

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION
320 W. 4th Street, Suite 200, Los Angeles

**FACT SHEET
WASTE DISCHARGE REQUIREMENTS
for
CEMEX, INC.
(MOORPARK FACILITY)**

NPDES Permit No.: CA0059315
Public Notice No.: 02-017

FACILITY ADDRESS

Cemex, Inc.
9035 Roseland Avenue
Moorpark, CA 93020

FACILITY MAILING ADDRESS

Cemex, Inc.
P.O. Box 1030
Moorpark, CA 93021
Contact Person: Scott Hess
Telephone: (805) 529-1535

I. Public Participation

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) is considering the issuance of waste discharge requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for the above-referenced facility. As an initial step in the WDR process, the Regional Board staff has developed tentative WDRs. The Regional Board encourages public participation in the WDR adoption process.

A. Written Comments

The staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative WDRs. Comments should be submitted either in person or by mail to:

Executive Officer
California Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013

To be fully responded to by staff and considered by the Regional Board, written comments should be received at the Regional Board offices by 5:00 p.m. on May 15, 2002.

B. Public Hearing

The Regional Board will hold a public hearing on the tentative WDRs during its regular Board meeting on the following date and time and at the following location:

Date: May 23, 2002
Time: 9:00 a.m.
Location: City of Simi Valley, Council Chambers
2929 Tapo Canyon Road
Simi Valley, California

Interested persons are invited to attend. At the public hearing, the Regional Board will hear testimony, if any, pertinent to the discharge, WDRs, and permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

C. Waste Discharge Requirements Appeals

Any aggrieved person may petition the State Water Resources Control Board to review the decision of the Regional Board regarding the final WDRs. The petition must be submitted within 30 days of the Regional Board's action to the following address:

State Water Resources Control Board, Office of the Chief Counsel
ATTN: Elizabeth Miller Jennings, Senior Staff Counsel
1001 I Street, 22nd Floor
Sacramento, CA 95814

D. Information and Copying

The Report of Waste Discharge (ROWD), related documents, tentative effluent limitations and special conditions, comments received, and other information are on file and may be inspected at 320 West 4th Street, Suite 200, Los Angeles, California 90013, at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Los Angeles Regional Board by calling (213) 576-6600.

E. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Regional Board, reference this facility, and provide a name, address, and phone number.

II. Introduction

Cemex, Inc. (Cemex), formerly called Transit Mixed Concrete Co., discharges waste (rainfall runoff and truck wash water) from its Moorpark Facility under waste discharge requirements (WDRs) contained in Order No. 96-046 adopted by this Regional Board on June 10, 1996. The WDRs serve as a National Pollutant Discharge Elimination System (NPDES) permit (NPDES Permit No. CA0059315). Order No. 96-046 expired on May 10, 2001. Cemex has filed a ROWD and has applied for renewal of its WDRs and NPDES permit

III. Description of Facility and Waste Discharge

The Moorpark Facility is located at 9035 Roseland Avenue, Moorpark, California. It is situated approximately 4 miles north of City of Moorpark in an unincorporated area of Ventura. Cemex acquired Blue Star Ready Mix, Inc. in 1993. Since 1993 a series of two name changes have occurred. The facility operated under the name of Transit Mix Concrete from 1993-1999, then as Southdown, Inc. from 1999-2001. The current name of the facility is Cemex, Inc.

The operations at the Moorpark Facility include: sand and gravel mining, rock processing including crushing and screening, concrete mixing, vehicle fueling, and vehicle maintenance. The annual rate of production of the various products vary from year to year based on economic conditions. The proposed maximum annual production rate is 340,000 tons.

