Job: Design, Supply, installation, testing and commissioning of Cheese whey Handling & NF Plant
Tender Ref No - Online Tender RKVY/NMPS/DDDO A'NAGAR/ STSDS/ TENDER/14-15/01
Project Name - Tender Package 3
Customer - Sangamner Taluka Sahakari Dugdh Sangh
Project Authority - Sangamner Taluka Sahakari Dugdh Sangh
Supplier - Tetra Pak India Pvt Limited, Pune

Process Queries

Sr. No.	Section	Section	Tender Description	Tetra Pak Queries/Understanding	Tetra Pak Understanding based on pre bid meeting	Clarifications from Purchaser
TECHNICAL POINTS						
##	**Page No 104**	**1.1 - Basis of Design**	**Tender does not mention Cheese Whey Composition**	**We have assumed following cheese whey composition (Refer Right hand table)** **Pre conditions** **- The whey must come from cheddar cheese produced from fresh cow's milk with a natural composition** **- pH 6,0 – 6,5** **- The salty cheese whey must be excluded.** **- Avoid introduction of air.** **- Beside the use of starter culture, rennet, Calcium Chloride needed for the cheese making the whey must be free from any additives like antifoam agents etc.** **- The whey must be clarified – max 0,1% sediment (W/W) at 1500 rpm for 5 min** **- The whey must be separated – max 0,06% fat** **- The whey must be pasteurised – 72 C for 15-20 sec. The design of the Plate Heat Exchanger must prevent temperature differences exceeding 2C between media and product above 55C** **- Cooling to 7C** **- NF at 7 – 12C** **- The pH of the whey must be adjusted to 5,9-6,0 to avoid precipitation of calcium phosphate on the membranes - equipment for the pH adjustment isn't included**	Feed flow rate: 5.000 kg/h (average) Temperature of feed: 7-12°C Production time between CIP: up to 10 hours Retentate flow: 1,336 kg/h (average) Permeate flow: 3,664 kgl/h (average) Temperature of retentate out of plant: 12°C Estimated composition of feed, retentate and permeate Part / Feed / Retentate / Permeate % Fat: 0,06 / 0,22 / --- % Total protein N: 0,82 / 2,78 / 0,11 % Non protein N: 0,15 / 0,46 / 0,11 % Lactose & acids: 4,79 / 17,76 / 0,07 % Minerals: 0,52 / 1,24 / 0,25 % Total solids: 6,20 / 22,00 / 0,44	(1) Purchaser will make the raw chilled whey available in the raw whey silos. Raw whey chiller to chill whey from 45 deg C to 4 deg C at 10,000 LPH rate, along with required pump, should be included by the Bidder as optional item in the Commercial Bid. The pump and chiller will be installed by the Purchaser in the Cheese Plant building. Whey piping from chilled whey pump to chilled whey silo will be in Purchaser's scope. (2) Equipment for pH adjustment to be included in the scope of the Bidder.
##	**Page No 119**	**1.7.1 - Battery Limits**	Raw chilled whey will be made available at the inlet of the raw whey silo.	We request you to amend this as written on right hand side so that each bidder is at par in terms of scope	Cheddar cheese whey storage silo valve cluster shall be made by bidder for addition of dedicated loading to existing silo & unloading header for transferring milk to Cheese whey pasteurisation. Necessary pneumatic valves, IO cards, control and pneumatic cabling, software modifications shall be supplied and executed by bidder. Cheese whey transfer header and CIP return header shall be included in scope of supply. **CIP of cheese whey transfer header** - CIP of this cheese whey transfer line up to whey past shall be in scope of bidder and shall be done by tapping existing CIP supply and return headers as provided by client. Necessary CIP valves and water push valves as shown above shall be supplied by bidder. So this transfer line including its CIP line shall be included in present scope of proposal. Cheese whey transfer pump along with mass flow meter and CIP return pump has been included in scope of supply.	(1) The Chilled Whey Silo shall have separate inlet and outlet connections. (2) Bidder can quote for a fully automated plant with scada based control system for whey processing from chilled whey silo onwards up to NF whey outlet. Bidder should, however, indicate a price reduction in the Commercial Bid for a plant having individual automation of plant components such as clarification, separation, pasteurisation, Nano Filtration etc, as per Tender specifications with flow plate / divert plate arrangement at silos/tanks instead of a fully automated plant. (3) CIP of silos and tanks will be done from the main automated CIP Plant existing in the Dairy. Purchaser will make available CIP supply and return headers at one point in the new plant building to meet the CIP flow rates required and specified by the bidder(s). (4) CIP of cheese whey transf header: Okay.
