

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

RESOLUTION NO. R5-2005-0046

WAIVING WASTE DISCHARGE REQUIREMENTS
FOR
GEORGE REED INC.
CALAVERAS TRANSIT MIX
CALAVERAS COUNTY

WHEREAS, California Water Code Section 13260(a) requires that any person discharging wastes or proposing to discharge wastes within the region that could affect the quality of waters of the State shall file a Report of Waste Discharge; and

WHEREAS, George Reed, Inc. (Discharger) submitted a Report of Waste Discharge (RWD) on 25 May 2004 for the recycling of process wastewater at its Calaveras Transit Mix concrete batch plant, located in San Andreas, Calaveras County. Subsequent information was received on 19 July 2004, 9 December 2004, and 14 January 2005; and

WHEREAS, wastewater will be generated during the production of Portland cement concrete, and the washing of trucks used to transport the concrete; and

WHEREAS, California Water Code (CWC) Section 13173(b) defines designated waste as:

“Nonhazardous waste that that consists of, or contains, pollutants that, under ambient environmental conditions at a waste management unit, could be released in concentrations exceeding applicable water quality objectives or that could reasonably be expected to affect beneficial uses of the waters of the state as contained in the appropriate state water quality control plan.” and

WHEREAS, Title 27 of the California Code of Regulations (CCR) (Title 27) sets forth regulations for management of designated waste. Unless the facility or activity that generates designated waste is exempt from those regulations, any waste management unit used to treat, store, or dispose of designated waste must:

- a. Be sited, designed, and constructed in accordance with the applicable performance and minimum prescriptive standards contained therein;
- b. Monitored to detect any releases to soil or groundwater (e.g., groundwater monitoring is required);
- c. Have an approved closure and post-closure maintenance plan that includes groundwater monitoring for at least thirty years after final closure;
- d. Provide financial assurance that funds will be available to finance closure and post-closure maintenance and monitoring; and

WHEREAS, ready-mix concrete facilities blend aggregates, Portland cement, water, and chemical admixtures to create Portland cement concrete. Based on analytical testing of concrete wastewater samples obtained by Regional Board staff from ten ready-mix plants in late 2002, and

samples collected at the Calaveras Transit Mix batch plant, concrete wastewater exhibits the characteristics listed below. This waste is properly classified as designated waste; and

Parameter	Units	Concentration Range	Calaveras Transit Mix Results	Applicable Water Quality Limit ²
pH	--	7.7 to 12.6	12.0	6.5 to 8.4
Total Dissolved Solids	mg/L	160 to 2,600	1,480	450
Aluminum	ug/L	76 to 310 ¹	720	200
Boron	ug/L	2,900 ¹	--	700
Chromium, total	ug/L	53 to 280 ¹	160	50
Chromium, hexavalent	ug/L	1.4 to 260 ¹	130	21 ³
Molybdenum	ug/L	10 to 300 ¹	156	10
Sodium	mg/L	1.3 to 180	43	69
Vanadium	ug/L	26 to 160 ¹	--	50

- 1 Analytical data for filtered samples and represent dissolved concentrations.
- 2 The water quality limits cited herein are numeric limits selected to apply the narrative water quality objectives for groundwater set forth in the Water Quality Control Plan (Basin Plan) for the Sacramento River and San Joaquin River Basins for protection of the beneficial uses of groundwater. These limits have been selected in accordance with the procedure set forth in that Basin Plan.
- 3 This limit assumes a 20% relative source contribution, which may not be valid. The California Office of Environmental Health Hazard Assessment is currently developing a Public Health Goal for Chromium VI. Discussions with OEHHA staff indicate that the future PHG is likely to be lower than this value.

