

**SELMA-KINGSBURG-FOWLER
COUNTY SANITATION DISTRICT
MINUTES OF THE MEETING OF THE
TECHNICAL ADVISORY COMMITTEE**

MEMBERS ROLL CALL

Darren Hays, Kingsburg (present)
Alan Weaver, County of Fresno (present)
City of Selma (vacant)
David Weisser, City of Fowler (present)

STAFF AND CONSULTANTS PRESENT

Ben Muñoz, Interim General Manager
Robert Whitley, Consulting District Engineer
Veronica Cazares, Supervising Engineer
Scott Aguiar, Plant Operations Supervisor
Gabriel Jimenez, Asst. Plant Operations Supervisor
Dave Bacon, Information Systems Analyst

OTHERS PRESENT

Norman Krebs, Kingsburg Resident

APPROVAL OF MINUTES

There being no comments from the public, the minutes of the meeting of July 16, 2008, were approved on a motion duly made, seconded and approved by unanimous vote of all members present.

PUBLIC COMMENTS

Norm Krebs of Kingsburg asked what the clarifier capacity is after the repair of the draft tube elbows. Bob Whitley responded that the capacity is that which was reported in a report prepared by WBA.

Interim General Manager Muñoz, proceeded to explain what was wrong with the elbows and the corrective action taken. Preventive maintenance still needs to be done.

It was also stated that the hydraulic conditions of the draft tubes was improved at a lower cost than estimated in the clarifier performance evaluation. Through the investigative process carried out by Operations and Maintenance staff the deficiency in the draft tube elbows was determined and repaired accordingly by the Maintenance Department.

Since the corrective work on the draft tubes Operations has been operating the plant with three clarifiers for most of the canning season. Again it was mentioned that there are some other corrective measures that need to be completed.

UNFINISHED BUSINESS

None.

NEW BUSINESS

Operational Audit Report Reviewed by Interim General Manager Muñoz

Interim General Manager Muñoz, summarized the major findings in the EGI report. He did not touch on two topics, which are the staffing levels at the District and vehicles. The Board previously reviewed the staffing levels and organization at a prior meeting and Directors Cardenas and Bergstrom are tasked to review the vehicles and there usage later this month.

Interim General Manager Muñoz stated, that the EGI report was very critical and touched on the following topics:

The Eisenhardt Group, Inc. (EGI) report stated that the “overall O&M practices and procedures utilized by SKF staff are consistent with approaches utilized at other utilities. However, significant improvements in operational efficiency, treatment reliability, energy management, and maintenance should be able to be obtained through better usage of existing systems (process control & maintenance) and development of increased automation and SCADA control capabilities”.

The following are EGI findings:

1. SKF has significantly higher BOD & TSS loadings (mg/l) than other utilities but does not achieve the same level of efficiency & effectiveness in the treatment of these waste streams as measured by the amount of BOD or TSS treated per electrical Kwh.
2. SKF’s power usage (Kwh / avg.day) far exceeds the usage at other facilities whether the assessment is against comparable BOD & TSS loadings or against larger sized utilities treating larger BOD & TSS loads.
3. SKF’s vehicles far exceed other utilities when compared on MGD size, comparable services areas, and / or comparable miles of collection system.
4. SKF’s usage of automation and SCADA control does not match the indicated capabilities and usage at the benchmarked facilities.
5. Budgetary preparation and usage of reported information appeared to be very centralized activity with little direct input or feedback provided to the supervisory level within the organizational structure.

Interim General Manager Muñoz stated, that the PG&E energy report went hand and hand with the EGI report as far as treating BOD and TSS more efficiently. He also noted, that staff has been conducting research for efficient and effective technologies to treat the wastewater. Currently, staff is pilot testing a brush aerator for aerobic digester 1.

