Encina Wastewater Authority
Annual Pretreatment Program Report

Table of Contents

Program Summary

The Encina Wastewater Authority (EWA) operates an approved pretreatment program in North San Diego County. EWA is a joint powers authority consisting of six member agencies: the Cities of Vista, Carlsbad and Encinitas, as well as the Vallecitos Water District, the Buena Sanitation District and the Leucadia Wastewater District. The Encina System is comprised of the collection, treatment and disposal facilities of its member agencies including: the Encina Water Pollution Control Facility, the Shadowridge Water Reclamation Facility (currently non-operational), the Gafner Water Reclamation Facility, the Meadowlark Water Reclamation Facility, the Carlsbad Water Recycling Facility and the Encina Ocean Outfall.

The EWA service area encompasses a population in excess of 300,000 and covers a 125 square mile area. This area is predominantly characterized by residential development. At the end of 2008, the industrial flow to EWA (.212 MGD) represented only 0.82% of the average daily influent (25.92 MGD). It is anticipated that the percentage of industrial flows will remain low due to continued residential growth in the service area.

During 2008, there were no incidents of upset or pass-through at EWA attributed to industrial users. All monitoring of the Encina Ocean Outfall and receiving water demonstrated compliance with regulatory standards.

At the end of 2008, EWA had 60 permitted Industrial Users (IUs): 24 Categorical Industrial Users (CIUs), 4 Non-categorical Significant Industrial Users (SIUs) and 32 Class III Industrial Users (Non-Significant CIUs, zero-discharge CIUs and other businesses with the potential to impact the Encina System). EWA staff conducted 59 inspections and collected 141 samples in the CIU/SIU categories. Additional inspections and sampling of Class III IUs were also conducted. Laboratory data confirm that the Best Management Practices (BMP) Program implemented during 1999 and 2000 has been effective overall in reducing the level of pollutants discharged to the Encina System.

EWA maintains a proactive enforcement stance. During 2008, 35 Notices of Violation (NOVs) were issued and $21,872 in fines and enforcement costs were assessed. Six of the 31 CIU/SIUs in the service area during the year were found to be in Significant Non-Compliance (SNC). Two of these industries have ceased discharge, while the others have implemented operational changes to help prevent future violations.

No significant changes were made in the operation of EWA's Pretreatment Program during 2008. A Domestic Sewage Study was completed and a contract will be awarded in February 2009 to provide consulting services for a Local Limits Study.

Summary of Analytical Results

The data required in this section has been reported in both tabular and graphical form in the *Encina Water Pollution Control Facility and Ocean Outfall, 2008 Annual Self-Monitoring Report, for Order No. R9-2005-0219, NPDES Permit No. CA0107395.* This report was submitted to Mr. John Robertus of the San Diego Regional Water Quality Control Board, Surface Water Unit. All data is incorporated herein and can be referenced using the following table. A full priority pollutant scan is attached in Appendix A.

Upset, Interference or Pass-through Incidents

During 2008, EWA experienced foaming at an upstream pump station and the plant influent turned blue. The source of these events was determined to be Hocking International, a detergent manufacturer and dye blender. Although these events did not result in plant upset or pass-through, enforcement actions were taken (see pages 5-6) to help prevent further occurrences. There were no other incidents of upset, interference or pass-through at EWA, attributed to industrial users.

All regularly scheduled monitoring at the ocean outfall demonstrated that EWA's effluent quality remains consistent and meets or exceeds regulatory standards. Receiving water monitoring during 2008 also met compliance standards.

Industrial Users

At the end of 2008, EWA had 60 permitted IUs: 24 Categorical Industrial Users (CIUs), 4 Non-categorical Significant Industrial Users (SIUs) and 32 Class III Industrial Users (Non-Significant CIUs, zero-discharge CIUs and other businesses with the potential to impact the Encina System). The industrial contribution to EWA from CIUs/SIUs (.212 MGD) as a percentage of the average daily influent (25.92 MGD) is only 0.82%. It is anticipated that the percentage of industrial flows will remain low due to continued residential growth in the service area.

Appendix B contains a list of all SIUs along with: federal category, if applicable; type of pretreatment in place; the number of inspections conducted; the number of samples collected by EWA; the number of samples collected by the IU; the number of violations; the IU's compliance status by quarter; whether all Total Toxic Organics (TTO) certifications or monitoring data were submitted; and a summary of any enforcement actions taken. Below is a list of additions, changes of status and deletions that occurred during the year.

Additions

- Hocking International – Vista, California - A new Class I permit was issued to this facility in February, which is subject to 40 CFR Part 417.
- Orthodontic Design & Production - Vista, California – A new Class I permit was issued to this facility in November, which is subject to 40 CFR Part 464.
- Tech M3 – Vista, California - A new Class I permit was issued to this facility in December, which is subject to 40 CFR Part 433.

Changes of Status

- General Electronic Devices – San Marcos, California - This business, which is subject to 40 CFR Part 469, was reclassified as a NSCIU. A new Class III permit was issued in March.
- Natureceutical International - Vista, California – This business, which is subject to 40 CFR Part 439, was reclassified as a NSCIU. A new Class III permit was issued in July.
- Ortho Organizers – Carlsbad, California – This business was re-categorized from Metal Finishing (40 CFR Part 433) to Nonferrous Metal Forming (40 CFR Part 471) Pretreatment Standards. A new Class I permit was issued in August.

