

Ref No. : PE/PG/RTC/E-5555/2017/CORRIGENDA/04

Date: 02.05.2017

CORRIGENDA / ADDENDUM-04

SUBJECT: TENDER ENQUIRY FOR RATE CONTRACT OF FLOW ELEMENT NOZZLES AS PER TECHNICAL SPECIFICATION NO. PE-TS-20-145-I105B

OUR REF: TENDER ENQUIRY NO: PE/PG/RTC/E-5555/2017, DTD-05.04.2017

DUE DATE
12.05.2017
BY 14:00PM

1. The last date of submission of offer against tender for Rate Contract of Flow Element Nozzle Assembly invited vide Enquiry No PE/PG/RTC/E-5555/2017, DTD-05.04.2017 is extended up to 12.05.2017, 14.00PM. Part I Bid opening will be done on 12.05.2017, 15.00PM. All bidders are requested to visit the website www.bhel.com (Tender Notifications Section) OR www.bhelpem.com. All future corrigenda/ amendment and due date extension, if any, for this tender shall be hosted only on above websites.
2. Please find enclosed revised price schedule (Rev 02). Kindly consider the same while quoting. Vendors already submitted their offers need to submit revised offers as per revised BOQ.

Thanking You,

With Regards,

For & on behalf of BHEL


SUMEET SAHAY
SR ENGINEER/CMM

सुमित साहय / SUMEET SAHAY
SR ENGINEER/CMM (PE/PG/RTC/E-5555/2017)
BHEL-PEM, Noida-201301
Power Project Engineering Institute Building
HRD & ESI Complex Plot No. 25, Sector-16 A,
BHEL-PEM, Noida-201301 (U.P.)
Tel No. 0120-4213532, 09999498202

Please reply to:

Sh Sumeet Sahay, Sr. Engineer
CMM

Power Project Engineering Institute Building
HRD & ESI Complex Plot No. 25, Sector-16 A,
BHEL-PEM, Noida-201301 (U.P.)
Tel No. 0120-4213532, 09999498202



ANNEXURE- I-A TO NIT REF NO-PE/PG/RTC/E-5555/2017, DTD-05.04.2017
RATE CONTRACT - PRICE SCHEDULE FOR FLOW ELEMENT NOZZLES (REV 02)

