IMPERIAL COUNTY AIR POLLUTION CONTROL DISTRICT

STAFF REPORT

BACM Amendments to
Regulation VIII, Fugitive Dust Rules

November 8, 2005

I. SUMMARY:

A. Reasons for Amending Regulation VIII

The U.S. Environmental Protection Agency (U.S. EPA) issued a finding on August 11, 2004 that Imperial County failed to attain the PM10 National Ambient Air Quality Standard (NAAQS) by the statutory deadline of December 31, 1994, and therefore reclassified the area from a "moderate" to a "serious" non-attainment area. According to the Clean Air Act (CAA), "serious" non-attainment areas are required to implement the more stringent Best Available Control Measures (BACM) requirements while moderate non-attainment areas are required to implement the less stringent Reasonable Available Control Measures (RACM). Also on August 11, 2004, the U.S. EPA proposed to find that the Imperial County failed to attain the serious area attainment date of December 31, 2001. The proposed rule generally described the necessary plan requirements and would require Imperial County to submit its PM10 Attainment Plan, including BACM, within one year of the final action. As of today, U.S. EPA has not taken final action.

The Imperial County Air Pollution Control District (APCD) evaluated the 2001-2004 PM10 data collected by our PM10 monitoring stations. During that time, Imperial County had PM10 levels above the 24-hour PM10 National Ambient Air Quality Standard (NAAQS) when overwhelming levels of PM10 generated by high winds and wildland fires impacted this region. As allowed by U.S. EPA's Natural Events Policy (NEP), the Imperial County APCD prepared a Natural Events Action Plan (NEAP) to support the exclusion of natural events from attainment determinations. On August 9, 2005, the Imperial County APCD Board of Directors adopted a Resolution approving the Imperial County NEAP. The Imperial County NEAP was designed to protect public health, educate the public about high wind events, mitigate health impacts on the community during future events, and identify and implement BACM for anthropogenic (man-made) sources of windblown dust. In order to exclude wildland and high wind natural event PM10 data from attainment demonstrations, these events need to be documented demonstrating that PM10 BACM was implemented during the natural event.

Traditionally, BACM development and assessment would be based on the PM10 Attainment Plan and its technical analyses. Unlike other serious non-attainment areas, the Imperial County APCD is preparing its fugitive dust BACM in anticipation of the development and approval of its PM10

Attainment Plan to expedite emission reductions, meet the requirements of the NEP, document high wind and wildland events, and exclude related PM10 data from attainment determination.

II. CURRENT RULE AND PROPOSED AMENDMENTS

A. Current Regulation VIII

Current Regulation VIII, Fugitive Dust Requirements, is composed of one single rule: Rule 800, Fugitive Dust Requirements for Control of Fine Particulate Matter (PM10). Regulation VIII was adopted on October 10, 1994 and revised on November 25, 1996. Rule 800 contains RACM as required by Clean Air Act for PM10 "moderate" non-attainment areas. Rule 800, RACM, reduces fugitive dust emissions associated with track-out or carry-out of bulk materials onto paved roads, unpaved haul and access roads, unpaved roads, hauling trucks, and the handling and storage of bulk materials. Rule 800 also contains the definitions for key terms utilized throughout the rule and some exemptions. Recordkeeping is also required under the rule's provisions.

B. Proposed Amendments to Regulation VIII

Proposed amended Regulation VIII contains BACM as required by Clean Air Act for PM10 "serious" non-attainment areas. In addition to the source categories regulated under the current Regulation VIII, the amendments to Regulation VIII will require BACM for new source categories such as: construction activities, disturbed open areas, paved roads and agricultural operations. Amended Regulation VIII prohibitory standards are performance based whereby the operators are allowed to determine the control techniques sufficient to limit visible dust emissions to 20 percent opacity and, if applicable to that source, to implement requirements for a stabilized surface. Dust control plans and recordkeeping are also required under the Regulation's provisions. Regulation VIII also includes test methods and standards.