Deletions

- Life Laboratories - Carlsbad, California – This business closed in December and their permit was rescinded.

Appendix C contains a list of industries that EWA has designated as Non-Significant Categorical Industrial Users (NSCIUs) based on their limited ability to impact the Encina System (discharge less than 100 gallons per day, never discharge concentrated wastestreams, and have demonstrated compliance with applicable discharge limits.) EWA continues to perform annual inspections of these businesses and each industry must submit semiannual certification statements that they continue to meet the NSCIU criteria.

Baseline Monitoring Report Requirements

Hocking International was issued a Class I permit in February. They manufacture detergents and are subject to 40 CFR Part 417. Baseline monitoring demonstrated compliance with Detergent Manufacturing Pretreatment Standards and EWA local limits. Subsequent monitoring during the year (15 sampling events) identified one oil & grease violation.

Orthodontic Design & Production was issued a Class I permit in November. They manufacture orthodontic devices and are subject to 40 CFR Part 464. Baseline monitoring and two subsequent sampling events demonstrated compliance with Ferrous Casting Pretreatment Standards and EWA local limits.

Tech M3 was issued a Class I permit in December. They manufacture motorcycle rotors and are subject to 40 CFR Part 433. Baseline monitoring demonstrated compliance with Metal Finishing Pretreatment Standards and EWA local limits.

Enforcement Activities

EWA maintains a proactive enforcement stance. During 2008, 35 Notices of Violation (NOVs) were issued and $21,872 in fines and enforcement costs were assessed. Administrative Orders are not an approved element of EWA's Enforcement Response Plan.

Of the 31 SIUs in the service area during the year, six were found to be in SNC. These industries are discussed below.

Hocking International contacted the Encina Wastewater Authority (EWA) in May 2007 and indicated that they would be moving into the service area in 60 days. A wastewater discharge permit application was forwarded to Hocking, but the completed

form was never received. EWA staff contacted them in September and was informed that they had moved to Vista and begun operation, but were holding all wastewater until a discharge permit was obtained. A site inspection was conducted, which determined that they were manufacturing detergent, fertilizer and pesticides, as well as packaging tracer dye and specialty lubricants.

After determining proper categorization for Hocking, EWA requested baseline monitoring data in early November. EWA subsequently began experiencing foaming problems at a downstream pump station and began to suspect that Hocking was illegally discharging wastewater. On December 17, 2007, sampling in a manhole downstream of Hocking collected brightly colored wastewater. An inspection of their facility identified blue wastewater in their washpad and EWA's plant influent subsequently turned blue. A Cease and Desist Order was issued.

Baseline monitoring data was finally received on February 7, 2008 and a permit was issued. Permit conditions include: a prohibition on the discharge of fertilizer wastewater, which did not meet the federal standards; the requirement to treat detergent water with a defoamer and to discharge at less than two gallons per minute between the hours of 8:00 am and 4:00 pm; and the requirement to treat dye wastewater with bleach to neutralize the color before discharge.

On April 9th EWA's influent once again turned blue and an inspection of Hocking identified blue water in their washpad. A Notice of Violation (NOV) was issued with fines of: $5000 for not complying with their permit condition to pretreat the dye washwater and impacting the treatment plant; $1000 for discharging without a permit, and $1341 in enforcement costs.

Hocking received subsequent NOVs and fines of $900 for: discharging in excess of their authorized flowrate, which resulted in foaming at the pump station; failing to notify EWA of their discharge to allow for routine sampling; submitting their semiannual Compliance Status Report after the due date; and failing to maintain a pH calibration log.

EWA held a Show Cause Hearing with Hocking on August 18, 2008 to notify them that their permit would be revoked unless they submitted payment for the assessed fines and showed a good faith effort to comply with their permit requirements. Hocking subsequently paid the fines and instituted various procedures to ensure compliance including: minimization of rinsewater; implementation of a chain-of-custody for all wastewater generated; and testing of each batch of wastewater prior to discharge. Subsequent wastewater sampling in 2008 identified only a single oil & grease violation. Hocking purchased an evaporator and ceased discharge in January 2009.

J & D Laboratories' permit requires them to notify EWA within 24-hours of becoming aware of a violation and submit the lab report within five days. J & D Laboratories

failed to provide the necessary notification within the required timeframes for three violations incurred over an 18-month period. NOVs were issued and fines of $650.00 were assessed. Due to the repeated nature of the violations, J & D Laboratories was deemed to be in SNC.

K & K Laboratories had two zinc violations based on sampling events conducted in January and December. They also had a pH violation in May. As a result, they were issued NOVs and assessed fines of $550.00. To address the zinc violations, K & K Laboratories is cleaning the sample sump more frequently to remove solids. The pH violation was attributed to cleaning pans with soda ash, thus they are now neutralizing the rinse water prior to discharge.