INDIGENOUS SUPPLIER

NAME OF VENDOR-

SL NO	PIPE SIZE (INCH)	ITEM DESCRIPTION	UOM	ORDERED QUANTITY	UNIT EX-WORKS PRICE (DUTY PACKED) IN PERCENTAGE OF TOTAL EX WORKS PRICE OF NOZZLES GIVEN AT SL NO-H OF COLUMN 9+18 (Rs X + Rs Y)	UNIT EX-WORKS PRICE (DUTY PACKED) (INR)	TOTAL EX-WORKS PRICE (DUTY PACKED) IN PERCENTAGE OF TOTAL EX WORKS PRICE OF NOZZLES GIVEN AT SL NO-H OF COLUMN 9+18 (Rs X + Rs Y)	TOTAL EX-WORKS PRICE (DUTY PACKED) (INR)	ED (INCLUDING CESS) (IN %AGE)	CST @ % AGAINST FORM 'C' /E/II (IN %AGE)	FREIGHT CHARGES (INCLUDING SERVICE TAX) (IN %AGE OF TOTAL EX WORKS)	TOTAL F.O.R SITE PRICE (INR)	ORDERED QUANTITY	UNIT CALIBRATION PRICE IN PERCENTAGE OF TOTAL EX WORKS PRICE OF NOZZLES GIVEN AT SL NO-H OF COLUMN 9+18 (Rs X + Rs Y)	UNIT CALIBRATION PRICE (INR)	TOTAL CALIBRATION PRICE IN PERCENTAGE OF TOTAL EX WORKS PRICE OF NOZZLES GIVEN AT SL NO-H OF COLUMN 9+18 (Rs X + Rs Y)	TOTAL CALIBRATION PRICE (INR)	SERVICE TAX (IN %AGE)	TOTAL CALIBRATION PRICE INCLUDING SERVICE TAX (INR)	TOTAL PRICE (INR)
1	2	3	4	5	6	7	8	9=5X7	10	11	12	13=9+10+11+12	14	15	16	17	18=14X16	19	20=18+19	21=13+20
SCHEDULE OF PRICES for Complete Nozzle assembly of nozzle material SS316, pipe material SA106GRC / SA106GRC with tappings and accessories like Root Valves (SS316) , Nipples (SS316) , Expanders (SS316) , Pressure Take off points etc																				
A																				
A.1	03"	DATASHEET NO. DS-1	NOS.	1	0.15000%	Derived	0.15000%	Derived	% TO BE QUOTED	% TO BE QUOTED	% TO BE QUOTED	Derived	1	0.10000%	Derived	0.10000%	Derived	% TO BE QUOTED	Derived	Derived
A.2	04"		NOS.	7	0.15714%	Derived	1.10000%	Derived	% TO BE QUOTED	% TO BE QUOTED		Derived	5	0.06000%	Derived	0.30000%	Derived	% TO BE QUOTED	Derived	Derived
A.3	06"		NOS.	2	0.18000%	Derived	0.36000%	Derived	% TO BE QUOTED	% TO BE QUOTED		Derived	1	0.08000%	Derived	0.08000%	Derived	% TO BE QUOTED	Derived	Derived
A.4	08"		NOS.	2	0.25000%	Derived	0.50000%	Derived	% TO BE QUOTED	% TO BE QUOTED		Derived	1	0.10000%	Derived	0.10000%	Derived	% TO BE QUOTED	Derived	Derived
A.5	10"		NOS.	12	0.28750%	Derived	3.45000%	Derived	% TO BE QUOTED	% TO BE QUOTED		Derived	4	0.12500%	Derived	0.50000%	Derived	% TO BE QUOTED	Derived	Derived
A.6	12"		NOS.	1	0.40000%	Derived	0.40000%	Derived	% TO BE QUOTED	% TO BE QUOTED		Derived	1	0.20000%	Derived	0.20000%	Derived	% TO BE QUOTED	Derived	Derived
A.7	14"		NOS.	1	0.45000%	Derived	0.45000%	Derived	% TO BE QUOTED	% TO BE QUOTED		Derived	1	0.20000%	Derived	0.20000%	Derived	% TO BE QUOTED	Derived	Derived
A.8	16"		NOS.	35	0.59286%	Derived	20.75000%	Derived	% TO BE QUOTED	% TO BE QUOTED		Derived	10	0.20000%	Derived	2.00000%	Derived	% TO BE QUOTED	Derived	Derived
A.9	18"		NOS.	5	0.80000%	Derived	4.00000%	Derived	% TO BE QUOTED	% TO BE QUOTED		Derived	3	0.23333%	Derived	0.70000%	Derived	% TO BE QUOTED	Derived	Derived
A.10	20"		NOS.	7	1.01429%	Derived	7.10000%	Derived	% TO BE QUOTED	% TO BE QUOTED		Derived	5	0.24000%	Derived	1.20000%	Derived	% TO BE QUOTED	Derived	Derived
