Discuss w/ DALE

HANSON PERMANENTE CEMENT PLANT
24001 STEVENS CREEK BOULEVARD
CUPERTINO CALIFORNIA 95014-5659

May 12, 2008

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 October 2007 through March, 2008

4TH QTR 2007 & 1ST QTR 2008

Mr. Wines:

The Hanson Permanente Cement (formerly 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:
  - -- 5 weeks, October 1 through October 31, 2007 by week.
  - -- 4 weeks, November 1 through November 31, 2007 by week.
  - -- 4 weeks, December 1 through December 31, 2007 by week.
  - -- 5 weeks, January 1 through January 31, 2008 by week.
  - -- 4 weeks, February 1 through February 28, 2007 by week.
  - -- 5 weeks, March 1 through March 30, 2007 by week.
- Alpha Analytical Laboratories Reports: 27 Reports - Weekly
  Sampled October 1 through March 31, 2008.

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.

Variances from Requirements of the Self-Monitoring Program:

The reports for 4th quarter 2007 and 1st quarter 2008 were not submitted within the required time-frame due to an oversight by prior Hanson management and a change in current management personnel. A new environmental management system has been installed to track regulatory requirements and ensure timely report submissions.

Violations

Missing Data:

No data is missing during this 6-month time period.

Variances from Water Quality Limits:

Results Outside of Established Limits:

- The Total Coliform levels in the treated waste water exceeded the limit of "240 MPN/100 ml for 2 consecutive readings" four times during the 6-month period. In addition, the limit of <23 MPN/100 ml for 7 consecutive readings was exceeded during all readings during the 6-month period. This appears to have occurred due to the sewage treatment system operator's switching of the disinfection method from liquid sodium hypochlorite to pelletized bromine-based disinfectant (1-bromo, 3-chloro, 5,5-dimethyl hydantoin). It appears that the pelletized material was intended for slow release, and this method was too slow to adequately disinfect flow-through waste water. The disinfection method has been switched back to using liquid sodium hypochlorite solution as of April 30, 2008.
- The total coliform values were observed to be outside of the established limits during this period as described above. In addition, the Total Suspended Solids values exceeded the limits October and November. 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 twofold: the excess coliform results were due to an ineffective change in the method of disinfection, as discussed above.
- In addition, the environmental manager left the company at the beginning of the first reporting period, and was not able to be replaced until March, 2008. Therefore, during this time period, it appears that technical and environmental management oversight of the sewage treatment system operation was unintentionally omitted until efforts to prepare this report were started. However, during this period daily maintenance of the system continued.

Actions Taken to Address Variance:

- As soon as the exceedances were identified, the previous sodium hypochlorite disinfection system was resumed, and additional sampling was conducted to confirm adequate treatment of the wastewater.
- Use of reclaimed water, in tanker trucks for dust control, has been discontinued until water treatment operations return to normal and stable conditions.
- A new Plant Manager and a new Environmental Manager have been hired recently, and an environmental management system has been installed to ensure proper operation and appropriate oversight of the disinfection system.

Improvements:

- After this 6-month reporting period when the variances were identified, the disinfection system was modified to ensure adequate chlorination of the waste water occurs.

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

NOTES – Total Coliform Compliance

Limit: >240 MPN/100ml in Two Consecutive Samples
- SMR reports 4 violations in 6 months (Oct 2007 → March 2008)
- BDA reviews found 6 violations out of 14 sample events

Limit: Median of 7 ≤ 23 MPN/100ml
- SMR reports all readings in violation; actual # not stated
- BDA review found 14 viols of 14 sample events

Corrective Actions - could be OK; Track future status:
SMR reports switch back to prior disinfection method, liquid sodium hypochlorite, as of April 30, 2008. Check next SMR for return to compliance status.