Regulation VIII amendments have been developed based on assessment of BACM in other serious non-attainment areas. Due to inclusion of BACM and new source categories, the proposed Regulation VIII amendments resulted in a more extensive and complex regulation. In order to simplify enforceability of Regulation VIII, this regulation was divided into seven individual rules, according to the source type category. Proposed Regulation VIII is composed of the following rules:

a) Rule 800, General Requirements for Control of Fine Particulate Matter (PM10)
b) Rule 801, Construction and Earthmoving Activities
c) Rule 802, Bulk Materials
d) Rule 803, Carry-Out and Track-Out
e) Rule 804, Open Areas
f) Rule 805, Paved and Unpaved Roads
g) Rule 806, Conservation Management Practices

A brief summary of each Regulation VIII rule is as follows:

RULE 800, GENERAL REQUIREMENTS FOR CONTROL OF FINE PARTICULATE MATTER (PM10)

Rule 800 contains the definitions, exemptions, general requirements, administrative requirements and test methods that are applicable to all Regulation VIII rules. Section C of Rule 800 contains the definitions that are essential to understanding each specific rule. Section D contains a compliance schedule for applicability of Regulation VIII rules and requires Bureau of Land Management (BLM) and Border Patrol (BP) to submit a dust control plan to mitigate fugitive dust for those areas and/or activities under their control. Section E contains exemptions that apply to all Regulation VIII rules. Each rule contains additional exemptions that apply to each specific rule. Section F contains the general requirements provisions which establish basic guidelines for dust control materials(s), specifies requirements that the dust control material(s) must meet District, State Water Quality, Air Resources Board, and US EPA regulations, and contains guidelines for development of BLM and BP dust control plans. Section G contains administrative requirements for test methods. Section H contains recordkeeping and record retention requirements. Appendices A and B contain the test methods for visual determination of opacity and determination of stabilization, respectively.

RULE 801, CONSTRUCTION AND EARTHMOVING ACTIVITIES

Rule 801 applies to construction or other earthmoving activities. Section E contains exemptions for remodeling of single family dwellings and a provision for exemptions during high winds. Section E contains requirements to comply with 20 percent opacity and, if applicable, stabilized surface for construction and earthmoving activities. This section contains requirements to develop a dust control plan for large residential and non-residential projects. Section F contains the BACM required for construction and earthmoving activities and guidelines to develop dust control plans. Section G contains recordkeeping and record retention requirements.

RULE 802, BULK MATERIALS.

Rule 802 applies to the outdoor handling, storage and transport of bulk materials that emit dust when stored or handled. Rule 802 requires bulk handling and storage facilities to restrict dust from material transfer, and reduce emissions from transport material and storage piles that emit dust. Section D contains exemptions for material which would be damaged by application of water/chemical stabilizers, outdoor storage and transport of small amounts of materials, and for transport/handling of materials when conducted within the boundaries of a premise. Section E contains requirements to comply with 20 percent opacity for bulk materials handling, storage, transport and haul trucks. Section F contains BACM applicable to bulk material handling, storage, transport and haul trucks. Section G contains recordkeeping and record retention requirements.

RULE 803, CARRY-OUT AND TRACK-OUT

Rule 803 applies to the prevention and clean-up of mud and dirt whenever it is deposited onto public paved roads or the paved shoulders of a paved public road. Section D contains exemptions from installation of track-out prevention devices for agricultural operations subject to Rule 806 and short-term operations. Section E contains requirements for removing and prevention of carry-out and track-out onto paved roads. Section F contains BACM for removing of carry-out and track-out, and thresholds for installation of track-out prevention devices. Section G contains recordkeeping and record retention requirements.

RULE 804, OPEN AREAS

Rule 804 applies to any open area having 0.5 acres or more within urban areas, or 3 acres or more within rural areas; and that contains at least 100 square feet of disturbed surface area. Section D contains an exemption for agricultural operation sites subject to Rule 806. Section E contains requirements to apply BACM to limit VDE to 20 percent opacity and meet conditions for stabilized surface, and to install barriers to prevent unauthorized vehicles access to stabilized areas. Section F contains BACM for open areas. Section G contains recordkeeping and record retention requirements.