WHEREAS, Title 27 exempts certain activities from its provisions under Section 20090 which states, in part:

“The following activities shall be exempt from the SWRCB-promulgated provisions of this subdivision, so long as the activity meets, and continues to meet, all preconditions listed:

...(i) Fully Enclosed Units--Waste treatment in fully enclosed facilities, such as tanks, or in concrete-lined facilities of limited areal extent, such as oil-water separators designed, constructed, and operated according to American Petroleum Institute specification;” and

WHEREAS, this waiver is applicable to the discharges of designated waste liquid to fully enclosed tanks and concrete-lined sumps of limited aerial extent for the purpose of temporary storage and/or recycling provided that the system is designed, constructed, and operated in accordance with certain standards so that the activity can be deemed exempt pursuant to Title 27 Section 20090(i). The facility also has wash pads and paved areas designed specifically to collect the wastewater and convey it to the sump or tank system. The wash pads and paved areas are considered part of the waste management unit; and

WHEREAS, on 5 October 2002, in accordance with the California Environmental Quality Act (Title 14, California Code of Regulations (hereafter CCR), section 15261 et seq), the Calaveras County Board of Supervisors approved a Negative Declaration for the George Reed Calaveras Transit Mix batch plant; and

WHEREAS, all process material including washout water and residual solids will be recycled into concrete batch plant product; and

WHEREAS, the Discharger proposes to temporarily store and recycle all process concrete batch plant wastewater in a series of concrete sumps and above ground storage tanks. The sumps have a working capacity of approximately 42,560 gallons. Two 20,000 gallon above storage tanks have been installed, and the Discharger proposes to install two additional 20,000 gallon storage tanks; and

WHEREAS, all expansion joints and construction joints within the concrete processing areas and sumps are equipped with continuous PVC water stops to prevent migration of water through the joints; and

WHEREAS, the facility is designed such that all process wastewater from batch equipment and truck washout areas drain back into the concrete settling sumps; and

WHEREAS, the Discharger proposes to retrofit the existing concrete sumps with a water-proof sealant to prevent process water from leaking through cracks and void spaces within the concrete. This work must be completed prior to authorization to begin discharge at the facility; and

WHEREAS, residual solids removed from the concrete sumps will be dewatered, dried, and stored on a 3,300 square foot concrete slab adjacent to the concrete sumps. The concrete slab is designed to drain any excess liquids back into the concrete sumps. When residual solid stockpiles accumulate to approximately 23 to 25 tons, solids will be loaded on a truck and transported to the aggregate facility for recycling; and

WHEREAS, staff have prepared General Waste Discharge Requirements (WDRs) for those discharges of designated waste that are exempt from Title 27 under Section 20090 (i). This tentative Order is currently undergoing public review. This Waiver Resolution contains the same requirements as the tentative General WDRs, and is intended to allow this particular Discharger to begin operation prior to adoption of the General WDRs; and

WHEREAS, the Regional Water Quality Control Board, Central Valley Region (hereafter Regional Board) has a statutory obligation to prescribe waste discharge requirements except where a waiver is not against the public interest; and

WHEREAS, the Regional Board has determined that due to the limited nature and duration of the discharge, the discharge poses little or no threat to water quality. This Waiver Resolution will expire upon enrollment of the Discharger under the General WDRs referenced above; and

WHEREAS, the Regional Board held a hearing on 17 March 2005 and considered all evidence concerning this matter:

RESOLVED, that the California Regional Water Quality Control Board, Central Valley Region, waives waste discharge requirements for the George Reed, Inc. Calaveras Transit Mix batch plant, subject to the following conditions:

Discharge Prohibitions

1. Discharge of wastes to surface waters or surface water drainage courses is prohibited.
2. Discharge of waste classified as “hazardous” as defined in 27 CCR Section 20164 is prohibited.
3. Bypass or overflow of waste from the designated collection pads, sumps, or storage tanks is prohibited.
4. Discharge of designated waste other than to the designated storage and/or recycling system is prohibited.
5. Discharge of domestic wastewater to the designated waste storage and/or recycling system is prohibited.

Liquid Waste Discharge Specifications

1. All wastewater must be contained in a concrete sump or storage tank in such a manner that the wastewater does not contact the ground.
2. Wastewater shall be removed from sumps and storage tanks before capacity is reached, and may be removed by either a contracted waste hauler or by the Discharger.
3. Any wastewater removed from the facility for disposal shall be discharged to an appropriately permitted treatment/storage/disposal facility. The Discharger shall obtain receipts for the transported waste from the licensed hauler and the receiving facility.
4. Neither the treatment nor the discharge of waste shall cause a condition of nuisance or pollution as defined by CWC Section 13050.
5. No waste constituent shall be released or discharged, or placed where it will be released or discharged, in a concentration or in a mass that causes violation of the Groundwater Limitations.

