS	SEP/2010
I-25	52.222-36	AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES	OCT/2010
I-26	52.222-37	EMPLOYMENT REPORTS ON VETERANS	SEP/2010
I-27	52.222-40	NOTIFICATION OF EMPLOYEE RIGHTS UNDER THE NATIONAL LABOR RELATIONS ACT	DEC/2010
I-28	52.222-50	COMBATING TRAFFICKING IN PERSONS	FEB/2009
I-29	52.222-54	EMPLOYMENT ELIGIBILITY VERIFICATION	AUG/2013
I-30	52.223-18	ENCOURAGING CONTRACTOR POLICIES TO BAN TEXT MESSAGING WHILE DRIVING	AUG/2011
I-31	52.225-13	RESTRICTIONS ON CERTAIN FOREIGN PURCHASES	JUN/2008
I-32	52.227-1	AUTHORIZATION AND CONSENT (DEC 2007) -- ALTERNATE I (APR 1984)	APR/1984
I-33	52.227-2	NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT	DEC/2007
I-34	52.228-7	INSURANCE--LIABILITY TO THIRD PERSONS	MAR/1996
I-35	52.232-20	LIMITATION OF COST	APR/1984
I-36	52.232-23	ASSIGNMENT OF CLAIMS (JAN 1986) -- ALTERNATE I (APR 1984)	APR/1984
I-37	52.232-25	PROMPT PAYMENT	JUL/2013
I-38	52.233-1	DISPUTES	JUL/2002
I-39	52.233-3	PROTEST AFTER AWARD (AUG 1996) -- ALTERNATE I (JUN 1985)	JUN/1985
I-40	52.233-4	APPLICABLE LAW FOR BREACH OF CONTRACT CLAIM	OCT/2004
I-41	52.242-1	NOTICE OF INTENT TO DISALLOW COSTS	APR/1984
I-42	52.242-13	BANKRUPTCY	JUL/1995
I-43	52.247-63	PREFERENCE FOR U.S.-FLAG AIR CARRIERS	JUN/2003
I-44	52.249-6	TERMINATION (COST REIMBURSEMENT)	MAY/2004
I-45	52.253-1	COMPUTER GENERATED FORMS	JAN/1991
I-46	252.203-7000	REQUIREMENTS RELATING TO COMPENSATION OF FORMER DOD OFFICIALS	SEP/2011
I-47	252.203-7001	PROHIBITION ON PERSONS CONVICTED OF FRAUD OR OTHER DEFENSE-CONTRACT-RELATED FELONIES	DEC/2008
I-48	252.203-7002	REQUIREMENT TO INFORM EMPLOYEES OF WHISTLEBLOWER RIGHTS	JAN/2009
I-49	252.204-7000	DISCLOSURE OF INFORMATION	AUG/2013
I-50	252.204-7003	CONTROL OF GOVERNMENT PERSONNEL WORK PRODUCT	APR/1992
I-51	252.204-7004	ALTERNATE A, SYSTEM FOR AWARD MANAGEMENT	MAY/2013
I-52	252.204-7008	EXPORT-CONTROLLED ITEMS	APR/2010
I-53	252.209-7004	SUBCONTRACTING WITH FIRMS THAT ARE OWNED OR CONTROLLED BY THE GOVERNMENT OF A TERRORIST COUNTRY	DEC/2006
I-54	252.227-7013	RIGHTS IN TECHNICAL DATA--NONCOMMERCIAL ITEMS	JUN/2013
I-55	252.227-7014	RIGHTS IN NONCOMMERCIAL COMPUTER SOFTWARE AND NONCOMMERCIAL COMPUTER	MAY/2013

CONTINUATION SHEET**Reference No. of Document Being Continued**

Page 24 of 33

PIIN/SIIN W56HZV-13-C-0384

MOD/AMD

Name of Offeror or Contractor: TENNECO INC.

	<u>Regulatory Cite</u>	<u>Title</u>	<u>Date</u>
		SOFTWARE DOCUMENTATION	
I-56	252.227-7016	RIGHTS IN BID OR PROPOSAL INFORMATION	JAN/2011
I-57	252.227-7019	VALIDATION OF ASSERTED RESTRICTIONS--COMPUTER SOFTWARE	SEP/2011
I-58	252.227-7025	LIMITATIONS ON THE USE OR DISCLOSURE OF GOVERNMENT-FURNISHED INFORMATION MARKED WITH RESTRICTIVE LEGENDS	MAY/2013
I-59	252.227-7027	DEFERRED ORDERING OF TECHNICAL DATA OR COMPUTER SOFTWARE	APR/1988
I-60	252.227-7030	TECHNICAL DATA--WITHHOLDING OF PAYMENT	MAR/2000
I-61	252.227-7037	VALIDATION OF RESTRICTIVE MARKINGS ON TECHNICAL DATA	JUN/2013
I-62	252.227-7038	PATENT RIGHTS -- OWNERSHIP BY THE CONTRACTOR (LARGE BUSINESS)	JUN/2012
I-63	252.231-7000	SUPPLEMENTAL COST PRINCIPLES	DEC/1991
I-64	252.232-7003	ELECTRONIC SUBMISSION OF PAYMENT REQUESTS AND RECEIVING REPORTS	JUN/2012
I-65	252.232-7010	LEVIES ON CONTRACT PAYMENTS	DEC/2006
I-66	252.235-7011	FINAL SCIENTIFIC OR TECHNICAL REPORT	NOV/2004
I-67	252.237-7010	PROHIBITION ON INTERROGATION OF DETAINEES BY CONTRACTOR PERSONNEL	JUN/2013
I-68	252.243-7002	REQUESTS FOR EQUITABLE ADJUSTMENT	DEC/2012
I-69	252.246-7000	MATERIAL INSPECTION AND RECEIVING REPORT	MAR/2008
I-70	252.246-7001	WARRANTY OF DATA	DEC/1991
I-71	252.247-7023	TRANSPORTATION OF SUPPLIES BY SEA	JUN/2013
I-72	52.216-7	ALLOWABLE COST AND PAYMENT	JUN/2013

(a) Invoicing.