Cause - Switch to some other disinfection process. Didn't work.
No kidding. The problem was worsened by mngmt/staff turnovers

"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, HPC
Shane Alesi, HTC
Tim Matz, HTC

Date: April 2007

Table 1

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

Sampling Stations	E-1	E-2	All I	All P
Type of Sample	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

Hanson

gal/min gpm	gal/hr 1h = 30min	gal/day 1 day = 24hr
0.2	6.0	144
1.0	30	720

Prepared By: S. Renfrew
Date: April 2008

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

Sample Type*	Week 1 Date: Oct. 1, 2007	Week 2 Date: Oct. 8, 2007	Week 3 Date: Oct. 16, 2007	Week 4 Date: Oct. 22, 2007	Week 5 Date: Oct. 29, 2007	
Total Coliform (MPN/100ml, Limit < 23 median for last 7 readings or < 240 for 2 consecutive samples.) 2/month	Time: 1445	Time: 1230	Time: 1330	Time: 1245	Time: 1230	
Sample Reading:	>1600	>1600		170		Violations
Median, last 7 Readings:	>463	>691		>715		Violations
Turbidity (NTU) 1/week	150	27	87	460	410	
BOD, 5-day, 20°C (mg/l, Limit < 30) 2/month	<6.6	ND	<6.66	5.8	6.5	
Total Suspended Solids (mg/l, Limit < 30) 2/month	92	37		510		Violations
Dissolved Oxygen (mg/l, Limit > 1.0) 1/week	8.5	9.0	9.2	8.4	9.7	
Dissolved Sulfides (mg/l, Limit < 0.1) 1/week (if DO < 1)		ND	ND	ND	ND	
pH (units, no limits) 1/week	8.6	9.2	8.9	9.1	9.1	
Chlorine Residual (mg/l, Limit determined by flow rate) 2/month	ND	ND		ND		
Flow Rate (gal/min) 3/week **	10/01	10/8	10/15	10/22	10/29	
	1.0	1.0	0.2	0.2	1.0	
Flow Rate (gal/min) 3/week	10/3	10/10	10/17	10/24	10/31	
	1.0	0.2	1.0	1.0	1.0	
Flow Rate (gal/min) 3/week	10/5	10/12	10/19	10/26	11/2	
	0.2	1.0	1.0	1.0	0.2	

Distribution: San Francisco Bay California Regional Water Quality Control Board (quarterly), Hanson Permanente Cement and Environmental Affairs (monthly).
* Lab sheets attached for off-site analysis.

** 1.0 gpm => = 30 gal/hr = 720 gal/day (BCA, 6/10/09)

Hanson

Prepared By: S. Renfrew
Date: April 2008

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

Sample Type*	Week 1 Date: Nov. 9, 2007	Week 2 Date: Nov. 16, 2007	Week 3 Date: Nov. 21, 2007	Week 4 Date: Nov. 26, 2007	Week 5 Date:
Total Coliform (MPN/100ml, Limit < 23 median for last 7 readings or < 240 for 2 consecutive samples.) 2/month	Time: 1245	Time: 1232	Time: 1230	Time: 1310	Time:
Sample Reading:	140		240		
Median, last 7 Readings:	>735		>769		Violations
Turbidity (NTU) 1/week	29	9.3	44	18	
BOD, 5-day, 20°C (mg/l, Limit < 30) 2/month	ND	ND	ND	ND	
Total Suspended Solids (mg/l, Limit < 30) 2/month	34		81		Violations
Dissolved Oxygen (mg/l, Limit > 1.0) 1/week	9.9	8	11	9.8	
Dissolved Sulfides (mg/l, Limit < 0.1) 1/week (if DO < 1)	ND	ND		ND	
pH (units, no limits) 1/week	9.1	9.0	9.0	7.8	
Chlorine Residual (mg/l, Limit determined by flow rate) 2/month	ND		ND		
Flow Rate (gal/min) 3/week	11/5	11/12	11/19	11/26	
	1.0	1.0	0.2	1.0	
Flow Rate (gal/min) 3/week	11/7	11/14	11/21	11/28	
	1.0	1.0	1.0	0.2	
Flow Rate (gal/min) 3/week	11/9	11/16	11/23	11/30	
	0.2	1.0	1.0	1.0	

Distribution: San Francisco Bay California Regional Water Quality Control Board (quarterly), Hanson Permanente Cement and Environmental Affairs (monthly).
* Lab sheets attached for off-site analysis.

