

Lehigh Southwest Cement Company

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April 15, 2009

Mr. Brian Wines
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, California 94612

Subject: **Self-Monitoring Reports - Sewage Treatment Plant
For January 2009 through March, 2009**

Mr. Wines:

The Lehigh Permanente Cement (formerly Hanson and Kaiser Cement) Wastewater Reclamation Facility's Quarterly Self-Monitoring Report is attached for your information and review. This report follows the Technical Report format as submitted to the Regional Water Quality Control Board on the Kaiser Cement wastewater treatment plant in 1993 and 1994. The following reports are attached:

- Table 1; Schedule for Sampling, Measurements and Analysis.
- Table 3-2, Hanson Permanente Cement Wastewater Reclamation Measurement & Analysis Results:
 - 3 weeks, January 1 through January 31, 2009 by week.
 - 4 weeks, February 1 through February 28, 2009 by week.
 - 5 weeks March 1 through March 31, 2009 by week
- Alpha Analytical Laboratories Reports: 12 Reports - Weekly
Sampled January 6 through March 31, 2009.

Pursuant to Section III.2.A. of the Self-Monitoring Program included with Order 94-038, the following describes certain variations from the water reclamation requirements that occurred during the reporting periods and actions taken to correct these conditions.

Variations from Requirements of the Self-Monitoring Program:

No variations this month from requirements of the Self-Monitoring Program..

Missing Data:

Missing data for January 13th week. The sample port was plugged and the sampler could not retrieve a sample.

Variations from Water Quality Limits:

Results Outside of Established Limits:

(Full copy in electronic)
Partial copy,
for BDA Review

- The Total Coliform levels in the treated wastewater did not exceed the limit of “240 MPN/100 ml for 2 consecutive readings” this quarter. Ten of the 12 coliform analysis were reported with total coliform equal to or less than 23. The mean limit of “<23 MPN/100 ml for 7 consecutive readings” was exceeded 10 times during the quarter.
- Suspended solids exceeded the <30 mg/l limit during the February 10, 2009 sampling event. The sample was reported at 32 mg/l.
- All other results were within the established limits. In addition, none of the prohibitions listed in Section B or the Order were violated

Variance Explanation:

- We believe that the cause of the variances was due to ineffective disinfection combined with winter high flows through the treatment plant.
- The mean limit for coliform was exceeded in early December as a result of one high coliform (300 MPN/100ml) reading and a second high reading during the February 17, 2009 sampling event (>1,600 MPN/100ml).

Actions Taken to Address Variance:

- The chlorination system is monitored daily to ensure operation. The chemical feed rate and residual are being adjusted to determine optimum dosing rate. Began to see consistent chlorine residuals since mid-February.
- Use of reclaimed water, in tanker trucks for dust control, has been discontinued until water treatment operations return to normal and stable conditions.

Improvements:

- A new flow meter has been functioning well and reflects better measurement of daily flow volumes.
- A new sodium hypochlorite day tank has been installed at the site. The existing chemical injection pump has been determined to have an internal mechanical problem. In mid-February a new chemical feed pump was installed and chlorine residuals have been consistent in the effluent since the installation. Chlorine tablets have continued to be the method of chlorination while the pump is being evaluated.
- An SOP has been prepared and provided to the sampling contractor – the SOP addresses plugged sample ports and procedures for unplugging and notifying Lehigh cement immediately.

Please contact me at (408) 996-4262 if you have any questions. The reports attached are certified as follows:

"I certify under penalty of law that this document and all attachments are prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. [40 CFR 122.22(d)]"

Sincerely,



Scott Renfrew
Environmental Manager

Attachments

cc: Henrik Wesseling, LSWCC

Table 1

**Schedule for Sampling, Measurements, and Analysis
 Lehigh Permanente Cement Facility – Water Reclamation
 Order No. 94-038**

Sampling Stations	E-1	E-2	All I	All P
<i>Type of Sample</i>	Cont.	Grab	Obs.	Obs.
Flow Rate (gallons/day)	3/w			
Total Coliform (MPN/100 ml)		2/m		
Turbidity (NTU)		W		
BOD, 20°C (mg/l)		2/m		
Total Suspended Solids (mg/l)		2/m		
Dissolved Oxygen (mg/l)		W		
Dissolved Sulfides (mg/l) (if DO < 1 mg/l)		W		
pH (units)		W		
Chlorine Residual (mg/l)		2/m		
Applicable Standard Observations			2/m	2/m

Legend for Table 1

Type of Sample

Grab = Instantaneous grab sample
 Cont. = Continuous monitoring
 Obs. = Observation

Sampling Frequency

3/w = three times per week
 w = weekly
 2/m = twice per month

Prepared By: S. Renfrew
 Date: January 15, 2009

**Table 3-2
 Lehigh Permanente Cement Wastewater Reclamation
 Measurements and Analysis Results
 Sample Locations Station E-1 (continuous) E-2 (grab)**

