GUAM POWER AUTHORITY
ATURIDÅT ILEKTRESEDÅT GUAHAN
P.O.BOX 2977 • AGANA, GUAM U.S.A. 96932-2977

September 19, 2019

AMENDMENT NO.: III

TO

INVITATION FOR BID NO.: GPA-087-19

FOR

PAD MOUNTED TRANSFORMERS

Prospective Bidders are hereby notified of the following response to an inquiry received from Benson Guam Enterprises, Inc. dated September 05, 2019:

Benson Guam Enterprises, Inc. dated 09/05/2019:

QUESTION:

1. Please clarify for Howard. I'm not sure how to answer this.
   They need to confirm the type of single phase pads.

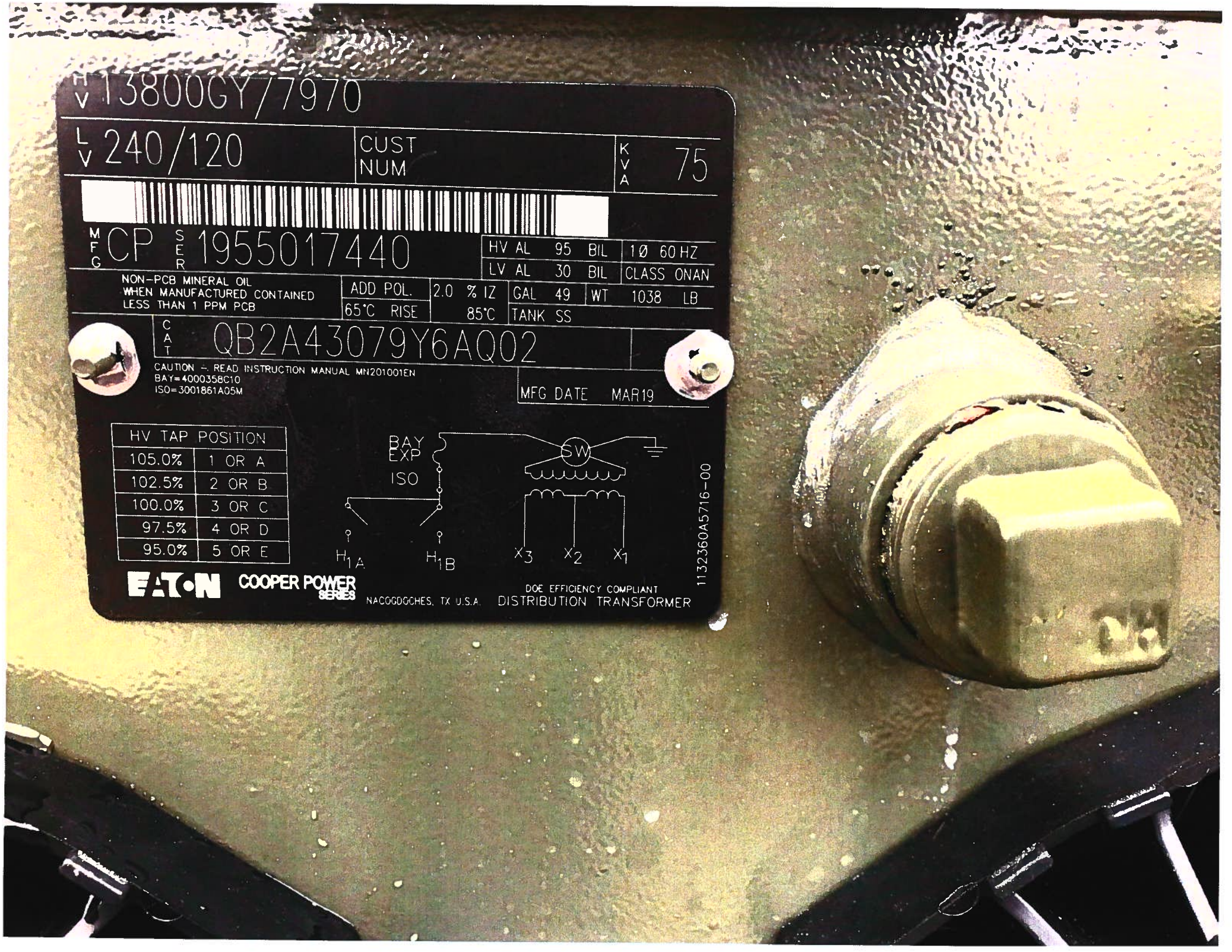
ANSWER:

Please see attached pad mounted transformers photos and literature as provided by your office indicating the type of single phase pad mounted transformers requested.

All other Terms and Conditions in the bid package shall remain unchanged and in full force.