Hanson

Prepared By: S. Renfrew
Date: April 2008

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

Sample Type*	Week 1 Date: Dec. 3, 2007	Week 2 Date: Dec. 10, 2007	Week 3 Date: Dec. 17, 2007	Week 4 Date: Dec. 27, 2007	Week 5 Date:
Total Coliform (MPN/100ml, Limit < 23 median for last 7 readings or < 240 for 2 consecutive samples.) 2/month	Time: 1445	Time: 1300	Time: 1240	Time: 1230	Time:
Sample Reading:	220		>1600		
Median, last 7 Readings:	>796		>796		
Turbidity (NTU) 1/week	26	17	52	4.3	
BOD, 5-day, 20°C (mg/l, Limit < 30) 2/month	ND	ND	ND	6.8	
Total Suspended Solids (mg/l, Limit < 30) 2/month	30		44		
Dissolved Oxygen (mg/l, Limit > 1.0) 1/week	11	11	11	7.8	
Dissolved Sulfides (mg/l, Limit < 0.1) 1/week (if DO < 1)	ND	ND	ND	ND	
pH (units, no limits) 1/week	8.7	8.7	8.5	7.4	
Chlorine Residual (mg/l, Limit determined by flow rate) 2/month	ND		ND		
Flow Rate (gal/min) 3/week	12/03	12/10	12/17	12/24	
	0.2	0.2	1.0	1.0	
Flow Rate (gal/min) 3/week	12/05	12/12	12/19	12/26	
	1.0	0.2	1.0	1.0	
Flow Rate (gal/min) 3/week	12/12	12/14	12/21	12/28	
	1.0	1.0	1.0	1.0	

Violations

Violation

Distribution: San Francisco Bay California Regional Water Quality Control Board (quarterly), Hanson Permanente Cement and Environmental Affairs (monthly).
* Lab sheets attached for off-site analysis.

Date?
(Assume 12/7)
OK, No Big Deal
-BDA 6/25/09

Hanson

Prepared By: S. Renfrew
Date: April 2008

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

Sample Type*	Week 1 Date: Jan. 4, 2008	Week 2 Date: Jan. 7, 2008	Week 3 Date: Jan. 15, 2008	Week 4 Date: Jan. 22, 2008	Week 5 Date: Jan. 30, 2008
Total Coliform (MPN/100ml, Limit < 23 median for last 7 readings or < 240 for 2 consecutive samples.) 2/month	Time: 1430	Time: 1540	Time: 1310	Time: 1340	Time: 1410
Sample Reading:	>1600		>1600		240.0
Median, last 7 Readings:	>796		>796		>806
Turbidity (NTU) 1/week	24	7.5	6.0	12	0.12
BOD, 5-day, 20°C (mg/l, Limit < 30) 2/month	11	12	9.8	14	9.5
Total Suspended Solids (mg/l, Limit < 30) 2/month	1.6		3.0		3.5
Dissolved Oxygen (mg/l, Limit > 1.0) 1/week	8.0	7.8	5.8	7.7	8.9
Dissolved Sulfides (mg/l, Limit < 0.1) 1/week (if DO < 1)	ND	ND	ND	ND	ND
pH (units, no limits) 1/week	7.2	6.9	7.1	7.4	7.6
Chlorine Residual (mg/l, Limit determined by flow rate) 2/month	ND		.20		ND
Flow Rate (gal/min) 3/week	12/31	01/07	01/14	01/21	01/28
	1.0	1.0	1.0	1.0	1.0
Flow Rate (gal/min) 3/week	01/02	01/09	01/16	01/23	01/30
	1.0	1.0	0.2	1.0	1.0
Flow Rate (gal/min) 3/week	01/04	01/11	01/18	01/25	02/01
	0.2	1.0	1.0	1.0	1.0

Violation
Violations

} OK

Distribution: San Francisco Bay California Regional Water Quality Control Board (quarterly), Hanson Permanente Cement and Environmental Affairs (monthly).
* Lab sheets attached for off-site analysis.