(1) The Government will make payments to the Contractor when requested as work progresses, but (except for small business concerns) not more often than once every 2 weeks, in amounts determined to be allowable by the Contracting Officer in accordance with Federal Acquisition Regulation (FAR) Subpart 31.2 in effect on the date of this contract and the terms of this contract. The Contractor may submit to an authorized representative of the Contracting Officer, in such form and reasonable detail as the representative may require, an invoice or voucher supported by a statement of the claimed allowable cost for performing this contract.

(2) Contract financing payments are not subject to the interest penalty provisions of the Prompt Payment Act. Interim payments made prior to the final payment under the contract are contract financing payments, except interim payments if this contract contains Alternate I to the clause at 52.232-25.

(3) The designated payment office will make interim payments for contract financing on the 30th day after the designated billing office receives a proper payment request. In the event that the Government requires an audit or other review of a specific payment request to ensure compliance with the terms and conditions of the contract, the designated payment office is not compelled to make payment by the specified due date.

(b) Reimbursing costs.

(1) For the purpose of reimbursing allowable costs (except as provided in subparagraph (b)(2) of this clause, with respect to pension, deferred profit sharing, and employee stock ownership plan contributions), the term costs includes only --

(i) Those recorded costs that, at the time of the request for reimbursement, the Contractor has paid by cash, check, or other form of actual payment for items or services purchased directly for the contract;

(ii) When the Contractor is not delinquent in paying costs of contract performance in the ordinary course of business, costs incurred, but not necessarily paid, for --

(A) Supplies and services purchased directly for the contract and associated financing payments to subcontractors, provided payments determined due will be made

(1) In accordance with the terms and conditions of a subcontract or invoice; and

(2) Ordinarily within 30 days of the submission of the Contractors payment request to the Government;

(B) Materials issued from the Contractors inventory and placed in the production process for use on the contract;

(C) Direct labor;

(D) Direct travel;

(E) Other direct in-house costs; and

Name of Offeror or Contractor: TENNECO INC.

(F) Properly allocable and allowable indirect costs, as shown in the records maintained by the Contractor for purposes of obtaining reimbursement under Government contracts; and

(iii) The amount of financing payments that have been paid by cash, check or other form of payment to subcontractors.

(2) Accrued costs of Contractor contributions under employee pension plans shall be excluded until actually paid unless

(i) The Contractors practice is to make contributions to the retirement fund quarterly or more frequently; and

(ii) The contribution does not remain unpaid 30 days after the end of the applicable quarter or shorter payment period (any contribution remaining unpaid shall be excluded from the Contractors indirect costs for payment purposes).

(3) Notwithstanding the audit and adjustment of invoices or vouchers under paragraph (g) of this clause, allowable indirect costs under this contract shall be obtained by applying indirect cost rates established in accordance with paragraph (d) of this clause.

(4) Any statements in specifications or other documents incorporated in this contract by reference designating performance of services or furnishing of materials at the Contractors expense or at no cost to the Government shall be disregarded for purposes of cost-reimbursement under this clause.

(c) Small business concerns. A small business concern may receive more frequent payments than every 2 weeks.

(d) Final indirect cost rates.

(1) Final annual indirect cost rates and the appropriate bases shall be established in accordance with Subpart 42.7 of the Federal Acquisition Regulation (FAR) in effect for the period covered by the indirect cost rate proposal.

(2)(i) The Contractor shall submit an adequate final indirect cost rate proposal to the Contracting Officer (or cognizant Federal agency official) and auditor within the 6-month period following the expiration of each of its fiscal years. Reasonable extensions, for exceptional circumstances only, may be requested in writing by the Contractor and granted in writing by the Contracting Officer. The Contractor shall support its proposal with adequate supporting data.

(ii) The proposed rates shall be based on the Contractors actual cost experience for that period. The appropriate Government representative and the Contractor shall establish the final indirect cost rates as promptly as practical after receipt of the Contractors proposal.

(iii) An adequate indirect cost rate proposal shall include the following data unless otherwise specified by the cognizant Federal agency official:

(A) Summary of all claimed indirect expense rates, including pool, base, and calculated indirect rate.

(B) General and Administrative expenses (final indirect cost pool). Schedule of claimed expenses by element of cost as identified in accounting records (Chart of Accounts).

(C) Overhead expenses (final indirect cost pool). Schedule of claimed expenses by element of cost as identified in accounting records (Chart of Accounts) for each final indirect cost pool.

(D) Occupancy expenses (intermediate indirect cost pool). Schedule of claimed expenses by element of cost as identified in accounting records (Chart of Accounts) and expense reallocation to final indirect cost pools.

(E) Claimed allocation bases, by element of cost, used to distribute indirect costs.