Interim General Manager Munoz’s recommendations are as follows:

SKF benefits from a relatively low \$/Kwh utility energy charge, however the Plant's total energy bill is comparatively high, largely as a result of using aerobic digestion for solids stabilization. The high strength industrial and commercial loads (measured as BOD and TSS) received by the SKF facility that creates additional treatment and electric power consumption requirements. In August 2007, PG&E performed an Integrated Energy Audit on the SKF facility. The PG&E Energy Audit report identified, analyzed, and will serve as a "roadmap" for defining and implementing cost effective energy efficiency and modernization measures, demand response opportunities, as well as any potential for self-generation. The energy efficiency measures are as follows:

1. Install lighting controllers throughout the facility.
2. Install an automated dissolved oxygen (DO) control system, variable frequency drives and higher efficiency fine bubble diffusers and blowers on Aeration Basin No. 2 & 3.
3. Install an automated DO control system, variable frequency drives and higher efficiency blowers on Aerobic Digester 1 & 2.
4. Install an automated DO control system, variable frequency drives and higher efficiency surface mixers on Aerobic Digester 3 & 4.

The total implementation cost of the energy efficiency opportunities (EEOs) of the above project could save an estimated 3,263,566 Kwh of electrical energy each year, or 32.9% of the facility's total electrical energy consumption. These estimated electrical energy and demand savings translate into a total cost savings of \$308,087 per year. The total potential incentives and rebates for these measures are estimated to be \$205,115. PG&E total estimated implementation cost is \$726,948 giving an average simple payback of 2.4 years. The PG&E estimated implementation cost seems low to me, but it deserves further consideration.

Other suggested improvements are to the secondary clarifiers, dissolved air flotation (DAFT) unit and improvement to the operating procedures. SKF staff has made some modifications to the return sludge withdrawal tubes located in the center-well of clarifiers 1 & 2, which have improved the sludge withdrawal rates over a variety of operating conditions. Bob Whitley and operations staff are conducting a field test to determine the upper flow capacity of the DAFT unit. It is possible with the improved operating procedures and some modifications the total capacity of the secondary clarifiers and the DAFT unit will exceed an equivalent Plant flow of 6.3 MGD.

SKF staff has recommended the implementation of Supervisory Control and Data Acquisition (SCADA) with each future CIP project. SCADA will provide better monitoring and control of plant operations, improve cost effectiveness, and is considered the standard practice for well-run treatment plants. SCADA control will also reduce process upset risks during hours when the facility is not staffed with duty operators on-site.

The above-mentioned items are covered under the 10-year CIP.

Interim General Manager Muñoz recommends the implementation of a ten years Capital Improvement Program (CIP). The development of a CIP will insure sound fiscal and capital planning requires

effective leadership and the involvement and cooperation of all District departments. (Attached is a manual on implementing a Capital Improvement Program).

Lastly, Interim General Manager Muñoz recommended developing a Capital Improvement Program (CIP). A complete, properly developed CIP has the following benefits:

A complete, properly developed CIP has the following benefits:

- **Facilitates coordination between capital needs and the operating budget.**
- **Enhances the District's credit rating, control of its fee rates, and avoids sudden changes in its debt service requirements.**
- **Identifies the most economical means of financing capital projects.**
- **Increases opportunities for obtaining federal and state aid.**
- **Relates public facilities to other public and private development and redevelopment policies and plans.**
- **Focuses attention on cities objectives and fiscal capacity.**
- **Keeps the public informed about future needs and projects.**
- **Coordinates the activities of neighboring and overlapping units of local government to reduce duplication.**
- **Encourages careful project planning and design to avoid costly mistakes and help the District reach its Mission Statement and goals.**

S-K-F CSD MISSION STATEMENT

- 1) - Operate and maintain the District facilities so that local, state and federal waste discharge requirements are complied with and the public health and environment are protected.
- 2) - Provide adequate capacity to convey, treat and dispose of all wastewater so that the District can adequately serve the developing needs of its member cities and the surrounding area.

- 3) - Operate and maintain District facilities so that annual costs are reduced to the lowest possible level that will safely sustain compliance with discharge requirements.

In summary the EGI report identified 4 areas of needed improvements, which included operational efficiency, treatment reliability, energy management, and maintenance. The Interim General Manager Muñoz and Operations Staff have confirmed that the treatment plant is able to treat in excess of 6.3 MGD with the new improved operations procedures and implementation of the above suggested improvements.

