

**TO: James L. App, City Manager**  
**FROM: Doug Monn, Public Works Director**  
**SUBJECT: Award of Membrane Filtration System for Water Treatment Plant**  
**DATE: August 5, 2008**

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**NEEDS:** For the City Council to consider award of the Membrane Filtration System contract to Siemens Water Technologies Corporation.

- FACTS:**
1. The City will take delivery of 4,000 AFY of water from the Nacimiento Water Project in June of 2010.
  2. To facilitate the use of water, the City is designing a six million gallon per day water treatment plant facility for construction at its Thunderbird well field.
  3. One principal component of the proposed water treatment plant facility is the membrane filtration system. Three membrane manufacturers have proven, certified equipment in service in municipal treatment plants and each of these three approach their equipment configuration differently.
  4. On December 18, 2007, the City Council authorized Black & Veatch to proceed with securing bids for the membrane filtration system. This was done so that the membrane filtration system equipment could be designed and manufactured in a timely manner and so that the design of the balance of the water treatment plant may be tailored to the correct equipment configuration. Failure to secure the membrane equipment now would delay start-up of the treatment plant, such that the City would be unable to take Nacimiento water deliveries when they begin.
  5. Membrane filtration systems supplied by Zenon Environmental Corporation (GE Water & Process Technologies), Siemens Water Technologies Corporation, and Pall Corporation were invited to submit bids. Initial bids submitted on May 13, 2008, were rejected and the project was re-bid. On June 26, 2008, the City received bids from all three of the prequalified suppliers – Zenon, Siemens, and Pall.
  6. The engineer's estimate for the total present worth of the membrane filtration system was \$3,619,000. Bid amounts (Total Present Worth) ranged from \$3,331,696 to \$3,516,162.
  7. At the bid opening, Pall appeared to be the low bidder. However, following an evaluation of the bid materials submitted to the City that involved corrections to the bidders' Total Present Worth calculations, Siemens Water Technologies Corporation was determined to be the lowest responsive bidder.

**ANALYSIS & CONCLUSION:**

All three membrane system suppliers that submitted bids to the City are considered qualified to supply such equipment for a municipal drinking water application. The lowest responsive bid aligns well with the engineer's estimate and is therefore in-line with fiscal planning for the overall water treatment plant.

The City received a letter from Pall dated July 18, 2008, contesting the recommended award to Siemens. In that letter, Pall objected to the methodology used to calculate the Total Present Worth of the membrane filtration systems that

resulted in the determination that Siemens is the lowest responsive bidder. Staff reviewed the correspondence with the City Attorney's office and Black & Veatch, the design engineer, and concluded that the final Total Present Worth calculations were done in accordance with the contract documents and industry practice. Black & Veatch reported that they have used the same methodology in evaluating bids for membrane filtration systems on other public agency projects. Pall has been informed of the results of the City's review of the July 18, 2008 letter.

The membrane contract is set up in stages such that the recommended Council action tonight would commit the City to a \$100,000 amount associated with Stage I Work. Stage I work consists of membrane filtration system design and design support to Black & Veatch such that the membrane filtration system can be integrated into the overall water treatment plant design, and the preparation of a general contractor information package.

Stage II Work would commence upon the Council's award of a general construction contract for the overall water treatment plant, at which time the Siemens Water Technologies Corporation contract would be assigned to the construction contractor. Stage II work includes furnishing and delivering the membrane filtration equipment and related construction and start-up services.

Stage III and IV work includes support services during the system performance testing provided directly to the City and long-term operation and maintenance services.

It is in the best interest of the City of Paso Robles and its water users to award the membrane filtration system contract to Siemens Water Technologies Corporation, allowing design of the overall water treatment plant to be completed and construction bids sought early next year.

**POLICY**

**REFERENCE:** Economic Strategy; Integrated Water Resource Plan; Nacimiento Water Project Entitlement Contract.

**FISCAL IMPACT:** The cost for this service is being paid from the Nacimiento Water Fund. Award of the Membrane Filtration System contract would obligate the City to a \$100,000 value for design and bid phase services. Commitment to expend the balance of the membrane filtration plant bid amount (\$2,198,570 for Stage II) would be considered at the time of award of the general construction contract for the proposed water treatment plant. Staff expects to bring a recommendation for award of the overall water treatment plant construction contract forward by April 2009.