(F) Facilities capital cost of money factors computation.

(G) Reconciliation of books of account (i.e., General Ledger) and claimed direct costs by major cost element.

(H) Schedule of direct costs by contract and subcontract and indirect expense applied at claimed rates, as well as a subsidiary schedule of Government participation percentages in each of the allocation base amounts.

(I) Schedule of cumulative direct and indirect costs claimed and billed by contract and subcontract.

(J) Subcontract information. Listing of subcontracts awarded to companies for which the contractor is the prime or upper-tier contractor (include prime and subcontract numbers; subcontract value and award type; amount claimed during the fiscal year; and the subcontractor name, address, and point of contact information).

CONTINUATION SHEET**Reference No. of Document Being Continued**

Page 26 of 33

PIIN/SIIN W56HZV-13-C-0384

MOD/AMD

Name of Offeror or Contractor: TENNECO INC.

(K) Summary of each time-and-materials and labor-hour contract information, including labor categories, labor rates, hours, and amounts; direct materials; other direct costs; and, indirect expense applied at claimed rates.

(L) Reconciliation of total payroll per IRS form 941 to total labor costs distribution.

(M) Listing of decisions/agreements/approvals and description of accounting/organizational changes.

(N) Certificate of final indirect costs (see 52.242-4, Certification of Final Indirect Costs).

(O) Contract closing information for contracts physically completed in this fiscal year (include contract number, period of performance, contract ceiling amounts, contract fee computations, level of effort, and indicate if the contract is ready to close).

(iv) The following supplemental information is not required to determine if a proposal is adequate, but may be required during the audit process:

(A) Comparative analysis of indirect expense pools detailed by account to prior fiscal year and budgetary data.

(B) General Organizational information and limitation on allowability of compensation for certain contractor personnel. See 31.205-6(p). Additional salary reference information is available at [://www.whitehouse.gov/omb/procurement_index_exec_comp/](http://www.whitehouse.gov/omb/procurement_index_exec_comp/).

(C) Identification of prime contracts under which the contractor performs as a subcontractor.

(D) Description of accounting system (excludes contractors required to submit a CAS Disclosure Statement or contractors where the description of the accounting system has not changed from the previous year's submission).

(E) Procedures for identifying and excluding unallowable costs from the costs claimed and billed (excludes contractors where the procedures have not changed from the previous year's submission).

(F) Certified financial statements and other financial data (e.g., trial balance, compilation, review, etc.).

(G) Management letter from outside CPAs concerning any internal control weaknesses.

(H) Actions that have been and/or will be implemented to correct the weaknesses described in the management letter from subparagraph (G) of this section.

(I) List of all internal audit reports issued since the last disclosure of internal audit reports to the Government.

(J) Annual internal audit plan of scheduled audits to be performed in the fiscal year when the final indirect cost rate submission is made.

(K) Federal and State income tax returns.

(L) Securities and Exchange Commission 10-K annual report.

(M) Minutes from board of directors meetings.

(N) Listing of delay claims and termination claims submitted which contain costs relating to the subject fiscal year.

(O) Contract briefings, which generally include a synopsis of all pertinent contract provisions, such as: Contract type, contract amount, product or service(s) to be provided, contract performance period, rate ceilings, advance approval requirements, pre-contract cost allowability limitations, and billing limitations.

(v) The Contractor shall update the billings on all contracts to reflect the final settled rates and update the schedule of cumulative direct and indirect costs claimed and billed, as required in paragraph (d)(2)(iii)(I) of this section, within 60 days after settlement of final indirect cost rates.

(3) The Contractor and the appropriate Government representative shall execute a written understanding setting forth the final indirect cost rates. The understanding shall specify

(i) the agreed-upon final annual indirect cost rates,

(ii) the bases to which the rates apply,

CONTINUATION SHEET**Reference No. of Document Being Continued**

Page 27 of 33

PIIN/SIIN W56HZV-13-C-0384

MOD/AMD

Name of Offeror or Contractor: TENNECO INC.

(iii) the periods for which the rates apply,

(iv) any specific indirect cost items treated as direct costs in the settlement, and

(v) the affected contract and/or subcontract, identifying any with advance agreements or special terms and the applicable rates.

The understanding shall not change any monetary ceiling, contract obligation, or specific cost allowance or disallowance provided for in this contract. The understanding is incorporated into this contract upon execution.

(4) Failure by the parties to agree on a final annual indirect cost rate shall be a dispute within the meaning of the Disputes clause.

(5) Within 120 days (or longer period if approved in writing by the Contracting Officer) after settlement of the final annual indirect cost rates for all years of a physically complete contract, Contractor shall submit a completion invoice or voucher to reflect the settled amounts and rates. The completion invoice or voucher shall include settled subcontract amounts and rates. The prime contractor is responsible for settling subcontractor amounts and rates included in the completion invoice or voucher and providing status of subcontractor audits to the contracting officer upon request.

(6)(i) If the Contractor fails to submit a completion invoice or voucher within the time specified in paragraph (d)(5) of this clause, the Contracting Officer may--

(A) Determine the amounts due to the Contractor under the contract; and

(B) Record this determination in a unilateral modification to the contract.

(ii) This determination constitutes the final decision of the Contracting Officer in accordance with the Disputes clause.