B		SCHEDULE OF PRICES for Complete Nozzle assembly of nozzle material SS316,pipe material SA335 P91 with tappings and accessories like Root Valves (SS316) , Nipples (SS316) , Expanders (SS316) , Pressure Take off points etc	CALIBRATION CHARGES for Complete Nozzle assembly																	
B.1	06"	DATASHEET NO. DS-2	NOS.	1	0.60000%	Derived	0.60000%	Derived	% TO BE QUOTED	% TO BE QUOTED	% TO BE QUOTED	Derived	1	0.10000%	Derived	0.10000%	Derived	% TO BE QUOTED	Derived	Derived
B.2	08"		NOS.	3	0.66667%	Derived	2.00000%	Derived	% TO BE QUOTED	% TO BE QUOTED		Derived	2	0.10000%	Derived	0.20000%	Derived	% TO BE QUOTED	Derived	Derived
B.3	10"		NOS.	4	0.70000%	Derived	2.80000%	Derived	% TO BE QUOTED	% TO BE QUOTED		Derived	1	0.20000%	Derived	0.20000%	Derived	% TO BE QUOTED	Derived	Derived
B.4	12"		NOS.	4	0.82500%	Derived	3.30000%	Derived	% TO BE QUOTED	% TO BE QUOTED		Derived	2	0.15000%	Derived	0.30000%	Derived	% TO BE QUOTED	Derived	Derived
B.5	14"		NOS.	1	0.90000%	Derived	0.90000%	Derived	% TO BE QUOTED	% TO BE QUOTED		Derived	1	0.20000%	Derived	0.20000%	Derived	% TO BE QUOTED	Derived	Derived
C		SCHEDULE OF PRICES for Complete Nozzle assembly of nozzle material SS316,pipe material SA106GRC with tappings and accessories like Root Valves (SS316) , Nipples (SS316) , Expanders (SS316) , Pressure Take off points etc	CALIBRATION CHARGES for Complete Nozzle assembly																	
C.1	14"	DATASHEET NO. DS-3	NOS.	1	0.70000%	Derived	0.70000%	Derived	% TO BE QUOTED	% TO BE QUOTED	% TO BE QUOTED	Derived	1	0.20000%	Derived	0.20000%	Derived	% TO BE QUOTED	Derived	Derived
C.2	20"		NOS.	1	1.10000%	Derived	1.10000%	Derived	% TO BE QUOTED	% TO BE QUOTED		Derived	1	0.25000%	Derived	0.25000%	Derived	% TO BE QUOTED	Derived	Derived
C.3	22"		NOS.	4	1.28750%	Derived	5.15000%	Derived	% TO BE QUOTED	% TO BE QUOTED		Derived	2	0.12500%	Derived	0.25000%	Derived	% TO BE QUOTED	Derived	Derived
C.4	24"		NOS.	4	1.52500%	Derived	6.10000%	Derived	% TO BE QUOTED	% TO BE QUOTED		Derived	3	0.30000%	Derived	0.90000%	Derived	% TO BE QUOTED	Derived	Derived
D		SCHEDULE OF PRICES for Complete Nozzle assembly of nozzle material SS316,pipe material SA335 P22 with tappings and accessories like Root Valves (SS316) , Nipples (SS316) , Expanders (SS316) , Pressure Take off points etc	CALIBRATION CHARGES for Complete Nozzle assembly																	
D.1	06"	DATASHEET NO. DS-4	NOS.	1	0.60000%	Derived	0.60000%	Derived	% TO BE QUOTED	% TO BE QUOTED	% TO BE QUOTED	Derived	1	0.10000%	Derived	0.10000%	Derived	% TO BE QUOTED	Derived	Derived
D.2	08"		NOS.	1	0.60000%	Derived	0.60000%	Derived	% TO BE QUOTED	% TO BE QUOTED		Derived	1	0.10000%	Derived	0.10000%	Derived	% TO BE QUOTED	Derived	Derived
E		SCHEDULE OF PRICES for Complete Nozzle assembly of nozzle material A182F91, pipe material SA335 P91 with tappings and accessories like Root Valves (SS316) , Nipples (SS316) , Expanders (SS316) , Pressure Take off points etc	CALIBRATION CHARGES for Complete Nozzle assembly																	