Sample Type*	Week 1 Date: January 6, 2009	Week 2 Date: January 13, 2009	Week 3 Date: January 22, 2009	Week 4 Date: January 27, 2009	Week 5 Date:
Total Coliform (MPN/100ml, Limit < 23 median for last 7 readings or < 240 for 2 consecutive samples.) 2/month Sample Reading: Median, last 7 Readings:	Time: 14:20	Time:	Time: 14:15	Time: 15:20	Time:
	<2		23	13	
	56		56	49	
Turbidity (NTU) 1/week	11		6	9	
BOD, 5-day, 20°C (mg/l, Limit < 30) 2/month	7		2	12	
Total Suspended Solids (mg/l, Limit < 30) 2/month	3.9		2	12	
Dissolved Oxygen (mg/l, Limit > 1.0) 1/week	10		11	9.6	
Dissolved Sulfides (mg/l, Limit < 0.1) 1/week (if DO < 1)	<0,1		<0.1	<0.1	
pH (units, no limits) 1/week	7.6		7.8	7.5	
Chlorine Residual (mg/l, Limit determined by flow rate) 2/month	0.3		<0.1	<0.1	
Flow Rate (gal/min) 3/week	1/2	1/12	1/19	1/26	
	3.3	5.6	4.5	4.5	
Flow Rate (gal/min) 3/week	1/5	1/13	1/20	1/27	
	3.3	5.6	3.3	3.3	
Flow Rate (gal/min) 3/week	1/7	1/15	1/22	1/29	
	4.5	5.6	5.6	5.6	

Distribution: San Francisco Bay California Regional Water Quality Control Board (quarterly), Lehigh Permanente Cement and Environmental Affairs (monthly).

* Lab sheets attached for off-site analysis.

**Table 3-2
 Lehigh Permanente Cement Wastewater Reclamation
 Measurements and Analysis Results
 Sample Locations Station E-1 (continuous) E-2 (grab)**

Sample Type*	Week 1 Date: February 3, 2009	Week 2 Date: February 10, 2009	Week 3 Date: February 17, 2009	Week 4 Date: February 24, 2009	Week 5 Date:
Total Coliform (MPN/100ml, Limit < 23 median for last 7 readings or < 240 for 2 consecutive samples.) 2/month Sample Reading: Median, last 7 Readings:	Time: 14:30	Time: 15:00	Time: 15:20	Time: 14:50	Time:
	<2	2	>1600	<2	
	7	7	235	235	
Turbidity (NTU) 1/week	19	23	10	5.2	
BOD, 5-day, 20°C (mg/l, Limit < 30) 2/month	9	7	<5.0	<5.0	
Total Suspended Solids (mg/l, Limit < 30) 2/month	14	32	4.3	5.5	
Dissolved Oxygen (mg/l, Limit > 1.0) 1/week	11	11	11	9.8	
Dissolved Sulfides (mg/l, Limit < 0.1) 1/week (if DO < 1)		<0.1	<0.1	<1.0	
pH (units, no limits) 1/week	7.7	7.7	7.66	7.56	
Chlorine Residual (mg/l, Limit determined by flow rate) 2/month	<0.1	<0.1	0.4	0.8	
Flow Rate (gal/min) 3/week	2/3	2/9	2/17	2/23	
	3.3	3.3	5.6	5.6	
Flow Rate (gal/min) 3/week	2/4	2/10	2/19	2/25	
	4.5	4.3	5.6	3.3	
Flow Rate (gal/min) 3/week	2/5	2/13	2/20	2/27	
	4.5	4.5	5.6	4.5	

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 Date: January 15, 2009

**Table 3-2
 Lehigh Permanente Cement Wastewater Reclamation
 Measurements and Analysis Results
 Sample Locations Station E-1 (continuous) E-2 (grab)**

Sample Type*	Week 1 Date: March 3, 2009	Week 2 Date: March 10, 2009	Week 3 Date: March 17, 2009	Week 4 Date: March 24, 2009	Week 5 Date: March 31, 2009
Total Coliform (MPN/100ml, Limit < 23 median for last 7 readings or < 240 for 2 consecutive samples.) 2/month Sample Reading: Median, last 7 Readings:	Time: 15:30	Time: 13:30	Time: 14:40	Time: 14:50	Time: 15:00
	130	4	4	2	17
	253	250	249	249	251
Turbidity (NTU) 1/week	6.1	11	6.6	9.7	11
BOD, 5-day, 20°C (mg/l, Limit < 30) 2/month	7	<5	5	<5	10
Total Suspended Solids (mg/l, Limit < 30) 2/month	4.2	10	4.8	8.8	11
Dissolved Oxygen (mg/l, Limit > 1.0) 1/week	10	10	10	9.4	9.5
Dissolved Sulfides (mg/l, Limit < 0.1) 1/week (if DO < 1)	<0.1	<0.1	<0.1		
pH (units, no limits) 1/week	7.77	7.59	7.64	7.67	7.65
Chlorine Residual (mg/l, Limit determined by flow rate) 2/month	0.4	0.2	0.1	5	<0.1
Flow Rate (gal/min) 3/week	3/2	3/9	3/16	3/24	3/27
	3.3	1.8	2.1	1.8	1.0
Flow Rate (gal/min) 3/week	3/4	3/10	3/17	3/25	3/30
	4.5	1.5	3.5	0.9	1.8
Flow Rate (gal/min) 3/week	3/6	3/11	3/18	3/26	3/31
	1.3	1.9	3.4	3.1	2.3

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