(e) Billing rates. Until final annual indirect cost rates are established for any period, the Government shall reimburse the Contractor at billing rates established by the Contracting Officer or by an authorized representative (the cognizant auditor), subject to adjustment when the final rates are established. These billing rates --

(1) Shall be the anticipated final rates; and

(2) May be prospectively or retroactively revised by mutual agreement, at either party's request, to prevent substantial overpayment or underpayment.

(f) Quick-closeout procedures. Quick-closeout procedures are applicable when the conditions in FAR 42.708(a) are satisfied.

(g) Audit. At any time or times before final payment, the Contracting Officer may have the Contractor's invoices or vouchers and statements of cost audited. Any payment may be --

(1) Reduced by amounts found by the Contracting Officer not to constitute allowable costs; or

(2) Adjusted for prior overpayments or underpayments.

(h) Final payment.

(1) Upon approval of a completion invoice or voucher submitted by the Contractor in accordance with paragraph (d)(5) of this clause, and upon the Contractor's compliance with all terms of this contract, the Government shall promptly pay any balance of allowable costs and that part of the fee (if any) not previously paid.

(2) The Contractor shall pay to the Government any refunds, rebates, credits, or other amounts (including interest, if any) accruing to or received by the Contractor or any assignee under this contract, to the extent that those amounts are properly allocable to costs for which the Contractor has been reimbursed by the Government. Reasonable expenses incurred by the Contractor for securing refunds, rebates, credits, or other amounts shall be allowable costs if approved by the Contracting Officer. Before final payment under this contract, the Contractor and each assignee whose assignment is in effect at the time of final payment shall execute and deliver --

(i) An assignment to the Government, in form and substance satisfactory to the Contracting Officer, of refunds, rebates, credits, or other amounts (including interest, if any) properly allocable to costs for which the Contractor has been reimbursed by the Government under this contract; and

(ii) A release discharging the Government, its officers, agents, and employees from all liabilities, obligations, and claims arising out of or under this contract, except --

(A) Specified claims stated in exact amounts, or in estimated amounts when the exact amounts are not known;

CONTINUATION SHEET**Reference No. of Document Being Continued**

Page 28 of 33

PIIN/SIIN W56HZV-13-C-0384

MOD/AMD

Name of Offeror or Contractor: TENNECO INC.

(B) Claims (including reasonable incidental expenses) based upon liabilities of the Contractor to third parties arising out of the performance of this contract; provided, that the claims are not known to the Contractor on the date of the execution of the release, and that the Contractor gives notice of the claims in writing to the Contracting Officer within 6 years following the release date or notice of final payment date, whichever is earlier; and

(C) Claims for reimbursement of costs, including reasonable incidental expenses, incurred by the Contractor under the patent clauses of this contract, excluding, however, any expenses arising from the Contractors indemnification of the Government against patent liability.

(End of Clause)

I-73

52.243-7

NOTIFICATION OF CHANGES

APR/1984

(a) Definitions. Contracting Officer, as used in this clause, does not include any representative of the Contracting Officer.

Specifically Authorized Representative (SAR), as used in this clause, means any person the Contracting Officer has so designated by written notice (a copy of which shall be provided to the Contractor) which shall refer to this subparagraph and shall be issued to the designated representative before the SAR exercises such authority.

(b) Notice. The primary purpose of this clause is to obtain prompt reporting of Government conduct that the Contractor considers to constitute a change to this contract. Except for changes identified as such in writing and signed by the Contracting Officer, the Contractor shall notify the Administrative Contracting Officer in writing promptly, within five (5) calendar days from the date that the Contractor identifies any Government conduct (including actions, inactions, and written or oral communications) that the Contractor regards as a change to the contract terms and conditions. On the basis of the most accurate information available to the Contractor, the notice shall state --

(1) The date, nature, and circumstances of the conduct regarded as a change;

(2) The name, function, and activity of each Government individual and Contractor official or employee involved in or knowledgeable about such conduct;

(3) The identification of any documents and the substance of any oral communication involved in such conduct;

(4) In the instance of alleged acceleration of scheduled performance or delivery, the basis upon which it arose;

(5) The particular elements of contract performance for which the Contractor may seek an equitable adjustment under this clause, including --

(i) What contract line items have been or may be affected by the alleged change;

(ii) What labor or materials or both have been or may be added, deleted, or wasted by the alleged change;

(iii) To the extent practicable, what delay and disruption in the manner and sequence of performance and effect on continued performance have been or may be caused by the alleged change;

(iv) What adjustments to contract price, delivery schedule, and other provisions affected by the alleged change are estimated; and

(6) The Contractors estimate of the time by which the Government must respond to the Contractors notice to minimize cost, delay or disruption of performance.

(c) Continued performance. Following submission of the notice required by paragraph (b) of this clause, the Contractor shall diligently continue performance of this contract to the maximum extent possible in accordance with its terms and conditions as construed by the Contractor, unless the notice reports a direction of the Contracting Officer or a communication from a SAR of the Contracting Officer, in either of which events the Contractor shall continue performance; provided, however, that if the Contractor regards the direction or communication as a change as described in paragraph (b) of this clause, notice shall be given in the manner provided. All directions, communications, interpretations, orders and similar actions of the SAR shall be reduced to writing promptly and copies furnished to the Contractor and to the Contracting Officer. The Contracting Officer shall promptly countermand any action which exceeds the authority of the SAR.