Prior to the EGI report Interim General Manager Muñoz was overburdened with administrative duties. Since January 2008 he has become more engaged with the Operation of the plant. This has allowed him to access needs and ideas, because there are a lot of ideas out there.

Alan Weaver asked if the CIP program covered maintenance and encourages all staff to provide input. Interim General Manager Muñoz replied that the CIP program allows for coordination with maintenance, operations, engineering and the AGM encourages input from all staff. The Supervisor who recommends a project is more responsible.

Bob Whitley commented that the CIP program provides for more structure to how the CIP is developed and adds more documentation, but it will take more administrative time and discipline amongst the staff. He endorses what Interim General Manager Muñoz put together. He was concerned on how the District will transition into the CIP program with the existing 10-year CIP. Interim General Manager Muñoz stated, the CIP program allows for additions, deletions, or modifications to a project and should be reviewed on an annual basis.

Interim General Manager Muñoz, was the coordinator of a similar program for the City of Dinuba which included projects for streets, sewer, fire, police, recreation, and water.

Alan Weaver suggested that the implementation start out rigorous and then streamline the process in proceeding years. He also suggested coordinating with city representatives and planners of each of the member cities.

Norm Krebs, Kingsburg, commented that Interim General Manager Muñoz did not address two other critical areas of the EGI report, which are that there are too many vehicles and employees. The Board previously reviewed the staffing levels and organization at a prior meeting and Directors Cardenas and Bergstrom are tasked to review the vehicles and their usage later this month. Therefore, Interim General Manager Muñoz did not revisit the above-mentioned items.

Also, Bob Whitley mentioned that the Board adopted the fiscal year budget which supports the current staffing level.

Norm Krebs supports the CIP program and thinks it is excellent, but still believes that the dollars per pound of BOD will not go down due to the number of employees, and that there are too many employees, and that the organization needed to be flattened out.

Interim General Manager Muñoz, reiterated that Mayor Bergstrom evaluated the staffing levels and organizational chart. However, staffing levels may be re-evaluated in the future due to the implantation of a SCADA system, and other technologies for a well run plant.

It was suggested that the CIP program be implemented as a managerial practice or procedure. Alan Weaver suggested that the CIP program be given to the Board for information purposes only. The CIP program and other recommendations made by the Interim General Manager received the consensus of DTAC.

Solar Energy – Request Proposals for Power Purchase Agreement

David Bacon, Information Services Technician, reported the background of the solar power project. The Districts PG&E rate averages 10 cents/kwh and the integrators that have been in contact with the District rate ranges from 12-13 cents/kwh. Five integrators are pre-qualified out of 100 interest letters that were sent out by the District. The City of Fresno Airport had a two phased project with the following rates 18.5 cents/kwh and 14 cents/kwh and there is an escalation that would be applied over the 20 year term.

The PG&E rates are stable and there has been no indication from PG&E that there is going to be a rate increase.

A member asked if PG&E would be interested in doing a solar project with the District, but they are not interested.

Some other concerns on the solar project is that the District would be locking up 7 acres of District owned land and cost of investment. This project would also be a liability to the District and would factor against bonding capacity.

Alan Weaver suggested that a letter be sent out to the pre-qualified integrators asking them to guarantee a competitive rate with PG&E or a schedule of rates over a 20 year period, but to make sure that the letter is documented in such a way that the District will not accept any deviations from the rate schedule and report back to the Board.

Bob Whitley mentioned that the letter should not read like an agreement for services.

COMMUNICATIONS

Alan Weaver wants the Interim General Manager Muñoz to remind Selma that DTAC needs a representative from the City.

ADJOURNMENT

There being no further business to come before the Committee, Chairman Weaver declared the meeting adjourned on a motion duly made, seconded and approved by unanimous voice vote at 11:20 a.m.

Respectfully submitted,

Approved,

Ben Muñoz, Jr., Interim General Manager/
Secretary of the Committee

Alan Weaver, Chairman
SKF Technical Advisory Committee