

# REPLACEMENT

COUNCIL AGENDA: 10/2/07  
ITEM: 7.1



## Memorandum

**TO:** HONORABLE MAYOR AND  
CITY COUNCIL

**FROM:** Nadine N. Nader

**SUBJECT:** SEE BELOW

**DATE:** September 25, 2007

Approved

Date

9/25/07

**SUBJECT: SEWER USE ORDINANCE REVISIONS FOR PRETREATMENT PROGRAM [Transportation and Environment Committee referral 9/17/07 – Item (b)]**

On September 17, 2007 staff presented a report on the Sewer Use Ordinance Revisions for Pretreatment Program to the Transportation and Environment Committee.

Councilmember Liccardo motioned to approve staff's recommendation and requested that the item be cross-referenced for full Council consideration, Vice Mayor Cortese seconded the motion. Attached is the report that was presented to the T&E Committee.

for NADINE N. NADER  
Agenda Services Manager



# Memorandum

**TO:** TRANSPORTATION AND  
ENVIRONMENT COMMITTEE

**FROM:** John Stufflebean

**SUBJECT:** SEWER USE ORDINANCE  
REVISIONS FOR PRETREATMENT  
PROGRAM

**DATE:** 08-31-07

Approved

Date 9/6/07

## RECOMMENDATION

1. Approve the status report on the industrial local discharge limits review and sewer use ordinance update.
2. Direct the City Attorney's Office to prepare an ordinance amending Chapter 15.14 of the San José Municipal Code to modify the local discharge limits for copper, nickel, selenium, and total phenol; to eliminate limits for manganese, total toxic organics and xylene; to conform Municipal Code requirements to federal pretreatment program regulations; to add new definitions; to expand reporting, record keeping, and sampling requirements; and to require industrial pretreatment permit applications 90 days prior to discharge or expiration of existing permit.

## OUTCOME

Council will be able to consider an ordinance amending Municipal Code Chapter 15.14 to reflect local discharge limit and program changes as recommended by staff in response to U.S. Environmental Protection Agency (US EPA) Administrative Order CWA-307-9-05-36 (Order).

## BACKGROUND

The Industrial Pretreatment Program regulates industrial wastewater discharges to the San José/Santa Clara Water Pollution Control Plant (Plant). Local wastewater discharge limits are the primary tool used to regulate these discharges and are necessary to protect the sanitary collection system and operation of the Plant, including biosolids quality, South Bay Water Recycling water quality, and the quality of water discharged by the Plant to South San Francisco Bay.

Following inspections by the US EPA in 2004, the City received a Finding of Violation and Administrative Order on March 17, 2005, requiring improvements to the industrial pretreatment program. One of the improvements called for a technical review of local discharge limits to the Plant. The industrial local discharge limits were last updated in 1994, and there have been substantial changes to the local industrial and commercial demographics, resulting in a reduction of pollutant loading and industrial flow to the Plant.

The City currently implements unique local limits for copper and nickel that are multi-tiered, complex, and difficult to administer. These local limits were developed in the early 1990s to address complex environmental and regulatory drivers that are no longer an issue. At that time, industrial dischargers were identified as a significant, controllable source of copper and nickel. Strictly following US EPA guidance for calculating industrial local limits for copper and nickel resulted in unachievable local limits. Therefore, a stakeholder process was used to develop a tiered limit approach to address these two pollutants. Industrial dischargers were targeted with extensive pollution prevention efforts that successfully reduced copper and nickel loading by more than 50 percent in the first 5 years after the 1994 local limits implementation. Additionally, the City performed extensive water quality research in the South Bay and provided the data to the San Francisco Bay Regional Water Quality Control Board (Regional Water Board). In 2002, a new regulation for copper and nickel was adopted for the South Bay resulting in higher permit limits for the Plant.

Changes in environmental and regulatory drivers coupled with the local change in industrial and commercial demographics have made this an opportune time to review the industrial local discharge limits. Staff was able to use the recently revised US EPA Local Limits Development Guidance during this review and worked closely with US EPA and their consultants to ensure that all expectations for the technical review were met.

## ANALYSIS

### Local Limits Review

The following 17 pollutants of concern (POC) were evaluated as part of the technical review:

Antimony	Chromium	Manganese	Selenium	Xylene
Arsenic	Copper	Mercury	Silver	
Beryllium	Cyanide	Molybdenum	Zinc	
Cadmium	Lead	Nickel	Total Phenol	

This review involved determining for each of these pollutants the maximum amount entering the Plant, the removal rate achieved by the Plant, and comparing the loading to an allowable threshold to determine if a new or revised local limit was appropriate. Once the pollutants were determined, local limits were re-calculated and recommended revisions and associated technical reports were submitted to US EPA and the Regional Water Board for approval.