(d) Government response. The Contracting Officer shall promptly, within fifteen (15) calendar days after receipt of notice, respond to the notice in writing. In responding, the Contracting Officer shall either --

CONTINUATION SHEET**Reference No. of Document Being Continued**

Page 29 of 33

PIIN/SIIN W56HZV-13-C-0384

MOD/AMD

Name of Offeror or Contractor: TENNECO INC.

(1) Confirm that the conduct of which the Contractor gave notice constitutes a change and when necessary direct the mode of further performance;

(2) Countermand any communication regarded as a change;

(3) Deny that the conduct of which the Contractor gave notice constitutes a change and when necessary direct the mode of further performance; or

(4) In the event the Contractors notice information is inadequate to make a decision under subparagraphs (d)(1), (2), or (3) of this clause, advise the Contractor what additional information is required, and establish the date by which it should be furnished and the date thereafter by which the Government will respond.

(e) Equitable adjustments.

(1) If the Contracting Officer confirms that Government conduct effected a change as alleged by the Contractor, and the conduct causes an increase or decrease in the Contractors cost of, or the time required for, performance of any part of the work under this contract, whether changed or not changed by such conduct, an equitable adjustment shall be made --

(i) In the contract price or delivery schedule or both; and

(ii) In such other provisions of the contract as may be affected.

(2) The contract shall be modified in writing accordingly. In the case of drawings, designs or specifications which are defective and for which the Government is responsible, the equitable adjustment shall include the cost and time extension for delay reasonably incurred by the Contractor in attempting to comply with the defective drawings, designs or specifications before the Contractor identified, or reasonably should have identified, such defect. When the cost of property made obsolete or excess as a result of a change confirmed by the Contracting Officer under this clause is included in the equitable adjustment, the Contracting Officer shall have the right to prescribe the manner of disposition of the property. The equitable adjustment shall not include increased costs or time extensions for delay resulting from the Contractors failure to provide notice or to continue performance as provided, respectively, in paragraphs (b) and (c) of this clause.

NOTE: The phrases contract price and cost wherever they appear in the clause, may be appropriately modified to apply to cost-reimbursement or incentive contracts, or to combinations thereof.

(End of Clause)

I-74 252.235-7010 ACKNOWLEDGMENT OF SUPPORT AND DISCLAIMER

MAY/1995

(a) The Contractor shall include an acknowledgment of the Governments support in the publication of any material based on or developed under this contract, stated in the following terms: This material is based upon work supported by the United States Army under Contract No. "TBD".

(b) All material, except scientific articles or papers published in scientific journals, must, in addition to any notices or disclaimers by the Contractor, also contain the following disclaimer: Any opinions, findings and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the United States Army.

(End of clause)

I-75 52.215-19 NOTIFICATION OF OWNERSHIP CHANGES

OCT/1997

(a) The Contractor shall make the following notifications in writing:

(1) When the Contractor becomes aware that a change in its ownership has occurred, or is certain to occur, that could result in changes in the valuation of its capitalized assets in the accounting records, the Contractor shall notify the Administrative Contracting Officer (ACO) within 30 days.

(2) The Contractor shall also notify the ACO within 30 days whenever changes to asset valuations or any other cost changes have occurred or are certain to occur as a result of a change in ownership.

CONTINUATION SHEET**Reference No. of Document Being Continued**

Page 30 of 33

PIIN/SIIN W56HZV-13-C-0384

MOD/AMD

Name of Offeror or Contractor: TENNECO INC.

(b) The Contractor shall --

- (1) Maintain current, accurate, and complete inventory records of assets and their costs;
- (2) Provide the ACO or designated representative ready access to the records upon request;
- (3) Ensure that all individual and grouped assets, their capitalized values, accumulated depreciation or amortization, and remaining useful lives are identified accurately before and after each of the Contractors ownership changes; and
- (4) Retain and continue to maintain depreciation and amortization schedules based on the asset records maintained before each Contractor ownership change.

(c) The Contractor shall include the substance of this clause in all subcontracts under this contract that meet the applicability requirement of FAR 15.408(k).

(End of Clause)

I-76

52.219-28

POST-AWARD SMALL BUSINESS PROGRAM REREPRESENTATION

JUL/2013

(a) Definitions. As used in this clause--

"Long-term contract" means a contract of more than five years in duration, including options. However, the term does not include contracts that exceed five years in duration because the period of performance has been extended for a cumulative period not to exceed six months under the clause at 52.217-8, Option to Extend Services, or other appropriate authority.

"Small business concern" means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR part 121 and the size standard in paragraph (c) of this clause. Such a concern is "not dominant in its field of operation" when it does not exercise a controlling or major influence on a national basis in a kind of business activity in which a number of business concerns are primarily engaged. In determining whether dominance exists, consideration shall be given to all appropriate factors, including volume of business, number of employees, financial resources, competitive status or position, ownership or control of materials, processes, patents, license agreements, facilities, sales territory, and nature of business activity.

(b) If the Contractor represented that it was a small business concern prior to award of this contract, the Contractor shall rerepresent its size status according to paragraph (e) of this clause or, if applicable, paragraph (g) of this clause, upon the occurrence of any of the following:

(1) Within 30 days after execution of a novation agreement or within 30 days after modification of the contract to include this clause, if the novation agreement was executed prior to inclusion of this clause in the contract.

(2) Within 30 days after a merger or acquisition that does not require a novation or within 30 days after modification of the contract to include this clause, if the merger or acquisition occurred prior to inclusion of this clause in the contract.

