

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. CONTRACT ID CODE J	PAGE OF PAGES 1   9
2. AMENDMENT/MODIFICATION NO. 0001	3. EFFECTIVE DATE 07-Sep-2011	4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO.(If applicable)
6. ISSUED BY AFGHANISTAN DISTRICT SOUTH (AES) US ARMY CORPS OF ENGINEERS APO AE 09355	CODE W5J9LE	7. ADMINISTERED BY (If other than item 6) <b>See Item 6</b>		
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		X	9A. AMENDMENT OF SOLICITATION NO. W5J9LE-11-T-0017	
		X	9B. DATED (SEE ITEM 11) 20-Aug-2011	
			10A. MOD. OF CONTRACT/ORDER NO.	
			10B. DATED (SEE ITEM 13)	
CODE	FACILITY CODE			
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS				
<input checked="" type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input checked="" type="checkbox"/> is not extended. Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning <u>1</u> copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.				
12. ACCOUNTING AND APPROPRIATION DATA (If required)				
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.				
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.				
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).				
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:				
D. OTHER (Specify type of modification and authority)				
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.				
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  Industry Questions/Clarifications and Answers are addressed in this Amendment.  All other terms and conditions remain the same.  -SEE CONTINUATION PAGES-				
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.				
15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)		
		TEL:	EMAIL:	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA		16C. DATE SIGNED
_____ (Signature of person authorized to sign)		BY _____ (Signature of Contracting Officer)		07-Sep-2011

**SUMMARY OF CHANGES**

**QUESTIONS/CLARIFICATIONS AND ANSWERS**

**Q1:** We consider type L2 (Attachment M – Chapter U ) for item 007- 20kv Insulator. Please confirm

**A1:** No. Item 007 “20kv dead end insulator” is the complete assembly in shown Attachment M – Chapter U Drawing AS-10. Item NO. B1, B4, C16, E1, I1, N3, W2c and W3c all in the quantities for each complete assembly

**Q2:** We consider type P2 ( Attachment M – Chapter U ) for item 006- Stud Assembly for Insulator. Please confirm

**A2:** Yes, but more correctly it will also come with W3d. See Attachment M- Chapter U drawing AS-05. Note this item will need to compliment item 005 20kV Insulator also in drawing AS-05 NO. I2

**Q3:** We consider type C-14 ( Attachment M – Chapter U ) for item 025- ABC Splices for 50mm<sup>2</sup> ABC. Please confirm

**A3:** No, C13 Insulation Piercing Connector

**Q4:** For Item 032- Meter Test Device Zera 300-310 will be quoted. Please confirm or send more information

**A4:** Yes, please quote Item 032.

**Q5:** Item 036-4A type “H” Fuse links. Shall we select 5A instead of 4A as the 4A isn’t in the range as per appendix-G. Please Confirm or change the appendix.

**A5:** 5A will work

**Q6:** appendix-M page 21 of 103 : A1 SURGE ARRESTER, type gapless, grey, silicon rubber, insulated bracket according to Chapter P ( Technical Specification). Where can we find Chapter P (details of the Surge Arrester being sourced)?

**A6:** See attached, Section VI: Technical Specifications; Chapter P: Surge Arresters

**Q7:** Please refer to Bid Schedule A line item# 009= 200 amp, 20kV three fused cutout assemblies, maximum interrupt of 25kA with maximum voltage surge of 150kV. Please provide complete details of this item or a like part#.

**A7:** This item description is wrong should be as follows: 20 kv fused cutout assembly, with 200 amp tubes and 200 amp fused cutout link. With maximum interrupt of 25ka with maximum voltage surge of 150 kv.

**Q8:** Please refer to Bid Schedule B line item# 104: Tester, Leak, Lineman's Rubber Glove, Bench Hand Pump model#g99. Please provide product details or a picture of like product.

