ESKOM HOLDINGS SOC LTD

REQUEST FOR INFORMATION

ON THE ULTRA-HIGH PURITY REVERSE OSMOSIS TECHNOLOGY FOR THE TREATMENT OF WASTEWATER FOR REUSE

QUESTIONS/COMMENT	ANSWERS
Although the UHPRO technology can treat higher saline water, the brine produced from this system will be non-compliant ie. >50 000mg/l TDS. As the brine will be 5 – 8 times more than the feed into the UHPRO.	Noted
How does Eskom plan to treat non-compliant brine?	Eskom strives for ZLED through its processes therefore the proposed technology/technologies should aim for a recovery of 98% or better. Currently Eskom makes use of evaporation ponds. Alternate proposals for treatment of non-compliant brine can be submitted.
Can the wash water, which has high concentrations of oil, be separated and treated separately to remove the oil?	Yes, the respondents can indicate the process or processes (pretreatment) that would be required to treat the water prior to UHPRO for this technology to be feasible.
Page 16 states a flow of 100 L/s to 400 L/s and page 34 states flows of 3 to 6 ML/d. These ranges of flows differ drastically, can you provide a specific flow?	The flow of 3 – 6 ML/d is what has been typically targeted for ash water treatment at various sites. A minimum flow of 100 L/s and a maximum flow of 400 L/s can be utilised for all streams except for FGD blown, which is minimum 25m3/h, maximum 50 m3/h.
Using UHPRO technology will not conform to ZLED as there still is a brine stream that will need to be handled.	Like has been mentioned, Eskom strives to conform to ZLED, therefore a recovery of 98% or better is desirable. Alternate proposals for treatment of non-compliant brine can be submitted.
There is mention of a pilot plant, but no flows have been specified.	Pilot scale flow rate to be informed by pilot skid sizes available in the market and equipment sizing requirements.
The UHPRO pilot plant will also produce non-compliant brine	If a recovery of 98% is achievable, the brine will be minimal and can be handled through evaporation ponds which are currently available at the various sites. Alternate proposals for treatment of non-compliant brine can be submitted.
AECI Water recommends writing up a summary explaining the concerns as well as recommending alternate solutions for the RFI. This will be in the form of a write up explaining the recommended process units and their functions. AECI Water would like to do due diligence to this effluent treatment and therefore would like to provide these alternate solutions. Will this be an option or be considered by Eskom?	Alternate solutions would be welcome, but the proposal must clearly indicate for each water stream, the limitations of the use of the UHPRO technology.

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