Hanson

Prepared By: S. Renfrew
Date: April 2008

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

Sample Type*	Week 1 Date: Feb. 5, 2008	Week 2 Date: Feb. 13, 2008	Week 3 Date: Feb. 21, 2008	Week 4 Date: Feb. 26, 2008	Week 5 Date:
Total Coliform (MPN/100ml, Limit < 23 median for last 7 readings or < 240 for 2 consecutive samples.) 2/month	Time: 1300	Time: 1235	Time: 1345	Time: 1420	Time:
Sample Reading:		280.0		>1600	
Median, last 7 Readings:		>826		>1020	
Turbidity (NTU) 1/week	6.5	9.5	0.10	2.5	
BOD, 5-day, 20°C (mg/l, Limit < 30) 2/month	11	8.2	14	ND	
Total Suspended Solids (mg/l, Limit < 30) 2/month		20		1.2	
Dissolved Oxygen (mg/l, Limit > 1.0) 1/week	6.6	8.8	6.2	5.4	
Dissolved Sulfides (mg/l, Limit < 0.1) 1/week (if DO < 1)	ND	ND	ND	ND	
pH (units, no limits) 1/week	7.3	7.7	7.4	7.6	
Chlorine Residual (mg/l, Limit determined by flow rate) 2/month		ND		ND	
Flow Rate (gal/min) 3/week	02/04	02/11	02/18	02/25	
	1.0	1.0	1.0	1.0	
Flow Rate (gal/min) 3/week	02/06	02/13	02/20	02/27	
	0.2	1.0	1.0	1.0	
Flow Rate (gal/min) 3/week	02/08	02/15	02/22	02/29	
	0.2	1.0	1.0	1.0	

Violations

ok

Distribution: San Francisco Bay California Regional Water Quality Control Board (quarterly), Hanson Permanente Cement and Environmental Affairs (monthly).
* Lab sheets attached for off-site analysis.

Hanson

Prepared By: S. Renfrew
Date: April 2008

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

Sample Type*	Week 1 Date: Mar. 5, 2008	Week 2 Date: Mar. 11, 2008	Week 3 Date: Mar. 18, 2008	Week 4 Date: Mar. 25, 2008	Week 5 Date: Mar. 31, 2008
Total Coliform (MPN/100ml, Limit < 23 median for last 7 readings or < 240 for 2 consecutive samples.) 2/month	Time: 1245	Time: 1400	Time: 1400	Time: 1335	Time: 1240
Sample Reading:		>1600		>1600	
Median, last 7 Readings:		>1217		>1217	
Turbidity (NTU) 1/week	.51	7.3	16	2.4	4.2
BOD, 5-day, 20°C (mg/l, Limit < 30) 2/month	ND	16	19	6.0	ND
Total Suspended Solids (mg/l, Limit < 30) 2/month		15		2.1	
Dissolved Oxygen (mg/l, Limit > 1.0) 1/week	8.0	5.4	4.8	7.4	8.3
Dissolved Sulfides (mg/l, Limit < 0.1) 1/week (if DO < 1)	ND	ND	ND	ND	ND
pH (units, no limits) 1/week	7.4	7.4	7.7	7.4	7.5
Chlorine Residual (mg/l, Limit determined by flow rate) 2/month		ND		ND	
Flow Rate (gal/min) 3/week	03/03	03/10	03/17	03/24	3/31
	1.0	1.0	1.0	1.0	1.0
Flow Rate (gal/min) 3/week	03/05	03/12	03/19	03/26	04/02
	1.0	1.0	1.0	1.0	
Flow Rate (gal/min) 3/week	03/07	03/14	03/21	03/28	04/04
	1.0	0.2	1.0	1.0	

Violations

* Lab sheets attached for off-site analysis.

Hanson