

Questions and answers

No:	Question:	Answer:
1.	<p>Screw pumps for lifting stations</p> <p>Due to the fact that the design water level in the Krka, Q100, is 218.5 maA (which is the same that shall be applied for the Orašnica at the location of the site) and because the flatness of the area (216 maA), according to VOL. 3 (section 2.2.1) <i>“The plant shall be designed and constructed on such a level that a 100 year flood level of the Orašnica and Krka river will not affect the operation, access to nor the quality of the effluent from the WWTP”</i>.</p> <p>This means that, after influent pumping station, the water level in tanks must be about 220 maA (considering to have a gravity flow till the secondary sedimentation).</p> <p>Considering that both influent pipelines are flowing into one manhole with an invert level of 214.48 maA the inlet lifting station must get a rising of water level of 5,50 mt.</p> <p>The screw pumps are not a good solution for this situation because they should have a total length of 9 - 10 metres (considering a maximum tilt of 38 °) that is too much for the size of machineries that could be used in Knin WWTP.</p> <p>Moreover the screw pumps technology has two disadvantages:</p> <ul style="list-style-type: none"> - the lifting station with screw pumps has a footprint greater than submergible pumps solution (this is in contrast with section 2.3 of VOL. 3) - the lifting station with screw pumps cause more odour and aerosol than submergible pumps solution (odour 	<p>According to requirement set in Volume 3, Clause 2.6.2 it is not possible to use submersible pumps for the influent lifting station.</p> <p>Regarding the height of the plant and pumping stations two Clauses are relevant and have to be read in conjunction:</p> <ol style="list-style-type: none"> 1. Volume 3, Clause 2.2.1 states: <i>“The plant shall be designed and constructed on such a level that a 100 year flood level of the Orašnica and Krka river will not affect the operation, access to nor the quality of the effluent from the WWTP”</i>. 2. Volume 3, Clause 2.1 states: <i>“The plant shall be operated <u>as much as possible</u> by gravity flow to reduce pumping works and related operational costs.”</i> <p>In conjunction these Clauses leave the possibility to design the influent pumping station and in particular the lifting height in such way that the plant can be operated by gravity flow for water levels e.g. below a 10 years flood level. In the case that higher water levels occur an effluent pumping station could provide the lifting height to the 100 year flood level.</p>

Questions and answers

	<p>and aerosol reduction is a goal of the project; section 2.8 of VOL. 3)</p> <p><i>Is it possible to use submersible pumps for lifting stations?</i></p>	
<p>2.</p>	<p>Slow speed vertical shaft surface aerators The vertical surface aerators in oxidation tank, are characterized by the fact that they can work with low hydraulic head: no more than 3,5 – 4,5 mt depending on the engine power. This means that in the WWTP of Knin (in which the volume of biological basins will be very big because <i>“the process shall be based on extended aeration resulting in stabilized sludge”</i>) the biological tanks will have a great footprint (this is in contrast with section 2.3 of VOL. 3).</p> <p>Moreover the surface aerators technology has other disadvantages:</p> <ul style="list-style-type: none"> - a higher energy consumption than others technologies like air insufflation with blowers and disc diffusers (this is in contrast with the goal of reduction and optimization of the power consumption); - the surface aerators technology cause more odour and aerosol than submersible aeration systems; (odour and aerosol reduction is a goal of the project; section 2.8 of VOL. 3) - in cold seasons the surface aerators technology increases the cooling of mixed liquor which damage the biological process (especially de-nitrification effect); on 	<p>It is not possible to use other aeration equipment then slow speed vertical shaft surface aerators.</p>

Questions and answers

	<p>the other side insufflation systems (hot air is introduced in mixed liquor) help to increase water temperature;</p> <p><i>Is it possible to use insufflation system for oxidation/nitrification phase?</i></p>	
3.	<p>Plug flow process</p> <p>For the plug flow system, benefits related to less energy consumption due to lack of circulation of the aerated mixture, contrast with disadvantages due to the difficulty of regulating the process.</p> <p>It should especially monitor the oxygen content in the area ventilated, so that excess oxygen does not affect the subsequent denitrification.</p> <p>In a classic biological process scheme (anaerobic phase for phosphorus removal + anoxic phase for de-nitrification + aerobic phase for oxidation and nitrification) the regulation of the trial is easier; the energy consumption is insignificant: for example in Knin WWTP it will be about 3-4 kW.</p> <p><i>Is it possible to adopt a classic biological process scheme?</i></p>	<p>No, it is not possible to adopt the classical biological process scheme.</p>
4.	<p>According Volume 3, 2.6.6, "The grit shall be washed ...", please confirm that delivery of a grit "washer" is obligatory (and not a grit "classifier" as stipulated in Volume 3, 8.8.7).</p>	<p>In Volume 2.6.6 the word "washed" can be read as "separated". A "grit washer" is not foreseen.</p>

