







	
DOC NUMBER: <b>569-DB7C-MEC-821-001</b>		CLIENT NUMBER: <b>PRD-MEC-MTR-006</b>	
CLIENT: <b>TAKEDA/BAXALTA</b>			
PROJECT <b>BURITI EPCMV</b>			

## MATERIAL REQUISITION – STEAM GENERATION SYSTEM

0	30JUL2021	ISSUED FOR CONSTRUCTION	ASO	LFF	RSP
B	28JUN2021	90% DD ISSUE	ASO	LFF	RSP
A	12FEB2021	30% DD ISSUE	ASO	LFF	MAJ
REV	DATE	DESCRIPTION	EXEC	CHECK	APPROV.





 		 	
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#### REVISION HISTORY

Rev	Reason For Change
A	Issued for Review
B	Item 3 - Included review of reference documents and updated table
0	ISSUED FOR CONSTRUCTION

 		 	
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## 1. OBJECTIVE

- 1.1** This Technical Requisition covers the minimum requirements for the supply of one (01) steam generation system, specified below and in all the attached documents for Buriti Project, in the city of Goiana, Pernambuco, Brazil.
- 1.2** Vendor's proposal shall include, but not be limited to equipment, materials and work specified in list of scope of supply (Item 2) below.
- 1.3** Vendor's proposal for equipment, service and/or materials shall be in strict accordance with conditions stated in this requisition and any attached document. Deviations and alternatives will be valid only if clearly described in a "deviation list" by vendor and approved by owner's engineering.

Supply object			
Applicable to:		<input checked="" type="checkbox"/> Proposal	<input type="checkbox"/> Purchase order
Item	Tag	Qty	Description
1	BC-7C-1	1	Steam Boiler
2	BC-7C-2	1	Steam Boiler
3	BC-7C-3	1	Steam Boiler
4	DA-7C-1	1	Deaerator
5	BDT-7C-1	1	Blowdown Tank
6	P-7C-1	1	Pump
7	P-7C-2	1	Pump
8	P-7C-3	1	Pump
9	P-7C-X	1	Pump
10	P-7C-4	1	Dosing Pump
11	P-7C-5	1	Dosing Pump
12	WS-6000-01	1	Softener
13	WS-6000-02	1	Softener
14	TK-6000-01	1	Brine Tank

## 2. SCOPE OF SUPPLY





- 2.1** The scope includes at least the following items:

### 2.1.1 Design

- ☒ Material selection
- ☒ Mechanical design
- ☒ Fabrication design
- ☒ Submittal of ALL documentation for approval

### 2.1.2 General Items and accessories

- ☒ Steam Boilers;
- ☒ Deaerator;





 		 	
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- ☒ Softener;
- ☒ Brine Tank;
- ☒ Blowdown Tank;
- ☒ Centrifugal and Dosing Pumps;
- ☒ All drivers and electrical motors necessary for appropriated operation of equipment supplied by vendor;
- ☒ All instruments necessary for appropriated operation of equipment supplied by vendor;
- ☒ The required piping, wiring and cabling within package limits;
- ☒ Electrical control and power panel (Including motor starter, heater, other auxiliaries branches, control circuits, etc.)
- ☒ PLC with HMI
- ☒ Takeda/Baxalta will provide vendor with only one 3 Phase+N+PE, 380V, 60 Hz supply feeder for the steam generation system. Vendor shall distribute the AC power to all auxiliaries and branch circuits by his own electric distribution panel. All required voltage levels should be derived from that feeder by vendor.
- ☒ Sealing, cooling and lubrication systems
- ☒ Nameplate and support in stainless steel AISI 304;
- ☒ First fill of lubricants;
- ☒ First fill of brine;
- ☒ Inspection and tests according to item 7.9 of the document PRD-MEC-TSP-008 Technical Specification – Steam Boilers;
- ☒ Technical documents and drawings according to item 8.5 of the document PRD-MEC-TSP-008 Technical Specification – Steam Boilers;
- ☒ Quality Guarantee System;
- ☒ Earthing lugs;
- ☒ Coupling and coupling guard;
- ☒ Primer and final painting;
- ☒ Anticorrosive protection for storage;
- ☒ Packing and preparation for transport;
- ☒ Transport (\*);
- ☒ Field erection supervision (\*);
- ☒ Training (\*);
- ☒ Data Book with manuals in Portuguese and English.
- ☒ Lifting Lugs;
- ☒ Noise Insulation.