(3) For long-term contracts

(i) Within 60 to 120 days prior to the end of the fifth year of the contract; and

(ii) Within 60 to 120 days prior to the date specified in the contract for exercising any option thereafter.

(c) The Contractor shall rerepresent its size status in accordance with the size standard in effect at the time of this rerepresentation that corresponds to the North American Industry Classification System (NAICS) code assigned to this contract. The small business size standard corresponding to this NAICS code can be found at <http://www.sba.gov/content/table-small-business-size-standards>

(d) The small business size standard for a Contractor providing a product which it does not manufacture itself, for a contract other than a construction or service contract, is 500 employees.

(e) Except as provided in paragraph (g) of this clause, the Contractor shall make the representation required by paragraph (b) of this clause by validating or updating all its representations in the Representations and Certifications section of the System for Award Management (SAM) and its other data in SAM, as necessary, to ensure that they reflect the Contractor's current status. The Contractor shall notify the contracting office in writing within the timeframes specified in paragraph (b) of this clause that the data have been

CONTINUATION SHEET	Reference No. of Document Being Continued	Page 31 of 33
	PIIN/SIIN W56HZV-13-C-0384	MOD/AMD

Name of Offeror or Contractor: TENNECO INC.

validated or updated, and provide the date of the validation or update.

(f) If the Contractor represented that it was other than a small business concern prior to award of this contract, the Contractor may, but is not required to, take the actions required by paragraphs (e) or (g) of this clause.

(g) If the Contractor does not have representations and certifications in SAM, or does not have a representation in SAM for the NAICS code applicable to this contract, the Contractor is required to complete the following rerepresentation and submit it to the contracting office, along with the contract number and the date on which the rerepresentation was completed:

The Contractor represents that it [] is, [X] is not a small business concern under NAICS Code 541712 assigned to contract number W56HZV-13-C-0384.

(End of clause)

I-77 52.252-2 CLAUSES INCORPORATED BY REFERENCE FEB/1998

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address:

<http://www.acq.osd.mil/dpap/dars/far.html> or <http://www.acq.osd.mil/dpap/dars/index.htm> or <http://farsite.hill.af.mil/VFAFARA.HTM>

(End of Clause)

I-78 52.252-6 AUTHORIZED DEVIATIONS IN CLAUSES APR/1984

(a) The use in this solicitation or contract of any Federal Acquisition Regulation (48 CFR Chapter 1) clause with an authorized deviation is indicated by the addition of (DEVIATION) after the date of the clause.

(b) The use in this solicitation or contract of any DoD FAR SUPPLEMENT (48 CFR 2) clause with an authorized deviation is indicated by the addition of (DEVIATION) after the name of the regulation.

(End of Clause)

I-79 52.204-4009 MANDATORY USE OF CONTRACTOR TO GOVERNMENT ELECTRONIC COMMUNICATION MAR/2005

(a) All references in the contract to the submission of written documentation shall mean electronic submission. All electronic submissions shall be in the formats and media described in the website:

<http://contracting.tacom.army.mil/acqinfo/ebidnotice.htm>

(b) This shall include all written unclassified communications between the Government and the Contractor except contract awards and contract modifications which shall be posted on the internet. Return receipt shall be used if a commercial application is available. Classified information shall be handled in full accordance with the appropriate security requirements.

(c) In order to be contractually binding, all Government communications requiring a Contracting Officer signature must be sent from the Contracting Officer's e-mail address. The Contractor shall designate the personnel with signature authority who can contractually bind the contractor. All binding contractor communication shall be sent from this contractor e-mail address(es).

(d) Upon award, the Contractor shall provide the Contracting Officer with a list of e-mail addresses for all administrative and technical personnel assigned to this contract.

(e) Unless exempted by the Procuring Contracting Officer in writing, all unclassified written communication after contract award shall be transmitted electronically.

CONTINUATION SHEET**Reference No. of Document Being Continued****Page 32 of 33****PIIN/SIIN** W56HZV-13-C-0384**MOD/AMD**

Name of Offeror or Contractor: TENNECO INC.

[End of Clause]

CONTINUATION SHEET**Reference No. of Document Being Continued****Page 33 of 33**

PIIN/SIIN W56HZV-13-C-0384

MOD/AMD

Name of Offeror or Contractor: TENNECO INC.

SECTION J - LIST OF ATTACHMENTS

<u>List of</u> <u>Addenda</u>	<u>Title</u>	<u>Date</u>	<u>Number</u> <u>of Pages</u>	<u>Transmitted By</u>
Exhibit A	CONTRACT DATA REQUIREMENT LIST (CDRL)	30-JUL-2013	004	
Attachment 0001	STATEMENT OF WORK FIGURES 1-5	30-JUL-2013	002	EMAIL

CONTRACT DATA REQUIREMENT LIST Form Approval OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 440 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. Please DO NOT RETURN your form to either these addresses. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.

- A. CONTRACT LINE ITEM NO. (CLIN): 0006
- B. EXHIBIT.....: A
- C. CATEGORY.....: Reports
- D. SYSTEM/ITEM.....: Improve Track Durability
- E. CONTRACT/PR NO.....: W56HZV-13-C-0384
- F. CONTRACTOR.....: Tenneco, Inc.