##		**General Points**	We suggest a cheese fines filters before it goes for clarifications	The cheese fine thus recovered can be reused and thus reduces the load on separator		
##		**General Points**		Please confirm whether cheese whey manufactured is from 100 % cow milk	As confirmed by customer it will be 100 % cow milk.	Okay.
##		**General Points**		Please also confirm whether cheese whey making is from entire cheddar cheese	As confirmed by customer it might be also from mix whey of Cheddar and Mozerrella Cheese as well. However customer needs to give its input clearly.	It is not possible to give any clear indications at this stage. The bidders to design the plant for cheddar cheese whey.
##		**General Points**		What are the additives which are used during the cheese manufacturing as these additves would come into whey and would contribute to total Total TS.	Customer to inform the additives.	Other than culture, rennet and calcium chloride, no other additives will be used during cheese production.
##		**General Points**		If Mozzarella cheese also going to be used in future or now then is it being manufactured by culture addition or acid addition	As confirmed by customer it is added by culture addition.	Okay.
##	**Page No 105**	**Item No 1.3.1.1**	Supplier to design & offer PLC based control system and also, alternatively, non-PLC based control system	Stand alone HMI is also sufficient to handle the plant as this is a smaller capacity plant and as such SCADA is not required Please confirm	Automation scope of work for this package shall be - There will be a small central control automation system i.e. one PC having SCADA package loaded on the same and will be used as (Operating station - OS + Engineering Station - ES (in a single PC) along with control system. Pasteuriser control logic shall be built in central PLC. This central PLC which will be used to control and operate this entire package using the above PC. Whey separator and NF plant PLC's shall be third party PLC's and may be linked to this central automation through ethernet protocol for signal exchange. Please comment (if any)	Clarified above.
##		**General Points**		Purchaser should give RO water of good quality for CIP and operation of NF	Customer confirmed the same.	Okay. Bidder to provide RO water specifications and quantity.
##		**General Points**		Performance criteria of NF should be specified	Customer to revert on the same.	Bidder to state performance of the offered plant.
##		**General Points**		Cheese whey should be fresh and should not be stored for longer duration before feeding to NF.	Customer confirmed the same shall be utilized in less than 24 hours time.	Okay.

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##	**Page No 119**	**1.7.2 - Battery Limits**	CIP supply and return lines of required diameter will be made available at one point in the whey processing plant, from where they will be connected to various equipment and pipe lines by the Bidder	Separate dedicated CIP system or circuit shall be required and same has not been mentioned	As confirmd by customer right now CIP supply and return line shall be made available by client at one point at the entry of cheese whey handling room and there after further tapping of CIP supply line and return line up to consumption point within the room shall be in scope of bidder. Any modification in existing CIP system so as to link with Cheese whey handling PLC system shall be in scope of customer.	Clarified above.
##		**General Points**		Whey initial processing is also there including some tankages is it manual flow plate based or automated pneumatic valve based	This will be a totally automated plant having pneumatic valves (Mix Proof (double seat valves), single seat valves, butter fly valves.	Clarified above.
##		**General Points**		Concentrate (NF Retentate battery Limits) Battery Limits	NF Concentrate shall be left at the outlet of NF plant. However we suggest to include one concentrate chiller from 12 deg C to 4 deg C in order to cool down the concentrate.	Bidder to quote as optional item with required pipes, fittings, valves, controls etc. Technical Deviation Form to indicate the item optionally included and Commercial Deviation Form to indicate price for the optional item on FOR Site basis, as per Tender terms and norms.