**A8:** Following is a photo of the Salisbury Bench hand Pump #G99.



**Q9:** Please refer to Bid Schedule A line item# 001 : Aluminum automatic tension splice, please provide technical details and if possible a like part # or picture. Please verify if the attached picture of our product will meet the requirement.

**A9:** Following is a photo of the Blackbum #78378691839.



**Q10:** There is no specification or supported documents for Distribution Transformers Items 017 and 018 – Please send Specification

**A10:** Pole mounted, Y to Y

**Q11:** There is no specification or supported documents for Distribution Panels Items 019, 041 and 042 – Please send Specification

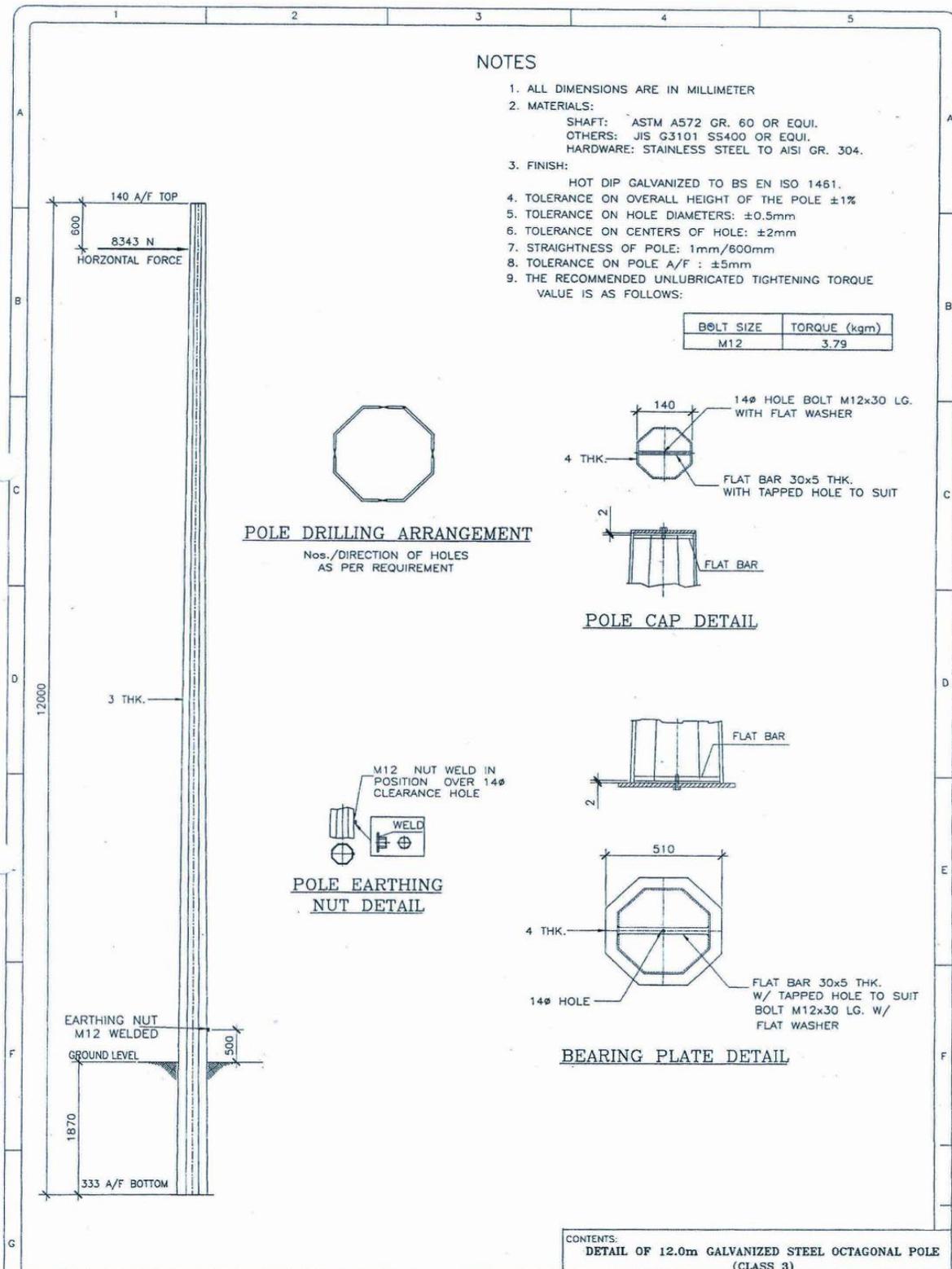
**A11:** Panels should be like Square D outdoor rated, 3 phase, QO load center