Cemex intermittently discharges 120,000 gallons per day of wastewater consisting of storm water runoff, wash off of concrete trucks, and wet down of aggregate trucks flows through seven settling basins placed in series. There are two large basins; upper basin (3 million gallons capacity) and lower basin (2.4 million gallons capacity). The remaining five are smaller basins (with a capacity range of 0.2 million gallons to 1 million gallons), placed in the series set-up. The total design capacity of the basins is approximately 7.8 million gallons. The large lower settling basin, also acts as a debris basin. The basins are designed to allow solids to settle out and 120,000 gallons per day of water is intermittently discharged through the lower basin/debris basin from Discharge Serial No. 001 (Latitude: 34° 16' 56" North; Longitude: 118° 48' 44" West) into Happy Camp Canyon. Happy Camp Canyon is a tributary to Arroyo Simi and Calleguas Creek, a water of the United States, above the estuary, and is part of the Calleguas Creek Watershed Area. The debris basin is dredged annually to prevent sediment build up and possible overflow. Only during extremely heavy storm events will a discharge occur from the debris basin. During the last five years there were seven discharges. The flow during these discharges varied from 2,000 gallons to 243,000 gallons per storm event.

The Regional Board and the United States Environmental Protection Agency (USEPA) have classified the Cemex Moorpark Facility as a minor discharge with a categorical rating of 3B.

IV. Applicable Plans, Policies, and Regulations

The requirements contained in the proposed Order are based on the requirements and authorities contained in the following:

- A. The Federal Clean Water Act (CWA). The federal Clean Water Act requires that any point source discharge of pollutants to a water of the United States must be done in conformance with an NPDES permit. NPDES permits establish effluent limitations that incorporate various requirements of the CWA designed to protect water quality.
- B. Title 40, Code of Federal Regulations (40 CFR) – Protection of Environment, Chapter I, Environmental Protection Agency, Subchapter D, Water Programs, Parts 122-125 and Subchapter N, Effluent Guidelines. These CWA regulations provide effluent limitations for certain dischargers and establish procedures for NPDES permitting, including how to establish effluent limitations, for certain pollutants discharged by Cemex.
- C. On June 13, 1994, the Regional Board adopted a revised *Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan). The Basin Plan contains beneficial uses and water quality objectives for Arroyo Simi. The Regional Board has conditionally designated the potential beneficial use of municipal and domestic water supply (MUN) for Arroyo Simi consistent with Regional Board Resolution 89-03; however the Regional Board has only conditionally designated the MUN beneficial uses and at this time cannot establish effluent limitations designed to protect the conditional designation.

Existing: industrial process supply, ground water recharge, freshwater replenishment, contact and non-contact water recreation, warm freshwater habitat, wildlife habitat, and preservation of rare, threatened or endangered species.

- D. The State Water Resources Control Board (State Board) adopted a *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California* (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. This plan contains temperature objectives for Calleguas Creek watershed.

- E. On May 18, 2000, the U.S. Environmental Protection Agency (USEPA) promulgated numeric criteria for priority pollutants for the State of California [known as the *California Toxics Rule* (CTR) and codified as 40 CFR section 131.38]. In the CTR, USEPA promulgated criteria that protects the general population at an incremental cancer risk level of one in a million (10^{-6}), for all priority toxic pollutants regulated as carcinogens. The CTR also provides a schedule of compliance not to exceed 5 years from the date of permit renewal for an existing discharger if the discharger demonstrates that it is infeasible to promptly comply with the CTR criteria.

- F. On March 2, 2000, State Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP was effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the USEPA through National Toxics Rule (NTR) and to the priority pollutant objectives established by the Regional Boards in their basin plans, with the exception of the provision on alternate test procedures for individual discharges that have been approved by the USEPA Regional Administrator. The alternate test procedures provision was effective on May 22, 2000. The SIP was effective on May 18, 2000, with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The SIP does not apply to discharges comprised solely of storm water, but some of the protocols identified in the SIP provide a rationale approach for determining reasonable potential and represent the best available science with respect to minimum levels for all surface water discharges. The SIP requires the dischargers' submittal of data sufficient to conduct the determination of priority pollutants requiring water quality based effluent limitations (WQBELs) and to calculate the effluent limitations. The CTR criteria for freshwater or human health for consumption of organisms, whichever is more stringent, are used to develop the effluent limitations in this Order to protect the beneficial uses of Arroyo Simi.