- OPTIONS:**
- a. Adopt Resolution No. 08-xx appropriating \$100,000 from Nacimiento Water Fund (No. 226.910.5452.544) to Nacimiento Water Treatment (No. 229.910.5452.544) and authorizing the City Manager to enter into a contract with Siemens Water Technologies Corporation in that amount and to authorize assignment of the Stage II Work to the general contractor at the time of such award.
  - b. Amend, modify, or reject the above option.

Prepared by: Christine Halley, Water & Utility Consultant,  
TJ Cross Engineers, Inc.

Attachment  
1) Resolution



# CITY OF EL PASO DE ROBLES

*"The Pass of the Oaks"*

July 16, 2008

John Kutilek, Technical Sales Manager  
MEMCOR Products  
Siemens Water Technologies  
333 South Street, Suite 300  
Shrewsbury, MA 01545-4197

Louis Mattera, General Sales Manager  
Pall Corporation  
2200 Northern Boulevard  
East Hills, NY 11054

Chris Allen, Regional Manager  
GE Water & Process Technologies  
3239 Dundas Street West  
Oakville, Ontario, Canada L6M4B2

SUBJECT: Water Treatment Plant Project  
Membrane Filtration System Procurement – Recommendation for Contract Award

Dear Sirs:

The City of El Paso de Robles received bids for the subject project on June 26, 2008, and has completed its evaluation of the bid submittals. For each of the three bids received, the Membrane Filtration Pumping Energy was corrected on the bid form, in accordance with the terms of the bid documents, to reflect correct Total Energy Use and Total Present Worth values. Details of these corrections are described in the attached bid report.

As a result of this evaluation, the low bidder was determined to be Siemens Water Technologies Corp. at a Total Present Worth of \$3,331,696.

City staff intends to make a recommendation for award of the subject contract to Siemens Water Technologies Corp. at the August 5, 2008, meeting of the City Council.

On behalf of the water treatment plant design team, I thank you all for your interest in this important City public works project.

Sincerely,

Doug Monn  
Public Works Director

cc: Christine Halley, TJCross Engineers  
Paul Kneitz, Black & Veatch  
Linda R. Beck, McDonough Holland & Allen PC

Enc: "Water Treatment Plant Project Membrane Filtration System Procurement Bid Report" dated July 16, 2008, prepared by Black & Veatch.



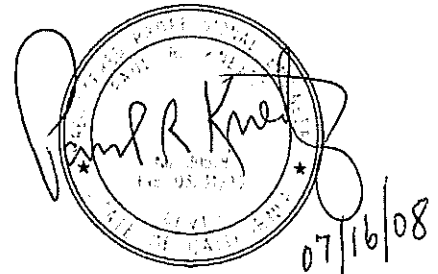
City of Paso Robles

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**Water Treatment Plant Project  
Membrane Filtration System Procurement  
Bid Report**

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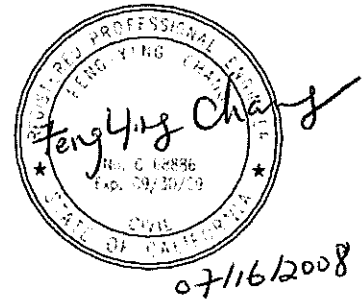
July 16, 2008



**BLACK & VEATCH**  
building a world of difference™

B&V Project No. 148379

B&V File No. G.5.1



**PURPOSE AND BACKGROND**

Bids were opened on June 26, 2008 for the Membrane Filtration System (MFS) procurement. Bids were received from Siemens Water Technologies (Siemens), Pall Corporation (Pall), and GE Water Process & Technologies (GE). In accordance with our Agreement, this Bid Report presents our evaluation of the bids that were received and provides our finding regarding the best overall value to the City while meeting the performance requirements outlined in the Technical Specifications.