The following are the recommended revisions to local limits for wastewater discharge:

Local Limit (mg/l)	Current	Proposed	Local Limit (mg/l)	Current	Proposed
Antimony	5.0	<b>5.0</b>	Mercury	0.010	<b>0.010</b>
Arsenic	1.0	<b>1.0</b>	Molybdenum	No Limit	<b>No Limit</b>
Beryllium	0.75	<b>0.75</b>	Nickel	0.5-2.6	<b>0.5/2.6</b>
Cadmium	0.7	<b>0.7</b>	Selenium	2.0	<b>1.0</b>
Chromium, total	1.0	<b>1.0</b>	Silver	0.7	<b>0.7</b>
Copper	1.0-2.7	<b>2.3/2.7</b>	Zinc	2.6	<b>2.6</b>
Cyanide, total	0.5	<b>0.5</b>	Total Phenol	30	<b>30</b>
Lead	0.4	<b>0.4</b>	Total Toxic Organics	2.13	<b>No Limit</b>
Manganese	35.0	<b>No Limit</b>	Xylene	1.5	<b>No Limit</b>

The most significant change is the streamlining of copper and nickel limits and requirements. Specifically, "Group 1, 2, and 3 Dischargers" will be replaced with "Standard Dischargers" (1,000 gallons per day or greater) and "Minimal Dischargers" (less than 1,000 gallons per day). For Minimal Dischargers, it is recommended that the high end of the current range of copper and nickel limits be continued, to recognize the minimal pollutant loading from these dischargers and to reduce pretreatment burdens. The recommendation to adopt the low end of the proposed range for copper and nickel limits for Standard Discharges reflects their greater pollutant loading.

On June 20, 2007, the US EPA accepted the City's initial local limits report along with the supplemental information and recommended that the Regional Water Board approve the City's proposed local limits. On June 28, 2007, the Regional Water Board approved the recommended local limits and authorized the City to proceed with its public hearing and adoption process.

Staff has assessed the impact of the revisions to the local limits and determined that 97% of our permitted industries will be able to comply without any changes to their treatment processes. For the eight companies for which the new limits may pose a compliance challenge, staff has scheduled meetings and will be working with each of these companies individually to identify the actions that will be needed in order for the company to consistently comply with the lower discharge limits.

#### Other Sewer Use Ordinance Changes

In addition to the local limits, Municipal Code Chapter 15.14 also includes provisions that help enforce the federal pretreatment program requirements, falling into three general categories: 1) definitions, 2) regulations, and 3) local discharge limitations.

Staff recommends additional changes to the Municipal Code to simplify certain provisions and add definitions and clarifications in support of the pretreatment program. Again, these changes are primarily in response to the US EPA Order or have been identified by staff to improve

program clarity. One such change requires Zero Discharge Categorical Permits for companies whose business processes fall into a federally regulated category but do not actually discharge wastewater into the sanitary system, such as a small metal finishing operation where all the wastewater is hauled offsite. These companies are currently subject to the City's self-certification program; however, US EPA has required that the City regulate these companies by permit instead. A summary of other proposed revisions is included in Attachment 1.

### **EVALUATION AND FOLLOW-UP**

The Attorney's Office will return to Council in October 2007 with a draft ordinance amending Chap.15.14 of the Municipal Code. After approval of the draft ordinance for first reading, the draft ordinance will also be presented to the Treatment Plant Advisory Committee (TPAC). Once San José approves the pretreatment changes, existing inter-agency agreements require that they must also be adopted by all agencies discharging to the Plant. The recommendation of TPAC, along with any comments received on the draft ordinance from third parties will be forwarded for Council consideration prior to final adoption of the ordinance.

Staff is also evaluating the implications of the recent federal pretreatment streamlining rules, the State's Sanitary Sewer Management Plan (SSMP) requirements, and the need to enhance pretreatment program efforts in areas such as the prevention of fats, oils and grease, and dental mercury discharged to the sanitary and/or stormwater collection systems. Additional changes to the Municipal Code to support those program enhancements are anticipated for 2008.

### **PUBLIC OUTREACH/INTEREST**

This sewer use ordinance revision is considered a substantial modification of the San José pretreatment program, as defined by the Code of Federal Regulations 403.18, because proposed limits are relaxed for some dischargers for copper and nickel and deleted for manganese, total toxic organics, and xylene. This requires that the City, at a minimum, publish a notice of proposed changes in the largest local newspaper (Mercury News) and allow for public comment.