**Q12:** There is no specification or supported documents for Air Switch Items 034 – Please send Specification

**A12:** Should be like Lucy Switchgear Rapier AX

**Q13:** There is no specification or supported documents for Steel Pole and Arm Items 003 and 004. Attachment-C is Reinforced Concrete Pole not Steel Pole. Please send specification.

**A13:** See the following specification:



## 1. SCOPE

This specification covers the general requirements of the design, manufacture, testing, supply and delivery of surge arresters of gapless metal-oxide type for the over voltage protection of all new medium voltage equipment like transformers, switches, underground cable portions reclosers, capacitors, etc. that are insulated for a maximum operating voltage of 24 kV in the partly compensated distribution system of Kabul. The required standard ratings are given in the technical data sheets of Chapter Y, Tables P.

## 2. APPLICABLE STANDARDS

The equipment and components supplied shall be in accordance with the latest editions of the standards specified below and amendments thereof.

- a) IEC 60099-4 (1999) Part. 4 : Surge Arresters – Metal – oxide surge arresters without gaps for a.c. systems
- b) IEC 60099-5 (2000) Part. 5 : Surge Arresters – Selection and application recommendations
- c) IEC 1109 (1992) : Composite insulator for a.c. over head lines with a nominal voltage greater than 1000V – Definitions, test methods and acceptance criteria.

## 3. TEST AND INSPECTION

### 3.1 TYPE TEST CERTIFICATES

The following type test certificates conforming to IEC 99-4, IEC 507 (1991) and IEC 1109 shall also be submitted with the offer.

- i) Insulation withstand test,
- ii) Residual voltage tests,
- iii) Long duration current impulse withstand test,
- iv) Operation duty test,
- v) Tests of arrester disconnectors,
- vi) Partial discharge test,
- vii) Seal leakage test,
- viii) Tracking & erosion test for polymeric insulation

The type test certificates shall clearly identify the equipment concerned showing the manufacturer's identity. Type test report shall include a complete drawing and the model/type of the offered arrester.

Type test report shall be from a recognized independent testing authority acceptable to the Employer.

### 3.2 ROUTINE TEST

The following routine tests shall be carried out on all the arresters as per IEC 60099-4 and the test report shall be made available to the Employer.

- a) Power frequency reference voltage test.
- b) Residual voltage tests.
- c) Partial discharge tests.
- d) Leakage test

### 3.3 INSPECTION

The selected Bidder shall make necessary arrangements for the Employer to inspect the equipment and witness the Acceptance/Sample tests as per Clause 13.2, conforming to IEC 60099-4. Routine test report as per Clause 9.2 shall be furnished.

## 4. BASIC FEATURES

### 4.1 DESIGN

The surge arresters shall be designed for outdoor service conditions stipulated in the general technical specifications of Chapter B. The arresters shall be supplied complete with the following.

- i) Clamps suitable to receive Copper/Aluminium (Line) Conductors from 10 mm – 20 mm corresponding to ACSR conductors of 70/12 up to 185/30 mm<sup>2</sup>.
- ii) Earth connection lead or earthing clamp terminals suitable to receive 50mm<sup>2</sup> copper conductor.
- iii) The mounting clamps suitable for bracket mounting on a structure made out of 100 x 50 x 6 mm Channel Iron.