**BID EVALUATION**

Bid evaluation criteria are specified in Section 00100, Instructions to Bidders. Article 10 – Basis of Bids; Evaluation of Bids, Paragraph 10.02:

*“Award of contract will be based on the results of a comparative evaluation process including proposal prices and 20-year present worth life cycle analysis of the proposed membrane system. The objective of the evaluation and selection process is to determine which Proposal provides the best overall value to the OWNER while meeting the performance requirements outlined in the Technical Specifications. The evaluation process considers the criteria described in Table 1.*

**Table 1 – Bid Evaluation Criteria**

<i>Item No.</i>	<i>Description</i>	<i>Evaluation Criteria</i>
1	<i>Price Proposal</i>	<i>Prices, as set forth in the Bid Form, including all Goods and Special Services (Stages I through IV, inclusive)</i>
2	<i>20-year Present Worth Energy Cost</i>	<i>Cost will be determined by ENGINEER based on the operating pressures supplied by Bidder in Table 1, Section 00400.</i>
3	<i>20-year Present Worth Membrane Replacement Cost</i>	<i>Cost will be determined by ENGINEER, based on membrane replacement requirements specified by Bidder in Table 1, Section 00400. Includes module replacement cost and labor associated with installation.”</i>

Our evaluation of the bids received for the MFS procurement follows the bid evaluation criteria noted above.



**PRICE PROPOSAL (Bid Evaluation Criteria No. 1)**

The Base Bid for Goods and Special Services is the amount for which the Bidder offers to furnish the Goods and Special Services (Stage 1 through Stage IV, inclusive) identified to be provided on the Bid Form. The costs submitted by each bidder are summarized in the table that follows.

**Table 2 - Base Bid For Goods and Special Services (Bid Form, Page 3)**

Bid Item	Description	Qty	GE		Siemens		Pall	
			Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1	Stage I Work	1	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
2	Stage II Work							
2a	Membrane filtration system	1	\$2,508,120	\$2,508,120	\$2,198,570	\$2,198,570	\$2,234,900	\$2,234,900
2b	Manufacturer field services	1	\$115,584	\$115,584	\$93,287	\$93,287	\$70,000	\$70,000
3	Stage III Work: Support During System Performance Testing							
3a	Round-trip travel to site	5	\$2,268	\$11,340	\$2,000	\$10,000	\$1,500	\$7,500
3b	Service days on site	15	\$1,138	\$17,070	\$1,000	\$15,000	\$1,500	\$22,500
4	Stage IV Work: Long Term O&M Services							
4a	Round-trip travel to site	10	\$2,268	\$22,680	\$300	\$3,000	\$1,500	\$15,000
4b	Service days on site	20	\$1,138	\$22,760	\$1,120	\$22,400	\$1,500	\$30,000
<b>TOTAL BASE BID for Goods and Special Services</b>				<b>\$2,797,554</b>		<b>\$2,442,257</b>		<b>\$2,479,900</b>



**20-YEAR PRESENT WORTH ENERGY COST (Bid Evaluation Criteria No. 2)**

Electrical consumption rates for the membrane systems were provided by each bidder for present worth energy cost evaluation and guaranteed energy use. The 20-year present worth of the energy cost was determined in accordance with the bid evaluation criteria described in Table 1, which states “Costs will be determined by ENGINEER based on the operating pressures supplied by Bidder in Table 1, Section 00400”. The detailed analysis of energy present cost is presented in the memorandum “Evaluation: 20-year Present Worth Life Cycle Cost” (Appendix A), which includes the evaluation basis, data submitted from bidders and example calculations to illustrate the Engineer’s evaluation of the energy cost associated with each bid. The evaluation summary of this memorandum is presented below.

The relevant data from the three bids including operating pressures and daily feed flow, which were used as the basis for membrane filtration pumping energy calculations, are summarized in Table 3.