Signature

SL NO	PIPE SIZE (INCH)	ITEM DESCRIPTION	UOM	ORDERED QUANTITY	UNIT EX-WORKS PRICE (DULY PACKED) IN PERCENTAGE OF TOTAL EX WORKS PRICE OF NOZZLES GIVEN AT SL NO-H OF COLUMN 9+18 (Rs X + Rs Y)	UNIT EX-WORKS PRICE (DULY PACKED) (INR)	TOTAL EX-WORKS PRICE (DULY PACKED) IN PERCENTAGE OF TOTAL EX WORKS PRICE OF NOZZLES GIVEN ATSL NO-H OF COLUMN 9+18 (Rs X + Rs Y)	TOTAL EX-WORKS PRICE (DULY PACKED) (INR)	ED (INCLUDING CESS) (IN %AGE)	CST @ % AGAINST FORM 'C' /E/II (IN %AGE)	FREIGHT CHARGES (INCLUDING SERVICE TAX) (IN %AGE OF TOTAL EX WORKS)	TOTAL F.O.R SITE PRICE (INR)	ORDERED QUANTITY	UNIT CALIBRATION PRICE IN PERCENTAGE OF TOTAL EX WORKS PRICE OF NOZZLES GIVEN AT SL NO-H OF COLUMN 9+18 (Rs X + Rs Y)	UNIT CALIBRATION PRICE (INR)	TOTAL CALIBRATION PRICE IN PERCENTAGE OF TOTAL EX WORKS PRICE OF NOZZLES GIVEN AT SL NO-H OF COLUMN 9+18 (Rs X + Rs Y)	TOTAL CALIBRATION PRICE (INR)	SERVICE TAX (IN %AGE)	TOTAL CALIBRATION PRICE INCLUDING SERVICE TAX (INR)	TOTAL PRICE (INR)	
1	2	3	4	5	6	7	8	9=5X7	10	11	12	13=9+10+11+12	14	15	16	17	18=14X16	19	20=18+19	21=13+20	
E.1	08"	DATASHEET NO. DS-5	NOS.	2	1.100000%	Derived	2.200000%	Derived	% TO BE QUOTED	% TO BE QUOTED	% TO BE QUOTED	Derived	1	0.200000%	Derived	0.200000%	Derived	% TO BE QUOTED	Derived	Derived	
E.2	10"		NOS.	1	1.400000%	Derived	1.400000%	Derived	% TO BE QUOTED	% TO BE QUOTED		% TO BE QUOTED	Derived	1	0.200000%	Derived	0.200000%	Derived	% TO BE QUOTED	Derived	Derived
E.3	12"		NOS.	4	1.625000%	Derived	6.500000%	Derived	% TO BE QUOTED	% TO BE QUOTED	% TO BE QUOTED	Derived	1	0.200000%	Derived	0.200000%	Derived	% TO BE QUOTED	Derived	Derived	
F	08"		DATASHEET NO. DS-6	NOS.	5	0.800000%	Derived	4.000000%	Derived	% TO BE QUOTED		% TO BE QUOTED	% TO BE QUOTED	Derived	3	0.100000%	Derived	0.300000%	Derived	% TO BE QUOTED	Derived
F.1	10"	NOS.		6	0.766677%	Derived	4.600000%	Derived	% TO BE QUOTED	% TO BE QUOTED	% TO BE QUOTED	Derived	2	0.150000%	Derived	0.300000%	Derived	% TO BE QUOTED	Derived	Derived	
F.2	12"	NOS.		1	0.900000%	Derived	0.900000%	Derived	% TO BE QUOTED	% TO BE QUOTED	% TO BE QUOTED	Derived	1	0.150000%	Derived	0.150000%	Derived	% TO BE QUOTED	Derived	Derived	
F.3	14"	NOS.		4	0.925000%	Derived	3.700000%	Derived	% TO BE QUOTED	% TO BE QUOTED	% TO BE QUOTED	Derived	1	0.160000%	Derived	0.160000%	Derived	% TO BE QUOTED	Derived	Derived	
F.4	(350 NB)																				
G		Items to be included as additional requirement (applicable for any nozzle assembly of any line size as indicated at sl no-A TO F)																			
G.1	-	ROOT VALVE SS316 25NB, # 900	NOS.	225	0.008000%	Derived	1.800000%	Derived	% TO BE QUOTED	% TO BE QUOTED	% TO BE QUOTED	Derived								Derived	
G.2	-	ROOT VALVE SS316 25NB # 3500 SPL	NOS.	45	0.033333%	Derived	1.500000%	Derived	% TO BE QUOTED	% TO BE QUOTED		Derived									Derived
G.3	-	ROOT VALVE SS316 25NB # 4500 SPL	NOS.	15	0.040000%	Derived	0.600000%	Derived	% TO BE QUOTED	% TO BE QUOTED		Derived									Derived
G.4	-	EXPANDER 15NBX25NB, SS316, MATERIAL CLASS 3000 / 9000	NOS.	40	0.002500%	Derived	0.100000%	Derived	% TO BE QUOTED	% TO BE QUOTED		Derived									Derived
G.5	-	NIPPLE 25NB, SS316, 250mm long, SCH XXS	NOS.	40	0.00375%	Derived	0.150000%	Derived	% TO BE QUOTED	% TO BE QUOTED	% TO BE QUOTED	Derived								Derived	
G.6	-	NIPPLE 25NB, SS316, 1000mm long, SCH XXS	NOS.	30	0.011677%	Derived	0.350000%	Derived	% TO BE QUOTED	% TO BE QUOTED		Derived									Derived
G.7	-	NIPPLE 25NB, SS316, 250mm long, SCH 80	NOS.	225	0.00178%	Derived	0.400000%	Derived	% TO BE QUOTED	% TO BE QUOTED		Derived									Derived
H		GRAND TOTAL				Derived	90.31%	TO BE QUOTED (RS Y)	Derived	Derived		Derived	Derived			Derived	9.69%	TO BE QUOTED (RS Y)	Derived	Derived	DERIVED (RS Y)
Note:-																					
1. Bidder to note that evaluation shall be on Grand Total FOR site price to BHEL, however, Bidder to quote Grand total Ex works value of the complete package (Rs X) and the calibration charges (Rs Y) only as per the BOQ above. The item wise break up of Ex works prices (unit as well as total) shall be derived as per the formulae indicated above by BHEL. Bidder also need to indicate taxes percentage in the respective column and freight percentage of Ex works value considering delivery anywhere in India in the freight column.																					
2. Rate contract shall be decided on the basis of grand Total FOR site price of Total BOQ of Nozzle																					
3. Value is to be filled only where "to be quoted" is mentioned and for other columns where "derived" is mentioned same shall be derived by BHEL as per % allocation fixed against each item																					
4. Bidder to note that total price indicated above at H shall be considered for evaluation and hence should be complete in all respect for the full scope defined and considering all terms and conditions agreed.																					
5. The unit price quoted by bidder shall be binding for quantity variation which is at discretion of purchaser.																					
6. Prices shall remain firm during contract execution.																					
7. For any clarification please refer Technical Specification No-PE-TS-20-145-11058																					

सुनीत राणा / SUMEET RANA
B.Tech (IT) / Sr. Engineer (PG-I-2)

Electrical Engineering

THE UNIVERSITY OF CHICAGO

11

[illegible]