RULE 805, PAVED AND UNPAVED ROADS

Rule 805 applies to any paved, unpaved road, or modified public or private road, street, highway, freeway, alley, access drive, access easement, canal roads and unpaved traffic areas. Section D contains exemptions for paved and unpaved driveways serving one single family residential dwellings and agricultural operation sites subject to Rule 806. Section E specifies the requirements whenever vehicle traffic reaches or exceeds specific thresholds by applying BACM to reduce VDE and, if applicable, compliance with the conditions of a stabilized unpaved road. This section also prohibits construction of any new unpaved roads within any area with population of 500 or more unless it is a temporary unpaved road. In addition, this section allows each city or county agency to develop a compliance schedule for BACM applicability for unpaved roads. Section F contains BACM for unpaved roads, canal roads, unpaved traffic areas and new or modified paved roads. Section G contains recordkeeping and record retention requirements.

RULE 806, CONSERVATION MANAGEMENT PRACTICES (CMPs)

Rule 806 applies to all agricultural operation sites of forty (40) or more acres in size. Section C contains additional definitions that are essential to understand the main terms and Conservation Management Practices (CMPs) proposed in this rule. Section D contains requirements for agricultural operation sites to implement at least one CMP for each land preparation and cultivation, harvest activities, unpaved roads and unpaved traffic areas. This section also contains guidelines for operators to develop alternative CMPs. In addition, this section requires the owner/operator to prepare a CMP plan and make it available upon request. Section E contains CMPs for land preparation and cultivation, harvesting, unpaved roads, and unpaved traffic areas. Section F contains guidelines to develop a CMP plan. Section H contains recordkeeping and record retention requirements.

III BEST AVAILABLE CONTROL MEASURES (BACM) ANALYSIS

In order to identify and evaluate the sources which contribute to the PM10 problem and determine the appropriate level of BACM for Imperial County, the APCD contracted ENVIRON International Corporation (ENVIRON) to develop as a Technical Memorandum, a Regulation VIII BACM Analysis Report. Imperial County APCD will implement BACM through the PM10 control measures proposed in Regulation VIII amendments. The proposed amendments to Regulation VIII reflect the changes that were identified in the BACM Analysis for significant and de minimis source categories. BACM for PM10 are defined (in 59 F.R. 42010, August 16, 1994) as techniques that achieve the maximum degree of emissions reduction from a source as determined on a case-by-case basis considering technological and economic feasibility.

U.S. EPA has established de minimis (DM) criteria for source categories contributing to PM10. Specifically, U.S. EPA has established a source category contribution level of 1 $\mu g/m^3$ based on the annual average PM_{10} national ambient air quality standard (NAAQS) and 5 $\mu g/m^3$ based on the 24-hour PM_{10} NAAQS. If a source category contributes more than these levels to measured ambient PM_{10} concentrations in a serious nonattainment area, then BACM is required to be implemented for that source category. The California Air Resources Board (ARB) 2004 PM10 emission inventory and the 2002 through 2004 PM10 data were used to determine the de minimis level. According to this data, the de minimis level is 4.9 tons/day for Imperial County. Any source category contributing more than this level is considered significant and will be required to implement BACM. There are four PM10 source categories above the de minimis level and therefore are significant sources categories in Imperial County (Table 1).

Table 1. Significant Source Categories of PM_{10} (2004 emissions in tons/day)

Source Category	Emissions (tons/day PM_{10})
Windblown – open non-crop-farm areas	159.14
Unpaved Roads (Entrained and Windblown)	91.95
Windblown – Non-pasture agricultural lands	10.81
Tilling dust	7.11

All other source categories are below the DM level. Table 2 presents the source categories below the DM level that emit more than 1 ton/day of PM10.