6. Objectionable odors originating at the facility shall not be perceivable beyond the limits of the property owned by the Discharger.
7. As a means of discerning compliance with Liquid Waste Discharge Specification No. 6, the dissolved oxygen content in the upper one-foot of any wastewater sump or open tank shall not be less than 1.0 mg/l.
8. All treatment, storage, and disposal facilities shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.
9. Sumps and tanks shall be managed to prevent breeding of mosquitoes. In particular, algae, vegetation, scum, and debris shall not accumulate on the water surface.
10. The waste management unit shall have sufficient storage to accommodate allowable wastewater flow and the applicable design seasonal precipitation in accordance with the criteria set forth in the Design and Construction Standards of this waiver.
11. Freeboard in any sump or tank shall never be less than one foot as measured from the water surface to the lowest point of overflow.

Residual Solid Waste Handling and storage

1. The handling, storage, and off-site disposal of residual solids removed from designated waste liquids shall be conducted in a manner consistent to that which was provided in the RWD.
2. Solids removed from designated waste liquids may be dried (if desired) and stored in the location and manner described in the RWD, and such that any leachate is collected and discharged to an approved sump or tank to which this Waiver applies.
3. Solids drying and/or storage areas shall be designed, constructed, operated, and maintained to prevent the washout or inundation due to floods with a 100-year return frequency.
4. Neither the storage nor the disposal of residual solids waste shall result in nuisance conditions, including odors, storm water impacts, or groundwater impacts.
5. Any residual solids removed from the waste management unit for disposal shall be recycled or discharged at an appropriately permitted disposal facility. If solids are disposed of off-site, the Discharger shall obtain receipts for the transported waste from the licensed hauler and the receiving facility.

Groundwater Limitations

1. The discharge of waste shall not cause the underlying groundwater to contain waste constituents in concentrations statistically greater than background water quality.

Design and Construction Standards

1. All sumps and tanks shall be engineered to completely contain all liquids and shall be designed to provide at least one foot of freeboard at all times.
2. All sump and tank systems shall be designed to provide sufficient storage and disposal capacity to accommodate allowable wastewater flow, direct precipitation, and runoff from tributary paved areas during the following design precipitation events:
 - a. The total annual precipitation using a return period of 100 years (i.e., the 365-day, 100 year event), distributed monthly in accordance with historical rainfall patterns;
 - b. The 100-year, 24-hour storm event.
3. Wash pads and paved areas shall be sloped to provide positive drainage toward the sump or tank conveyance system and to minimize the depth and duration of ponding on the pavement surface.
4. Wash pads and paved areas shall be equipped with continuous integral curbs to control runoff containing waste constituents.
5. Pipe penetrations and other intentional openings through wash pads and paved wastewater collection areas shall be minimized and properly sealed.
6. Existing concrete pads and curbs shall be coated with an approved waterproofing material manufactured specifically for the purpose.
7. Coatings used to seal concrete pads and sumps shall be manufactured, selected, designed, and installed to be:
 - a. Functionally impervious to the waste to be contained;
 - b. Completely adhered to the underlying concrete;
 - c. Resistant to puncture, tearing, or abrasion damage due to construction activities and expected service conditions;
 - d. Resistant to damage to due expected environmental conditions (e.g., oxidation, UV radiation, temperature extremes)
8. The existing system shall be retrofitted to meet the conditions of this Waiver. All retrofit work shall be inspected, tested, and repaired or reconstructed (where applicable) in

accordance with an approved Construction Quality Assurance (CQA) Plan. The CQA Plan shall conform to the guidance set forth in *Technical Guidance Document: Construction Quality Assurance For Hazardous Waste Land Disposal Facilities* (EPA Publication No. 530SW86031) and Attachment A of this Waiver. The CQA Plan shall set forth in detail a program of inspection and testing designed to ensure that the applicable design and construction standards are fully achieved. The design professional that prepares the CQA Plan shall be a registered civil engineer or certified engineering geologist and the construction quality assurance program shall be supervised by a registered civil engineer or certified engineering geologist who shall be designated the CQA Officer.