100-201301

Encl. Nos. 43, 36001 - 1074 11-11-11

10



NAME OF VENDOR-														
Sl NO	PIPE SIZE (INCH)	ITEM DESCRIPTION	UOM	ORDERED QUANTITY	UNIT C & F PRICE (DULY PACKED) IN PERCENTAGE OF TOTAL PRICE OF NOZZLES GIVEN AT SL NO-H OF COUNM 9+14 INDIAN SEA PORT (MUMBAI)	UNIT C & F PRICE (DULY PACKED) INDIAN SEA PORT (MUMBAI) (CURRENCY)	TOTAL C & F PRICE (DULY PACKED) IN PERCENTAGE OF TOTAL PRICE OF NOZZLES GIVEN AT SL NO-H OF COUNM 9+14 INDIAN SEA PORT (MUMBAI)	TOTAL C & F PRICE (DULY PACKED) INDIAN SEA PORT (MUMBAI) (CURRENCY)	ORDERED QUANTITY	UNIT CALIBRATION PRICE IN PERCENTAGE OF TOTAL EX WORKS PRICE OF NOZZLES GIVEN AT SL NO-H OF COUNM 9+14	UNIT CALIBRATION PRICE (CURRENCY)	TOTAL CALIBRATION PRICE IN PERCENTAGE OF TOTAL EX WORKS PRICE OF NOZZLES GIVEN AT SL NO-H OF COUNM 9+14	TOTAL CALIBRATION PRICE (CURRENCY)	TOTAL PRICE (CURRENCY)
1	2	3	4	5	6	7	8	9=5X7	10	11	12	13	14=10X12	15=9+14
A		SCHEDULE OF PRICES for Complete Nozzle assembly of nozzle material SS316, pipe material SA106GRB / SA106GRC with tappings and accessories like Root Valves (SS316) , Nipples (SS316) , Expanders (SS316) , Pressure Take off points etc												
A.1	03" (80 NB)	DATASHEET NO. DS-1	NOS.	1	0.15000%	Derived	0.15000%	Derived	1	0.10000%	Derived	0.10000%	Derived	Derived
A.2	04" (100 NB)		NOS.	7	0.15714%	Derived	1.10000%	Derived	5	0.06000%	Derived	0.30000%	Derived	Derived
A.3	06" (150 NB)		NOS.	2	0.18000%	Derived	0.36000%	Derived	1	0.08000%	Derived	0.08000%	Derived	Derived
A.4	08" (200 NB)		NOS.	2	0.25000%	Derived	0.50000%	Derived	1	0.10000%	Derived	0.10000%	Derived	Derived
A.5	10" (250 NB)		NOS.	12	0.28750%	Derived	3.45000%	Derived	4	0.12500%	Derived	0.50000%	Derived	Derived
A.6	12" (300 NB)		NOS.	1	0.40000%	Derived	0.40000%	Derived	1	0.20000%	Derived	0.20000%	Derived	Derived
A.7	14" (350 NB)		NOS.	1	0.45000%	Derived	0.45000%	Derived	1	0.20000%	Derived	0.20000%	Derived	Derived
A.8	16" (400 NB)		NOS.	35	0.59286%	Derived	20.75000%	Derived	10	0.20000%	Derived	2.00000%	Derived	Derived
A.9	18" (450 NB)		NOS.	5	0.80000%	Derived	4.00000%	Derived	3	0.23333%	Derived	0.70000%	Derived	Derived
A.10	20" (500 NB)		NOS.	7	1.01429%	Derived	7.10000%	Derived	5	0.24000%	Derived	1.20000%	Derived	Derived
B		SCHEDULE OF PRICES for Complete Nozzle assembly of nozzle material SS316, pipe material SA335 P91 with tappings and accessories like Root Valves (SS316) , Nipples (SS316) , Expanders (SS316) , Pressure Take off points etc												
B.1	06" (150 NB)	DATASHEET NO. DS-2	NOS.	1	0.60000%	Derived	0.60000%	Derived	1	0.10000%	Derived	0.10000%	Derived	Derived
B.2	08" (200 NB)		NOS.	3	0.66667%	Derived	2.00000%	Derived	2	0.10000%	Derived	0.20000%	Derived	Derived
B.3	10" (250 NB)		NOS.	4	0.70000%	Derived	2.80000%	Derived	1	0.20000%	Derived	0.20000%	Derived	Derived
B.4	12" (300 NB)		NOS.	4	0.82500%	Derived	3.30000%	Derived	2	0.15000%	Derived	0.30000%	Derived	Derived
B.5	14" (350 NB)		NOS.	1	0.90000%	Derived	0.90000%	Derived	1	0.20000%	Derived	0.20000%	Derived	Derived
C		SCHEDULE OF PRICES for Complete Nozzle assembly of nozzle material SS316, pipe material SA106GRC with tappings and accessories like Root Valves (SS316) , Nipples (SS316) , Expanders (SS316) , Pressure Take off points etc												
C.1	14" (350 NB)	DATASHEET NO. DS-3	NOS.	1	0.70000%	Derived	0.70000%	Derived	1	0.20000%	Derived	0.20000%	Derived	Derived
C.2	20" (500 NB)		NOS.	1	1.10000%	Derived	1.10000%	Derived	1	0.25000%	Derived	0.25000%	Derived	Derived
C.3	22" (550 NB)		NOS.	4	1.28750%	Derived	5.15000%	Derived	2	0.12500%	Derived	0.25000%	Derived	Derived