Table 2. De Minimis Source Categories That Emit Greater than 1 ton/day of PM10 (These are NOT significant source categories)

Source Category	2004 Emissions (tons/day PM10)
Paved Road dust	4.09
Industrial (including Mineral) Processes	2.77
Cattle feedlot dust (with Rule 420)	2.62
Waste Burning	2.19
Construction	1.91
Agricultural Burning	1.59

The assessment of the level of BACM for Imperial County required for significant source categories was based on a comparative analysis to the fugitive dust rules in other PM_{10} serious non-attainment areas. The most recent comparative analysis was done by San Joaquin Valley AQMD as part of their 2003 PM10 Attainment Plan. The "serious" non-attainment areas include San Joaquin Valley, Maricopa County (Phoenix area), Clark County (Las Vegas area), South Coast (Los Angeles Basin), and Coachella Valley (Palm Springs area). For each of the fugitive dust control categories, comparisons were made between proposed Regulation VIII rules and similar rules or statutes applicable to the other serious non-attainment areas.

The control effectiveness of measures within proposed Regulation VIII are based on previously published estimates, including those used in the 1993 Imperial Valley PM10 SIP, the 2003 San Joaquin Valley PM_{10} SIP and, where necessary, other serious PM_{10} non-attainment area SIPs and related technical documents. Table 3 summarizes, for each proposed Regulation VIII rule, estimated emissions from sources covered by the proposed rule, the percentage of those emissions that are subject to control requirements, the composite control factor for those controls, and the estimated emission reductions at full implementation.

Table 3. Proposed Regulation VIII Emission Reduction Summary

Proposed Rule	Emissions (tons/day)	Applicability (percent)	Composite Control Factor	Emission Reductions
801 (Construction)	1.91	100	0.12	0.23
802(Bulk Materials)	2.61	10	0.5	0.13
803 (Track-out)	4.09	18.4	0.6	0.45

Table 3. Proposed Regulation VIII Emission Reduction Summary

Proposed Rule	Emissions (tons/day)	Applicability (percent)	Composite Control Factor	Emission Reductions
804 (Open Areas)	163.36	1	0.7	1.14
805 (Non-Farm Unpaved Roads)	84.53	20	0.6	10.09
805 (Paved Roads)	4.09	1	0.8	0.03
806 (CMPs)	25.35			4.16
TOTAL	**281.85**			**16.23**

In conclusion, the BACM analysis for Imperial County shows that the control measures proposed by Regulation VIII rules are similar or as stringent as the most stringent BACM for other serious non-attainment areas; therefore, the proposed Regulation VIII Rules should meet U.S EPA's BACM requirements for serious classification. Implementation of Regulation VIII Rules will bring a reduction of about 16 tons per day of PM10 from the total annual average day PM10 emission inventory of 284 tons/day.

IV RULE DEVELOPMENT PROCESS

In March 2004, Imperial County APCD began a review and assessment of BACM in other areas, which it as used as the basis of its proposed Regulation VIII BACM amendments. In October 2004, the Imperial County APCD held a meeting with U.S. EPA and ARB representatives at U.S. EPA's headquarters in San Francisco, California, to discuss a technical document prepared by ENVIRON addressing impact of natural events and transport of emissions from Mexico and their impact in the Imperial County's PM10 Attainment Plan. U.S. EPA stated that PM10 BACM is required for fugitive dust sources in order to allow exclusion of PM10 data impacted by natural events. The Imperial County APCD agreed to initiate development of Regulation VIII BACM rules.

Imperial County APCD prepared and released proposed Regulation VIII BACM rules in December 2004. A copy of proposed Regulation VIII rules was submitted to U.S. EPA and ARB for review and comments. These rules are being developed through a public process that includes a local Technical Advisory Committee (TAC). Membership in the TAC group includes representatives from Coalition of Labor and Business (COLAB), Farm Bureau, farmers, private industry, Bureau of Land Management (BLM), Border Patrol, Imperial Irrigation District, County Public Works Department and APCD. The initial TAC meeting was held on December 16, 2004, with subsequent meetings held on a roughly monthly basis. For the first time, on March 23, 2005, the TAC held a

