

FORM N: DETAILED SPECIFICATIONS 46 66 56

SUPPLY OF ULTRAVIOLET DISINFECTION SYSTEM

1. INSTRUCTIONS FOR COMPLETION OF SPECIFICATIONS

- 1.1 All items in these specifications should be answered indicating compliance or non-compliance.
- 1.2 **Bidder/Proponents shall fill in specifications and state “yes” where indicated for compliance or state “deviation”,** or give a reply where requested to do so. Deviations and/or equivalents shall be clearly stated and fully detailed. Deviations and/or equivalents will be considered subject to evaluation. In every instance where a brand name or design specifications is used, the City will also consider deviations and/or equivalents.
- 1.3 Lengthy explanations of deviations may be included in a separate document and must reference the appropriate Detailed Specification.
- 1.4 Each Bidder/Proponent is required to fill in every blank. Failure to do so may be used as a basis for rejection of bid/proposal.
- 1.5 It will be the responsibility of the Bidder/Proponent to inform the City of any errors or omissions in these Detailed Specifications, for under this Contract, the Contractor shall be held responsible for the design, performance, reliability and satisfactory operational function of the unit.

2. DESCRIPTION OF EQUIPMENT

- 2.1 The specifications in Appendix E describe the ultraviolet (UV) disinfection system, and other equipment and features as specified herein.
- 2.2 The UV disinfection system, including any appurtenances shall be new. Refurbished equipment will not be acceptable.
- 2.3 The UV disinfection system and all other items/components shall be the manufacturer's latest model. The equipment shall be furnished complete and ready for operation. Any parts or accessories not specifically mentioned, but which are required to complete and place the equipment and associated attachments in successful operation shall be furnished as though specifically mentioned in these documents. The equipment and associated attachments, and all parts thereof, shall conform in strength and quality of material and workmanship, to the best standards and engineering practice of the industry.
- 2.4 The ratings specified herein merely state the minimum values acceptable to the City, not implying that those values are sufficient for the design of the particular equipment being bid/Proposed.

3. OTHER SPECIFICATIONS AND STANDARDS

- 3.1 The completed unit shall include a Canadian Certification label (CSA, cUL) shown on the equipment nameplate.

4. REFERENCES

Bidder to provide three (3) references where this equipment is used in a similar working wastewater environment (i.e. flow greater than 300 ML/d and ultraviolet transmittance (UVT) of 40%). State the application, model type of UV disinfection system used, design flow capacity, design minimum UVT, design reduction equivalent dose, how long UV disinfection system has been in service, and customer and contact information (names, phone numbers and email).

- 4.1 Reference 1:

4.2 Reference 2:

4.3 Reference 3:

4.4 Bidder to indicate if all 3 references meet requirements -Yes/No - _____

5. MAKE & MODEL [Specification Ref Appendix E]

5.1 UV Disinfection System Manufacturer Being Bid - State _____

5.2 UV Disinfection System Model Number Being Bid - State _____

6. UV DISINFECTION SYSTEM DETAILS [Specification Ref Appendix E]

6.1 Complies with Specification 46 66 56 Table 1 (Bidder to indicate Yes/No) _____

6.2 UV system's total power demand is **less** than 1MVA (Bidder to answer Yes/No) _____

6.3 Approval for Canada (CSA/cUL) (Bidder to answer – Yes/No) _____

6.4 Certified Canada Service Shop (Bidder to answer – Yes/No) _____

6.5 Wastewater Operation Compatible (Bidder to answer – Yes/No) _____

7. TOOLS, ACCESSORIES & SPARE PARTS [Specification Ref E3.18]

7.1 Special Tools (list) _____ (Bidder to indicate if provided – Yes/No) _____

7.2 Other Spare Parts (list) _____ (Bidder to indicate if provided – Yes/No) _____

8. MANUFACTURER PARTS WARRANTY [Specification Ref E]

8.1 Lamps – (Bidder to indicate if meeting Warranty Requirement – Yes/No) _____

8.2 Ballasts – (Bidder to indicate if meeting Warranty Requirement – Yes/No) _____

8.3 UV intensity sensors (Bidder to indicate if meeting Warranty Requirement – Yes/No) _____