Handwritten signature and date 2/5/17

SL NO	PIPE SIZE (INCH)	ITEM DESCRIPTION	UOM	ORDERED QUANTITY	UNIT C & F PRICE (DUTY PACKED) IN PERCENTAGE OF TOTAL PRICE OF NOZZLES GIVEN AT SL NO-H OF COLUMN 9+14 INDIAN SEA PORT (MUMBAI)	UNIT C & F PRICE (DUTY PACKED) INDIAN SEA PORT (MUMBAI) (CURRENCY)	TOTAL C & F PRICE (DUTY PACKED) IN PERCENTAGE OF TOTAL PRICE OF NOZZLES GIVEN AT SL NO-H OF COLUMN 9+14 INDIAN SEA PORT (MUMBAI)	TOTAL C & F PRICE (DUTY PACKED) INDIAN SEA PORT (MUMBAI) (CURRENCY)	ORDERED QUANTITY	UNIT CALIBRATION PRICE IN PERCENTAGE OF TOTAL EX WORKS PRICE OF NOZZLES GIVEN AT SL NO-H OF COLUMN 9+14	UNIT CALIBRATION PRICE (CURRENCY)	TOTAL CALIBRATION PRICE IN PERCENTAGE OF TOTAL EX WORKS PRICE OF NOZZLES GIVEN AT SL NO-H OF COLUMN 9+14	TOTAL CALIBRATION PRICE (CURRENCY)	TOTAL PRICE (CURRENCY)
1	2	3	4	5	6	7	8	9=5X7	10	11	12	13	14=10X12	15=9+14
C.4	24" (600 NB)		NOS.	4	1.52500%	Derived	6.10000%	Derived	3	0.30000%	Derived	0.90000%	Derived	Derived
D		SCHEDULE OF PRICES for Complete Nozzle assembly of nozzle material SS316, pipe material SA335 P22 with tappings and accessories like Root Valves (SS316), Nipples (SS316), Expanders (SS316), Pressure Take off points etc												
D.1	06" (150 NB)	DATASHEET NO. DS-4	NOS.	1	0.60000%	Derived	0.60000%	Derived	1	0.10000%	Derived	0.10000%	Derived	Derived
D.2	08" (200 NB)	DATASHEET NO. DS-4	NOS.	1	0.60000%	Derived	0.60000%	Derived	1	0.10000%	Derived	0.10000%	Derived	Derived
E		SCHEDULE OF PRICES for Complete Nozzle assembly of nozzle material A182F91, pipe material SA335 P91 with tappings and accessories like Root Valves (SS316), Nipples (SS316), Expanders (SS316), Pressure Take off points etc												
E.1	08" (200 NB)		NOS.	2	1.10000%	Derived	2.20000%	Derived	1	0.20000%	Derived	0.20000%	Derived	Derived
E.2	10" (250 NB)	DATASHEET NO. DS-5	NOS.	1	1.40000%	Derived	1.40000%	Derived	1	0.20000%	Derived	0.20000%	Derived	Derived
E.3	12" (300 NB)		NOS.	4	1.62500%	Derived	6.50000%	Derived	1	0.20000%	Derived	0.20000%	Derived	Derived
F		SCHEDULE OF PRICES for Complete Nozzle assembly of nozzle material SS316, pipe material SA335 P92 with tappings and accessories like Root Valves (SS316), Nipples (SS316), Expanders (SS316), Pressure Take off points etc												
F.1	08" (200 NB)		NOS.	5	0.80000%	Derived	4.00000%	Derived	3	0.10000%	Derived	0.30000%	Derived	Derived
F.2	10" (250 NB)	DATASHEET NO. DS-6	NOS.	6	0.76667%	Derived	4.60000%	Derived	2	0.15000%	Derived	0.30000%	Derived	Derived
F.3	12" (300 NB)		NOS.	1	0.90000%	Derived	0.90000%	Derived	1	0.15000%	Derived	0.15000%	Derived	Derived
F.4	14" (350 NB)		NOS.	4	0.92500%	Derived	3.70000%	Derived	1	0.16000%	Derived	0.16000%	Derived	Derived
G		Items to be included as additional requirement (applicable for any nozzle assembly of any line size as indicated at sl no-A TO F)												
G.1	-	ROOT VALVE SS316 25Nb, # 900	NOS.	225	0.00800%	Derived	1.80000%	Derived						Derived
G.2	-	ROOT VALVE SS316 25Nb, # 3500 SPL	NOS.	45	0.03333%	Derived	1.50000%	Derived						Derived
G.3	-	ROOT VALVE SS316 25Nb, # 4500 SPL	NOS.	15	0.04000%	Derived	0.60000%	Derived						Derived
G.4	-	EXPANDER 15NBX25NB, SS316, MATERIAL CLASS 3000 / 9000	NOS.	40	0.00250%	Derived	0.10000%	Derived						Derived
G.5	-	NIPPLE 25Nb, SS316, 250mm long, SCH XXS	NOS.	40	0.00375%	Derived	0.15000%	Derived						Derived
G.6	-	NIPPLE 25Nb, SS316, 1000mm long, SCH XXS	NOS.	30	0.01167%	Derived	0.35000%	Derived						Derived
G.7	-	NIPPLE 25Nb, SS316, 250mm long, SCH 80	NOS.	225	0.00178%	Derived	0.40000%	Derived						Derived
H		GRAND TOTAL				Derived	90.31%	TO BE QUOTED - X			Derived	9.69%	TO BE QUOTED - Y	DERIVED - Z

