

TRIBUTARY TRIBUNE

T. Marzetti Saves Water When Cooling

T. Marzetti Company is a food products manufacturer in Milpitas. Specifically, they mix and package various salad dressings. In the process large kettles are used to mix and cool the product mixture. Previously, these kettles were cooled using a single pass of city water through the outer sleeve of the starch kettle.

While planning major capital improvements to their waste treatment system in the summer of 2000, T. Marzetti was able to identify an opportunity to invest in future savings. Their **Water Efficient Technologies** project consists of a closed-loop cooling system for the starch cooling process. Water for the outer sleeve of the kettle is now supplied by a chiller system, which in turn uses a cooling tower to keep the closed-loop of water cool. The city water connection

to the kettle and the discharge line from the kettle remain, but they are only to be used in the event that the closed-loop system is not operating. The cooling tower has virtually no blowdown and requires minimal makeup water for evaporation.

T. Marzetti used flow-meter readings to demonstrate flow savings. 1999 readings for the meter on the city water feed to the kettle were used to demonstrate baseline discharge for the process. Since this flow is essentially reduced to zero with the implementation of the closed-loop system, the baseline readings were used as the savings calculation.

The project was completed by March of 2001. During the first two months, there were a couple of instances in which the old system of cooling was employed. T. Marzetti cited system

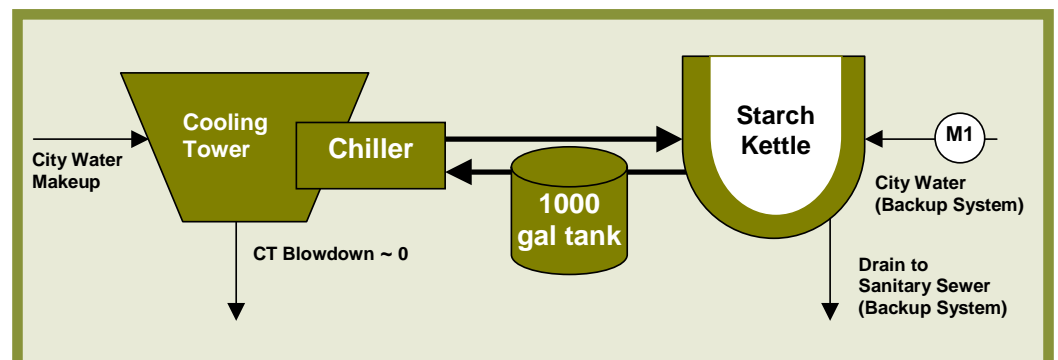
troubleshooting and unfamiliarity of operators with the new system. They affirm that such start-up issues are not indicative of ongoing operations.

Installation of this system delivered big savings. By using a closed-loop system to manage their cooling needs, T. Marzetti is saving **24,000 gallons of water each day**. Their investment in the closed-loop cooling system totaled approximately \$270,000. By participating in the WET program, they received a **rebate of \$47,000**. In addition to that instant savings, the company also realizes ongoing savings on their water and sewer bills.

To find out how your company can participate in **Water Efficient Technologies**, contact us at **(408) 945-3700** or visit our website at www.slowtheflow.com

www.ci.san-jose.ca.us/esd

The **Tributary Tribune** serves the cities of San José, Santa Clara, Milpitas, Cupertino Sanitary District, West Valley Sanitation District (including Campbell, Los Gatos, Monte Sereno, Saratoga), County Sanitation Districts 2-3, Sunol & Burbank Sanitary Districts



Completing the Self Monitoring Report

Completing the Self Monitoring Report Form

This article is an overview on filling out a Self Monitoring Report (SMR) form properly. With this newsletter, you will find an insert, with a blank SMR form on one-side and a properly completed SMR on the other.

General requirements

All permitted Industrial Users must regularly submit SMRs, even if no wastewater is discharged in the reporting period. The requirements for self-monitoring are described in your wastewater discharge permit on pages 4-6. You must also submit the original laboratory report with the SMR form, and other supporting documents as required on page 5 of your permit.

Complete one SMR form for *each sample point* for which sampling is required; sample points are described on page 6, Section B.2 of your permit. Also, if multiple samples are collected and analyzed from a sample point, complete one SMR form

for *each sample result* during the reporting period.

For the top section of the SMR form

Fill in the legal company name and discharge address, permit number, and SMR due date. SMRs are always due in our office on or before the last day of the months listed on page 4 of the permit. Be sure to put the SMR in the mail, fax it or hand deliver it (office hours are M-F 8a.m. to 5p.m.) on or before the due date. Even if your contract lab forgets to collect the samples or send you the sample results, you are required to submit your report, as completely as possible, by the SMR due date.

Enter information about when the sample was collected (use the ending date for a composite sample spanning 2 calendar days) and by whom (contract lab name, for example). Enter the sample point description, such as final sample point, consistent with page 6 of your permit.

For the section titled Analytical Results

Each contract lab sends reports with the information formatted in slightly different ways. When reading the lab report, what is sampled for (the parameter) will be listed along with a detection limit for that particular parameter. Sometimes this is listed on the lab report as MDL (method detection limit), PQL (practical quantitative limit), or as DL (detection limit). This is the lowest amount that the lab can detect and goes in the SMR column titled *Det. Limit*. Concentration is the amount of each parameter found in the sample and goes in the SMR column titled *Conc.* If the contract lab did not detect or quantify any amount of the parameter, enter the *Det. Limit value* with a "less than" sign (e.g., "<0.05" if the detection limit was 0.05 mg/l) or with a negative sign ("-0.05") in the appropriate space in the *Conc.* column. Please do not use "n/d" or "not detected" in the *Conc.* column.