- G. 40 CFR Section 122.44(d)(vi)(A) requires the establishment of numeric effluent limitations to attain and maintain applicable narrative water quality criteria to protect the designated beneficial uses. Where numeric water quality objectives have not been established in the Basin Plan, 40 CFR section 122.44(d) specifies that water quality based effluent limits (WQBELs) may be set based on USEPA criteria and supplemented, where necessary, by other relevant information to attain and maintain narrative water quality criteria to fully protect designated beneficial uses.

- H. State and Federal antibacksliding and antidegradation policies require that Regional Board actions to protect the water quality of a water body and to ensure that the waterbody will not be further degraded. The antibacksliding provisions are specified in section 402(o) of the CWA and in the Title 40 of the Code of Federal Regulations (40 CFR), section 122.44(i). Those provisions require a reissued permit to be as stringent as the previous permit with some exceptions where effluent limitations may be relaxed.

- I. Effluent limitations are established in accordance with sections 301, 304, 306, and 307 of the federal Water Pollution Control Act, and amendments thereto. These requirements, as they are met, will maintain and protect the beneficial uses of the Happy Camp Canyon and Arroyo Simi.
- J. Existing waste discharge requirements contained in Board Order No. 96-046, adopted by the Regional Board on June 10, 1996. In some cases, permit conditions (effluent limits and other special conditions) established in the existing waste discharge requirements have been carried over to this permit.

V. Regulatory Basis for Effluent Limitations

The CWA requires point source discharges to control the amount of conventional, nonconventional, and toxic pollutants that are discharged into the waters of the United States. The control of the discharge of pollutants is established through NPDES permits that contain effluent limitations and standards. The CWA establishes two principal bases for effluent limitations. First, dischargers are required to meet technology-based effluent limitations that reflect the best controls available considering costs and economic impact. Second, they are required to meet WQBELs that are developed to protect applicable designated uses of the receiving water.

The CWA requires that technology-based effluent limitations be established based on several levels of controls:

- Best practicable treatment control technology (BPT) is based on the average of the best performance by plants within an industrial category or subcategory. BPT standards apply to toxic, conventional, and nonconventional pollutants.
- Best available technology economically achievable (BAT) represents the best existing performance of treatment technologies that are economically achievable within an industrial point source category. BAT standards apply to toxic and nonconventional pollutants.
- Best conventional pollutant control technology (BCT) is a standard for the control from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and oil and grease. The BCT standard is established after considering the “cost reasonableness” of the relationship between the cost of attaining a reduction in effluent discharge and the benefits that would result, and also the cost effectiveness of additional industrial treatment beyond BPT.
- New source performance standards (NSPS) that represent the best available demonstrated control technology standards. The intent of NSPS guidelines is to set limitations that represent state-of-the-art treatment technology for new sources.

The CWA requires EPA to develop effluent limitations, guidelines and standards (ELGs) representing application of BPT, BCT, BAT, and NSPS. Section 402(a)(1) of the CWA and 40 CFR 125.3 of the NPDES regulations authorize the use of best professional judgment (BPJ) to derive technology-based effluent limitations on a case-by-case basis where ELGs are not available for certain industrial categories and/or pollutants of concern.