-
- 1. DATA ITEM NO.....: A001
 - 2. TITLE OF DATA ITEM.....: Contractors Progress, Status and Management Report
 - 3. SUBTITLE.....: Summary Report
 - 4. AUTHORITY.....: DI-MGMT-80227(T)
 - 5. CONTRACT REFERENCE.....: C.3.1, C.3.1.1, C.7.1.1, C.7.1.2
 - 6. REQUIRING OFFICE.....: AMSRD-TAR-R & M/S 159
 - 7. WAWF/DD250 REQ.....: LT
 - 8. APP CODE.....: A
 - 9. DIST. STATEMENT REQUIRED.: A
 - 10. FREQUENCY.....: Quarterly
 - 11. AS OF DATE.....: Date of Contract Award
 - 12. DATE OF FIRST SUBMISSION: 60 days after contract award
 - 13. DATE OF SUBS. SUBMISSION: every 90 days
 - 14. DISTRIBUTION ADDRESSEES.: Submit reports electronically to the email addresses shown immediately below:

- a. Bill Bradford, Contracting Officer's Representative (COR)
Email: william.g.bradford16.civ@mail.mil
- b. James Giacchina, Contract Specialist
Email: james.j.giacchina.civ@mail.mil
- c. Cognizant Administrative Contracting Officers Representative (ACO)
See FAR Clause 52.242-4016, "COMMUNICATIONS", in Section G
- d. Small Business Portal, See Item 16.e below

- 15. TOTAL.....: 1 ea.
- 16. REMARKS:

Report shall be submitted electronically. Reports per DI-MGMT-80227 excluding paragraphs 10.2, 10.3(j), 10.3(k), and 10.3(l) The reports will include Earned Value Management metrics, including budgeted cost of work scheduled, budgeted cost of work performed, actual cost of work performed, budget at completion, and deviations in track component durability from plan. Reports are due at 60 days after contract award and every 90 days after the initial report submitted.

- i. Base effort: 60 days after contract award (1 report) and 90 days after award (2 reports).
- ii. Option 1: 60 days after the exercise of option 1 (1 report) and 90 days after the exercise of option 1 (2 reports).

- 17. PRICE GROUP.....: N/A
- 18. ESTIMATED TOTAL PRICE..: N/A

-
- 1. DATA ITEM NO.....: A002
 - 2. TITLE OF DATA ITEM.....: R&D Plans/Test Reports
 - 3. SUBTITLE.....: N/A
 - 4. AUTHORITY.....: DI-MISC-DI-NDTI-80566A
 - 5. CONTRACT REFERENCE.....: C.3.2, C.3.3, C.7.1.1.3, C.7.1.4
 - 6. REQUIRING OFFICE.....: AMSRD-TAR-R & M/S 159
 - 7. WAWF/DD250 REQ.....: Yes

- 8. APP CODE.....: A
- 9. DIST. STATEMENT REQUIRED.: A
- 10. FREQUENCY.....: Quarterly
- 11. AS OF DATE.....: Date of Contract Award
- 12. DATE OF FIRST SUBMISSION: See Item 16
- 13. DATE OF SUBS. SUBMISSION: See Item 16
- 14. DISTRIBUTION ADDRESSEES.: Submit reports electronically to the email addresses shown immediately below:

- a. Bill Bradford, Contracting Officer's Representative (COR)
Email: william.g.bradford16.civ@mail.mil
- b. James Giacchina, Contract Specialist
Email: james.j.giacchina.civ@mail.mil
- c. Cognizant Administrative Contracting Officers Representative (ACO)
See FAR Clause 52.242-4016, "COMMUNICATIONS", in Section G

- 15. TOTAL.....: 1 ea.
- 16. REMARKS:

Report shall be submitted electronically. Reports per DI-MGMT-80227 excluding paragraphs 10.2, 10.3(j), 10.3(k), and 10.3(l) Test reports will include R&D test plans, test development activity, data from material testing, documents pertaining to prototype designs, materials, and manufacturing activities.

Date of First Submission: Quarterly reports for R&D progress, document and communicate all data and testing relevant track design and material properties and analysis, all prototype development activity, prototype test data and test data from engineering tests.

- a. Report shall be submitted electronically.
 - i. Base Effort: 90 days after award (3 reports)
 - ii. Option 1: 90 days after the exercise of option 1 (3 reports)

- 17. PRICE GROUP.....: N/A
- 18. ESTIMATED TOTAL PRICE..: N/A

- 1. DATA ITEM NO.....: A003
- 2. TITLE OF DATA ITEM.....: Design/Material Recommendations
- 3. SUBTITLE.....: N/A
- 4. AUTHORITY.....: DI-MISC-DI-NDTI-80566A
- 5. CONTRACT REFERENCE.....: C.3.3, C.7.1.4
- 6. REQUIRING OFFICE.....: AMSRD-TAR-R & M/S 159
- 7. WAWF/DD250 REQ.....: Yes
- 8. APP CODE.....: A
- 9. DIST. STATEMENT REQUIRED.: D
- 10. FREQUENCY.....: Once
- 11. AS OF DATE.....: Date of Contract Award
- 12. DATE OF FIRST SUBMISSION: See Item 16
- 13. DATE OF SUBS. SUBMISSION: See Item 16
- 14. DISTRIBUTION ADDRESSEES.: Submit reports electronically to the email addresses shown immediately below:
 - a. Bill Bradford, Contracting Officer's Representative (COR)
Email: william.g.bradford16.civ@mail.mil

- 15. TOTAL.....: 1
- 16. REMARKS:

Report shall be submitted electronically. Make a DD250 deliverable DID is tailored by deleting 10.2

Date of Submission:

- a. Base Effort:
 - i. Final, sixty (60) days prior to the completion of the contract.
- b. Option:
 - i. Final, (60) days prior to the completion of the contract.