JOHN M. BENAVENTE, P.E.
General Manager


CAUTION
H1A
H1B
X3
X2
X1
SW A
OPEN
SW B
OPEN


HV 13800GY/7970
LV 240/120
CUST NUM
KVA 75
MFG CP SER 1955017440
HV AL 95 BIL
LV AL 30 BIL
1Ø 60 HZ
CLASS ONAN
NON-PCB MINERAL OIL
WHEN MANUFACTURED CONTAINED
LESS THAN 1 PPM PCB
ADD POL.
65°C RISE
2.0 % IZ
85°C
GAL 49
WT 1038 LB
TANK SS
CAT QB2A43079Y6AQ02
CAUTION – READ INSTRUCTION MANUAL MN201001EN
BAY=4000358C10
ISO=3001861A05M
MFG DATE MAR19
HV TAP POSITION
105.0% 1 OR A
102.5% 2 OR B
100.0% 3 OR C
97.5% 4 OR D
95.0% 5 OR E
BAY EXP ISO
SW
H1A
H1B
X3
X2
X1
EATON
COOPER POWER SERIES
NACOGDOCHES, TX U.S.A.
DOE EFFICIENCY COMPLIANT
DISTRIBUTION TRANSFORMER
1132360A5716-00

HOWARD HI INDUSTRIES QUOTE NO. . DATE:

SINGLE-PHASE PAD-MOUNT LOW VOLTAGE CONFIGURATION OPTIONS

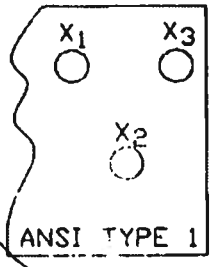
NO. 71-715010-004

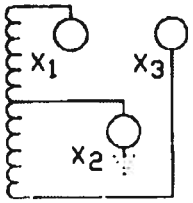
SUBTRACTIVE: KVA > 200 AND HIGH VOLTAGE > 8660

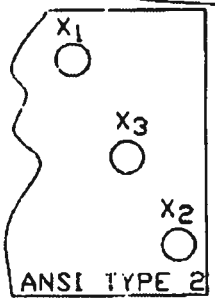
COMMON

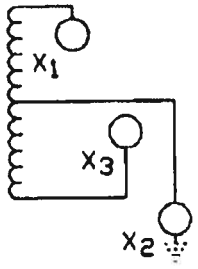
240/120 OR (2E/E)

THREE LOW VOLTAGE BUSHINGS





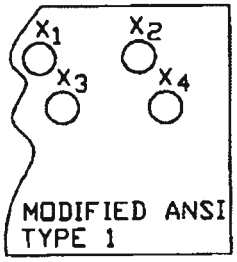


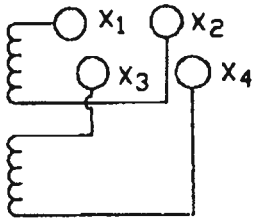


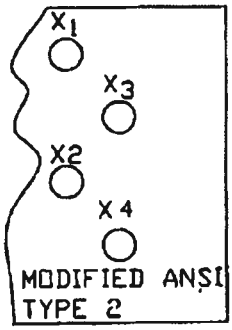
UNCOMMON

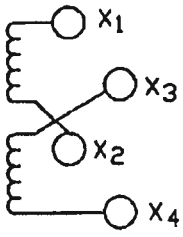
120/240 OR (E/2E)

FOUR LOW VOLTAGE BUSHINGS









THE SPECIFICATION, P.O., OR INQUIRY REFERS TO 120/240 OR E/2E FOR THE SECONDARY. PLEASE CLARIFY BY INDICATING (SIMPLY CIRCLE) THE DESIRED SECONDARY CONFIGURATION, DATE, AND SIGN BELOW AND RETURN TO HOWARD INDUSTIRES

DATE: 9/17/19

SIGNATURE: _____

NOTES: (1) LOW VOLTAGE IS SHOWN FOR SUBTRACTIVE POLARITY TRANSFORMER. FOR ADDITIVE POLARITY BUSHING DESIGNATIONS ARE REVISED ACCORDING TO ANSI STANDARDS.

(2) THE UNCOMMON (120/240 (4-LVB) CASE TYPICALLY ADDS A MINIMUM OF $10 TO FIRST COST AND ADDITIONAL CONDUCTOR WATTS; MAGNITUDE OF INCREASE DEPENDS ON KVA OF TRANSFORMER.