##		**General Points**		Permeate Battery Limits	NF Retentate shall be left at the outlet of NF plant.	Both the retentate and permeate to be left at the outlet of the NF Plant (or the retentate at the outlet of chiller to be optionally offered.)
COMMERCIAL POINTS - For Package 1, 2 & 3						
##	**Page No 151**	**9.0 - Payment Terms**	** 10% advance on supply value shall be payable against advance bank guarantee (ABG) of equivalent amount valid till 8 / 6 months (as per package opted). The ABG shall be returned on completion of delivery of the supply and after receipt of PG **70% of supply price progressively on pro-rata basis against delivery of material at site (Based on the approved price break-up to be furnished after receipt of order). ** Retention payment of 20% shall be paid after sixty days of installation, commissioning & successful performance trials and handing over of the Plant, against performance bank guarantee of equivalent amount valid till 12 months from the date of issue of the Acceptance Certificate. In case a performance bank guarantee is not submitted, this retention amount will be paid after 12 months of plant hand over against trouble free plant performance	**** We propose following payment terms** ** **30% advance** on supply value shall be payable against advance bank guarantee (ABG) of equivalent amount valid till 8 / 6 months (as per package opted). The ABG shall be returned on completion of delivery of the supply and after receipt of PG ****60% of supply** price progressively on pro-rata basis against delivery of material at site (Based on the approved price break-up to be furnished after receipt of order). ** **Retention payment of 10%** shall be paid **after thirty days of** installation, commissioning & successful performance trials and handing over of the Plant, against performance bank guarantee of equivalent amount valid till 12 months from the date of issue of the Acceptance Certificate. In case a performance bank guarantee is not submitted, this retention amount will be paid after 12 months of plant hand over against trouble free plant performance	During the discussions DDO agreed to the payment terms proposed by all bidders.	During the pre-bid meeting, RDDO had not agreed to the payment terms proposed by the bidders. Upon insistance of the bidders, RDDO had agreed to check up with DDC and other concerned authorities, if the payment terms mentioned in the Tender document could be modified to meet bidders demand, at least to some extent. **It now stands clear that the payment terms mentioned in the Tender document cannot be amended.**
##	**Page No 9**	**EMD in the form of DD Only**	EMD in the form of DD is asked.	We also request to have EMD in the form of bank guarantee.		EMD to be paid by DD only as per Tender terms.
##	**Page No 263**		Bank Guarantees from all nationalized banks are acceptable. Bank Guarantees from banks other than the Nationalized Banks, will not be accepted	Globally we have got a tie up with HSBC Bank and hence request BG being submitted under this project from HSBS bank also.	During the discussions DDO agreed to this.	"Can be considered" was what the RDDO had stated in the pre-bid meeting.
##		**General Point**	Final FOR Site Site Prices to be quoted	**VAT Offset -** Bidders in Maharashtra will have to quote their FOR site prices with VAT @ 12.5 % which will any way be higher than the bidders those who are based out of Maharashtra and quote under CST @ 2 % against form C. Since this job is for value added items like condensed milk and cheese whey handling and hence VAT Offset shall be available to dairy as the dairy products have got VAT applicable on them. We request dairy to evaluate the bid prices considering VAT Offset.	This was discussed during the meeting and dairy management agreed to consider to look into the same.	Okay
##		**General Point**	Tender mentions that commercial bid prices are only to be submitted online in the excel sheet format specified and in no form price should be submitted in hard copy	Please inform how the optional prices (wherever applicable) are to be submitted ??		It was clarified during Pre-bid Meeting that prices for such additional or optional items be mentioned in Commercial Deviation Form, which will be part of the Commercial Bid. The additional or optional items should, however, be mentioned in the Technical Deviation Sheet which would be part of the Technical Bid which will be opened first. The prices for such items should not be mentioned in the Technical Bid, in order to avoid rejection of the Bid.