**Table 3 - Membrane Filtration Pumping Energy Basis**

<b>Parameter</b>	<b>Item Number in Table 1</b>	<b>GE</b>	<b>Siemens</b>	<b>Pall</b>
Clean TMP, psig	20a.	3.78	3	2.5
Maximum TMP, max at which cleaning is recommended ..., psig	20b.	11.5	21.7	25
Daily Feed Flow, gpd	59c.	6,301,970	6,161,585	6,161,696

Note: Line 1e of Table 1, page 00400A – 1, states that calculation of electrical use shall be based on an overall efficiency of 85 percent.

The Base Bid For Goods and Special Services, Page 4, Electrical Consumption Rates states:

*“The electrical consumption rates should be based on the required net filtration production capacity of 6 mgd, the average value of clean TMP and maximum TMP, and additional manifold pressure of 5 psi.”*

In accordance with this requirement, the membrane filtration pumping energy (kWh/day) was calculated by three equations listed below. The example calculations are based on data submitted with the Pall bid.



Equation 1. **Average of the clean TMP and maximum TMP**  
 $= (\text{Clean TMP} + \text{Max TMP})/2 = (2.5 + 25)/2 = 13.75 \text{ psi}$

Equation 2. **Pump head = average TMP + additional manifold pressure**  
 $= 13.75 \text{ psi} + 5 \text{ psi} = 18.75 \text{ psi}$

Equation 3. **Pump energy in kWh/day = head \* flow \* conversion factor / efficiency \* 24**  
 $= (18.75 \text{ psi}) * (6,161,696 \text{ gpd}/1440 \text{ min/day}) * (0.00043497) / 0.85 * 24$   
 $\text{hr/day} = 985 \text{ kWh/day}$

The Engineer's evaluation of the membrane filtration pumping energy cost based on the data submitted by each bidder results in the values being corrected (from the values that each supplier submitted with their bid) and a corresponding revision to the Present Worth of Energy Cost for all three bidders. The bids as submitted, and revised costs are presented in Table 4.

**Table 4 - 20-Year Present Worth Energy Cost**

Parameter	Item	GE		Siemens		Pall	
		As Bid	Corrected	As Bid	Corrected	As Bid	Corrected
Membrane Filtration Pumping Energy, kWh/day	(C)	426.71	679	894	912	657	985
Feed Recirculation Energy, kWh/day	(D)	NA	Unchanged	NA	Unchanged	17	Unchanged
Compressed Air System Energy, kWh/day	(E)	5.03	Unchanged	102.1	Unchanged	139	Unchanged
Backwash Pumping Energy, kWh/day	(F)	6.82	Unchanged	NA	Unchanged	8	Unchanged
Neutralization Waste Energy, kWh/day	(G)	8.21	Unchanged	1.8	Unchanged	1	Unchanged
Blower Energy, kWh/day	(H)	9.71	Unchanged	21.2	Unchanged	NA	Unchanged
Other Energy Use Required by System not specifically covered in above items, kWh/day	(I)	26.43	Unchanged	14.0	Unchanged	49	Unchanged
Total Energy Use, kWh/day = [(C) + (D) + (E) + (F) + (I)]	(J)	482.91	736	1,033	1,051	871	1,199
Total Present Worth Energy Cost = [(J) x 365 x 0.15 x 11.4699]	(M)	\$ 303,256	\$462,191	\$ 648,763	\$ 660,004	\$ 546,968	\$ 752,944





**20-YEAR PRESENT WORTH MEMBRANE REPLACEMENT COST (Bid Evaluation Criteria No. 3)**

As part of the bid package, each bidder was required to provide a unit price for a membrane module or element. The unit price for the membrane module was used as a basis for replacement cost of membrane modules after their useful life of 120-month. The present worth of each bidder’s membrane filtration system includes the cost to replace all of the installed membrane modules at the end of their warranty periods.

The unit price for a membrane module provided in the Bid Form will also be used as a basis for the prorated membrane replacement cost in the manufacturer’s warranty. Modules found to be defective after the 24<sup>th</sup> month of operation and ending after the 120<sup>th</sup> month of operation will be replaced by the manufacturer on a prorated basis. Modules found to be defective during the first twenty four months of service will be removed and replaced with new membrane modules by the manufacturer at no cost to the City.