Provisions

1. At least **14 days** prior to the proposed operation, the Discharger shall submit a CQA plan as described in Design and Construction Standards No.8.
2. At least **14 days** prior to the proposed operation, the Discharger shall submit a technical report certifying (1) that it has installed two additional 20,000 gallons above ground storage tanks, and (2) that the concrete sumps have been retrofitted to comply with the requirements of Design and Construction Standards Nos. 6 and 7, and installed, inspected, tested, and repaired (if applicable) in conformance with the CQA plan.
3. By **1 May 2005**, the Discharger shall submit a *Groundwater Monitoring Well Installation Workplan*. The workplan shall describe the proposed installation of at least three groundwater monitoring wells around the concrete sumps. Every monitoring well shall be constructed to yield representative samples from the uppermost layer of the uppermost aquifer and to comply with applicable well standards. The workplan shall be consistent with, and include the items listed in, the first section of Attachment B, "Requirements for *Monitoring Well Installation Workplans and Monitoring Well Installation Reports*."
4. Within **120 days** of staff's approval of the Groundwater Monitoring Well Installation Workplan, the Discharger shall submit a *Groundwater Monitoring Well Installation Report* that describes the installation of groundwater monitoring wells and contains the items found in the second and third sections of Attachment B.
5. The Discharger shall comply with the monitoring and reporting requirements prescribed in the attached (Attachment C) Monitoring and Reporting Program.

RESOLVED, upon submittal of the CQA plan and technical report described in Provision Nos. 1 and 2 above, and upon written approval by the Executive Officer, the Discharger may begin discharging and recycling wastewater into the concrete sumps in compliance with this Resolution.

RESOLVED, upon signature of a Notice of Applicability by the Executive Officer for coverage under *General Waste Discharge Requirements for Temporary Storage and Recycling of Designated Waste Liquids in Fully Enclosed Units*, Waiver Resolution No. R5-2005-0046 will be rescinded.

RESOLVED, that this action waving waste discharge requirements is conditional and may be terminated at any time.

I, THOMAS R. PINKOS, Executive Officer, do hereby certify the foregoing is a true, full, and correct copy of a resolution adopted by the California Regional Water Quality Control Board, Central Valley Region, on 17 March 2005.

THOMAS R. PINKOS, Executive Officer

Attachments: A-Construction Quality Assurance Plan
B- Monitoring Well Installation Requirements
C- Monitoring and Reporting Program

ORDER NO. R5-2005-0046
ATTACHMENT A
ADDITIONAL GUIDANCE FOR CQA PLANS AND
CQA REPORTS

A CQA Report shall be submitted prior to discharge in accordance with schedule set forth in the Provisions of the General Order. All plans and reports must be prepared under the direction of, and signed by, a registered engineering geologist or civil engineer licensed by the State of California.

SECTION 1 – Construction Quality Assurance Plan

The CQA Plan shall be prepared in accordance with U.S. EPA Guidance and shall contain the following minimum information:

A. Introduction

1. Purpose and scope of the CQA Plan
2. Description of all systems and improvements constructed under the CQA Plan, including (as applicable):
 - i. Excavations and Fills
 - ii. Liner subgrade
 - iii. Geomembranes
 - iv. Geotextiles
 - v. Geonets
 - vi. Leak detection systems
 - vii. Concrete structure base materials (protection of underlying geosynthetics)
 - viii. Reinforced concrete sumps and pavement (protection of underlying geosynthetics)
 - ix. Concrete materials, including any permeability-reducing admixtures
 - x. Concrete coatings
 - xi. Elastomeric caulking and sealing agents
 - xii. Any other item whose construction or operation is integral to, or may affect, the integrity of the waste containment system.

B. Roles, Responsibilities, and Coordination

1. Define the roles and responsibilities of all parties to the work to be performed under the CQA Plan, including the project owner, the design engineer, the general contractor, any subcontractors, geosynthetic materials manufacturer(s), geosynthetics installer, the CQA consultant, other manufacturers or vendors, and testing laboratories.
2. Define the qualifications, roles, and responsibilities of the CQA Team, including the CQA Project Director, CQA Field Manager, and CQA Field Monitors.
3. Define the reporting, communications, meetings, and decision-making process that will be used to ensure full implementation of the CQA Plan.