- 17. PRICE GROUP.....: N/A
- 18. ESTIMATED TOTAL PRICE..: N/A

- 1. DATA ITEM NO.....: A004

- 2. TITLE OF DATA ITEM.....: Final Report
- 3. SUBTITLE.....: N/A
- 4. AUTHORITY.....: DI-MISC-DI-NDTI-80566A
- 5. CONTRACT REFERENCE.....: C.3.4, C.7.1.5
- 6. REQUIRING OFFICE.....: AMSRD-TAR-R & M/S 159
- 7. WAWF/DD250 REQ.....: Yes
- 8. APP CODE.....: A
- 9. DIST. STATEMENT REQUIRED.: D
- 10. FREQUENCY.....: Once
- 11. AS OF DATE.....: Date of Contract Award
- 12. DATE OF FIRST SUBMISSION: See Item 16
- 13. DATE OF SUBS. SUBMISSION: See Item 16
- 14. DISTRIBUTION ADDRESSEES.: Submit reports electronically to the email addresses shown immediately below:
 - a. Bill Bradford, Contracting Officer's Representative (COR)
Email: william.g.bradford16.civ@mail.mil
- 15. TOTAL.....: 1
- 16. REMARKS:

Report shall be submitted electronically. Make a DD250 deliverable DID is tailored by deleting 10.2.

a. The Contractor shall deliver one (1) draft "Technical Report" sixty days prior to the completion of the contract. The draft report shall include a completed Standard Form (SF) 298 (Report Documentation Page) as the report's cover sheet. The COR shall review the draft report and return it to the Contractor within 15 (15) days of receipt with comments. The Contractor shall submit one (1) final Technical Report (with the completed SF 298) within thirty (30) days after receipt of draft comments.

b. Complete the reports IAW DID DI-MISC 80711A, "Scientific and Technical Reports." The COR is responsible for accepting or rejecting the draft and final reports, and for submitting the approved final report to the Defense Technical Information Center (DTIC), in Ft. Belvoir, VA. See the data item description (DI-MISC-80711A), at the Internet address below, for instructions on completing the required report.

<http://astimage.daps.dla.mil/docimages/0002\27\88\80711A.PD4>

You may download the SF 298 form, from the following Internet address:

<http://www.dtic.mil/dtic/forms/sf298template.doc>

You may download basic instructions for completing the SF 298 form, from the following Internet address:

http://www.dtic.mil/dtic/forms/SF298_MS67.doc

Here are some additional instructions for completing the SF 298 form, that apply when submitting reports under the SBIR Program:

For each unclassified report, the Contractor shall fill in Block 12a (Distribution/Availability Statement) of the SF 298 with one of the following statements:

- (a) Approved for public release; distribution unlimited.
- (b) Distribution authorized to U.S. Government Agencies only; contains proprietary information

Note: After reviewing the Contractor's entry in Block 12a, TACOM has final responsibility for assigning a distribution statement.

***** THE FOLLOWING INSTRUCTION APPLIES TO ALL REPORTS DELIVERABLE UNDER THE CONTRACT *****

Prepare the reports in Contractor format. Submit the reports using any of the following electronic formats:

- (1) Files readable using these Microsoft* Office XP or Microsoft* Office 2007 & lower Products: Word, Excel, or PowerPoint. Spreadsheets must be sent in a file format that includes all formulae, macro and format information. Print or scan images of spreadsheets are not acceptable. Please see security note below for caution regarding use of macros.
- (2) Files in Adobe PDF (Portable Document Format). When scanning documents, scanner should be set to 200 dots per inch.
- (3) Files in HTML (Hypertext Markup Language) Format. HTML documents must not contain active links to Internet websites or web pages for reference information. All linked information must be contained within your electronic report, and be accessible offline.

(4) Other electronic formats. Before preparing your report in any other electronic format, please e-mail the COR to obtain a decision as to the format's acceptability. This e-mail must be received by the COR not later than ten (10) calendar days before the draft report's due date. All alternate methods must be at no cost to the Government.

NOTE: Macros: The virus scanning software used by our e-mail systems cannot always distinguish a macro from a virus. Therefore, sending a macro embedded in an e-mail message or an e-mail attachment may cause the e-mail report to be quarantined.

a. Acceptable media: The Contractor shall submit reports via e-mail. If e-mail is not workable, another acceptable medium is a CD or a DVD. Identify the software application and version used to create each file submitted.

(1) E-MAIL. Maximum size of each e-mail message shall be ten (10) megabytes. You may use multiple e-mail messages if necessary. However, you must annotate the subject lines in this manner: "Message 1 of 3, 2 of 3, 3 of 3."

(2) CD or DVD to be delivered via U.S. Mail or other carrier. The Contractor shall label all submitted disks with the Contract number, the Contractor's name and address, and a contact's phone number. Exterior mailing envelopes containing disks must be addressed to the following address:

U.S. Army TARDEC
Attn: William Bradford / AMSRD-TAR-R / 159
6501 East 11 Mile Road
Warren, MI 48397-5000

NOTE: Please select only one type of electronic media to transmit each report. For instance, do not submit a report via e-mail and CD.
* Registered Trademark