If a reasonable potential exists for pollutants in a discharge to cause or contribute to an exceedance of water quality standards, WQBELs are also required under 40 CFR 122.44(d)(1)(i). WQBELs are established after determining that technology-based limitations are not stringent enough to ensure that state water quality standards are met for the receiving water. WQBELs are based on the designated use of the receiving water, water quality criteria necessary to support the designated uses, and the state's antidegradation policy. For discharges not composed entirely of storm water, such as the potential Moorpark Facility discharges to inland surface waters, the SIP establishes specific implementation procedures for determining reasonable potential and establishing WQBELs for priority pollutant criteria promulgated by USEPA through the CTR and NTR, as well as the Basin Plan. With respect to a reasonable potential analysis, the SIP identifies a appropriate step-wise approach that can be used to determine whether a discharge has a reasonable potential. The approach used in the SIP is equally valid for determining the reasonable potential for discharges comprised entirely of storm water discharges.

There are several other specific factors affecting the development of limitations and requirements in the proposed Order. These are discussed as follows:

A. Pollutants of Concern

The CWA requires that any pollutant that may be discharged by a point source in quantities of concern must be regulated through an NPDES permit. Further, the NPDES regulations require regulation of any pollutant that (1) causes; (2) has the reasonable potential to cause; or (3) contributes to the exceedance of a receiving water quality criteria or objective.

Effluent limitations in the current permit were established for total dissolved solids, settleable solids, oil and grease, sulfate, chloride, boron, nitrate plus nitrite, barium, arsenic, and cadmium. However, based on the Discharger's nature of operation (sand and gravel mining, rock processing and concrete mixing), the proposed permit prescribed limits for pH, total suspended solids, and turbidity. There were no effluent limitation and monitoring requirement prescribed for toxic pollutants in the current permit. The proposed permit prescribed interim monitoring to obtain necessary data to conduct reasonable potential analysis and to calculate effluent limitation, if required.

B. Technology-Based Effluent Limits

The existing permit for the Moorpark Facility requires the Discharger to develop and implement a *Storm water Pollution Prevention Plan (SWPPP)*. The SWPPP outlines site-specific management processes for minimizing storm water runoff contamination and for preventing contaminated storm water runoff from being discharged directly into surface waters. Due to the fact that when discharges do occur at the Moorpark Facility, they are composed primarily of storm water, this permit will require that Paktank update and continue to implement their SWPPP.

C. Water Quality-Based Effluent Limits

As specified in 40 CFR 122.44(d)(1)(i), permits are required to include WQBELs for toxic pollutants (including toxicity) that are or may be discharged at levels which cause, have reasonable potential to cause, or contribute to an excursion above any state water quality standard. The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses for the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria (that are contained in other state plans and policies, or USEPA water quality criteria contained in the CTR and NTR). The specific procedures for determining reasonable potential, and if necessary for calculating WQBELs, are contained in the SIP for non-storm water discharges. Because of the potential for Moorpark Facility's discharge to include non-storm water waste the SIP's approach is appropriate. Further, in the best professional judgment of the Regional Board staff the SIP identifies an appropriate, rational step-wise approach that can be used to determine whether storm water discharges have a reasonable potential.

The CTR contains both saltwater and freshwater criteria. According to 40 CFR 131.38(c)(3), freshwater criteria apply at salinities of 1 part per thousand (ppt) and below at locations where this occurs 95 percent or more of the time; saltwater criteria apply at salinities of 10 ppt and above at locations where this occurs 95 percent or more of the time; and at salinities between 1 and 10 ppt the more stringent of the two apply. The CTR criteria for freshwater or human health for consumption of organisms, whichever is more stringent, are used to prescribe the effluent limitations in this Order to protect the beneficial uses of Arroyo Simi.

1. Reasonable Potential Analysis (RPA)

In accordance with Section 1.3 of the SIP, the Regional Board conducts a reasonable potential analysis for each priority pollutant with an applicable criterion or objective to determine if a WQBEL is required in the permit. The Regional Board analyzes effluent data to determine if a pollutant in a discharge has a reasonable potential to cause or contribute to an excursion above a state water quality standard. For all parameters that have a reasonable potential, numeric

WQBELs are required. The RPA considers water quality objectives outlined in the CTR, NTR, as well as the Basin Plan. To conduct the RPA, the Regional Board must identify the maximum observed effluent concentration (MEC) for each constituent, based on data provided by the Discharger.