The 20-year present worth of membrane replacement costs for the three bidders are summarized below in Table 5.

**Table 5 - 20-Year Present Worth Membrane Replacement Cost**

	<b>Item</b>	<b>GE</b>	<b>Siemens</b>	<b>Pall</b>
Total Number of Modules to be Installed	(A)	448	384	280
Replacement cost of membrane module or element, (\$/each)	(B)	\$1,025	\$1,070	\$1,200
Cost of Modules for Complete Replacement = [(A) x (B)]	(K)	\$459,200	\$410,880	\$336,000
Total Present Worth Membrane Replacement Cost = [0.5584 x (K)]	(L)	\$ 256,417	\$ 229,435	\$ 187,622

**TOTAL PRESENT WORTH (Base Bid + Energy PW + Membrane PW)**

Bidders were instructed that the Award of Contract will be based on the results of an evaluation process in accordance with Section 00400, Bid Form, Article 4, Basis of Award; Basis of Bid, Paragraph 4.01, which states:

*“The Contract will be awarded, if at all, to the Bidder that submits the complete, responsive Bid that provides the lowest Total Present Worth to the OWNER for the Goods and Special Services.*



*OWNER shall compute the Total Present Worth of each Bidder's proposal as follows: Bid for Goods and Special Services plus Present Worth of Membrane Replacement Cost plus Present Worth of Total Energy Use."*

A comparison of the Total 20-Year Present-Worth Costs is summarized in Table 6. The results show that the membrane filtration system with the lowest 20-year present worth life cycle cost is by Siemens. The present worth costs are based on Base Bids and operating costs discussed above.

**Table 6 –Total 20-Year Present Worth Cost**

	<b>Item</b>	<b>GE</b>	<b>Siemens</b>	<b>Pall</b>
Base Bid		\$2,797,554	\$2,442,257	\$2,479,900
Total Present Worth Membrane Replacement Cost	(L)	\$ 256,417	\$ 229,435	\$ 187,622
Total Present Worth Energy Cost	(M)	\$462,191	\$ 660,004	\$ 752,944
<b>Total Present Worth = [Base Bid + (L) + (M)]</b>		<b>\$3,516,162</b>	<b>\$ 3,331,696</b>	<b>\$ 3,420,466</b>

**SUMMARY AND FINDING**

This evaluation of the membrane filtration system was performed in accordance with the contract documents which specify a comparative evaluation process including both proposal prices and a 20-year present worth life cycle analysis of the proposed membrane system.

A summary of our evaluation and review is as follows:

- The Engineer's evaluation of the membrane filtration pumping energy cost results in the values being corrected (from the values that each supplier submitted with their bid) and a corresponding revision to the Present Worth of Energy Cost for all three bidders.
- Based on the total present worth analysis, Siemens has the lowest capital cost and the lowest 20-year present worth life cycle cost.
- Based on the technical information (Table 1) submitted, all three Bidders meet the intent of the Technical Specifications.



Black & Veatch finds that the Siemens Proposal provides the best overall value to the City while meeting the performance requirements outlined in the Technical Specifications.

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Appendix A

**MEMORANDUM**

Evaluation: 20-year Present Worth Life Cycle Cost

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**BLACK & VEATCH  
MEMORANDUM**

City of Paso Robles  
Water Treatment Plant Project  
Membrane Filtration System Procurement

B&V Project No. 148379  
B&V File B.1  
July 11, 2008

**Evaluation: 20-year Present Worth Life Cycle Cost, Rev. 1 – DRAFT**

To: Christine Halley

From: Steven Foellmi, P.E.  
Project Manager

Prepared by: Ron Henderson  
Scott Freeman  
Feng-Ying Chang  
Paul Kneitz

Bids for procurement of the Membrane Filtration System (MFS) for the Water Treatment Plant (WTP) project were opened on June 26, 2008. The purpose of this memorandum is to evaluate the 20-year present worth life cycle analysis for the equipment systems as bid by Siemens Water Technologies (Siemens), Pall Corporation (Pall) and GE Water Process & Technologies (GE).