C. CQA Program Description

- D. For all of the systems and improvements listed in A.2 above, provide the following information as applicable:

1. Manufacturing
 - i. Raw materials quality control
 - ii. Production quality control
 - iii. Conformance testing
 - sampling procedures
 - conformance test procedures
 - conformance test results and acceptance criteria
2. Shipping, Handling and Storage Procedures
3. Installation
 - i. Preparation for installation and acceptance of prior work that bears on the performance of the system or improvement to be installed
 - ii. Installation procedures to ensure compliance with specifications
 - iii. Inspection procedures to ensure compliance with specifications
 - iv. Testing procedures to ensure compliance with specifications
 - destructive testing
 - non-destructive testing
 - v. Procedures for interpreting test results; identifying damage or substandard installation; and selecting and implementing mitigation measures
 - vi. Procedures for testing and acceptance of repaired or replaced items
4. Requirements for CQA Documentation
 - i. Field notes forms
 - ii. Inspection forms
 - iii. Test result forms
 - iv. Record (as-built) drawings and specifications

SECTION 2 – Construction Quality Assurance Report

The CQA Report must provide complete documentation of all inspection, testing, and repair or reconstruction that demonstrate that the improvements meet the requirements set forth in the construction specifications. In addition, the report must also clearly identify, describe, and justify any deviations from the approved CQA Plan. In addition to a narrative description of CQA Plan implementation, the report shall include all items listed under D.4 above.



California Regional Water Quality Control Board

Central Valley Region



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ATTACHMENT B

RESOLUTION NO. R5-2005-0046

REQUIREMENTS FOR MONITORING WELL INSTALLATION WORKPLANS AND MONITORING WELL INSTALLATION REPORTS

Prior to installation of groundwater monitoring wells, the Discharger shall submit a workplan containing, at a minimum, the information listed in Section 1, below. Wells may be installed after staff approve the workplan. Upon installation of the monitoring wells, the Discharger shall submit a well installation report which includes the information contained in Section 2, below. All workplans and reports must be prepared under the direction of, and signed by, a registered geologist or civil engineer licensed by the State of California.

SECTION 1 - Monitoring Well Installation Workplan and Groundwater Sampling and Analysis Plan

The monitoring well installation workplan shall contain the following minimum information:

A. General Information:

- Purpose of the well installation project
- Brief description of local geologic and hydrogeologic conditions
- Proposed monitoring well locations and rationale for well locations
- Topographic map showing facility location, roads, and surface water bodies
- Large scaled site map showing all existing on-site wells, proposed wells, surface drainage courses, surface water bodies, buildings, waste handling facilities, utilities, and major physical and man-made features

B. Drilling Details:

- On-site supervision of drilling and well installation activities
- Description of drilling equipment and techniques
- Equipment decontamination procedures
- Soil sampling intervals (if appropriate) and logging methods

C. Monitoring Well Design (in narrative and/or graphic form):

- Diagram of proposed well construction details
 - Borehole diameter
 - Casing and screen material, diameter, and centralizer spacing (if needed)
 - Type of well caps (bottom cap either screw on or secured with stainless steel screws)

California Environmental Protection Agency

- Anticipated depth of well, length of well casing, and length and position of perforated interval
- Thickness, position and composition of surface seal, sanitary seal, and sand pack
- Anticipated screen slot size and filter pack

D. Well Development (not to be performed until at least 48 hours after sanitary seal placement):

- Method of development to be used (i.e., surge, bail, pump, etc.)
- Parameters to be monitored during development and record keeping technique
- Method of determining when development is complete
- Disposal of development water

E. Well Survey (precision of vertical survey data shall be at least 0.01 foot):

- Identify the Licensed Land Surveyor or Civil Engineer that will perform the survey
- Datum for survey measurements
- List well features to be surveyed (i.e. top of casing, horizontal and vertical coordinates, etc.)

F. Schedule for Completion of Work

G. **Appendix: Groundwater Sampling and Analysis Plan (SAP)**

The Groundwater SAP shall be included as an appendix to the workplan, and shall be utilized as a guidance document that is referred to by individuals responsible for conducting groundwater monitoring and sampling activities.