Life Laboratories had a zinc violation based on sampling conducted in January. As a result they were issued an NOV with fines of $200.00. Life Laboratories utilized zinc in the manufacture of dietary supplements, while their pretreatment consisted only of pH adjustment. Subsequent sampling demonstrated compliance with their permit limits. In December they ceased operation and their permit was rescinded.

MacDermid Printing Solutions failed to conduct the required self-monitoring during the third and fourth quarters of 2008. An NOV was issued with fines of $600.00. In order to prevent further such occurrences, the new industry contact has set up a contract with a laboratory to conduct the required sampling for the entire year.

Ortho Organizers was in violation of the federal daily max for copper (four occasions) and lead (one occasion), and the federal monthly average for copper (three occasions) and lead (one occasion). NOVs and fines of $1400.00 were assessed. Ortho Organizers was using a precipitant that enabled them to achieve the lower limits in their new permit under the Nonferrous Metal Forming Standards. They ran out of the product and had trouble finding a supplier for the quantity of chemical they wanted to purchase. After obtaining the precipitant, their wastewater sampling results demonstrated compliance with their permit limits.

Pollution Prevention Plans

No industries have submitted or been required to submit a pollution prevention plan.

Best Management Practices Program

In addition to the regulation of SIUs, EWA has attempted to reduce the level of pollutants entering the system through the implementation of a BMP Program. The program began in 1999 with staff development of a wide variety of BMPs for non-significant industrial users. A preliminary file review was performed on each user to

determine eligibility to participate in the program. This was followed by an inspection, sampling event and interview to identify applicable pollution prevention strategies.

Users who demonstrated a willingness to participate in the program agreed to implement a variety of actions directed at reducing the level of pollutants in their discharge. Follow-up sampling and inspections are used to verify program effectiveness.

EWA influent data indicates that the BMP Program has been effective in reducing the level of pollutants discharged to the sewer system. Implementation of the program resulted in a reduction in the number of Class III Permits from 304 at the beginning of 1999 to 35 at the end of 2000. Few changes to user classifications have occurred in recent years; however, new non-significant industrial users are encouraged to participate in the program.

Significant Changes in Pretreatment Program Operation

No significant changes were made in the operation of EWA's Pretreatment Program during 2008. As a local limits re-evaluation was due, EWA conducted a Domestic Sewage Study in May. Funds were budgeted for a Local Limits Study and proposals were solicited for consulting assistance. Due to a delay in the optimization of the recently upgraded Meadowlark Water Reclamation Plant (MWRP - an upstream facility that impacts EWA's limits), EWA obtained approval from the RWQCB to postpone the Local Limits Study. A contract for consulting services will be awarded in February 2009. Once the MWRP is optimized, in-plant sampling will be conducted to determine removal efficiencies and then the Local Limits Study will commence.

Summary of Annual Pretreatment Budget

In FY 2009, EWA's Pretreatment Program budget totaled $554,916.00. (The amount budgeted may vary slightly from actual expenditures.) This reflects approximately an 11% increase over the amount budgeted during FY 2008, due to the allocation of funding for a Local Limits Study. The number of staff members remained unchanged. A line item detail of the budget is attached for reference in Appendix D.

Public Education

EWA normally conducts wastewater treatment plant tours throughout the year. However, due to safety concerns as a result of ongoing construction projects, tours were halted in the spring of 2005.

EWA participates in other community outreach activities. In 2008, EWA staff utilized its wastewater treatment plant model for hosting booths at the City of Carlsbad's Citizen's

Academy and Public Works Fair, the City of Encinitas' Garden Festival, the City of Vista's library, the Pepper Tree Fair, the City of San Marcos' Earth Day Fair, the Agua Hedionda Lagoon Foundation's World Water Day Festival, and for a number of local school presentations. A video showing a demonstration of the wastewater treatment plant model is available on EWA's website to assist other POTWs in designing something similar. In addition, copies of the brochure entitled "10 Simple Things You Can Do to Protect the Ocean" were provided to various organizations for distribution including: EWA's member agencies, homeowners associations in Carlsbad and San Marcos, the Solana Center and the San Marcos Parent Teacher Association.

40CFR403.8(f)(2)(vii) requires at least annual public notification, in the largest daily newspaper in the POTW's service area, of industrial users, which at any time during the previous twelve months, were found in significant non-compliance. Attached in Appendix E is a copy of the SNC publication for the period of January 1 to December 31, 2008.

Biosolids Disposal Methods

In 2008, EWA produced approximately 38,573 wet tons of "Class B" biosolids. The majority of this material was transported by Ag Tech to its farm in Yuma, Arizona for land application. However, in November, EWA began testing of its new biosolids heat drying facilities that produce "Class A" biosolids pellets. Due to the initial product variability, five truckloads of biosolids pellets were taken to the Otay Landfill for disposal. Negotiations are currently underway with Cemex, who is interested in utilizing this product as a biofuel for their cement kiln.

Laboratory data demonstrates that metal levels in the biosolids are well below the allowable pollutant concentrations for land application as found in Table 3 of 40 CFR Part 503.13. The ability to consistently meet these standards is largely due to EWA's small industrial base and effective Pretreatment Program.