\* These items shall be presented with separated price in Commercial Proposal.

## 2.2 Exclusions from the scope of supply

- ☒ Civil works;
- ☒ Foundation;
- ☒ Field erection;
- ☒ Anchor bolts;

 		 	
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### 2.3 Spare Parts

- ☒ Spare parts for erection, commissioning and start-up (\*);
  - ☒ Spare parts for 1 year (\*);
- \* These items shall be presented with separated price in Commercial Proposal.

### 2.4 Battery Limits

The limits of the scope of supply are indicated in the following documents:

- ☒ 7C-M-0-5-61 - Drug Product - PID – Steam Generation System;
- ☒ 7C-M-0-5-41 – Boiler's Building - PID – Softened Water Skid for Boilers.





## 3. REFERENCE DOCUMENTS AND ATTACHMENTS

Item	Number	REV	Title
01	7A-M-1-3-10	0	DRUG PRODUCT - MECHANICAL EQUIPMENT PLAN - GROUND FLOOR
02	7C-M-0-5-61	0	DRUG SUBSTANCE - PID – STEAM GENERATION SYSTEM
03	7C-M-0-5-41	0	BOILER'S BUILDING – PID- SOFTENED WATER SKID FOR BOILERS
04	PRD-MEC-TSP-008	0	TECHNICAL SPECIFICATION – STEAM BOILERS
05	PRD-MEC-TSP-006	0	TECHNICAL SPECIFICATION – PRESSURE VESSELS
06	PRD-PIP-TSP-501	0	PIPE CLASS AND SPECIFICATIONS
07	PRD-PIP-TSP-504	0	TECHNICAL SPECIFICATION - GENERAL INSULATION CLASS
08	PRD-ELE-TSP-503	0	TECHNICAL SPECIFICATION - LV ELECTRICAL DISTRIBUTION PANELS
09	PRD-ELE-TSP-506	0	TECHNICAL SPECIFICATION - VFD
10	PRD-ELE-CRT-513	0	ELECTRICAL – DESIGN CRITERIA
11	PRD-AIC-TSP-014	0	SPECIFICATION AUTOMATION SYSTEM AND COMPONENTS
12	7A-I-0-7-04	0	DRUG PRODUCT - BMS NETWORK ARCHITECTURE
13	7B-I-0-7-04	0	DRUG SUBSTANCE - BMS NETWORK ARCHITECTURE
14	PRD-MEC-CRT-001	0	DESIGN CRITERIA - MECHANICAL
15	PRD-MEC-DSH-025	0	DATA SHEET – WATER TUBE BOILER – B-7C-1 / B-7C-2 / B-7C-3
16	PRD-MEC-DSH-027	0	DATA SHEET – DEAERATOR – DA-7C-1
17	PRD-MEC-DSH-026	0	DATA SHEET – BLOWDOWN TANK – BDT-7C-1
18	PRD-PRO-MDE-012	0	PLANT STEAM / CONDENSATE DESCRIPTION

## 4. DEVIATIONS

- 4.1 Any deviation to this Requisition and its attachments shall be indicated in a Deviation List. Otherwise, no deviations will be accepted for this supply.

## 5. INSPECTION AND TESTS

 		 	
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- 5.1** The fabrication of the equipment at the manufacture's shop or at sub-suppliers shops will be followed by inspection by the purchaser or his representative inspector.
- 5.2** Client reserves the right to witness all tests and inspect all components during raw material receipt, application and storage; such as audit and expedite, at any time, Quality and Manufacturing Control Process at Supplier's and sub-supplier's shop.
- 5.3** Inspection will include, as minimum:
- 5.3.1** Verification material certificates
  - 5.3.2** Verification of destructive and non-destructive examinations
  - 5.3.3** Verification of welding procedures
  - 5.3.4** Welding visual inspection
  - 5.3.5** Qualification of welding procedures and welders
  - 5.3.6** Tolerances inspection during assembly
  - 5.3.7** Visual inspection
  - 5.3.8** Dimensional Inspection
  - 5.3.9** Run & operation test
  - 5.3.10** Noisy and vibration test