

Number of Pages: _____

Date Submitted: _____

1. Send To: Total Systems International LLC Sales@TSI-LLC.us
 1256 Bretmoor Way Phone: 1-408-996-0447
 San Jose, CA 95129 Fax: 1-408-996-9480
 USA

2. Project Name: _____ New Request Revision

Current Situation: _____

Desired Situation: _____

- 3. Market:** Other: _____
- | | | | | | |
|---------------------------------------|--|---|--|---|---|
| <input type="checkbox"/> Aerospace | <input type="checkbox"/> Commercial | <input type="checkbox"/> Leachate | <input type="checkbox"/> Mining | <input type="checkbox"/> Pharmaceutical | <input type="checkbox"/> Remediation |
| <input type="checkbox"/> Aquatics | <input type="checkbox"/> Dyes/Pigments | <input type="checkbox"/> Medical/Lab | <input type="checkbox"/> Municipal Water | <input type="checkbox"/> Power/Cogen | <input type="checkbox"/> Sweeteners |
| <input type="checkbox"/> Automotive | <input type="checkbox"/> Food/Beverage | <input type="checkbox"/> Metal Fab/Finish | <input type="checkbox"/> Municipal Waste | <input type="checkbox"/> Primary Metals | <input type="checkbox"/> Textiles |
| <input type="checkbox"/> Chemical/CPI | <input type="checkbox"/> Laundry | <input type="checkbox"/> Microelectronics | <input type="checkbox"/> Petrochem/HPI | <input type="checkbox"/> Pulp & Paper | <input type="checkbox"/> Transportation |

5. End User Information:

Company _____	Contact _____
P. O. Box _____	Title _____
Address _____	Tel/VM _____
City, State, Zip, Country _____	Fax _____
	Email _____

6. Consultant / A&E Firm:

Company _____	Contact _____
P. O. Box _____	Title _____
Address _____	Tel/VM _____
City, State, Zip, Country _____	Fax _____
Responsibility: <input type="checkbox"/> Fixed \$ Contract	<input type="checkbox"/> Evaluation
<input type="checkbox"/> Procurement	<input type="checkbox"/> Project Mgr.
	<input type="checkbox"/> Bidding for job

7. Contractor:

Company _____	Contact _____
P. O. Box _____	Title _____
Address _____	Tel/VM _____
City, State, Zip, Country _____	Fax _____
	E-mail _____

- Send proposal to: End User Consultant/AE Contractor
 Address proposal to: End User Consultant/AE Contractor

8. Commercial Qualification:

Estimate each rating on a scale of 1-10

Funding (What is status of funding? If a specific amount is approved, enter 10) Est. Budget: \$ _____

Decision Maker Who is the ultimate decision maker? End User A/E Firm Contractor

Need Rating (How well is client's need defined? If it is well thought through and documented, enter 10)

Written Specs? Operating by (date): _____

Competition If we are sole-source, enter 10) Number of bidders: _____

Name of Bidders: _____

Primary Motivation: New Construction Replace/Upgrade Reduce Costs Increase Output Improve Quality

Less maintenance Reduce Waste Scarcity of Water Regulatory Req'ts Corporate Edict _____

9. Timing: Funding by (date): _____ Estimated book date: _____

Response due date: _____ (Enter date requested by the customer) Shipment by (date): _____

10. Commercial Response: (check all that are required for this request)

General category (choose the best overall description)

Capital Equip. Equip. + Install Design/Build Installation StartUp Service Serv. Contract

Freight Duties/Taxes Other: _____

11. Type of Response: (check all that are required for this request)

General extent of response (choose one)

Minimum effort or concept only Block flow/PFD Principle of operation, description of possible solution

Medium effort budget, basic scope Scope of supply Layout/PlotPlan P&ID Schedule detail

Maximum effort (tight) budget Datasheets Equipment lists _____ _____

Firm priced offer, suitable for contract

Describe any options required: _____

12. TSI Technologies:

Bid exactly to specifications (custom) Bid closest TSI standard design Bid modified standard design

13. General Comments:

14. Process Water Data:

A. Quantity of Water Required

Average product flow rate & units _____ Peak product flow rate & units _____ Other potential flow conditions _____

Required days/week: _____ Maximum hours/day: _____ Expected hours/day: _____

Redundancy: Batch/Simplex 2nd train for regeneration or cleaning n+1 full spare _____ %

Minimum run length: _____ hrs Maximum regen time: _____ hrs Min. outlet pressure: _____

B. Feed Water Summary

(please attach a complete water analysis for ion exchange and RO projections)

Water source: Surface Municipal Well Other: _____

Temp. min/max, °F: _____ Turbidity / susp. solids: _____ SDI range (yearly): _____

What pre-treatment technologies or chemicals are being used? _____

C. Product Quality Required

Industry Spec: Boiler feedwater, operating pressure (psi): _____ USP / CAP / WFI / AAMI (circle one)

Electronics, IC or device linewidth (µm): _____ ASTM spec. E - _____

Measurements: Conductivity (µS) < _____ Resistivity (MΩ) > _____ pH _____

Silica (ppm) < _____ Particles, max. _____ particles per ml _____ µm or larger

Hardness (ppm) < _____ TOC (ppm / ppb) < _____

CO₂ or O₂ (ppm) < _____ Bacteria, CFU/ml < _____

specific ions / other	_____	_____	_____	_____	_____
	<	_____	_____	<	_____
	<	_____	_____	<	_____
	<	_____	_____	<	_____

15. Water & Wastewater Data:

A. Quantity of Water/Wastewater to be Treated

Average product flow rate & units _____ Peak product flow rate & units _____ Other potential flow conditions _____

Required days/week: _____ Maximum hours/day: _____ Expected hours/day: _____

Sizing or redundancy requirements: _____

B. Wastewater Characteristics and Requirements

Additional analysis attached

Parameter	Influent mg/l	Req'd effluent	Parameter	Influent mg/l	Req'd effluent
Temp (F / C)	_____	_____	SDI	_____	_____
Turbidity	_____	_____	D.O.	_____	_____
pH	_____	_____	Cd	_____	_____
BOD	_____	_____	Cu	_____	_____
COD	_____	_____	Cr	_____	_____
TOC	_____	_____	Pb	_____	_____
Oil/Grease	_____	_____	Ni	_____	_____
TSS	_____	_____	Fe	_____	_____
Total P	_____	_____		_____	_____
TKN	_____	_____		_____	_____
NH ₄ -N	_____	_____		_____	_____
Alkalinity	_____	_____		_____	_____

Final Wastewater Disposition is: POTW (sewer) NPDES (direct) Recycle/Reuse

Other: _____

16. Site Limitations and Conditions:

- Space Limitations? If so, list the length available width available height available
space available: _____ x _____ x _____
- Access Limitations? If so, describe: _____
(attach a sketch if possible) _____
- Utility Limitations? List any typical services that are not available or may affect the equipment design

(typical services such as single and 3 phase power, pressurized feedwater, instrument air, steam / hot water, cooling water, pressurized or bulk chemical supplies, compressed air / N₂, open drains and waste handling facilities should be considered)

- Climate Limitations? Where is the jobsite (city, state/country)? _____ indoors outdoors
List any special limitations (altitude, temperatures, lack of storage or insulation, salt air, etc.)

- Other Limitations? If so, check or site (is/will be) under construction union site non-union
describe here: _____

17. Flow Schematic(s): (Indicate current and desired situation; attach sheets if necessary)