The next SMR column is for marking "G" for a grab sample or "C" for a composite sample. Complete each row for each parameter analyzed. The units should be in mg/l; your lab may report in µg/l, which must be converted to mg/l unless you list the units. Your lab may also list the local discharge limit for each parameter; do not transcribe that information to the SMR form.

For the section titled Flow Data

The Wastewater Discharge Permit requires the reporting of average daily flow (ADF) and maximum daily flow (MDF) for the period of the report. That period may be for one month, two months, or six months, depending on the SMR frequency requirement for your particular company (see page 4 of the permit). Do not try to report daily flow measurements through the SMR due date; set a regular data collection period that ends prior to the due date.

You will have to do some calculations to determine the ADF for the report period. If your company has an effluent flow meter requirement, record daily readings *in gallons*, then subtract each production day's reading from the next production day's reading, and so on for the SMR period. Each of these daily totals will be averaged for the period to determine



average daily flow in gallons per day. The MDF is simply the highest production day's flow.

The "process name" should be descriptive of what is being measured and how (e.g. influent meter to wet processes, effluent meter from plating building, etc.). It is generally not necessary to break down processes to sub steps, but you may be required to report on a number of major process water measures. Be sure to clearly report "total to sewer" at the end of the form. Enter the appropriate calculated average and the maximum daily flows to the sanitary sewer in the boxes provided. Although you may be required to submit copies of water use logs or water bills, you still must submit water use calculations.

For the section titled Certification Statement

The preparer signs and dates the form. A responsible corporate officer or owner of the business must also sign and date the form in the appropriate place, even if they are the preparer. The "Certified By" signer must be someone responsible for the operations; there are restrictions as to who has signatory authority. See pages 10 and 11 of your permit for a description of Signatory Requirements.

We hope this article has been useful for you. Please ask your inspector for help with questions about your company's specific requirements. The SMR form is available on the web at www.ci.san-jose.ca.us/esd/eeforms.htm ("Self monitoring Report").

Quick Tips

- *Mark your calendars 12 months in advance and keep blank forms or the web address handy.*
- *Collect samples early in the reporting period.* For a semiannual SMR due in July, you could collect the sample in March.
- Report gallons per *working day* (days you are in production), not calendar day, when reporting average and maximum daily flows for the reporting period.
- Do not write "see attached" on the form in reference to flows, sample results, or other information. *Fill out the SMR form completely.*
- If someone other than an owner or responsible manager signs, *proper documentation must have been previously submitted for our files*, stating authority has been delegated to the signer.
- If your sample results show a violation, *check* the appropriate box & *attach* a written explanation. Do not wait until the SMR due date to inform us of the violation; call your inspector **immediately** or you may be cited for "failure to notify."
- Do not forget your attachments. *If anything is missing from your SMR report, attach an explanation saying when we will receive it and send the missing attachment(s) promptly.*

Water Efficient Technologies (WET) Program Update

WET Goes Countywide

For four years, the Santa Clara Valley Water District has helped to support our Water Efficient Technologies program by reimbursing the San Jose/Santa Clara Water Pollution Control Plant for half of all program rebates.

Now the District has expanded the program to the entire Santa Clara County. The program is virtually the same, still offering rebates of up to **\$50,000** per project.

For more information on getting **WET** in Sunnyvale, Palo Alto, Mountain View, Gilroy, Los Altos, and Morgan Hill, call **(408) 265-2607 x2554**.

Coming Soon! - Water Efficiency Workshop

The City of San José Environmental Services Department's Watershed Protection Division is currently putting together a **Water Efficiency Workshop**, which is scheduled for **spring 2002**.

The main focus of this one-day workshop will be on flow reduction technologies and processes. Technical presentations, case studies, and a vendor's showcase will be part of the workshop.

The Environmental Services Department also expects to introduce a new Cooling Tower Guideline to encourage companies to

maximize water efficiency in cooling towers by optimization, reuse of on-site process water, or use of South Bay Water Recycling (SBWR) water.

Don't miss this opportunity to hear success

stories, learn new technologies and interact with peers, vendors and regulators.

Look for future notices in the Tributary Tribune and other direct mailers in early 2002.



City Comments on Proposed MP&M Rule

In accordance with the Americans with Disabilities Act, City of San José Environmental Services Department materials can be made available upon request in alternative formats, such as Braille, large print, audio-tape or computer disk. Requests may be made by calling (408) 277-5533 (Voice) or (800) 735-2929 (CRS).



In January 2001, the U.S. EPA proposed a new pre-treatment category in an attempt to establish different pretreatment standards for facilities doing metal products and machinery (MP&M) work. EPA defines the MP&M industry as facilities that manufacture, rebuild, or maintain metal products, parts, or machines. This includes industries that were previously covered by existing Electroplating (40 CFR 413) and Metal Finishing (40 CFR 433) effluent guidelines. As part of the public comment process for proposed rulemaking, City comments were submitted to U.S. EPA.

The City compared sampling data from our 29 Group 1 Dischargers for the years 1999 and 2000 to the MP&M Existing Source discharge limits. The comparison indicated that an additional 379 daily maximum and 409 monthly average violations would have occurred. Under existing regulations these same 29 companies have had 6 daily maximum violations and 2 monthly average violations over the same two-year period. The number of potential violations previously mentioned does not include the 170 Group 2 Dischargers, which would also be subject to the new MP&M regulations.

The potential costs of implementing and enforcing the limits in the proposed MP&M rule are extensive and appear unnecessary because existing local limit requirements have been very effective in regulating the pollutant loading from industrial sources.

Because of the extensive comments sent to EPA from various associations and municipalities, EPA is now showing interest in using the Strategic Goals Program (www.strategicgoals.org) as an alternative replacement of the entire MP&M rule.

www.ci.san-jose.ca.us/esd

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