**Background**

The Instructions To Bidders, Article 10 – Basis of Bids; Evaluation of Bids, paragraph 10.02, Bid Evaluation Criteria states:

*“Award of contract will be based on the results of a comparative evaluation process including proposal prices and 20-year present worth life cycle analysis of the proposed membrane system.”*

Article 10, Table 1, items 2 and 3 specify the method that will be used to evaluate the information provided by each bidder as follows:

**“Table 1 – Bid Evaluation Criteria**

<b>Item No.</b>	<b>Description</b>	<b>Evaluation Criteria</b>
1	Price Proposal	Prices, set forth in the Bid Form, including all Goods and Special Services (Stages I through IV, inclusive)
2	20-year Present Worth Energy Cost	Costs will be determined by ENGINEER based on the operating pressures supplied by Bidder in Table 1, Section 00400.
3	20-year Present Worth Membrane Replacement Cost	Costs will be determined by ENGINEER, based on membrane replacement requirements specified by Bidder in Table 1, Section 00400. Includes module replacement cost and labor associated with installation.”

**BLACK & VEATCH**  
MEMORANDUM

City of Paso Robles  
Water Treatment Plant Project  
Membrane Filtration System Procurement

B&V Project No. 148379  
B&V File B.1  
July 11, 2008

**Evaluation: 20-year Present Worth Life Cycle Cost, Rev. 1 – DRAFT**

Section 00400, Bid Form, Article 4, Basis of Award; Basis of Bid defines the specific method to be used to evaluate bids, and award the project in paragraph 4.01 as follows:

*“The Contract will be awarded, if at all, to the Bidder that submits the complete, responsive Bid that provides the lowest Total Present Worth to the OWNER for the Goods and Special Services. OWNER shall compute the Total Present Worth of each Bidder’s proposal as follows: Bid for Goods and Special Services plus Present Worth of Membrane Replacement Cost plus Present Worth of Total Energy Use.”*

The Base Bid For Goods and Special Services, Page 4, Electrical Consumption Rates further states:

*“The electrical consumption rates should be based on the required net filtration production capacity of 6 mgd, the average value of clean TMP and maximum TMP, and additional manifold pressure of 5 psi.”*

In the Bid Form Article 4, Basis of Award; Basis of Bid, Page 6, the final paragraph states:

*“ The undersigned Bidder hereby recognizes that all information input to Table 1 shall reflect the specifications of the actual system for which the Base Bid was prepared. Any errors or omissions in representing the system may be grounds for Bidder’s proposal to be ruled non-responsive. Upon identifying an error or omission, the OWNER reserves the right to correct the error or omission to reflect the actual system represented by other material within the Bid Package. Bidder shall provide calculations supporting the listed quantities in Table 1 with the Technical Information Submittal.”*

**Evaluation Summary**

Relevant data from the three bids that are being reviewed in this memorandum are presented in Table 1 below.

**Table 1. Membrane Filtration Pumping Energy Basis (Submitted With Bids)**

<b>Parameter</b>	<b>GE</b>	<b>Siemens</b>	<b>Pall</b>
20a. Clean TMP, psig	3.78	3	2.5
20b. Maximum TMP, max at which cleaning is recommended ..., psig	11.5	21.7	25
59c. Daily Feed Flow, gpd	6,301,970	6,161,585	6,161,696

**BLACK & VEATCH**  
MEMORANDUM

City of Paso Robles  
Water Treatment Plant Project  
Membrane Filtration System Procurement

B&V Project No. 148379  
B&V File B.1  
July 11, 2008

**Evaluation: 20-year Present Worth Life Cycle Cost, Rev. 1 – DRAFT**

Note: Line 1e of Table 1, page 00400A – 1, states that calculation of electrical use shall be based on an overall efficiency of 85 percent.

In accordance with the bid evaluation criteria presented in the contract documents, the Engineer determines the 20-year present worth of the energy cost based on the operating pressures supplied by the Bidders. Example calculations illustrating the Engineer's evaluation of the energy cost associated with each bid follows. The example calculations are based on data submitted with the Pall bid. Similar calculations were performed for Siemens and GE.

