MPRWA REVIEW OF CAL-AM DRAFT DB-RFP DOCUMENTS
May 2013

Exhibit 2-A

DRAFT DOCUMENTS				
No.	**Comment By**	**Page No./Reference**	**Comments**	**Response/Action**
1	A. Wesner	General	The desire for alternate proposals under Proposal Form 13D is understandable; but it's implementation and evluation in the current documents is difficult to understand. Per my reading, the proposers must submit pricing and design information (basis of design report, drawings, equipment schedules, etc.) for the two base capacity scenarios and process design requirements under Proposal Forms 13 and 13A. A comparable amount of design information does not appear to be required for alternative treatment approaches; limitiing the amount of information on the proposed scope of supply. It will be difficult to assess the validity of a fixed price proposal and could put overall quality at risk.	
2	A. Wesner	RFP, p. 2-4	The desciption of the RO Desalintation Process seems to imply a stand alone, single pass system; while technical criteria in the appendix describe a partial or full two pass system.	
3	A. Wesner	RFP, p. 2-17	Incorporting the successufl proposers bid package into the contract documents will require a thorough vetting and understanding of the proposed scope of supply. The technical information requested is farily thorough, but will likely represent a 30 - 50 percent level of design.	
4	A. Wesner	RFP, p. 3-3	Item 12, "Contact" should be "Contract".	
5	A. Wesner	RFP, p. 4-3	Section 3.0: The amount of technical information requested is consistent with defining the scope for a fixed price proposal; but will require a high degree of effort from candidate proposers. The only risk here is that it may dissuade candidate proposers from participating, limiting the pool of qualified bidders to consider on technical/qualitative grounds.	
6	A. Wesner	RFP, p. 4-22	Section 4.4.4: Requiring bid pricing to hold for 365 days could increase initial pricing. Consider reducing it to 90 days and including escalation factors tied to the CPI or PPI for extensions beyond that.	
7	A. Wesner	RFP, p. 5-3	Section 5.2.3: Consider adding a criterion for sufficiency of intstrumenation and control featurs to protect equipment, annuciate system criticaland advisory alarms, and allow remote/auto operations.	
8	A. Wesner	RFP, p. 5-5	Annual Operating Costs: Suggest giving proposers standard chemical pricing for use in calculating operating costs as well (if it's listed elsewhere, suggest referencing it here). Note that the $0.10 per kW-Hr is higher than the previously stated goal of $0.08 per kW-hr and lower than the current commercial rate included in Cal-Am's CPUC documents (roughly $0.134 per kW-hr. The power rate used in the evlauation should be considered carefully, as it will set theoptimum balance between capital and operating expenses of the proposed systems. A high rate will promote energy efficient designs with potential higher fixed equipment costs; while a low rate could favor lower capital expenses but less energy efficient.	
9	A. Wesner	RFP, p. PF13D-1	As noted in Comment 1 above, the scope of information required for voluntary alternative proposals is somewhat ill defined; and not commensurate with information required for the two required base proposals. It's difficult to see how comparable evaluations could be made.	
10	A. Wesner	RFP, p. PF18-3	There is reference here to the "RO system performance warranty" but it's unclear what this is or where it's located in the RFP documents or Appendices. Please clarify.	
11	A. Wesner	App. 2, p. 2-3	Section 1: Previously Cal-Am had indicated the pretreatment media filters in their design were there in case raw water iron and manganese levels turned out to be high; but were not expected to be. Therefore, they would normally be bypassed with water from the wells fed directly to the cartridge filters. Note that expereience at other seawater desalters has shown chlorination/dechlorintaion to increase biofouling in the first pass RO trains.	
12	A. Wesner	App. 2, p. 2-4	Section 1: It's unclear why the concentrate from the proposed second pass RO trains is being disposed to the outfall rather than recirculated to the feed. It's conventional practice to recycle concentrate from second pass trains in seawater systems to the first pass feed; thus reducing pretreatment system capacity and residual flows.	
