



SUNSHINE COAST REGIONAL DISTRICT

Question and Answers #1

Request for Proposal No. 2437020

UV Upgrade Chapman Creek Water Treatment Plant

Date: September 13, 2024

Item No.1 Closing date and time

Question: Can we have a four (4) week extension to change the closing date and time to October 24, 2024, at 3:00 pm

Answer: The Regional District is open to considering a two (2) week extension to the closing date and time, please see Addendum No.2 with the official change.

Item No.2

Question: Is there a substantial completion date that the Regional District has in mind?

Answer: The Regional District has not provided a substantial completion date; it would be preferred that the work is completed prior to the next peak season and have the work completed between October and April 30th of 2025.

Tenderers should incorporate material lead time, installation and other relevant information into their preliminary project schedule.

Item No.3

Question: At any point does this plant shut down?

Answer: No, this plant operates 24/7 and supplies 70% of the Sunshine Coast with their water.

Item No.4

Question: Is there an alternative road that could be used for delivering of products? And what size vehicle can use the road?

Answer: Yes, the Contractor may be able to access the site through the neighbouring property. The Contractor would have to notify the Regional District of their delivery schedule so we can coordinate with the neighbouring property. The Regional District is not aware of any vehicle size restrictions for the neighbouring property; in the past we have had b-line tractor trailer transport material to site.

Item No.5

Question: Will we have access to the site via the lower gate?

Answer: Yes.

Item No.6

Question: Can you describe the level of civil work that will be completed for this project?

Answer The civil work is minimal, there will be work around the foundation and the doorway.

Item No.7

Question: Will the existing UV infrastructure stay in place (i.e. stuff under the grates)?

Answer: The Contractor will be responsible for decommissioning and removal of parts that have been identified on the drawings and providing tie in services.

Item No.8

Question: Did the Regional District or Stantec confirm product lead times (i.e. transformers)?

Answer: No however Stantec and the Regional District believe the lead time for the UV is approximately three (3) months. All product and material delivery lead-times will have to be determined by the Contractor and incorporated into their project schedule.

Item No.9

Question: How do you propose that the work will be completed in this area? it is a bit tight and as we demolish and install new infrastructure it will become additionally difficult.

Answer: The Contractor will have to determine the best solution to this problem for their crew to complete the work.

Item No.10

Question: What parts of the existing infrastructure will be removed from site?

Answer: Please see the demolition drawing.

Item No.11

Question: As there will be field adjustments and new connections required, do we have to have all work completed within the 12-hour shut down period?

Answer: The treatment plant can be shut down for a period of approximately eight (8) hours and potentially up to 12 hours (in the case of an emergency) for repairs and maintenance. Once we have passed the eight (8) hour shut down period the site will have to be turned back on so we can flush the filters, the site should run for a minimum of another 48 hours before any follow up shut downs occur. The back wash line that requires modifications to allow the new piping install can take place over a 24hr period but must be available for use the following day as filters are back washed every second day.

The Contractor will be responsible for assessing requirements including length of shut down and coordinating them with the Regional District a minim of 48 hours in advance of the system being shut down.

Item No.12

Question: What happens when the current system has failure or needs work?

Answer We cannot have the system operating when we perform maintenance on the UV lamps and the system; in the past we have shut down the equipment approximately two (2) to three (3) times per year to repair the equipment. The Regional District applies or notifies VCH of the situation and increases chlorine dosage accordingly until the UV is operational again.

Item No.13

Question: When you shut off the system do you have a drain for the excess liquid (water)?

Answer: Yes, there is a valve where we can isolate some of the liquid from the remainder of the system and there is a 2" in diameter drain below the section where the UV Lamp currently is that can drain the excess liquid.

Item No.14

Question: Will the Regional District be scheduling any of the subtrades (such as electricians) for any shutdowns or is this the responsibility of the Contractor?

Answer: No, the Contractor will be responsible for all subtrades and will have to notify the Regional District with at least 48 hours' notice that the system will be shut down so we can prepare for the shutdown. The Regional District Project Manager and operators will review shut down plans submitted a minimum one (1) week in advance, once approved 48 hour notice is required as per the above.