Equation 1. Average of the clean TMP and maximum TMP = (Clean TMP + Max TMP)/2 = (2.5 + 25)/2 = 13.75 psi

Equation 2. Pump head = average TMP + additional manifold pressure = 13.75 psi + 5 psi = 18.75 psi

Equation 3. Pump energy in kWh/day = head \* flow \* conversion factor / efficiency \* 24 = (18.75 psi) \* (6,161,696 gpd/1440 min/day) \* (0.00043497) / 0.85 \* 24 hr/day = 985 kWh/day

Equation 4. Total energy use = total energy bid – pump energy bid + pump energy calculated = 871 – 657 + 985 = 1199 kWh/day

Equation 5. Present worth for energy = energy use in kWh/day \* 365 days/yr \* 0.15 \$/kWh \* 11.4699 (P/A for 6% and 20 yrs) = 1199 kWh/day \* 365 \* 0.15 \* 11.4699 = \$ 752,944

Equation 6. Increase in present worth for energy = (present worth for energy calculated) – (present worth for energy submitted with bid) = \$ 752,944 – \$ 546,968 = \$ 205,976

Equation 7. Corrected total present worth = (increase in present worth for energy) + (total present worth submitted with bid) = \$ 205,976 + \$ 3,214,490 = \$ 3,420,466

**Summary**

Our evaluation of the vendor-supplied data concludes the following:

1. The Pall bid evaluation should include a Membrane Filtration Pumping Energy of 985 kWh/day, which results in a Total Energy Use of 1,199 kWh/day and a Total Present Worth of \$ 3,420,466.

**BLACK & VEATCH**  
MEMORANDUM

City of Paso Robles  
Water Treatment Plant Project  
Membrane Filtration System Procurement

B&V Project No. 148379  
B&V File B.1  
July 11, 2008

**Evaluation: 20-year Present Worth Life Cycle Cost, Rev. 1 – DRAFT**

2. The Siemens bid evaluation should include a Membrane Filtration Pumping Energy of 912 kWh/day, which results in a Total Energy Use of 1,051 kWh/day and a Total Present Worth of \$ 3,331,696.
3. The GE bid evaluation should include a Membrane Filtration Pumping Energy of 679 kWh/day, which results in a Total Energy Use of 736 kWh/day and a Total Present Worth of \$ 3,516,162.

The Engineer’s evaluation of the membrane filtration pumping energy cost based on the data submitted by each bidder results in the values being corrected (from the values that each supplier submitted with their bid), and a corresponding revision to the Present Worth for Energy cost and the overall Total Present Worth cost for the three bidders. The bids as submitted, and revised costs are presented in Table 2 that follows.

**Table 2. Bid Evaluation Summary**

Parameter	GE		Siemens		Pall	
	As Bid	Corrected	As Bid	Corrected	As Bid	Corrected
Total Base Bid	\$ 2,797,554	Unchanged	\$ 2,442,257	Unchanged	\$ 2,479,900	Unchanged
Membrane Filtration Pumping Energy, kWh/day	426.71	679	894	912	657	985
Feed Recirculation Energy, kWh/day	NA	Unchanged	NA	Unchanged	17	Unchanged
Compressed Air System Energy, kWh/day	5.03	Unchanged	102.1	Unchanged	139	Unchanged
Backwash Pumping Energy, kWh/day	6.82	Unchanged	NA	Unchanged	8	Unchanged
Neutralization Waste Energy, kWh/day	8.21	Unchanged	1.8	Unchanged	1	Unchanged
Blower Energy, kWh/day	9.71	Unchanged	21.2	Unchanged	NA	Unchanged
Other Energy Use Required by System not specifically covered in above items, kWh/day	26.43	Unchanged	14.0	Unchanged	49	Unchanged
Total Energy Use, kWh/day	482.91	736	1,033	1,051	871	1,199
Present Worth: Energy	\$ 303,256	\$462,191	\$ 648,763	\$ 660,004	\$ 546,968	\$ 752,944
Present Worth: Membrane Replacement	\$ 256,417	Unchanged	\$ 229,435	Unchanged	\$ 187,622	Unchanged
<b>Total Present Worth</b>	<b>\$ 3,357,227</b>	<b>\$3,516,162</b>	<b>\$ 3,320,455</b>	<b>\$ 3,331,696</b>	<b>\$ 3,214,490</b>	<b>\$ 3,420,466</b>