Note:-

1. Bidder to note that evaluation shall be on Grand Total FOR site price to BH&L, however, Bidder to quote grand total C&F value of the complete package (X) and the calibration charges (Y) only as per the BOQ above. The item wise break up of C&F prices (unit as well as total) shall be derived as per the formulae indicated above by BH&L.

2. Rate contract shall be decided on the basis of grand Total FOR site price of Total BOQ of Nozzle

3. Value is to be filled only where "to be quoted" is mentioned and for other columns where "derived" is mentioned same shall be derived by BH&L as per % allocation fixed against each item

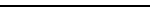
4. Bidder to note that total price indicated above at H shall be considered for evaluation and hence should be complete in all respect for the full scope defined and considering all terms and conditions agreed.

5. The unit price quoted by bidder shall be binding for quantity variation which is at discretion of purchaser.

6. Prices shall remain firm during contract execution.

7. For any clarification please refer Technical Specification No-PE-TS-20-145-1105B



	Technical specification for Flow Nozzle Assembly with Accessories (RATE CONTRACT)	SPECIFICATION NO.: PE-TS-20-145-I105B	
		VOLUME	IIB
		SECTION	C
		REV. NO.	01
		DATE : 27.04.17	

Tag No. : NOZZLE ASSEMBLY AS PER TYPE “VI” OF THE PRICE FORMAT

Data Sheet No.-6

DATA SHEET – A		
ELEMENT	SERVICE MAKE : MODEL TYPE STANDARD * DESIGN MATERIAL BETA RATIO BORE DIAMETER	SHALL BE FURNISHED DURING PROJECT BIDDER TO FURNISH DURING PROJECT ☐ ASME PTC 19.5 / ☐ ISO 5167 LONG RADIUS : HIGH BETA <u>SS316</u> ~ 0.7 BIDDER TO FURNISH DURING PROJECT
END CONNECTION	TYPE BRANCH PIPE BRANCH PIPE MATERIAL TAPPING LOCATION NUMBER OF TAPPINGS ROOT VALVE QTY : SIZE ROOT VALVE MATERIAL : RATING: TYPE NIPPLE : SIZE/MATL/RATING/QTY EXPANDER : SIZE/MATL/RATING/QTY	BUTT WELD END YES (IN BHEL SCOPE) SAME AS PIPE MATERIAL D&D/2 : ON PIPE 3 PAIR 12 : 25 NB SS316 : ANSI # 4500 SPL : GLOBE 25NB : SS316 : SCH.XXS : 1000mm LONG : 12 15NBx25NB : SS316 : CLASS 9000 : 50.8mm LONG : 6
PROCESS DATA	FLUID FLOW (T/HR) PRESSURE (KG/CM ² (A)) TEMPERATURE (DEG. C.) MAX. ALLOWABLE PRESS LOSS DESIGN PRESS : TEMP DIFF. PRESS AT MAX FLOW	STEAM MAX. NORMAL MINIMUM SHALL BE FURNISHED DURING PROJECT 296 Kg/cm ² : 608 DEG C BIDDER TO FURNISH DURING PROJECT
PIPE LINE DATA	PIPE SIZE (OD X THK) mm PIPE MATERIAL BORE DIAMETER MIN. AVAILABLE STRAIGHT LENGTH UPSTREAM:DOWNSTREAM FLOW DIRECTION	<u>AS PER PRICE SCHEDULE</u> SA 335 P92 BIDDER TO FURNISH DURING PROJECT 15D 10D : 5D HORIZONTAL
OTHER DATA	IBR CERTIFICATION APPROX. WEIGHT OF ASSEMBLY	REQUIRED BIDDER TO FURNISH DURING PROJECT
PACKING	SEA WORTHY PACKING *	☐ YES / ☐ NO