Provide a detailed written description of standard operating procedures for the following:

- Equipment to be used during sampling
- Equipment decontamination procedures
- Water level measurement procedures
- Well purging (include a discussion of procedures to follow if three casing volumes cannot be purged)
- Monitoring and record keeping during water level measurement and well purging (include copies of record keeping logs to be used)
- Purge water disposal
- Analytical methods and required reporting limits
- Sample containers and preservatives
- Sampling
 - General sampling techniques
 - Record keeping during sampling (include copies of record keeping logs to be used)
 - QA/QC samples
- Chain of Custody
- Sample handling and transport

SECTION 2 - Monitoring Well Installation Report

The monitoring well installation report must provide the information listed below. In addition, the report must also clearly identify, describe, and justify any deviations from the approved workplan.

A. General Information:

Purpose of the well installation project
Brief description of local geologic and hydrogeologic conditions encountered during installation of the wells
Number of monitoring wells installed and copies of County Well Construction Permits
Topographic map showing facility location, roads, surface water bodies
Scaled site map showing all previously existing wells, newly installed wells, surface water bodies, buildings, waste handling facilities, utilities, and other major physical and man-made features.

B. Drilling Details (in narrative and/or graphic form):

On-site supervision of drilling and well installation activities
Drilling contractor and driller's name
Description of drilling equipment and techniques
Equipment decontamination procedures
Soil sampling intervals and logging methods
Well boring log

- Well boring number and date drilled
- Borehole diameter and total depth
- Total depth of open hole (same as total depth drilled if no caving or back-grouting occurs)
- Depth to first encountered groundwater and stabilized groundwater depth
- Detailed description of soils encountered, using the Unified Soil Classification System

C. Well Construction Details (in narrative and/or graphic form):

Well construction diagram, including:

- Monitoring well number and date constructed
- Casing and screen material, diameter, and centralizer spacing (if needed)
- Length of well casing, and length and position of perforated interval
- Thickness, position and composition of surface seal, sanitary seal, and sand pack
- Type of well caps (bottom cap either screw on or secured with stainless steel screws)

E. Well Development:

Date(s) and method of development
How well development completion was determined
Volume of water purged from well and method of development water disposal
Field notes from well development should be included in report

F. Well Survey (survey the top rim of the well casing with the cap removed):

Identify the coordinate system and datum for survey measurements
Describe the measuring points (i.e. ground surface, top of casing, etc.)
Present the well survey report data in a table
Include the Registered Engineer or Licensed Surveyor's report and field notes in appendix

ATTACHMENT C

RESOLUTION NO. R5-2005-0046

MONITORING AND REPORTING PROGRAM

FOR
GEORGE REED INC.
CALAVERAS TRANSIT MIX
CALAVERAS COUNTY

This Monitoring and Reporting Program (MRP) describes requirements for monitoring wastewater, sumps, storage tanks, wash pads/paved areas, and (where applicable) groundwater. This MRP is issued pursuant to Water Code Section 13267. The Discharger shall not implement any changes to this MRP unless and until a revised MRP is issued by the Executive Officer.

Field test instruments (such as those used to measure pH, electrical conductivity, and dissolved oxygen) may be used provided that:

1. The operator is trained in proper use and maintenance of the instruments;
2. The instruments are calibrated prior to each monitoring event;
3. The instruments are serviced and/or calibrated by the manufacturer at the recommended frequency; and
4. Field calibration reports are submitted as described in the "Reporting" section of the MRP.

SUMP AND TANK MONITORING

Each sump and tank that receives wastewater shall be inspected weekly and monitored as follows:

<u>Parameter</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Freeboard	0.1 Feet	Measurement	Weekly	Monthly
Dissolved oxygen ^{1,2}	mg/L	Grab	Weekly	Monthly
Sump/tank condition ³	N/A	Observation	Weekly	Monthly

¹ Required only for wastes known to contain readily degradable organic compounds.

² Samples collected for D.O. shall be collected from the sumps only.

³ Includes, but may not be limited to accumulation of solids that affects storage capacity; concrete cracks or spalling; coating cracks, separation, blistering, tearing; and any other signs of deterioration.

