



KENYA ELECTRICITY GENERATING COMPANY PLC

RFx: 5000009823

KGN-GDD-055-2022

TENDER FOR SUPPLY OF SUBMERSIBLE PUMPS FOR OLKARIA II POWER STATION

(Citizen Contractors)

Date: 6th May 2022

Clarification. 1

In accordance with the **Tender for Supply of Submersible Pumps for Olkaria II Power Station**, KenGen issues a clarification 1 as follows:

No.	BIDDERS CLARIFICATION REQUEST	KENGEN'S RESPONSE
1	The specifications provided call for flexible synthetic firefighting grade hose complete with couplers and adaptors. Considering the nature of fluid, please confirm if the couplers and adaptors should be considered for material of construction in stainless steel 316L?	The couplers and adaptors should be considered for corrosion resistant material of construction of stainless steel 316L.
2	The Pump is intended to be used to pump corrosive condensate; would it be possible to obtain the chemical composition of the fluid. What is the approximate specific gravity of the liquid?	The fluid being pumped is geothermal condensate whose pH varies and can be as low as 2 pH units due to geothermal chemical constituents of dissolved Hydrogen sulfide gas in the fluid that makes it acidic. The specific gravity is between 1.0 and 1.1. Apart from some geothermal contaminants, the chemical composition is largely like that of fresh water for design purposes.
3	We have checked the corrosion resistance of a fluid bearing a pH of 2 and we have noted that at temperatures above 60°C there is increased reduction in corrosion resistance for Stainless Steel 316L. In this regards, the option will be either to check availability of a customized pump or use of Zinc Anodes for sacrificial corrosion for the pump to suit your application, please advise your desired option. Also at 90°C some of the	Under normal circumstances the pH ranges between 2 and 5. Application temperature of fluids ranges between 30°C and 60°C. Under extreme but rare occurrence, the pump will be required to pump condensate at higher temperatures of up to 90°C. For design purposes, maintain material of construction for all wetted parts as 316L stainless steel grade and a design temperature of 60°C. Customisation with superior variants for pump seals and other pump components that

	components will have to be special variants. Please confirm that the temperature of 90°C is standard for the fluid or only occurs intermittently.	make it tolerant for temperatures of up to 90°C is acceptable for as long as it meets our minimum design criteria. However, the option to use of sacrificial Zinc Anodes for corrosion mitigation at elevated temperature is not acceptable.
4	In relation to the above and previous request, we are also requesting for a Tender Closing Date Extension to 24th May 2022 so to give us ample time for the factory to offer us the best solution.	Refer to Addendum 1

ACKNOWLEDGEMENT OF CLARIFICATION NO. 1

We, the undersigned hereby certify that clarification is an integral part of the document and the alternations set out in the clarification have been incorporated in the tender proposal.

Signed.....

Tenderer.....

Date.....