Section 1.3 of the SIP provides the procedures for determining reasonable potential to exceed water applicable water quality criteria and objectives. The SIP specifies three triggers to complete a RPA:

- a. Trigger 1 – If the MEC is greater than or equal to the CTR water quality criteria or applicable objective (C), a limit is needed.
- b. Trigger 2 – If $MEC < C$ and background water quality (B) $> C$, a limit is needed.
- c. Trigger 3 – If other related information such as CWA 303(d) listing for a pollutant, discharge type, compliance history, etc. indicates that a WQBEL is required.

Sufficient effluent and ambient data are needed to conduct a complete RPA. If data are not sufficient, the Discharger will be required to gather the appropriate data for the Regional Board to conduct the RPA. Upon review of the data, and if the Regional Board determines that WQBELs are needed to protect the beneficial uses, the permit will be reopened for appropriate modification.

2. Calculating WQBELs

If a reasonable potential exists to exceed applicable water quality criteria or objectives, then a WQBEL must be established in accordance with one of three procedures contained in Section 1.4 of the SIP. These procedures include:

- a. If applicable and available, use of the wasteload allocation (WLA) established as part of a total maximum daily load (TMDL).
- b. Use of a steady-state model to derive maximum daily effluent limitations (MDELs) and average monthly effluent limitations (AMELs).
- c. Where sufficient effluent and receiving water data exist, use of a dynamic model which has been approved by the Regional Board.

3. Impaired Water Bodies in 303 (d) List

Section 303(d) of the CWA requires states to identify specific water bodies where water quality standards are not expected to be met after implementation of technology-based effluent limitations on point sources. For all 303(d) listed water bodies and pollutants, the Regional Board plans to develop and adopt TMDLs that will specify WLAs for point sources and load allocations (LAs) for non-point sources, as appropriate.

The USEPA has approved the State's 303(d) list of impaired water bodies. Certain receiving waters in the Los Angeles and Ventura County watersheds do not fully support beneficial uses and therefore have been classified as impaired on the 1998 303(d) list and have been scheduled for TMDL development.

Calleguas Creek and its major tributaries, Revolon Slough, Conejo Creek, Arroyo Conejo, Arroyo Santa Rosa, and Arroyo Simi drain an area of 343 square miles in southern Ventura County and a small portion of western Los Angeles County. This watershed, which is elongated along an east-west axis, is about 30 miles long and 14 miles wide. The northern boundary of the watershed is formed by the Santa Susana Mountains, South Mountain, and Oak Ridge; the southern boundary is formed by the Simi Hills and Santa Monica Mountains. Land uses vary throughout the watershed. Urban developments are generally restricted to the city limits of Simi Valley, Moorpark, Thousand Oaks, and Camarillo

The 1998 State Water Resources Control Board's (State Board) Water Quality Assessment (WQA) classifies the water quality conditions of water bodies in the state. Within the Calleguas Creek Watershed the following water bodies are classified as impaired water bodies, and are listed on the 1998 California 303(d) List and TMDL Schedule: Mugu Lagoon, tributary from duck ponds to Mugu Lagoon, Calleguas Creek (Estuary to Arroyo Las Posas), Revolon Slough and Beardsley Channel/Wash, Conejo Creek, Arroyo Conejo, Arroyo Conejo North Fork, Arroyo las Posas, and Arroyo Simi.

The 1998 California 303(d) list of impaired water bodies, approved by the USEPA on May 12, 1999, identified the following pollutants of concern for Arroyo Simi – Reach 1 (Moorpark Freeway 23 to Brea Canyon) : Ammonia, boron, chloride, chromium, nickel, selenium, silver, sulfates, total dissolved solids, and zinc.