### 4.2 MANUFACTURE

The surge arrester shall be of the non-linear metal-oxide resistor type without spark gaps and the non-linear metal-oxide resistor shall be housed in a hermetically sealed insulator casing to prevent ingress of moisture.

#### 4.3 INSULATOR DETAILS

The housing insulator of the surge arrester shall be of polymeric type and the insulator sheds shall be designed to minimize trapping of contamination.

The complete arrester shall withstand a 1000h salt fog test at continuous voltage as described in IEC 60119 / IEC 60507. Additional cycle tests described in IEC 601109 shall also be passed satisfactorily.

#### 4.4 MOISTURE SEALING

Manufacturing procedure shall include an effective leak test and the manufacturers shall carry out the Special Thermal Stability Test as specified in IEC 60099-4.

#### 4.5 PARTIAL DISCHARGE

Each surge arrester shall be tested to prove absence of partial discharge contact noise as specified in IEC 60099-4.

#### 4.6 ARRESTER DISCONNECTER

The surge arrester shall have a device for disconnecting it from the system in the event of arrester failure to prevent a persistent fault in the system and it shall give a visible indication when the arrester has failed. The arrester disconnecter shall be tested as per IEC 60099-4.

#### 4.7 OPERATION COUNTER (ONLY WHEN STIPULATED IN SCHEDULE OF PRICES)

The operation counter shall be of the outdoor type with mounting facility and designed to sense the surge current during the operation of the surge arrester and to record the number of discharge on a five digit cyclometer type register. It shall also be provided with a milli-amp meter to monitor leakage current of the arrester.

The defective operation counter shall not create any discontinuity in the surge arrester earthing circuit. The operation counter shall be supplied with the necessary insulating bases to insulate the operation counter as well as the earthing lead. The enclosure of the operation counter shall be made of stainless steel/hot dip galvanized steel.

The quantity of operating counters if required to be supplied shall be as stipulated in the Schedule of Prices.

#### 4.8 INSULATING BRACKET

A robust insulating bracket suitable for mounting the surge arrester to 100 x 50 x 6 mm channel iron cross arms shall be supplied with the surge arrester. The power frequency withstand voltage of the insulating bracket shall not be less than 20 kV.

#### 5. QUALITY ASSURANCE

The manufacture shall possess ISO 9001 quality assurance certification for the manufacture of surge arresters for the plant where the manufacture of surge arrester is done. The bidder shall furnish a copy of the ISO certificate certified as true copy of the original by the manufacturer, along with the offer.

#### 6. ADDITIONAL REQUIREMENTS

##### 6.1 RATING PLATE MARKING

The following rating and data of the arresters shall be provided and it shall be weather and corrosion proof. The plate shall be positioned at the bottom flange base and visible from the ground level.

- a) Number and year of the standard adopted
- b) Rated voltage / frequency
- c) Arrester type and discharge class
- d) Nominal discharge current
- e) Manufacturer's identification (name or trade mark etc.)
- f) Year of manufacture
- g) Serial number

#### 7. INFORMATION TO BE SUPPLIED WITH THE OFFER

##### 7.1 THE FOLLOWING SHALL BE FURNISHED WITH THE OFFER

- a) Catalogues / Technical literature describing the constructional features, materials used for components, operational feature of the equipment, indicating the model number etc.
- b) Energy withstand capability and a description of the test carried out to measure the same.
- c) Power frequency withstand voltage versus time characteristics curve covering the time range from 0.1 sec. to 24 minutes.

- d) Dimensional drawings of the bracket mounting base, live conductor clamps, earth lead and automatic earth disconnecting device and overall dimensional drawing.
- e) Drawing of name plate to scale incorporating the particulars called for.
- f) Completed schedule of technical data sheets of Chapter Y, Tables P.
- g) A copy of the Manufacturer's ISO 9001 certificate conforming to Clause 5 – Quality Assurance.