13	A. Wesner	App. 2, p. 2-4	Table 2-1: Have component fixed capacities been disccused with the Governance Committee? According to the table, several system components will be sized for either the 9.6 mgd plant capacity or 12.6 mgd; independent of what facility size is ultimately selected. The potential over-sizing has cost implications.	
14	A. Wesner	App. 2, p. 2-15	Item iii-(1): Fix typo "Atrta".	
15	A. Wesner	App. 2, p. 2-18	Item d-i(7): Is the limit on vessel column height for operator convenience access? Note that it will increase the overall footprint of the trains.	
16	A. Wesner	App 2, p. 2-18	Itiem d-iii(1): Why is second pass recvoery limited to 85%? Most second pass seawater RO trains operate at 90% recovery. The limitation will increase the cost of pretreatment and the first pass RO system; as well as residual disposal costs.	

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17	A. Wesner	App. 2, p. 2-20	Item f: Suggest listing required materials for pressure vessel ports.	
18	A. Wesner	App. 2, General	For components like piping, valves, pumps, instruments etc., suggest providing a global requirement for all metallic components in contact with saline water, such as a minimum pitting resistance equivalnce number (PREN).	
19	A. Wesner	App. 2, p. 2-21	Item h: Consider listing required materials of construction for the second pass RO feed pumps.	
20	A. Wesner	App. 2, p. 2-21	Item i: Consider listing requirements for the ERD booster pumps with the ERF device requirements.	
21	A. Wesner	App. 2, p. 2-22	Item j-i: Consider changing cleaning solution "recirculation" to "return"; and insure a return line off the train permeate headers is included as well.	
22	A. Wesner	App. 2, p. 2-22	Item j-vi: It's unclear why vessel multi-porting is prohibited, It would reduce the cost of pipe manifolds for the RO trains.	
23	A. Wesner	App. 2, p. 2-23	Item k-i: Suggest adding "including ERDs" to the end of the sentence.	
24	A. Wesner	App. 2, p. 2-24	Item l-vi: Recommend that the minium volume of the CIP tanks be sufficient to allow filling of all pressure vessels in the train.	
25	A. Wesner	App. 2, p. 2-24	Item l-xii: Consider permanent CIP piping to each train, with block and bleed valves at connections in liue of removable hoses. Use of hoses will be difficutl on a system of this size.	
26	A. Wesner	App. 2, p. 2-25	Item o-ii-(5): Recommend measuring differential pressure across each stage of the RO trains, as applicable.	
27	A. Wesner	App. 2, p. 2-25	Item o-iii(5): Consider providing a common monitoring location for RO feed parameters, rather than on the individual RO trains.	
28	A. Wesner	App. 2, p. 2-25	Item o-iii(6): Recommend monitoring RO train permeate pressure as well.	
29	A. Wesner	App. 2, p. 2-25	Item o-iii: Recommend monitoring ERD and RO brine flows as well.	
30	A. Wesner	App. 2. p. 2-25	Iteim o-iv: Suggest listing normalization parameters (e.g., specific flux, differential pressure, conductivity).	
31	A. Wesner	App. 2, p. 2-26	Item p-i: Suggest listing some minimum spare parts requirements.	
32	A. Wesner	App. 2, p. 2-26	Item q-ii: Recommend providing additioanl criteria for the single element test stand.	
33	A. Wesner	App. 2, p. 2-26	Item s: Suggest consolidating all commissioning and performance test requirements in a single location. It's confusing having separate test requirements for the RO trains included here.	
34	A. Wesner	App. 2, p. 2-29	Item c-vii (ex.): In some locations, instrument signals are described as being "input to SCADA" and in other places they are not. Suggest including a global requirement somewhere stating that all insrument signals need to be routed to and displayed on the SCADA system.	
35	A. Wesner	App. 2, p. 2-30	Item d: Will the plant be required to go offlien durind dewatering of the settling basin?	
36	A. Wesner	App. 2, p. 2-32	Item d-i: It is unclear what dose rate the 15-day storage requirement applies to.	
37	A. Wesner	App. 2, p. 2-33	Item d-ii and f-ii: the storage capacity criteria listed imply the presence of two tanks, but a single tank is required.	