4. Whole Effluent Toxicity

Whole Effluent Toxicity (WET) protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. WET tests measure the degree of response of exposed aquatic test organisms to an effluent. The WET approach allows for protection of the narrative "no toxics in

toxic amounts” criterion while implementing numeric criteria for toxicity. There are two types of WET tests: acute and chronic. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a longer period of time and measures mortality, reproduction, and growth.

The Basin Plan specifies a narrative objective for toxicity, requiring that all waters be maintained free of toxic substances in concentrations that are lethal to or produce other detrimental response on aquatic organisms. Detrimental response includes but is not limited to decreased growth rate, decreased reproductive success of resident or indicator species, and/or significant alterations in population, community ecology, or receiving water biota. The existing permit contains acute toxicity limitations to implement requirements of the Basin Plan. Specifically, the acute toxicity limitations dictate that the average survival in undiluted effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test having less than 70% survival.

In addition to the Basin Plan requirements, Section 4 of the SIP states that a chronic toxicity effluent limitation is required in permits for all discharges that will cause, have the reasonable potential to cause, or contribute to chronic toxicity in receiving waters.

The discharges at the Moorpark Facility occur only after a significant storm event; they are not continuous. Intermittent discharges are likely to have short-term toxic effects; therefore at this facility, Cemex will be required to continue to conduct acute toxicity testing in accordance with the existing permit requirements.

D. Specific Rationale for Each Numerical Effluent Limitation

Section 402(o) of the Clean Water Act and 40 CFR 122.44(l) require that effluent limitations standards or conditions in re-issued permits are at least as stringent as in the existing permit. The Regional Board has determined that reasonable potential exists for all pollutants that are regulated under the current permit; therefore effluent limitations have been established for these pollutants.

The existing permit prescribes effluent limitations for majority of conventional pollutants and monitoring of all conventional pollutants. The proposed permit prescribed limits for the conventional pollutant that were left out in the current permit (total suspended solids, pH, and turbidity). No effluent limits or monitoring are prescribed for priority pollutants. There is insufficient data to perform RPA for the toxic pollutants. THE CTR and SIP require the dischargers to submit sufficient data to conduct the determination of priority pollutants requiring WQBELs and to calculate effluent limitations, if required. The proposed permit includes interim monitoring

requirements to obtain the necessary data.

E. Monitoring Requirements

The previous permit did not require monitoring for priority pollutants. According to Section 1.3 of the SIP, if data are unavailable or insufficient to conduct the RPA, the Regional Board must establish interim requirements that require additional monitoring for the pollutants in place of a WQBEL. Upon completion of the required monitoring, the Regional Board must use the gathered data to conduct the RPA and determine if a WQBEL is required. As prescribed in the Monitoring and Reporting Program, the Regional Board shall require periodic monitoring for pollutants for which criteria or objectives apply and for which no effluent limitations have been established.

1. Effluent Monitoring

To assess the impact of the discharge to the beneficial uses of the receiving waters, the Discharger is required to monitor the conventional and priority pollutants. Monitoring of these pollutants will characterize the wastes discharged

2. Effluent Monitoring for Reasonable Potential Determination

In compliance with the SIP, the Discharger is required to submit data sufficient for: (1) determining if WQBELs for priority pollutants are required, and (2) to calculate effluent limitations, if required. The data will be provided for two years. Therefore, the Discharger will be required to conduct an interim monitoring program for all CTR priority pollutants until May 2004. As described in the Monitoring and Reporting Program, monitoring reports must be submitted quarterly.

3. Storm water Monitoring and Reporting

The Discharger is required to measure and record the rainfall each day of the month. The Discharger is also required to conduct visual observations of all storm water discharges of all storm water discharge locations to observe the presence of floating and suspended materials, oil and grease, discoloration, turbidity and odor. Furthermore, the Discharger shall implement the Storm water Pollution Prevention Plan Requirements as is enumerated in Attachment M of the Waste Discharge Requirements Order **No. R4-2002-XXXX**.