GENERAL TOLERANCES (UNLESS OTHERWISE SPECIFIED)
LINEAR ± .063 IN (1/16) WEDMATO ± .031 IN
DIAGONAL ± .093 IN (3/32) PORCELAIN ± .03 PER IN

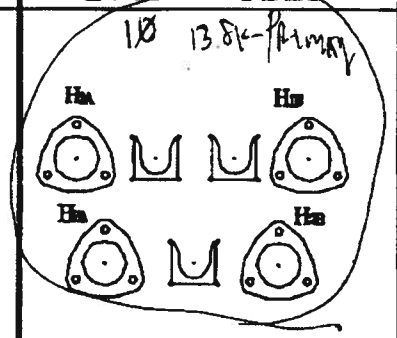
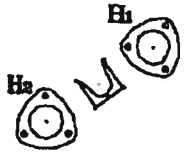
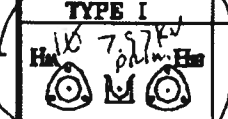
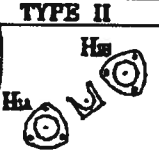
REV	DATE	REVISION	BY	APP
A	9-20-99	PER E-MAIL ED 22 &32 FOR TYPE 3 LVB	BH	TFH

HOWARD HI INDUSTRIES
LAUREL, MISS. USA 39440
MFG. OF DISTRIBUTION TRANSFORMERS

NAME: LV CONFIGURATION CC N/A
DESCR: ILLUSTRATION OF 3-LVB AND 4-LVB
SINGLE PHASE PAD DESIGNS
SCALE NTS DWG BY BH CHK BY TFH DATE 8-20-99

071-715010-004 B

BASED ON FIG 3 OF C57.12.00-1993 DESIGNATION OF VOLTAGE RATINGS OF SINGLE-PHASE WINDINGS (SCHEMATIC REPRESENTATION)

SCHEMATIC REPRESENTATION AND DESCRIPTIONS					PHYSICAL REPRESENTATION	NO. 0071-720095-207	
IDENTIFICATION	NOMENCLATURE	NAMEPLATE MARKING	TYPICAL WINDING DIAGRAM	CONDENSED USAGE GUIDE	LOOP FEED	RADIAL - FEED	
(1X0)	E	12470		E SHALL INDICATE A WINDING OF E VOLTS THAT IS SUITABLE FOR Δ CONNECTION ON AN E VOLT SYSTEM.	1Ø 13.8kV-Primary 	TYPE I 	TYPE II 
(1X3)	E/E1Y	7200/12470Y		E/E1Y SHALL INDICATE A WINDING OF E VOLTS THAT IS SUITABLE FOR A Δ CONNECTION ON AN E VOLT SYSTEM OR FOR Y CONNECTION ON AN E1 VOLT SYSTEM.			
(1X2)	E/E1 GRDY	7200/12470GRDY		E/E1 GRDY SHALL INDICATE A WINDING OF E VOLTS HAVING REDUCED INSULATION THAT IS SUITABLE FOR Δ CONNECTION ON AN E VOLT SYSTEM OR Y CONNECTION ON AN E1 VOLT SYSTEM, TRANSFORMER NEUTRAL EFFECTIVELY GROUNDED.			
(1X1)	E1GRDY/E	12470GRDY/7200		E1 GRDY/E SHALL INDICATE A WINDING OF E VOLTS WITH REDUCED INSULATION AT THE NEUTRAL END. THE NEUTRAL END MAY BE CONNECTED DIRECTLY TO THE TANK FOR Y OR FOR SINGLE-PHASE OPERATION ON AN E1 VOLT SYSTEM, PROVIDED THE NEUTRAL END OF THE WINDING IS EFFECTIVELY GROUNDED.	TYPE I  TYPE II 	TYPE I  TYPE II 	

APPROPRIATE QUESTIONS FOR CASES WHERE THE REFERENCED VOLTAGE RATING IS IN QUESTION:

(1) WHAT IS THE LINE TO LINE VOLTAGE OF THE SYSTEM? 13.8KV

(2) WHAT IS THE LINE TO GROUND VOLTAGE OF THE SYSTEM? 7.97KV

(3) WILL THE TRANSFORMER BE INSTALLED LINE TO LINE (DELTA) OR LINE TO GROUND (Y)? SEE BID DESCRIPTION

(4) IS A LOOP-FEED OR RADIAL-FEED CONFIGURATION DESIRED? SEE BID DESCRIPTION

(5) PLEASE REQUEST THAT THE END USER CIRCLE ONE OF THE ABOVE ILLUSTRATIONS THAT SHOWS THE DESIRED PRIMARY CONFIGURATION OR SKETCH ALTERNATIVE.

NOTES:

(1) E = LINE-TO-NEUTRAL VOLTAGE OF A Y WINDING, OR LINE-TO-LINE VOLTAGE OF A Δ WINDING.

(2) $E_1 = \sqrt{3}\ E$

HOWARD HI INDUSTRIES

LAUREL, MISS. USA 39440

MFG. OF DISTRIBUTION TRANSFORMERS

REV.	DATE	REVISION NOTES	BY	APP				
					NAME: HV CONFIGURATION	CC	N/A	
					DESCR: ILLUSTRATION OF Δ AND Y			
A.	05/30/01	ADDED TYPE II CONFIGURATIONS	LL	TFH	HV RATINGS FOR LOOP AND RADIAL CASES			
					SCALE: NTS	DWG BY: BH	CHK BY: TFH	DATE: 08/20/99

NO. 0071-720095-207