CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 90-70
NPDES PERMIT NO. CA0037621

AMENDMENT OF WASTE DISCHARGE REQUIREMENTS, ORDER NO. 88-176

CITY OF SUNNYVALE
SUNNYVALE WATER POLLUTION CONTROL PLANT
SUNNYVALE
SANTA CLARA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter called the Board), finds that:

1. The Board adopted Order No. 88-176, reissuing waste discharge requirements for the City of Sunnyvale (hereinafter called the discharger) on December 21, 1988. The City discharges tertiary treated effluent from the Water Quality Control Plant into Guadalupe Slough, tributary to Coyote Creek and South San Francisco Bay.

2. The Basin Plan does not establish water quality objectives and effluent limitations for heavy metals in South San Francisco Bay. The discharger is obligated to perform specific heavy metals and toxicity monitoring studies, and assist in the gathering of data needed for development of site-specific water quality objectives and effluent limitations, to comply with the limitations of the Basin Plan.

3. The site specific metals limits that the discharger will receive, in December, 1991, may be either higher or lower than the existing interim metals limits. Because the discharger will be required to meet the new limits when they are added to the permits, it is necessary for the dischargers to investigate methods of lowering loadings and concentrations of toxins contained in effluent. Source control, including waste minimization, is a more desirable pollutant reduction technique than structural modification at the discharger's plant. Cost-effective opportunities for source control should be implemented before making any major structural changes, such as a deep-water outfall or at-plant metals treatment and removal

4. The discharger performed two source control studies (Point Source Control Measures: I. Pretreatment. City of Sunnyvale - Water Pollution Control Plant, September 29, 1989; Point Source Control Measures: II. Waste Minimization, Vol. I. City of Sunnyvale - Water Pollution Control Plant, December 8, 1989). The studies identify sources of metals into the sanitary sewer and opportunities for waste minimization, source control and pretreatment program improvements. These studies indicate that the discharger has the opportunity to reduce metals entering the sewer system. Controls include regulating additional types of discharge, prohibiting certain discharges to the sewers, assuring better compliance through an aggressive program of inspections and enforcement, requiring industries applying for new permits or renewing permits to produce waste minimization plans, and targeting certain problem metals in an integrated waste minimization effort. The controls are aimed at reducing toxins

discharge to the sanitary sewers, with a resultant decrease in metals concentrations and loading in the plant influent and effluent.

5. Waste minimization, the reduction in toxic pollutant generation by product substitution, recycling, and other means, has not been systematically applied to industrial or non-industrial sources. The most effective way for the discharger to develop a waste minimization program is by targeting specific toxic pollutants and categories of sources. The results of this pilot program can then be applied to other toxic pollutants and categories of sources.

6. The complexity of effluent-metals interactions make the specific results of a source control effort unpredictable, and existing variability in the plant effluent may make the results difficult or impossible to measure at that point. However, toxins decreases should be measurable in flows into the sanitary sewer system. It is possible that the major toxins reductions from additional source controls will occur in sludge.

7. This action to amend an NPDES Permit is exempt from the provision of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.

8. The discharger and interested agencies and persons have been notified of the Board's intent to amend waste discharge requirements for the existing discharge and have been provided with the opportunity for a public hearing and the opportunity to submit their written views and recommendations.

9. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the discharger, in order to meet the provisions contained in Division 7 of the Clean Water Code and regulations adopted thereunder and the provisions of the Clean Water Act as amended and regulations and guidelines adopted thereunder, shall comply with the following:

1. Provision E.5.b. of Order No. 88-176 shall be amended to include the following:

Task	Deadline
Implement additional source controls, including pretreatment program improvements and a pilot waste minimization program, as described in Attachment 2. Submit a status report on the implementation of additional source controls by the deadline.	August 1, 1991
Submittal of interim progress report	December 1, 1990

I, Steven R. Ritchie, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on May 16, 1990.

