

SISAK WASTE WATER PROGRAMME

CONSTRUCTION OF WASTE WATER TREATMENT PLANT
EuropeAid/133000/D/WKS/HR

Questions and Answers No. 1

No:	Question:	Answer:
1.	<p>In accordance to Vol. 3, Sec. 3, 3.6.2, page 204, the WWTP shall be designed in accordance to ATV-DVWK-A131 E.</p> <p>Please confirm that the Bidder is free to select the type of de-nitrification based on ATV-DVWK-A131 E and that the “suggested cascaded aeration tank” (Vol. 3, Sec. 3, 3.6.3.2.1, page 208) is indicative only.</p>	<p>Yes, according to Vol. 3, Sec. 3, 3.6.2, page 204 the WWTP shall be designed accordance to ATV-DVWK-A 131 E.</p> <p>Please see Minutes of Site Visit and Clarification Meeting Q&A No. 35.</p>
2.	<p>Please confirm that for the biological aeration tank stage, minimum 3 independent units providing a sludge age of minimum 20 days are required and that a maximum MLSS of 5,2 kg/m³ is not allowed to be overrun (Vol. 3, Sec. 3, 3.6.3.2.1, page 208).</p> <p>Please confirm in addition that the volume of the biological aeration tank stage has to be calculated in accordance to ATV-DVWK-A131 E and that the volume of 15.000 m³ is indicative only.</p>	<p>Yes, we confirm.</p> <p>Yes, we confirm that the volume of the biological aeration tank has to be calculated according to ATV-DVWK-A 131 E. According to requirements in Volume 3, Section 3, Table 3.6.3.2.1.: Technical data for the biological unit on page 208, the total volume of all biological units (basins) is requested as a minimum volume of 15.000 m³.</p>
3.	<p>Please confirm that the secondary settlement tanks shall be designed in accordance to ATV-DVWK-A131 E and based on the design for the aeration</p>	<p>Yes, we confirm that the secondary settlement tanks have to be calculated according to ATV-DVWK-A 131 E.</p>

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	tanks (i.e. sludge volume index, MLSS) but that the shape of the tanks within table 3.6.3.2.4 is indicative only.	Regarding the shape of the secondary settlement tanks please see Minutes of Site Visit and Clarification Meeting Q&A No. 41.
4.	Please confirm that minimum two secondary settlement tanks shall be provided.	Yes, according to requirements in Volume 3, Section 3, item 3.6.3.2.4 Secondary settling tank with the distribution shaft on page 210 the minimum number of secondary settling tanks is two.
5.	Please provide as soon as possible the General Layout Drawing of the construction site as dwg- or dxf-file.	Please see Minutes of Site Visit and Clarification Meeting Q&A No. 1.
6.	Please confirm that two rows of trees shall be planted all around the site obligatory (Vol. 3, Sec. 2, 2.2.15, page 102).	Yes, we confirm.
7.	Please confirm that handrails shall be made of AiSi 304 obligatory (Vol. 3, Sec. 2, 2.3.7, page 106).	Yes, we confirm.
8.	Please confirm that staircases and ladders shall be made of AiSi 304 obligatory (Vol. 3, Sec. 2, 2.3.9, page 107).	Yes, we confirm.
9.	Please confirm that air conditioning shall be provided obligatory for the rooms specified in Vol. 3, Sec. 2, 2.4.54, page 154).	Air condition is obligatory and has to be provided according to requirements defined in Volume 3, Section 2, item 2.4.57 , page 154 HVAC (heating, ventilation and air conditioning).
10.	Please confirm that online measurements for NH ₄ and PO ₄ shall be made obligatory downstream of the aerated grit and grease chamber (Vol. 3, Sec. 3, 3.6.3.1.5, page 207).	Yes, we confirm. Also, please see Minutes of Site Visit and Clarification Meeting Q&A No. 34.