All permitted dischargers, local major manufacturing associations, the Silicon Valley Leadership Group, and local environmental stakeholders were notified of the proposed local limits changes and invited to a workshop on August 20, 2007. Information on this workshop was advertised in the San José Mercury News on August 10, 2007, and posted on the Environmental Services Department website. The workshop was attended by more than 55 stakeholder representatives, during which staff received minimal comments and provided clarifications to the questions that were posed. Comments will be addressed during the sewer use ordinance revision process.

TRANSPORTATION AND ENVIRONMENT COMMITTEE

08/31/07

Subject: Sewer Use Ordinance Revisions for Pretreatment Program

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### COORDINATION

This memorandum has been coordinated with the City Attorney's Office and the Departments of Public Works and Transportation, and is scheduled to be considered at the September 13, 2007 meeting of the Treatment Plant Advisory Committee.



JOHN STUFFLEBEAN  
Director, Environmental Services

For questions please contact Elaine Marshall, Environmental Services Program Manager, at (408) 277-5697.

Attachments: Summary of Proposed Sewer Use Ordinance Changes  
U.S. EPA approval letter  
Regional Water Board approval letter

Topic Area	Summary of Proposed Changes	Driver
Local Limits Revision	Revises Sewer Use Ordinance (SUO) language including definitions and other sections as required to implement the revised local limits.	Federal Pretreatment Regulations
Zero Discharge Categorical Permits	Revises SUO language including definitions and other sections to expand the City's authority to issue discharge permits to categorical industries that do not discharge wastewater from a categorical process to the sanitary system.	Federal Pretreatment Regulations
Federal Definitions	<p>Adds the following federal definitions to the definitions section of the SUO:</p> <ul style="list-style-type: none"> <li>• Pass-through</li> <li>• Significant Industrial User</li> <li>• Significant Noncompliance</li> <li>• Significant Change</li> <li>• Existing Source</li> <li>• Categorical Industrial User or CIU</li> <li>• New Source</li> <li>• Pretreatment Standard</li> <li>• Pretreatment Requirements</li> </ul>	Federal Pretreatment Regulations
New Definitions	<p>Adds the following definitions to the definitions section of the SUO:</p> <ul style="list-style-type: none"> <li>• Composite Sample</li> <li>• Contaminated Stormwater</li> <li>• Continuous Discharge</li> <li>• Discharger</li> <li>• Domestic Wastewater</li> <li>• Diluting Waters</li> <li>• Discharger</li> <li>• Owner</li> <li>• Operator</li> </ul>	Programmatic Clarification
Batch Discharge and Sampling Definition	<p>Clarifies language by defining Batch Discharge and Sampling from batch discharge as follows:</p> <ul style="list-style-type: none"> <li>• Batch Discharge – The discharge of wastewater resulting from an intermittent treatment process in which an identified amount of process waste water is collected, treated to meet discharge standards, and released to the sanitary sewer system.</li> <li>• A batch discharge sample is a composite sample.</li> <li>• If multiple batch discharges occur over a 24-hour period, then one sample from each batch discharged in the 24-hour period must be composited into a single sample.</li> </ul>	Federal Pretreatment Regulations

Topic Area	Summary of Proposed Changes	Driver
Accidental Slug Discharge Changes	<p>Clarifies definition to include any unintentional, unanticipated, or unexpected discharge; any non-routine, or episodic discharge; potential to violate any discharge standards. Includes spills or slug discharges.</p> <p>Revises language for the following requirements:</p> <ul style="list-style-type: none"> <li>• All permitted facilities will be required to maintain a spill control plan to protect from accidental discharge and update the plan regularly to keep it current.</li> <li>• Requirement for Notification of slug discharge revised to within 1 hour of becoming aware of violation.</li> </ul>	Federal Pretreatment Regulations
Follow-up from Accidental Discharge	<p>Clarifies language such that in the event of an accidental discharge:</p> <ul style="list-style-type: none"> <li>• A spill control plan will be required.</li> <li>• The plan must be submitted or updated to address the accidental discharge within 30 days of the accidental discharge or as required by the Director.</li> </ul>	Federal Pretreatment Regulations
Monitoring Facilities	<p>Adds requirement that sample points must be designed to retain a volume of the last wastewater discharged so that a sample representative of the last wastewater discharged can be collected at any time.</p>	Programmatic Clarification
Interfering substances	<p>Adds language specifying that once a violation has occurred, the discharger is required to collect another sample of process wastewater, analyze the sample, and submit the sample analysis within 30 days of becoming aware of a violation.</p>	Federal Pretreatment Regulations
Late Permit Applications	<p>Revises language to specify that permit applications are due 90 days prior to discharge to the sanitary system or expiration of existing discharge permit. Previously permit applications were required prior to discharge.</p>	Programmatic Change
Record Keeping	<p>Adds language that incorporates the record keeping requirement which is already stated in current discharge permits into SUO to require:</p> <ul style="list-style-type: none"> <li>• Monitoring reports and related information be available on site for review or copying.</li> <li>• Records must be retained for at least 3 years, but may be automatically extended in the event of any enforcement action, or where the industrial user has been specifically notified of a longer retention period by the Director.</li> </ul>	Federal Pretreatment Regulations
Discharge Reports	<p>Expands reporting requirements to include:</p> <ul style="list-style-type: none"> <li>• Waste hauling records or other information relating to generation of wastes.</li> <li>• Baseline monitoring reports or other implementation plans required to bring Discharger into compliance.</li> </ul>	Federal Pretreatment Regulations