38	A. Wesner	App. 2, p. 2-40	Item d-i: Type 316L stainless steel would pefrom better long term than Type 304L in an exposed, coastal environment. FRP would also be an acceptable choide. The sentence "Provide HDPE pipe." is confusing.	
39	A. Wesner	App. 2, p. 2-42	Item a-xii: If mechanical seals are desired, it should be stated more definitively. It's unlikely that the proposed seal type will be included in the proposal information for evaluation	
40	A. Wesner	App. 2, p. 2-42	Item b-ii: The listed velocities seem high and will reduce overall energy efficiency.	
41	A. Wesner	App. 2, p. 2-45	Items iii - vi: The requirements here read as if a stand alone operator interface is requuired--is that what's intended?	
42	A. Wesner	App. 2, p. 2-47	Item vii: Consider supply source for systems using RO permeate for makeup during commissioning, when RO permeate may not be available.	
43	A. Wesner	App. 2, p. 2-47	Item xiii(1): The vendor information included here seems overly-perscriptive.	
44	A. Wesner	App 2, p. 2-48	Item c-i(2) (typ): There is a parameter listing here and for other chemicals for "viscosity" but no values are included. Fill in or remove.	
45	A. Wesner	App. 2, p.2-48	Item v-(4): Ferric chloride will not protect the RO membranes from free chlorine damage.	
46	A. Wesner	App. 2, p. 2-48	Item vii(3) (typ): Listing "diaphragm metering pumps" without additional prescriptive criteria could result in the use of low cost solenoid or motor driven diaphragm type pumps of all thermoplastic materials.	
47	A. Wesner	App. 2, p. 2-49	Item d: Consider the need for heat tracing/insulation of sodium bisulfite solutions.	

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48	A. Wesner	App. 2, p. 2-49	Item v(4): It will be important to rapidly catch any free chlorine carryover from the pretreatment system. Weight measurement may prove insufficient. Consider flow monitoring along with ORP meausurement.	
49	A. Wesner	App. 2, p. 2-53	Item h: Consider the need for heat tracing/insulation of caustic soda, or consider diluting it to 25 percent concentration on site.	
50	A. Wesner	App. 2, p. 2-60	Item r-v: Note that the specified grating materials are not compatible with loading from fork lifts or scissor lifts. Consider requiring temporary plates (and compatible support requirements) that could be used when required. Also note that the prescribed limit on vessel height will allow access to the top vessel from the operating floor; so the required vehicular access may not be required.	
51	A. Wesner	App. 2, p. 2-76	Item l-x: Will alkalinity measurement be required as well?	
52	A. Wesner	App. 2, p. 2D-2	Table 3: Confirm the listed manufacturers for the first pass RO pumps--the look atypical for seawater RO trains.	
53	A. Wesner	App. 2, Ex. 1	- Consider providing a bypass around the filters - Consider dechlorinating before the filtrate storage tank - The listed "dewatering" process is not included elsewhere in the RFP. - CIP chemicals shouldn't be introduced ahead of the cartridge filters and RO high pressure pumps - Show the RO flush supply going through the ERD as well. - There is no "blow down" off of the cartridge filters.	
54	A. Wesner	App. 2, p. 7-7	Item (a)(ii): These requirements need to address the lower plant capacity alternative as well.	
55	A. Wesner	App. 2, p. 7-12	Item (iv) I interpret the last sentence here to apply to the final, blended supply at the terminus of the outfall; in which case I'm not sure how it can be measured.	
56	A. Wesner	App. 2, p. 7-16	The final sentence in the first paragraph here is confusing. It should be clarified, and more closely tied to the information that needs to be submitted with the proposal.	
57	A. Wesner	App. 2, Table A7-9	Values in this table will be critical and could fuel potential disagreements and litigation. Proposers must project final system energy and the time of the proposal, and any deviation will be grounds for non-acceptance of the final plant acceptance test and grounds for unilateral termination of the DB agreement by Cal-Am for cause. Remedies at that point extend to the proposers performance bond and are subject to a total cap on liability of the full DB contract price. It is unclear what remedies may be available to the DB if the as-constructed system is not as energy efficient as originally proposed.	