meeting with U.S. EPA to review U.S. EPA's comments and receive information that would be useful in amending Regulation VIII rules. ARB participated by teleconference. The APCD conducted six public workshops to collect comments on Regulation VIII rules in Brawley, El Centro and Holtville. The first workshop was held on May 31 and four other workshops were conducted for the month of June: June 1 (two workshops) and June 2 (two workshops). Comments provided by the public during the workshops were incorporated into the proposed rules as appropriate. The APCD re-submitted the Draft Regulation VIII Rules to U.S. EPA and ARB, for a second time, for informal comments. The U.S. EPA and ARB commented on these rules. The APCD incorporated these comments into our rules as appropriate. On August 10, 2005, the district held a meeting with ARB and EPA at ARB's headquarters in Sacramento to discuss their comments. The district incorporated their comments into the proposed rules as appropriate. Informal comments on these rules were also submitted by US Marine Corps and the California Department of Transportation (Caltrans). An agreement was reached with U.S. EPA that they will consider Regulation VIII rules to be BACM after adoption, if their comments were addressed.

Public notice inviting the community to review and comment on the proposed Regulation VIII Rules was published in two local newspapers, English and Spanish, on October 7, 2005. Along with the public notice, a copy of the proposed Regulation VIII rules and BACM Analysis report were re-submitted to U.S. EPA and ARB for final review and comments. In addition, a copy of the Proposed Regulation VIII Rules and BACM Analysis report were submitted to the local BLM and Border Patrol offices and the Imperial County/Mexicali Air Quality Taskforce Group for review and comment. A copy of the proposed Regulation VIII rules was submitted to each member of the TAC Group of review and comment.

V RECOMMENDATIONS:

APCD ADVISORY BOARD:

The Air Pollution Control District Advisory Board met to discuss the Imperial County Natural Events Action Plan and the proposed new and revised Regulation VIII Rules on July 26, 2005. The APCD Advisory Board met to review and comment on an early version of the new and revised Regulation VIII Rules. The Advisory Board members agreed to have a follow-up meeting before the adoption hearing for Regulation VIII Rules. The Imperial County APCD held an Advisory Board meeting on October 6, 2005.

STAFF:

Imperial County APCD staff recommends adoption of the attached Proposed Regulation VIII Rules and Findings. Adoption of the Proposed Regulation VIII Rules will allow the APCD to document and exclude high PM10 concentration data caused by qualified natural events. PM10 levels during these events are often above the 24-hour NAAQS. Failure to adopt Regulation VIII Rules will make it difficult, if not impossible, for Imperial County, to demonstrate attainment of the PM10 NAAQS.

VI DECLARATION OF FINDINGS:

The Imperial County Air Pollution Control District Board hereby finds as follows:

The adoption of the proposed new and revised Regulation VIII Rules for the Imperial County Air Pollution Control District (ICAPCD) is not considered a project within the meaning of Section 21065 of the California Environmental Quality Act (CEQA).

The ICAPCD is a regulatory agency and the public agency with the principle responsibility for carrying out the project.

Clean air is a valuable and essential natural resource.

Proposed new and revised Regulation VIII Rules will serve to aid in the restoration of this natural resource by reducing the amount of air pollutants introduced into the ambient air.

Proposed new and revised Regulation VIII Rules will serve to enhance and protect the environment by controlling sources of air pollutants.

There has been no evidence presented to suggest that the implementation of the proposed new and revised Regulation VIII Rules will have a significant adverse effect on the environment.

There has been no evidence presented to suggest that the implementation of the proposed new and revised Regulation VIII Rules will lead to or result in cumulative adverse impacts.

Health and Safety Code §40702 provides the authority to for the ICAPCD to enact the Regulation VIII Rules revision.

The requirements of the new and revised Regulation VIII Rules are clear and capable of being understood by those persons directly affected by it.

The new and revised Regulation VIII Rules do not conflict with or contradict any existing statute, court decision, or state or federal regulation.

The requirements of the new and revised Regulation VIII Rules are not duplicative of any existing state or federal regulation.

The ICAPCD has a population of less than 500,000 people.