ATTACHMENT 2  
 UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 REGION IX  
 75 Hawthorne Street  
 San Francisco, CA 94105

June 17, 2007

Michael Chee  
 Regional Water Quality Control Board  
 1515 Clay Street, Suite 1400  
 Oakland, CA 94612

Dear Mr. Chee,

EPA recommends the approval of the revised local limits for the City of San Jose as proposed in the City's 2006 *Industrial Wastewater Discharge Local Limits Update* and in the City's May 31, 2007 *Supplemental Information to Local Limits Update*. This is a recommendation since the approval authority is the State of California.

Under 40 CFR 403.18, the approval of the local limits would constitute a substantial modification of the San Jose pretreatment program because the proposed limits are relaxed for copper and deleted altogether for manganese, total toxic organics, and xylene. The proposed local limits are listed below:

Local Limit (mg/l)	Current	Proposed	Local Limit (mg/l)	Current	Proposed
antimony	5.0	<b>5.0</b>	mercury	0.010	0.010
arsenic	1.0	1.0	nickel	0.5-2.6	<b>0.5</b>
beryllium	0.75	<b>0.75</b>	selenium	2.0	<b>1.0</b>
cadmium	0.7	0.7	silver	0.7	0.7
chromium total	1.0	<b>0.7</b>	zinc	2.6	<b>2.6</b>
copper	1.0-2.7	<b>2.3</b>	total phenol	30	<b>30</b>
cyanide total	0.5	<b>0.5</b>	total toxic organics	2.13	none
lead	0.4	0.4	xylene	1.5	none
manganese	35.0	none			

**black** - limit based on revised MAHL calculations  
 green - unchanged because of ample headworks capacity and insignificant sources  
 none - limit deleted based on revised MAHL calculations

If you have any questions please do not hesitate to call me at (415) 972-3505 or e-mail me at [arthur.greg@epa.gov](mailto:arthur.greg@epa.gov)

Sincerely,

*Original Signed By*

Greg V. Arthur  
 CWA Compliance Office

cc: Melody Tovar, San Jose



# California Regional Water Quality Control Board

## San Francisco Bay Region



Linda S. Adams  
Secretary for  
Environmental Protection

1515 Clay Street, Suite 1400, Oakland, California 94612  
(510) 622-2300 • Fax (510) 622-2460  
<http://www.waterboards.ca.gov/sanfranciscobay>

Arnold Schwarzenegger  
Governor

June 28, 2007  
File No. 2189.8014P(MTC)

Mr. John Stufflebean  
Director  
Environmental Services Department  
City of San Jose  
200 E. Santa Clara Street, 10<sup>th</sup> Floor  
San Jose, CA 95113

Dear Mr. Stufflebean,

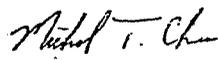
SUBJECT: Local Limits Approval

Water Board staff has approved the revised the local limits for the City of San Jose as proposed in the City's 2006 Local Limits Report, "Industrial Wastewater Discharge Local Limits Update," and its May 31, 2007, report, "Supplemental Information to Local Limits Update."

Pursuant to 40 CFR 403.18, the approval of the local limits is a substantial modification of the City's pretreatment program because the proposed limits are relaxed for copper and deleted altogether for manganese, total toxic organics, and xylene. Therefore, the City shall proceed to adopt the proposed local limits through its public hearing process. The City shall provide documentation of the local limits adoption to the Water Board.

If the proposed local limits are adopted, this substantial modification will be incorporated into the City's NPDES permit when the City's NPDES permit is reissued, which is tentatively scheduled for late next year in 2008. If you have any questions, please contact Michael Chee at 510-622-2333, or via e-mail at [mchee@waterboards.ca.gov](mailto:mchee@waterboards.ca.gov).

Sincerely,

  
for  
Lila Tang, Chief  
NPDES Wastewater Division

cc: John Mukhar (City of San Jose Environmental Services)