Item No.15

Question: The new platform and pipe appear to be running directly into the existing main electrical box for the system which has to remain in operation, is the electrical box staying in its exact location and if so, how do you propose us to complete our services?

Answer: Answer to follow on future Q&A.

Item No.16

Question: For SCADA equipment, will the Regional District provide the programming services or is this the Contractors responsibility?

Answer: The Contractor will supply, install and commission all new SCADA equipment located in this section of the plant and provide the Regional District will provide a SCADA Technician for programming and to aid with the commissioning; however, the Contractor will have to coordinate with the Regional District; it is preferred that we have 48 hours' notice to schedule our staff.

Item No.17

Question: Are we responsible for moving all deck pipe and electrical?

Answer: Yes, the Contractor is responsible for moving.

Item No.18

Question: While we are performing work onsite will we have access to site power, or do we need to bring a generator?

Answer: Site power can be used for basic power tools and charging of cordless tools, laptops and radios. Larger equipment and welding may require the provision of dedicated Contractor supplied generators or a Contractor supplied panel on a dedicated circuit that does not risk plant operation.

Item No.19

Question: What is the scope of the work that will need to be completed in the electrical / SCADA room?

Answer: The Contractor will be required to run and connect all wires from the UV system to these rooms as required. See electrical drawings.

Item No.20.

Question: Do you have any other existing transformers besides the one down by the UV and in the electrical room?

Answer: Yes, on the top floor of the plant in the corner closest to the UV Lamp there is a transformer.

Item No.21.

Question: Do you know how old the existing UV is?

Answer: The existing UV is original, and the plant was commissioned in 2006. The exact age of the UV is unknown.

Item No.22.

Question: Will we have access to a laydown area?

Answer: Yes, the Regional District will provide direction and a map of the area where the Contractor can use as a laydown area for the work. The site has ample space for this request. The exact location will be determined with the successful Contractor prior to the commencement of the work as there may be other trades on site working.

Item No.23 Specification Section 11260 Ultraviolet Disinfection System Item 1.7.3

Question: The document reads: "(14) Pricing for the UV equipment. PLC & HMI software licences (Rockwell) to be provided as a separate line item from the rest of the UV equipment in the pricing submission." We cannot scope supply of Licences. Rockwell requires customer to contact them directly. Can we request an exception?

Answer: Answer to follow on future Q&A.

Item No.24 Specification Section 11260 Ultraviolet Disinfection System Item 1.7.4

Question: The document reads: "(4) A computational fluid dynamic (CFD) model showing the performance of the UV reactor in the proposed piping configuration." CFD model adds additional time to submittals and adds a significant cost increase to the equipment price. Is CFD actually required?

Answer: Answer to follow on future Q&A.

Item No.25 Specification Section 11260 Ultraviolet Disinfection System Item 1.7.4

Question: The document reads: "(1) All required in Item 1.7.2." and Section 01300, please note that Trojan typically requires up to Six (6) weeks to prepare and submit the submittal however based on CFD report being called out it will require addition time - Six (6) to Eight (8) weeks - per 1.7.4 (4)

"1.7.2 Submit shop drawings and product data in accordance with Section 01300 – Submittals." Can you please clarify?

Answer: Answer to follow on future Q&A.

Item No.26 Specification Section 11260 Ultraviolet Disinfection System Item 2.3.1

Question: The document reads: "(3) UV intensity sensors (one (1) per lamp for MP, plus two (2) reference sensors." Are two (2) reference sensors required?

Answer: Answer to follow on future Q&A.

Item No.27 Specification Section 11260 Ultraviolet Disinfection System Item 2.3.1

Question: The document reads: "(4) Two (2) online transmittance monitors (duty/standby) that shall measure transmittance at 254 nm with a 1-cm path length." Do we need to handle to the programming for duty/standby UVT monitors or will plant SCADA handle this (by others)? If yes, custom programming will be required increasing the cost. Normally only one (1) UVT unit is provided. Request to provide one.

Answer: Answer to follow on future Q&A.