Questions and answers

5.	According Volume 3, 2.6.11, second clause "... shall be such that either clarifier can be used with either aeration tank.", please confirm that at minimum two aeration tanks and two secondary settlement tanks (same sizes) are required obligatory already for the first extension phase.	No, this is not confirmed. The Contractor is free to design the plant with either one or more parallel lines. In case two lines are proposed the statement in Volume 3, Clause 2.6.11, applies. For this question the following sentence in Clause 2.6.11 is relevant: "The connection between the aeration tanks and clarifiers shall be such that either clarifier can be used with either aeration tank".
6.	According Volume 3, 2.6.13, "Requirements", please confirm that two separate machines are obligatory required, namely one mechanical sludge thickening unit and one mechanical sludge dewatering unit.	It is confirmed that the two processes shall be performed in two separate machines.
7.	According Volume 3, 2.6.13, please state clearly, if the storage capacity for dewatered sludge of the containers solely and the storage area solely shall be at minimum for two weeks or if the storage capacity of the containers and the storage area together shall be at minimum two weeks.	Volume 3, Clause 2.6.13 states that sludge shall be stored in containers and that the number of containers shall allow for the storage of a sludge production of two weeks. It further explains that the containers shall be on hard standing and under roof. The Contractor shall decide if, e.g. for operational reasons, additional roofed space for sludge storage is required to allow sludge storage longer than the minimum of two weeks.
8.	Please confirm that the last of the listed items, Volume 3, 2.7.3, "gas supervision system", is not applicable as no gas line (anaerobic digestion) is intended	This is confirmed.
9.	According Volume 3, 9.9, transformers shall be delivered. Please state clearly, if 1+1 transformers for the first extension phase including 20% free capacity have to be delivered obligatory	The tender document and the condition of the power company do NOT require 1+1 transformers.
10.	Please confirm clearly, that all motor starter cubicles of MCCs	Reference is made to Volume 3, Clause 15.1. In this case a more recent standard

WATER SUPPLY AND SEWERAGE IMPROVEMENTS AND CONSTRUCTION OF WASTE WATER TREATMENT PLANT IN THE MUNICIPALITY OF KNIN

CONSTRUCTION OF WASTEWATER TREATMENT PLANT

EuropeAid/129358/D/WKS/HR

Questions and answers

	have to be delivered obligatory according EN 60439-1, Form 3b according Volume 3, 9.12.23.	is available and shall be applied. (EN 61439)
11.	I'd like to know if the notarized documents included in the tender must be apostilled (La Haya Apostille) by the Official Notary School or if it's enough that they are signed by a Spanish notary.	Only public documents, as defined by the law of the country of the Contractor require an Apostille. For all other documents where certification is required a certification by the Public Notary is sufficient. Please refer to http://hcch.e-vision.nl/upload/abc12e.pdf and for Spain to http://esede.mjusticia.es/cs/Satellite/en/1200666550200/Tramite_C/1215326297910/Detalle.html
12.	In relation with EuropeAid tender WATER SUPPLY AND SEWERAGE IMPROVEMENTS AND CONSTRUCTION OF WASTE WATER TREATMENT PLANT IN THE MUNICIPALITY OF KNIN - CONSTRUCTION OF WASTE WATER TREATMENT PLANT with reference to EuropeAid/129358/D/WKS/HR, I have a doubt with form 4.4. In the credit certificate model from the bank, I'd like to know what kind of information must be filled in where it says "under conditions set out in Rules and Regulations of _____ in".	The rules and regulations are those of the Bank who is issuing the credit certificate / Letter of Intent.
13.	We confirm interest in participating in the Tender in subject and we thank you for the Site visit held in Knin last month. In the meantime in order to properly study the Tender Documents and to prepare a suitable offer, we are asking for a tender postponement of one month.	The submission date for the tender is as published and will not be postponed.
14.	Could you provide us Location permit with particular conditions for connection to existing (communal) services from utility companies (or just detailed excerpts)? We are	Reference is made to the Answer 23 of the Minutes of the Site visit and Clarification Meeting. The Conditions of the Power Company are published as INFO on the EuropeAid and Hrvatske vode web pages.