WASTEWATER AND RESIDUAL SOLIDS MONITORING

At a minimum, the Discharger shall monitor discharges to the waste management unit as follows:

<u>Constituent/Parameter</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Wastewater				
Flow to recycling system ¹	gpd	Meter reading	Daily	Monthly
Volume transported offsite for disposal	gpd	Meter reading	Daily	Monthly
Residual Solids (if applicable)				
Volume removed from sumps and tanks	cubic yards	Calculation	Daily	Monthly
Volume transported offsite for recycling or disposal ²	cubic yards	Calculation	Daily	Monthly

¹ Process wastewater flows from the collection sumps and storage tanks into the batch plant shall be monitored and reported. In addition, the amount of make makeup water (i.e., potable water) used in the batch plant process shall be monitored and reported.

² Records and receipts shall be maintained at the facility.

GROUNDWATER MONITORING

The Discharger shall monitor groundwater quality using all monitoring wells installed in accordance with an approved workplan. Prior to construction of any new groundwater monitoring wells, the Discharger shall submit plans and specifications to the Board for review and approval. Once installed, all new wells shall be added to the MRP, and shall be sampled and analyzed according to the schedule below.

Groundwater elevations shall be measured prior to purging. Each well shall be purged of at least three well volumes until pH and electrical conductivity have stabilized prior to sampling. Depth to groundwater shall be measured to the nearest 0.01 feet. Water table elevations shall be calculated based on surveyed wellhead elevations and used to determine groundwater gradient and direction of flow. Groundwater samples shall be collected using approved EPA methods. Groundwater monitoring shall include, at a minimum, the following:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling and Reporting Frequency¹</u>
Depth to groundwater	0.01 Feet	Measurement	Quarterly
Groundwater elevation	Feet	Calculated	Quarterly
Gradient	Feet/feet	Calculated	Quarterly
Flow direction	Degrees	Calculated	Quarterly
Total dissolved solids	mg/L	Grab	Quarterly
pH	--	Grab	Quarterly

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling and Reporting Frequency¹</u>
Total Chromium	ug/l	Grab	Quarterly
Chromium VI	ug/l	Grab	Quarterly
Molybdenum	ug/l	Grab	Quarterly
Iron	mg/l	Grab	Quarterly
Aluminum	mg/l	Grab	Quarterly

¹ Beginning with 4th Quarter 2005

INSPECTION AND REPAIR

All sumps, tanks, wash pads, and paved areas used to collect wastewater shall be thoroughly cleaned, inspected, and repaired as needed at least once per year. The following is a minimum list of required annual inspection items:

1. For tanks, check for:
 - a. Cracks and holes;
 - b. Evidence of corrosion;
 - c. Leaking pipes and valves;
 - d. Secondary containment berm integrity;
 - e. Secondary containment storm water release valve function (e.g., proper seating when closed); and
 - f. Flow meter function.

2. For sumps, check for:
 - a. Concrete cracks and spalling;
 - b. Evidence of concrete chemical damage;
 - c. Leaking pipes and valves;
 - d. If the concrete is coated, check for cracks, tears, abrasion, and UV damage;
 - e. Leak detection system function; and
 - f. Flow meter function.

3. For wash pads and paved areas, check for:
 - a. Concrete cracks and spalling;
 - b. Damaged caulking;
 - c. Evidence of concrete chemical damage;
 - d. Evidence of curb damage; and
 - e. If the concrete is coated, check for cracks, tears, abrasion, and UV damage.

REPORTING

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g., effluent, pond, etc.), and reported analytical result for each sample are readily discernible. The data shall be summarized in such a manner to clearly illustrate compliance with waste discharge requirements and spatial or temporal trends, as applicable. The results of any monitoring done more frequently than required at the locations specified in the Monitoring and Reporting Program shall be reported in the next scheduled monitoring report.

As required by the California Business and Professions Code Sections 6735, 7835, and 7835.1, all Groundwater Monitoring Reports shall be prepared under the direct supervision of a California Registered Engineer or Geologist and signed by the registered professional.