Steven R. Ritchie
Executive Officer

Attachment

[File No. 2189.8011
Originator: CAN
Reviewer: SAH, TCW]

A. Pre-treatment Program Improvements:

1. The discharger shall implement a system to require permitted firms to accurately measure their process-waste flows to the sanitary sewer. This shall be done directly, for at least 35% of the permitted industrial users and 100% of the industrial users within the targeted categories before August 1, 1991, through installation of reliable flow meters or other equivalent methods. If direct flow measurement is infeasible, then it can be measured indirectly by linking flow to production rate and other uses. The pretreatment program should verify all flow data by comparison with water billing information or other available information.

2. Auto repair and photo-processing firms shall be regulated by August 1, 1991. Regulation may include individual industrial user permits, permit by rule, or prohibition of discharge to the sewers. Because these firms are numerous, the discharger may wish to use flow, toxins concentration, or some other measure (e.g. number of employees, square feet of work area, etc.) as thresholds to determine inclusion in the pretreatment program. These thresholds should be set so that a large part of the discharge from these groups is regulated. Dischargers should consider the option of prohibiting some discharges to the sewers, such as radiator repair shops.

3. The discharger shall assure that regulated dischargers better comply with local limits by implementing more frequent inspections and more aggressive enforcement actions against violators. Aggressive enforcement may be linked to violations by industries that discharge large mass loadings or concentrations of "problem" toxins (those metals that are not currently at or below Basin Plan limits in treatment plant effluent). This shall be demonstrated by a high level of compliance.

B. Pilot Waste Minimization Program:

1. The discharger shall implement a waste minimization program aimed at specific metals of concern in their discharge. The discharger's source control study indicates that <u>nickel, copper, and lead</u> are important metals to target in waste minimization. The waste minimization program shall consist of public education efforts and a pilot waste minimization for <u>electroplaters and metal finishers, and other potentially important sources identified by the pretreatment program</u>.

2. The discharger shall implement a public education effort aimed at reducing the amount of nickel, copper, and lead discharged to the sewers. Public education efforts should be coordinated with the Santa Clara County Executive's Toxins Program, but the discharger may modify the efforts in order to more effectively address their specific waste minimization effort. The public education efforts shall consist of an outreach program for the communities, a program to identify and educate small-quantity generators, and seminars and workshops on waste minimization for specific types of dischargers.

3. The waste minimization efforts shall focus on targeted commercial and industrial categories, and shall consist of developing a list of firms in the targeted category, developing a set of best management practices and waste minimization alternatives for that category, and, in coordination with the Santa Clara County Executive's Toxins Program, providing technical assistance to those targeted firms. Technical assistance may include, but not be limited to, providing information on waste minimization to targeted firms. In addition, the discharger shall prepare an estimate of the effectiveness of the program by August 1, 1991.

4. Permitted industries, if in violation of local limits or if targeted by the discharger for waste minimization efforts, shall be required to submit waste minimization plans for their firms. New permit applicants shall submit waste minimization plans as a condition of permitting. Waste minimization plans should include: (i) a list of toxic pollutants discharged and the associated plant processes, (ii) a mass balance showing the mass loading of each pollutant through the plant, (iii) an evaluation of waste minimization alternatives, and (iv) proposed waste minimization measures, including a schedule for implementation. The discharger shall review and approve the waste minimization plans in a timely fashion. New permittees shall be required to use the Best Management Practices in their waste minimization program.

5. The discharger shall coordinate further program development with the other two South Bay municipal dischargers by sharing the results of their waste minimization efforts. The results of the pilot program will be used to identify new permitted categories.

C. Status Report

1. The discharger shall submit a progress report on December 1, 1990, and a status report on the waste minimization effort by August 1, 1991. These reports shall address tasks completed and underway, problems encountered, and additional recommendations for the pretreatment programs (e.g., successful or unsuccessful methods of flow monitoring, advice on working with specific types of firms, etc.). The status report shall include recommendations for an expanded waste minimization program, based on pilot program results (e.g., which metals and categories of metal discharger).