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Questions and Answers No. 1

11.	Please confirm that online measurements for NH ₄ -N, NO ₃ -N, O ₂ , MLSS and PO ₄ shall be installed obligatory in each aeration basin (Vol. 3, Sec. 3, 3.6.3.2.1, page 208).	Yes, we confirm.
12.	Please confirm that motorised knife gate valves and air flow measurements have to be installed for each main air supply line of biological basins (Vol. 3, Sec. 3, 3.6.3.2.2, page 209).	Yes, we confirm.
13.	Please confirm that online measurements for NH ₄ -N, NO ₃ , COD, MLSS and PO ₄ shall be installed obligatory in the effluent (Vol. 3, Sec. 3, 3.6.3.2.5, page 210).	Yes, we confirm.
14.	Please confirm that the sludge line shall be calculated in accordance to the sludge amount resulted by ATV-DVWK-A131 E for 12°C and that the sludge amount of 4.100 kgDS/d stated within the Tender Documents (Vol. 3, Sec. 3, 3.6.3.4) is indicative only.	Yes, we confirm that the WWTP shall be designed according to ATV-DVWK-A 131 E for 12 °C. The data 4.100 kgDS/d for the daily sludge production in Volume 3, Section 3, Item 3.6.3.4. Sludge treatment is obligatory and not indicative only.
15.	Within Vol. 3, Sec. 3, 3.6.3.4.2) a retention time of 25 days for the sludge storage tanks is required. This requirement would result into a total sludge age of 45 days! Please confirm that the total retention time shall be 5 days within the sludge storage stage for ensuring sludge stabilisation (total 25 days in	No, we do not confirm. The minimum retention time in the sludge storage tanks is 25 days. It is not possible to summarise the sludge age in the biological unit, which is minimum 20 days, with the retention time (25 days) inside sludge storage tanks.

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	accordance to ATV-DVWK-A131 E).	
16.	Please confirm that the minimum area of the administration building shall be 212,61 m ² obligatory (Vol. 3, Sec. 3, 3.6.3.6, page 218).	Yes, we confirm.
17.	Please explain clearly the meaning of the sentence "Form of the WWTP site is irregular." (Vol. 3, Sec. 3, 3.6.5.1, page 231	This sentence means that every boundary of WWTP is of different length (the site is not rectangle form).
18.	Within Vol. 3, Sec. 3, 3.6.5.3.3, one time the maximum road gradient shall be 1:10 and below 6,09 %. Please clarify.	In the Volume 3, Section 3, item 3.6.5.3.3. Site roads and car parking page 232 is defined: For the access road gradients shall not exceed 1:10. For the inner traffic infrastructure is maximal longitudinal level slope: $s_{max}=6,09\%$
19.	Please confirm that the sizes of the structures shall be designed in accordance to the other specifications and the Bidder`s design and the room sizes indicated within Vol. 3, Sec. 3, 3.6.5.5 are indicative only except the administration building.	No, all dimensions defined in Volume.3, Section.3, 3.6.5.5. Sizes and areas of the structures, pages 235 and 236 are obligatory and not indicative only.
20.	In accordance to Vol. 3, Sec. 3, 3.6.2, page 204, the WWTP shall be designed in accordance to ATV-DVWK-A131 E. Please clarify exactly, if the plant shall be designed for "simultaneous aerobic sludge stabilisation", which requires minimum 25 days in accordance to ATV-DVWK-A131 E.	

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	<p>It is noted, that the design indicated in Tender Documents shows 20 days sludge age but obviously (indication by MLSS, sizes of aeration tanks and secondary settlement tanks) uses the sludge volume index applicable for plants with “simultaneous aerobic sludge stabilisation” only.</p> <p>In this context, please clarify the reason for the required retention time of 25 days within the (aerobic) sludge storage tanks.</p>	<p>Please see the answer No. 15.</p>
21.	<p>Please clarify, with respect to the Main Design-Geotechnical for the protection of flooding, E-068-10-04 v 1.0, made by Geokon d.o.o., 2010, is it mandatory to construct a dike around the WWTP as a measure for flood protection?</p>	<p>Yes, the Bidder is obliged to design and construct a flood protection dike. Also, please see Minutes of Site Visit and Clarification Meeting Q&A No. 47.</p>