* Project specific data shall be informed by BHEL during project ordering

BIDDER TO QUOTE IN COLUMN “VI” OF PRICE FORMAT FOR DETAILS SPECIFIED ABOVE

BIDDER TO NOTE THE FOLLOWING FOR EACH NOZZLE ASSEMBLY:

A) In case additional pair of tappings is required, extra 4 no's root valves, 2 no's expanders, & 4 no's nipples per pair of tappings shall be supplied by the bidder. Additional price for the same shall be as per unit price quoted in the price schedule under column VII till XIII.

The above requirement shall be informed by BHEL during project specific ordering



TECHNICAL SPECIFICATION FOR FLOW-NOZZLE

SPEC NO.: PE-TS-888-145-I105B

VOLUME II -B

SECTION A

REV. NO. 01

DATE : 02.05.2017

SHEET 1 OF 5

ANNEXURE-A: PIPE SIZES FOR FLOW NOZZLE OF DIFFERENT SERVICES FOR REFERENCE PAGE (1 OF 2)

SL. NO.	DATASHEET NO.	TYPICAL PIPE SIZE		PIPE MATERIAL
		NB	OD (mm X mm)	
1	DS-1	500 NB	508 X 12.7	SA 106 GR. B/C
			508 X 9.53	
		450 NB	457.2 X 12.7	
			457.2 X 9.53	
			457 X 7.92	
		400 NB	406.4 X 12.7	
			406.4 X 9.53	
			406.4 X 7.92	
		350 NB	355.6 X 12.7	
			355.6 X 9.53	
			355.6 X 7.92	
		300 NB	323.9 X 12.7	
			323.9 X 9.53	
			323.9 X 7.92	
			323.9 X 6.35	
		250 NB	273 X 12.7	
			273 X 9.27	
			273 X 6.35	
		200 NB	219.1 X 12.7	
			219.1 X 8.18	
			219.1 X 6.35	
		150 NB	168.3 X 10.97	
			168.3 X 7.11	
			168.3 X 5.6	
		100 NB	114.3 X 9.53	
			114.3 X 8.56	
			114.3 X 6.02	
		80 NB	88.9 X 5.49	
			88.9 X 3.96	



TECHNICAL SPECIFICATION FOR FLOW-NOZZLE

SPEC NO.: PE-TS-888-145-I105B

VOLUME II -B

SECTION A

REV. NO. 01

DATE : 02.05.2017

SHEET 2 OF 5

ANNEXURE-A: PIPE SIZES FOR FLOW NOZZLE OF DIFFERENT SERVICES FOR REFERENCE PAGE 2 OF 2

SL. NO.	DATASHEET NO.	TYPICAL PIPE SIZE		PIPE MATERIAL
		NB	OD (mm X mm)	
2	DS-2	350 NB	355.6 X 54	SA 335 P91
		300 NB	323.9 X 48	
			323.9 X 31	
		250 NB	ID 220 X 59	
			273 X 30	
			ID 200 X 57	
			ID 180 X 50	
		200 NB	219.1 X 45	
			219.1 X 40	
			219.1 X 34	
			219.1 X 25	
		150 NB	168.3 X 27.5	
3	DS-3	600 NB	610 X 82	SA 106 GR C
			ID 440 X 75	
		550 NB	559 X 75	
			559 X 72	
			ID 420 X 68	
			ID 460 X 77	
			ID 405 X 68	
		500 NB	508 X 71	
			508 X 64	
			508 X 52	
			508 X 48	
			508 X 47	
		350 NB	368 X 48	
			368 X 40	
			368 X 32	
4	DS-4	200 NB	219.1 X 40	SA 335 P22
		150 NB	168.3 X 27.5	
5	DS-5	300 NB	323.9 X 48	SA 335 P91
			323.9 X 31	
			ID 220 X 59	
		250 NB	273 X 30	
		200 NB	219.1 X 45	
			219.1 X 40	
			219.1 X 25	
6	DS-6	350 NB	ID 240 X 69	SA 335 P92
		300 NB	323.9 X 48	
			ID 200 X 57	
		250 NB	273 X 30	
		200 NB	219.1 X 45	
			219.1 X 47	

	TECHNICAL SPECIFICATION FOR FLOW-NOZZLE	SPEC NO.: PE-TS-888-145-I105B	
		VOLUME II -B	
		SECTION A	
		REV. NO. 01	DATE : 02.05.2017
		SHEET 3 OF 5	