A. Monthly Monitoring Reports

Monthly Monitoring Reports shall be submitted to the Regional Board by the **1st day of the second month following monitoring** (i.e. the January Report is due by 1 March). At a minimum, the Monthly Monitoring Report shall include:

1. Results of sump, tank, leak detection system, and wastewater/residual solids monitoring.
2. A scaled map depicting the locations of all sumps, tanks, wash pads/paved areas, and the locations where freeboard is measured.
3. A comparison of monitoring data to the discharge specifications and an explanation of any violation of those requirements. Data shall be presented in tabular format.
4. If requested by staff, copies of laboratory analytical report(s).
5. A calibration log verifying calibration of all monitoring instruments and devices used to comply with the prescribed monitoring program. A discussion of all off-site industrial waste disposal, including the names and addresses of haulers and disposal facilities utilized during the month.
6. All activities performed to correct problems noted during weekly inspections.

B. Quarterly Monitoring Reports

The Discharger shall establish a quarterly sampling schedule for groundwater monitoring such that samples are obtained approximately every three months. Beginning with the **4th Quarter 2005**, Monitoring Reports shall be submitted to the Board by the **1st day of the second month after the quarter** (i.e. the January-March quarter is due by May 1st) each year. The Quarterly Monitoring Report shall include the following:

1. Results of groundwater monitoring. The results of regular monthly monitoring reports for March, June, September and December may be incorporated into their corresponding quarterly monitoring report.

2. A narrative description of all preparatory, monitoring, sampling, and analytical testing activities for the groundwater monitoring. The narrative shall be sufficiently detailed to verify compliance with this waiver, this MRP, and the Standard Provisions and Reporting Requirements. The narrative shall be supported by field logs for each well documenting depth to groundwater; parameters measured before, during, and after purging; method of purging; calculation of casing volume; and total volume of water purged;
3. Calculation of groundwater elevations, an assessment of groundwater flow direction and gradient on the date of measurement, comparison of previous flow direction and gradient data, and discussion of seasonal trends if any;
4. A narrative discussion of the analytical results for all groundwater locations monitored including spatial and temporal trends, with reference to summary data tables, graphs, and appended analytical reports (as applicable);
5. A comparison of monitoring data to the groundwater limitations and an explanation of any violation of those requirements;
6. Summary data tables of historical and current water table elevations and analytical results;
7. A scaled map showing relevant structures and features of the facility, the locations of monitoring wells and any other sampling stations, and groundwater elevation contours referenced to mean sea level datum;
8. Copies of laboratory analytical report(s) for groundwater monitoring.

C. Annual Monitoring Report

An Annual Monitoring Report shall be prepared as the twelfth monthly monitoring report. The Annual Monitoring Report shall include all monitoring data required in the monthly monitoring schedule and shall be submitted to the Regional Board by **1 February** each year. In addition to the data normally presented in the Monthly Monitoring Reports, the Annual Monitoring Report shall include the following:

1. The contents of the regular monthly monitoring report for the last month of the year;
2. The contents of the regular groundwater monitoring report for the last sampling event of the year and an evaluation of the groundwater quality beneath the facility;
3. If requested by staff, tabular and graphical summaries of all monitoring data collected during the year;
4. A report of results for the annual inspection program, a complete description of all problems noted, and a complete description of repairs or replacements implemented to provide continuous complete containment of the waste.
5. A discussion of compliance problems and any corrective actions taken, as well as any planned or proposed actions needed to bring the discharge into full compliance with the waste discharge requirements;

6. A discussion of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program;
7. A summary of information on the management and disposal of sediments, including names and address of disposal facilities, dates of shipment, and quantity shipped;
8. A forecast of influent flows for the coming year, as described in Standard Provision No. E.4.

A transmittal letter shall accompany each self-monitoring report. The letter shall discuss any violations during the reporting period and all actions taken or planned for correcting violations, such as operation or facility modifications. If the Discharger has previously submitted a report describing corrective actions and/or a time schedule for implementing the corrective actions, reference to the previous correspondence will be satisfactory. The transmittal letter shall contain a statement by the Discharger or the Discharger's authorized agent, under penalty of perjury, that to the best of the signer's knowledge the report is true, accurate, and complete.

AMENDED
3/17/05