CONSTRUCTION OF WASTEWATER TREATMENT PLANT

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Questions and answers

	especially interested in the conditions for the relocation route of powerline.	
15.	Could we install chamber for stone sedimentation (to protect screens and/or pumps) before pumping station?	Yes.
16.	Could we install screens (two screens with 20 mm bar spacing) in front the pumping station?	Yes.
17.	Could we flow measuring in open channel to change with pipe inductivity flow measure?	No.
18.	Could we install compact pre-treatment unit (like as Huber Ro5.9) instead of fine screen, aerated grid chamber, sand classifier and sand storage?	No.
19.	Is in aerated biological tank necessary to have continuously nitrification and de-nitrification process?	Yes.
20.	Could we remove from aerated tanks mixers?	The question is interpreted as:“Can we offer an alternative system for aeration?” Please refer to question/answer 2
21.	Could we install in aerated tanks flat aerators (like as Aerostrip) and not vertical shaft aerators?	Please refer to question/answer 2
22.	Could we return sludge pumps (archimed screw) change with air pumps (mammoth pump)?	No.
23.	Could we change technology ?	No.
24.	Please state clearly, if a bypass sewer for the whole treatment plant has to be considered for the offer. If yes, please specify the diameter or the maximum flow quantity.	A bypass is required. The Contractor shall design and dimension the bypass for 404 m ³ /h, based on data provided in table under Volume 3, Clause 2.2.3.

Questions and answers

<p>25.</p>	<p>Volume 1, ITT, art 12.2, page 14 states under the Economic and financial capacity of candidate in case of joint venture /consortium: The lead member of joint venture/consortium must have access to sufficient credit and other financial facilities to cover the required cash flow for the duration of the contract. In any case, the amount of credit available must exceed the equivalent of 1,000,000 EUR. Does it mean that only lead member must issue such letter or the letters can be issued by other members of the consortium (including lead member) providing that total amount from all letters must exceed or be equivalent of 1,000.000 EUR?</p>	<p>This means that the <u>lead member</u> shall have access to credit facilities exceeding the equivalent of 1.000.000 EUR. Credit facilities of joint venture partners cannot be summed up for compliance with the minimum requirement.</p>
<p>26.</p>	<p>Volume 3, Contractor's requirements, Art. 1.5.6. Site, page 13, states: One mid voltage line crosses the site. Because the conditions for works and constructions under or near the powerlines, as they are set by the power company, are too restrictive for the constructions at the site and the design and layout of the plant, the contractor shall change the routing of the power line in accordance with the requirements of the power company. Requirements from the power company issued for the project are precisely determining safe vertical and</p>	<p>Yes, the routing of the power line has to be changed in any case.</p>

Questions and answers

	<p>horizontal distances for the buildings, people and vehicles from the lowest position of the power line. If contractor manage to design process and lay-out in such manner that in any circumstance such distances will be maintained, does in that case Contractor has to change the routing of the power line?</p>	
27.	<p>Volume 3, Contractor's requirements, Art 2.6 Process and Process equipment in general gives description of the system without giving indication of the number of the aeration tanks and clarifiers. On the other hand for the 1st phase Tender drawings (stated as "layout is indicative only") indicates that number of aeration tanks and clarifiers is 2 of each.</p> <p>Is the "two process lines" as shown on the drawings compulsory, or contractor can design system with "one process line" i.e. one aeration tank and one clarifier, providing that that solution is meeting all tender requests and guaranties?</p>	<p>Please, see Answer to question 5.</p>
28.	<p>Volume I, IT, Annex 2 instructions are given for registration of a "Limited Liability Company".</p> <p>Please confirm that in case of a consortium, opening of a branch office in Croatia by the foreign participants is not compulsory.</p>	<p>Not confirmed</p> <p>Establishment of a locally registered company or a branch office is obligatory requirement for a Tenderer that will be awarded with a contract.</p>

Questions and answers

29.	Please clarify demands in form 4.6.2. (in connection with paragraph 12.1.9.) - What PLANTS we need to provide for A) construction plant (is it enough to provide only mobile concrete plant or You require some other plants; and C) OTHER PLANT (we planned to specify Designers computer equipment).	“Plant” is herein defined as: „mobile mechanical equipment for construction of the Works as covered by this tender“. The Contractor shall provide a list of plant which he intends to use for the construction works. The list and the details shall demonstrate the ability of the Contractor to perform the Works. The Contracting Authority has not defined minimum requirements for the plant. The Contractor is free to list all plant he considers relevant.
30.	Please clarify can Process Designer be also nominated as Contractor's Representative.	The Process Designer can be nominated as the Contractor’s representative if he also fulfils the minimum requirements as defined in Volume 1, Clause 12.2.