Item No. 28 Specification Section 11260 Ultraviolet Disinfection System Item 2.3.1

Question: The document reads: "(5) Two (2) online transmittance monitors (duty/standby) that shall measure transmittance at 254 nm with a 1-cm path length." Are two (2) online UVT monitors required? Normally only one (1) UVT unit is provided. Request to provide one.

Answer: Answer to follow on future Q&A.

Item No.29 Specification Section 11260 Ultraviolet Disinfection System Item 2.11.4

Question: The document reads: "(2) 120 VAC for powering control circuit." 24VDC is provided by us. Can we have an exception?

Answer: Answer to follow on future Q&A.

Item No.30 Specification Section 11260 Ultraviolet Disinfection System Item 2.11.4

Question: The document reads: "(3) 120 VAC for control system I/O, field devices." 24VDC is provided by us. Can we have an exception?

Answer: Answer to follow on future Q&A.

Item No.31 Specification Section 11260 Ultraviolet Disinfection System Item 2.11.4

Question: The document reads: "(4) UPS system (minimum 10 minutes) for controls and instrumentation, integral to UV panel." 120VAC UPS not available due to panel space, 24VDC UPS can be provided. Will this be acceptable?

Answer: Answer to follow on future Q&A.

Item No.32 Specification Section 11260 Ultraviolet Disinfection System Item 2.11.5

Question: The document reads: "(3) All information collected by the UV Supplier through the PLC is to be made available to the SCADA system. As a minimum, all information displayed on the HMI and all set points/adjustable parameters at the HMI are to be equally accessible to the plant SCADA system." Please note that all HMI setting are available over SCADA. Custom programming will be required. Can we have an exception from this?

Answer: Answer to follow on future Q&A.

Item No.33 Specification Section 11260 Ultraviolet Disinfection System Item 2.11.5

Question: The document reads: "(5) Provide an approved fibre management and termination within each control enclosure for installation and termination of plant-wide Ethernet network." What type of fibre connection is required?

Answer: Answer to follow on future Q&A.

Item No.34 Specification Section 11260 Ultraviolet Disinfection System Item 2.11.5

Question: The document reads: "(6) Provide a complete, as commissioned, hard and soft copy of the UV control and HMI runtime programs for use by the Owner." Will follow Trojan Technologies standard practice in relation to providing customers with development files. Proprietary dose calculations will be locked & OEM settings for OIT files will be removed. Can we have an exception?

Answer: Answer to follow on future Q&A.

Item No.35 Specification Section 11260 Ultraviolet Disinfection System Item 2.11.6

Question: The document reads: "(4) One (1) copy of Development Software Microsoft Windows based." And "(5) Runtime software for each HMI." And "(6) No logic required for control shall be programmed or executed in the HMI." Will follow our standard practice in relation to providing customers with development files. Proprietary Dose calculations will be locked & OEM settings for OIT files will be removed. HMI contains code that is required to complete UVI reference sensor testing. Can we have an exception?

Answer: Answer to follow on future Q&A.

Item No.36 Specification Section 11260 Ultraviolet Disinfection System Item 3.2.2

Question: The document reads: "(3) The Manufacturer shall provide software copy and hard copy of the PLC Program to the Owner." Under the NDA with the Owner, we can provide a locked version of the PLC Program (proprietary sections are locked). However, we are unable to provide hard copies. Will this be acceptable?

Answer: Answer to follow on future Q&A.

Item No. 37 Specification Section 11260 Ultraviolet Disinfection System Item 3.2.2

Question: The document reads: "(1) Performance Guarantee Testing shall include power consumption testing, as well as head loss testing and effluent quality testing at two (2) different times (events) during the Commissioning. The proposed Performance Guarantee Testing procedure shall have been developed by the Manufacturer and submitted to and reviewed by the Engineer before scheduling and performing the Performance Guarantee Test." Please note that regarding Headloss Testing, unless ports are provided in the piping system to measure pressure difference this measurement cannot be done. Also, due to such a small variance it is a very difficult measurement to achieved. The Equipment has been validated by third party testing facility and this can be reviewed in the validation report. Regarding the Effluent Quality Testing, unless the influent contains Cryptosporidium or Giardia, what specifically would need to be measured? And can we have an exception?

Answer: Answer to follow on future Q&A.