**BLACK & VEATCH**  
MEMORANDUM

City of Paso Robles  
Water Treatment Plant Project  
Membrane Filtration System Procurement

B&V Project No. 148379  
B&V File B.1  
July 11, 2008

**Evaluation: 20-year Present Worth Life Cycle Cost, Rev. 1 – DRAFT**

The method for evaluation and selection of the membrane filtration system is defined in the contract documents which specify a comparative evaluation process including both proposal prices and a 20-year present worth life cycle analysis of the proposed membrane system. Each bidder is to submit information with their bid. The Engineer has the responsibility in the contract documents to evaluate the data and determine the 20-year present worth cost.

**Linda R. Beck**  
Attorney at Law

Oakland Office  
510.273.8780 tel  
510.839.9104 fax  
lbeck@mhalaw.com

July 22, 2008

**VIA FACSIMILE TO 516.484.3216**

Thomas Paschmann, Sr. Vice President  
Pall Water Processing  
25 Harbor Park Drive  
Port Washington, NY 11050

Re: City of Paso Robles - Membrane Filtration System

Dear Mr. Paschmann:

This firm represents the City of Paso Robles. The City has forwarded your letter dated July 18, 2008 to this office for response.

After reviewing the statements in your letter, it appears that Pall is contesting the method of calculating the low bid specified in the contract documents rather than the engineer's calculations. Public agencies are required to comply with their own bid documents in awarding contracts. See Pozar v. Department of Transportation (1983) 145 Cal.App.3d 269. The City has confirmed that the bid adjustments were made and the bids were evaluated in accordance with the contract documents. The City could not change the bid evaluation process at this point even if it were inclined to do so. We note that Pall submitted two bids to the City without raising this issue. Accordingly, the City will proceed with the award of the contract as provided in Doug Monn's letter dated July 16, 2008.

I enclose a copy of the City's Public Records request form for your use. Please complete and return the form to the City at your earliest convenience.

Sincerely,



Linda R. Beck

LRB:mag

Enclosure

cc: Doug Monn

1115170v1 32866/7000

RESOLUTION NO. 08-XX

A RESOLUTION OF THE CITY COUNCIL OF THE  
CITY OF EL PASO DE ROBLES  
AWARDING THE MEMBRANE FILTRATION SYSTEM CONTRACT TO  
SIEMENS WATER TECHNOLOGIES CORPORATION

WHEREAS, the City Council of the City of El Paso Robles has previously entered into a contract with Black & Veatch Associates for the design of a water treatment plant; and

WHEREAS, the City directed Black & Beatch to proceed with advanced procurement of membranes for the treatment plant on its behalf to facilitate design and construction of the project; and

WHEREAS, bids were received on June 26, 2008, from three membrane filtration system suppliers for the contemplated work, and

WHEREAS, Siemens Water Technologies Corporation submitted the lowest responsive bid to the City;

THEREFORE BE IT HEREBY RESOLVED by the City Council of the City of El Paso de Robles to approve the appropriation of \$100,000 from the Nacimiento Water Fund (No. 226.910.5452.544) to Nacimiento Water Treatment (No. 229.910.5452.544), and authorize the City Manager to enter into a contract with Siemens Water Technologies Corporation in that amount and to authorize assignment of the Stage II Work to the general contractor at the time of such award.

PASSED AND ADOPTED by the City Council of the City of Paso Robles, this 5<sup>th</sup> day of August 2008 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

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Frank R. Mecham, Mayor

ATTEST:

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Deborah D. Robinson, Deputy City Clerk